Berklee College of Music

The Copyright Environment of the Modern Streaming Industry with Financial Analysis

Submitted in Partial Fulfillment of the Degree of Master of Science in Global Entertainment and Music Business

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June 2019

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Abstract

The birth of streaming has not only changed the way the recording industry is paid for their works but has also allowed new forms of piracy to persist. The music industry claims that large User Generated Content (UGC) sites such as YouTube are exploiting a value gap created by safe harbor provisions created before music streaming became the primary source of music consumption. With stream ripping becoming prevalent on YouTube there has been increasing pressure to change their payout rates to music rightsholders to be more in line with the costs of other streaming services such as Spotify as they are currently paying 800% less per stream than other Digital Service Providers (DSP). This value gap seems more apparent with music being the most consumed form of content on their platform. While the music industry is attempting to extract more revenue from digital sound recordings through The Directive of the European Parliament and of the Council on Copyright in the Digital Single Market they have also lobbied to increase the statutory mechanical rates paid on the publishing side to publishers, songwriters and performing rights organizations through a ruling by the Copyright Royalty Board and modified the rate setting formula among other things outlined after a multi-year fight culminating in the passage of the Orrin G. Hatch–Bob Goodlatte Music Modernization Act. These legal battles have far reaching effects and I will attempt to shed light on their industry impact as well as calculate the potential financial impact of the CRBs rate increase on Spotify's financial statements and the piracy effects on a large UK indie label, Beggars Group. This analysis will serve to further determine the need for this legislation. Other topics explored in this paper will be YouTube's Content ID system further mandated by the EU Directive on Copyright and the argument of their misuse of safe harbor provisions in attempts to free-ride on content.

Keywords: Directive of the European Parliament and of the Council on Copyright in the Digital Single Market, Orrin G. Hatch–Bob Goodlatte Music Modernization Act, Copyright Royalty Board, safe harbor, Content ID, EU Directive on Copyright, Music Modernization Act, Spotify, YouTube, Beggars Group, statutory mechanical rates

Overview of the History of Digital Copyright Law

Orrin G. Hatch–Bob Goodlatte Music Modernization Act

In 2018 the Orrin G. Hatch–Bob Goodlatte Music Modernization Act (MMA) was passed after years of lobbying and appeals from organizations such as the National Music Publishers' Association (NMPA), Nashville Songwriters Association International (NSAI), Songwriters of North America (SONA), streaming services, Performing Rights Organizations (PROs), record labels etc. This landmark bill originally known as Orrin G. Hatch–Bob Goodlatte Music Modernization Act (US Cong. Committee on the Judiciary, H.R. 5447) stands to change many things about the music industry which I will explore as this paper continues.

The Orrin G. Hatch–Bob Goodlatte Music Modernization Act will eliminate the need for Notices of Intent (NOIs) for making digital phonograph deliveries of musical works. These notices applied to the payments for works that are not registered with the Copyright Office. In the past these NOIs had specific eligibility requirements for electronic filing. These payment limiting requirements included the determination that the lack of a located copyright owner with an included address as well as a deposit account on file with the Copyright Office containing sufficient fees to pay any applicable license royalties among other thing. I have included the fees and formatting constraints listed below courtesy of copyright.gov.

Required Documents

If you are eligible to file electronically, you must submit a:

- Cover Sheet; and

- NOI consisting of an Excel spreadsheet containing the information required by 37 CFR 201.18(d) that conforms to the Office's Excel spreadsheet template.

  The cover sheet and template can be found in the Related Information box to the right. Failure to submit either of these documents will result in rejection of your filing.

  The cover sheet is a fillable PDF form provided by the Office that must be completed in conformity with the following requirements:

- A separate cover sheet must accompany each NOI you file;
- All fields in the cover sheet are required;
- All information provided in the cover sheet must match the information provided in the corresponding NOI; and
- The fees specified in the cover sheet must be calculated in accordance with 37 CFR 201.3(e). The current fee is $75 per NOI plus $10 per group of 1-100 additional titles. For example, the fee for an NOI that includes 118 nondramatic musical works would be $95 (Title 1=$75; Titles 2-101=$10; Titles 102-118=$10).

  The cover sheet will *not* be posted on the Office's public website.

  The NOI must:

- Be created by using the Excel spreadsheet template provided by the Office;

- Contain all of the information required by the template, in accordance with 37 CFR 201.18(d);
- For each nondramatic musical work designated in the NOI, contain identical information in the first 13 columns (items A-M); and
- Have the name of the individual actually submitting the NOI to the Office (either the licensee or the licensee's duly authorized agent) typed into the attestation required by 37 CFR 201.18(e)(5) (in row 3 of the template).

The NOI *will* be made available on the Office's public website.

Requirements for Submitting Your Filing

Please send your completed submission to the Copyright Office via email tolicensing115@copyright.gov. Each submission email must conform to the following requirements:

- Each email must contain attachments of both a cover sheet and a corresponding NOI (no email may contain only a cover sheet or only an NOI on its own);
- Each cover sheet and NOI pair must be emailed separately (no email may contain more than one cover sheet or NOI);
- The NOI must be emailed as an Excel file, and must not be converted to PDF or any other file format;

- The cover sheet and NOI must not be locked or have any protections or restrictions in place (other than what has already been locked by the Office in the template made available on this page); and
- All emails must be smaller than twenty megabytes. If your submission exceeds this limit, you must split up your NOI and make multiple filings (including additional cover sheets as necessary) (Requirements and Instructions for Electronically Submitting a Section 115 Notice of Intention to the Copyright Office.)

These strict requirements allowed for streaming services such as Apple Music and Spotify to hold mechanical licensing revenue and avoid payments while continuing to use the content under the guise that the NOI process will need to be completed before payment is made. It is estimated that 45 million NOI notices have been filed to date keeping songwriter revenue with the streaming services in perpetuity.

The Music Modernization Act calls for no more NOIs for digital content and created the Mechanical Licensing Collective (MLC) that will serve to collect all song royalties steaming from streaming on the Digital Service Providers (DSPs). The MLC has engaged in an RFI/RFP search process focused on selecting the best technology to identify and match songs while distributing royalties to ensure that songwriters and publishers are paid fairly (Songconnect). Under this new statute DSPs are required to pay for all uses of licensed content whether they can locate the content owner or not. This will stop the DSPs from holding on to songwriter revenue through the NOI loophole.

Prior to the passing of the MMA, Performing Rights Organizations (PROs), ASCAP and BMI were allowed to set their rates in front of one appointed rate judge in case they were unable to negotiate performance royalties with licensees. This single rate judge handled every royalty rate dispute with every class of consumer.

To combat this the MMA stipulates that ASCAP and BMI will be randomly assigned any available federal judge except for the judges specifically appointed to oversee the consent decrees of the PROs'. The logic behind this decision serves to ensure that a single judge will not be solely responsible for determining each rate for the PROs.

In the past, ASCAP and BMI consent decree rate courts in charge of setting blanket license fees for digital services were unable to consider important market evidence regarding sound recording rates which may be negotiated in the free market. The inability to use free market evidence does not allow the courts to address the potentially huge disparities in free market negotiated rates and previous rates decreed in the past. It has now been decided through the MMA that ASCAP and BMI rate courts can now consider all market evidence when decided rate decisions, including sound recording royalties when determining public performance rates for musical works.

Similar to the NOI process outlined above, the MMA addressed the fact that there was no uniform process to identify and locate the owners of unmatched copyrighted works. This allowed the DSPs to hold on to millions of dollars in songwriter royalties due to the fact that they were unclaimed and unmatched. Instead of allowing the DSPs to keep unmatched and unclaimed royalties in perpetuity, the money will now go to a licensing entity, who has the

power and responsibility to make sure the money is distributed fairly. The onus will be on the licensing entity to match sound recordings with their musical compositions and distribute payments in a fair manner.

A consequence of the monetary leakage in songwriter revenue is that there was no prior requirement that songwriters received royalties for their unmatched work and sounds recordings in which the owner of the musical work was unable to be located. Publishers were not always obligated to share unmatched revenue with songwriters. Due to the passing of the MMA songwriters are now obligated under law to receive at least 50% of the royalties for unmatched works.

Before the Music Modernization Act it had been argued by the DSPs that mechanical royalties for digital interactive streaming should not be eligible for mechanical licenses. They asserted that streaming should not constitute the need for a mechanical license. With the passing of the MMA it has been ruled that digital interactive streaming utilizes the mechanical reproduction right under copyright law due to the temporary copy that is saved to devices when content is streamed on a DSP. After this ruling DSPs will be unable to argue that streaming does not constitute a mechanical reproduction right and subsequently mechanical royalties will not be necessary.

With its passage the MMA also allowed audit rights for the usage of royalty payments by digital music providers. The newly created MLC will not have the responsibility of auditing DSPs to ensure that songwriters and publishers are receiving their proper share of royalties.

Copyright owners will also be able to audit the MLC to ensure that they are being paid fairly, allowing songwriters and publishers to get accurate information on their royalty revenue.

As previously stated, Mechanical rates were previously determined by the rate judge using a four-part formula outlined by the US Government Publishing Office section (801 (b)) listed below.

> b) Functions.—Subject to the provisions of this chapter, the functions of the Copyright Royalty Judges shall be as follows:
>
> (1) To make determinations and adjustments of reasonable terms and rates of royalty payments as provided in sections 112(e), 114, 115, 116, 118, 119, and 1004. The rates applicable under sections 114(f)(1)(B), 115, and 116 shall be calculated to achieve the following objectives:
>
> (A) To maximize the availability of creative works to the public.
>
> (B) To afford the copyright owner a fair return for his or her creative work and the copyright user a fair income under existing economic conditions.
>
> (C) To reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication.

(D) To minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices. (US CODE, 2017)

It has been argued that this four-part formula has resulted in below-market rates. The new legislation addresses this issue by determining rates in arms-length transactions reflecting a price that would be made by a willing seller or buyer in a free market. This will allow the market to determine the rates, reflecting a more equitable share for content owners. This modification was one of the main tenants of the Songwriter Equity Act which had been initially introduced to Congress in 2014.

This outdated four-part formula also applies to mechanical royalty payment from satellite radio services. The MMA will also allow satellite radio services to modify their rate standards to be commensurate with arms-length transactions in a free market. Free market negotiations should help songwriters get paid more in-line with the market value of their works.

A major tenant in the disconnect between mechanical licensing system and the songwriter community is due to the fact that songwriters have not previously had any involvement or direct influence in the process. The MMA seeks to solve this problem by giving songwriters positions on three boards that will serve to govern the MLC. Self-published songwriters will have four of fourteen seats on the licensing entity board of directors that was originally composed of publishers. Five out of the ten seats on the advisory committee overseeing the unclaimed royalty process will be held by songwriters. The dispute resolution committee created to resolve

disputes over the ownership of musical works and distribution of royalties will have songwriters holding three out of the six seats on the committee.

For years publishers and songwriters have paid commission to vendors who administer mechanical licenses reducing publisher and songwriter revenue in the process. In the post MMA world, DSPs will be mandated to pay all costs for the MLC, eliminating commissions and allowing more money to be paid out to publishers and songwriters for their work.

In benefit to the DSPs, the act allows companies that obtain the blanket license from the MLC and comply with the requirements of the license to be exempt from the liability of statutory damages. Previously DSPs risked millions of dollars in legal liability for high statutory damages for using songs on their service without locating the copyright owners. This section of the MMA is a compromise that allowed for the DSPs to pay for all costs of the MLC and royalty revenue to songwriters and publishers to avoid the multimillion-dollar class action lawsuits that occur in connection to unpaid royalties.

The text of the MMA will also provide transparency for the copyright owners and their copyrighted works. This will be achieved through the implementation of a free searchable database of musical works with their mechanical rightsholders information. In contrast to the zero-transparency system of the past, this database will help songwriters to accurately account for the royalties due for the use of their works.

In addition to the Songwriter Equity Act, the MMA also added the Compensating Legacy Artists for their Songs, Service and Important Contributions to Society Act (CLASSICs) which

will give previously unprotected sound recordings between the dates of 1/1/1923 and 2/15/1972 protection against unauthorized digital use. Uses of these 'classic' works will need to give copyright owners notice of its use and pay statutory royalties. Violators of this act will be subject to the punishments set forth in sections 502-505 as an infringer of copyright. These punishments are quoted below:

502. Remedies for infringement: Injunctions

(a) Any court having jurisdiction of a civil action arising under this title may, subject to the provisions of section 1498 of title 28, grant temporary and final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright.

(b) Any such injunction may be served anywhere in the United States on the person enjoined; it shall be operative throughout the United States and shall be enforceable, by proceedings in contempt or otherwise, by any United States court having jurisdiction of that person. The clerk of the court granting the injunction shall, when requested by any other court in which enforcement of the injunction is sought, transmit promptly to the other court a certified copy of all the papers in the case on file in such clerk's office.

503. Remedies for infringement: Impounding and disposition of infringing articles[4]

(a)(1) At any time while an action under this title is pending, the court may order the impounding, on such terms as it may deem reasonable—

(A) of all copies or phonorecords claimed to have been made or used in violation of the exclusive right of the copyright owner;

(B) of all plates, molds, matrices, masters, tapes, film negatives, or other articles by means of which such copies or phonorecords may be reproduced; and

(C) of records documenting the manufacture, sale, or receipt of things involved in any such violation, provided that any records seized under this subparagraph shall be taken into the custody of the court.

(2) For impoundments of records ordered under paragraph (1)(C), the court shall enter an appropriate protective order with respect to discovery and use of any records or information that has been impounded. The protective order shall provide for appropriate procedures to ensure that confidential, private, proprietary, or privileged information contained in such records is not improperly disclosed or used.

(3) The relevant provisions of paragraphs (2) through (11) of section 34(d) of the Trademark Act (15 U.S.C. 1116(d)(2) through (11)) shall extend to any impoundment of records ordered under paragraph (1)(C) that is based upon an ex parte application, notwithstanding the provisions of rule 65 of the Federal Rules of Civil Procedure. Any references in paragraphs (2) through (11) of section 34(d) of the Trademark Act to section 32 of such Act shall be read as references to section 501 of this title, and references to use of a counterfeit mark in connection with the sale, offering for sale, or distribution of goods or services shall be read as references to infringement of a copyright.

(b) As part of a final judgment or decree, the court may order the destruction or other reasonable disposition of all copies or phonorecords found to have been made or used in violation of the copyright owner's exclusive rights, and of all plates, molds, matrices, masters, tapes, film negatives, or other articles by means of which such copies or phonorecords may be reproduced.

504. Remedies for infringement: Damages and profits[5]

(a) In General.—Except as otherwise provided by this title, an infringer of copyright is liable for either—

(1) the copyright owner's actual damages and any additional profits of the infringer, as provided by subsection (b); or

(2) statutory damages, as provided by subsection (c).

(b) Actual Damages and Profits.—The copyright owner is entitled to recover the actual damages suffered by him or her as a result of the infringement, and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages. In establishing the infringer's profits, the copyright owner is required to present proof only of the infringer's gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work.

(c) Statutory Damages.—

(1) Except as provided by clause (2) of this subsection, the copyright owner may elect, at any time before final judgment is rendered, to recover, instead of actual damages and profits, an award of statutory damages for all infringements involved in the action, with respect to any one work, for which any one infringer is liable individually, or for which any two or more infringers are li-able jointly and severally, in a sum of not less than $750 or more than $30,000 as the court considers just. For the purposes of this subsection, all the parts of a compilation or derivative work constitute one work.

(2) In a case where the copyright owner sustains the burden of proving, and the court finds, that infringement was committed willfully, the court in its discretion may increase

the award of statutory damages to a sum of not more than $150,000. In a case where the infringer sustains the burden of proving, and the court finds, that such infringer was not aware and had no reason to believe that his or her acts constituted an infringement of copyright, the court in its discretion may reduce the award of statutory damages to a sum of not less than $200. The court shall remit statutory damages in any case where an infringer believed and had reasonable grounds for believing that his or her use of the copyrighted work was a fair use under section 107, if the infringer was: (i) an employee or agent of a nonprofit educational institution, library, or archives acting within the scope of his or her employment who, or such institution, library, or archives itself, which infringed by reproducing the work in copies or phonorecords; or (ii) a public broadcasting entity which or a person who, as a regular part of the nonprofit activities of a public broadcasting entity (as defined in section 118(f)) infringed by performing a published nondramatic literary work or by reproducing a transmission program embodying a performance of such a work.

(3) (A) In a case of infringement, it shall be a rebuttable presumption that the infringement was committed willfully for purposes of determining relief if the violator, or a person acting in concert with the violator, knowingly provided or knowingly caused to be provided materially false contact information to a domain name registrar, domain name registry, or other domain name registration authority in registering, maintaining, or renewing a domain name used in connection with the infringement.

(B) Nothing in this paragraph limits what may be considered willful infringement under this subsection.

(C) For purposes of this paragraph, the term "domain name" has the meaning given that term in section 45 of the Act entitled "An Act to provide for the registration and protection of trademarks used in commerce, to carry out the provisions of certain international conventions, and for other purposes" approved July 5, 1946 (commonly referred to as the "Trademark Act of 1946"; 15 U .S .C . 1127).

(d) Additional Damages in Certain Cases.—In any case in which the court finds that a defendant proprietor of an establishment who claims as a defense that its activities were exempt under section 110(5) did not have reasonable grounds to believe that its use of a copyrighted work was exempt under such section, the plaintiff shall be entitled to, in addition to any award of damages under this section, an additional award of two times the amount of the license fee that the proprietor of the establishment concerned should have paid the plaintiff for such use during the preceding period of up to 3 years.

505. Remedies for infringement: Costs and attorney's fees

In any civil action under this title, the court in its discretion may allow the recovery of full costs by or against any party other than the United States or an officer thereof. Except as otherwise provided by this title, the court may also award a reasonable attorney's fee to the prevailing party as part of the costs. (Office, U. C.)

The MMA did not just seek to help payments to songwriters and publishers it also added a section to the bill known as the Allocation for Music Producers Act (AMP). This act serves to provide payment of statutory sound recording royalties to producers, mixers and sound engineers formalizing a process that normally had producers going after artists for these royalties. Instead of artists submitting Letters of Direction (LODs) to third party digital performance royalty collection organizations, they will now submit those same LODs to a non-profit collection

designated by Copyright Royalty Judges which will keep a database and oversee the distribution of those royalties. The non-profit collective will withhold 2% from all royalties collected in connection with the licensing of a transmission of sound recording that was fixed pre- 11/1/95. Following the process specified by the MMA a producer/mixer/engineer can realize their pro-rata share of monies in the event that they were unable to obtain a reply and LOD from an associated artist.

The payments will stop being made to applicable producer/mixer/engineer if the artist objects. In the event that there are multiple artists for any sound recording and only one artist objects to the payments, the producer/mixer/engineer will still be entitled to their pro rata share of the remaining artists royalty.

Directive of the European Parliament and of the Council on Copyright in the Digital Single Market

Across the Atlantic in the shadows of the uncertainty surrounding Brexit, the European Commission has passed its much-debated Directive on Copyright in the Digital Single Market featuring Article 13 (now Article 17) that looks to modernize the copyright structure around digital music consumption for years to come. Throughout this paper I will explore the similarities and differences between the European Union's answer to modern music consumption and the United States' answer to the same problem while exploring the financial impact on large independent label, Beggars Group in the EU and streaming service Spotify in the US.

The latest EU Directive on Copyright in the Digital Single Market has been in the works since 2017 and will be the first copyright update in the EU since 2001. It is worth noting that

directives are not laws but are closer to mandates allowing each country to adopt individual rules based upon their interpretation of the directives. The main objectives of this EU copyright directive are to allow for; 1) More cross-border access to content online; 2) Wider opportunities to use copyrighted materials in education, research and cultural heritage; 3) A better functioning copyright marketplace. (Sanagma, 2019)

In order to achieve their first goal of having better choices and access to content online and across borders the Commission proposed measures to; create favorable conditions for cross-border distribution of television and radio programs online; increase the visibility of audiovisual works on Video On-Demand (VoD) platforms and; facilitate the digitalization and dissemination of works that are out-of-commerce.

The second objective of the Commission is to modernize the EU rules applicable to key exceptions and limitations in the areas of teaching, research and preservation of cultural heritage with a particular focus on digital and cross-border uses. These exceptions are related to teaching activities, text and data mining and preservation of cultural heritage.

Their final objective was to achieve a well-functioning marketplace for copyright aimed at creating a fairer marketplace for online content especially related to press publications, online platforms and remuneration of authors and performers. The main elements of their proposal were; related or neighboring right for press publishers; a reinforced position of right holders to negotiate and be paid for the online exploitation of their content on video-sharing platforms and; remuneration of authors and performers through new transparency rules. (Sanagma, 2019, May 21)

When the Digital Single Market is mentioned it refers to the strategy of the European Commission to protect consumers and data, remove geo-blocking and copyright issues to ensure access to online activities for all users under conditions of fair competition. "A Digital Single Market (DSM) is one in which the free movement of persons, services and capital is ensured and where the individuals and businesses can seamlessly access and engage in online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence". (European Commission, 2018) The EU adopted The Digital Single Market strategy on May 6, 2015 and it included 16 initiatives. Completion of this strategy is estimated to contribute EUR 415 billion per year to the European economy leading to more jobs and the transformation of public services. The three pillars of the DSM strategy which shaped the directive are Access: better access for consumers and businesses to digital goods and services across Europe, Environment: creating the right conditions and a level playing field for digital networks and innovative services to flourish and; Economy & Society: maximizing the growth potential of the digital economy. It was with this DSM strategy in mind that the EU Directive on Copyright in the Digital Single Market was legislated to much contention. (Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market, 2018)

There are two large points on contention in the directive and they are Articles 11 and 13 which are now officially referred to as Articles 15 and 17 in the final approved text. I will give a brief overview on Article 15 and will continue with a deeper analysis in Article 17. Article 15 has been referred to as the ''Link Tax" and will give news publishers the right to negotiate a

license with news aggregators such as Google and Apple News. The article also allows for the authors to receive an appropriate share of the money their publication would get from their negotiation with news aggregators.

Article 17 (formerly known as Article 13) has caused the most controversy of all of the statutes in the newly approved directive. This legislation stipulates that companies are liable for hosting any copyright infringing content on their websites. The main positive of this agreement for rights holders is that it will allow them to license content in a free market rather than the current environment that allows sites like YouTube to pay rights holders fractions of pennies while extracting exponentially more value from the content for themselves. This legislation is limited to service providers that have been available for more than 3 years and have an annual turnover of EUR 10 million and average monthly unique listeners of 5 million per month. Online service providers are taking issue with their new liability in the posting of infringing content on their platforms. Due to this liability they believe that they are being forced to implement expensive content filtering systems such as content ID. For small to medium companies the implementation of systems like content ID could be cost prohibitive. In addition to the filtering of content, these companies must also prove that they have made their best efforts to prevent further uploads of the infringed content. Somehow throughout the takedown process the service providers must also not allow their measures to prevent the availability of non-infringing subject matter uploaded by users and put in an effective and expeditious complaint and redress mechanism for users in case of dispute over takedowns. There is concern that the requirements laid out in Article 17 will allow for large companies like Google to monopolize the space because they are among the few companies with the financial bandwidth to further

implement these changes even if they are made to be more responsible for the content on their platform.

Although both pieces of new copyright legislation aim to bring updates to the copyright environment to make them more equitable in today's digital environment they aim to do so by focusing on different things. The Orrin G. Hatch–Bob Goodlatte Music Modernization Act's (MMA) main tenant aims to pay songwriters more by increasing their mechanical royalties through 2022 by over 44% while the Directive of the European Parliament and of the Council on copyright in the Digital Single Market (EU Directive on Copyright) among other things focuses on allowing digital rightsholders to negotiate with platforms such as YouTube to receive fairer rates for their content online. I will also touch on the proposed value gap between what YouTube receives from music compared to what they pay for the musical content and the safe harbor provisions that they arguably hide behind. In describing the environment around these legislative changes, I will also estimate the financial impact of the Music Modernization Act on Spotify's latest financial statements through the end of the rate increases in 2022. In regards to the EU Directive on Copyright, I will estimate the financial impact on one of the largest UK based indie labels, Beggars Group by estimating how much money is lost due to piracy which is very prevalent on YouTube through stream-ripping and other copyright infringing uses on their platform.

YouTube and Safe Harbor Provisions

In 1998, the US Digital Millennium Copyright Act (DMCA) and subsequently in 2000, the EU eCommerce legal framework created limitations to the liability of potential

intermediaries in digital distribution platforms on the internet widely called safe harbors. Initially these safe harbor provisions over covered activities such as temporary internet storage activities such as caching and cookies as well as domain hosting services and internet service providers. The US version of the framework included search engine services while the EU version did not. The main issue with the safe harbor provisions is that copyright holders are denied monetary compensation from internet platforms for harm caused by acts covered by safe harbors and are only entitled to sanctions as punishment.

The initial legislation attempted to protect works in digital form with technological measures and allowed copyright owners the rights to control their digital works by either granting or prohibiting the uses through technological protection measures (TPM) and backed by legal sanctions if they were circumvented. As time went on, the difficulty in applying anti-circumvention TPM began to be applied less frequently which widened the potential for circumvention of this framework. With the lack of TPM, copyright holders began to gradually lose their ability to authorize the uses of content as music became more widely available. As technology evolved internet platforms began to widen the use of safe harbors and subsequently hid behind them when litigated although the laws were not created to protect them in the first place. (Ashcroft and Barker)

For a digital platform to qualify for safe harbor provisions there are several requirements outlined in the Digital Millennium Copyright Act, one of which is requiring them to have "a policy that provides for the termination in appropriate circumstances of subscribers and account holders of the service provider's system or network who are repeat infringers". (U.S. Code 512)

Different service providers have responded to this requirement with different forms of punishment to meet this obligation by implementing a strike system with varying allowances for the total of strikes allowed depending on the platform. For example, Soundcloud allows for only one strike in any time period with any subsequent strikes resulting in termination. In stark contrast, YouTube allows two strikes within a three-month period, with a third strike resulting in termination. On YouTube, infringers are allowed back on the platform after three months by taking a four-minute course on copyrights. This allows users to upload eight infringing works per year and keep their accounts. Additionally, the filing of a counter notification allows their strikes to be removed unless there is a lawsuit filed by the copyright owner. In this authors' opinion, by taking a soft line against copyright infringers it seems clear that YouTube is less concerned with curbing the uploading of infringing content and more with appearing as allies while continuing to extract inequitable value from rightsholders and free riding on content. It is this argument among other things that have had the recording industry clamoring for increases in their streaming payouts leading to the recent passages of new copyright legislation. (Liebowitz, 2018)

In the years since the safe harbor provisions of the EU eCommerce legal framework and US Digital Millennium Copyright Act there has been extensive debate over whether massive global platforms namely YouTube hide behind safe harbor provisions to perpetually extract inequitable value by providing free music to its estimated 1.9 billion logged in users worldwide. (ABRIL, D.,2019) It has been said that music accounts for more than 20% of the platform's views and thus a large portion of its advertising revenues. These revenues however, barely translate to the music industry because of the aforementioned safe harbor provisions. Data

suggests that an average play on a streaming service generates about $0.008 per play while YouTube only offers about $0.001, an 800% difference in revenues. With this multiple, it is clear to see how a negotiation with rightsholders to a per-stream rate closer to competitors in the streaming space would generate hundreds of millions of dollars to the recording industry from YouTube's 1.9 billion logged in user base which doesn't account for users who access the site without logins. When accounting for the fact that music content only accounts for 5% of the content on the platform but drives 20% of the traffic, it becomes clear that although music content is shorter and thus less ad-heavy that it is a major driver of the platform's views. They are able to obtain these favorable rates but negotiating advertising profit split deals with artists and labels that oftentimes are far less than they would receive if rates were calculated on a per play basis as they are with the other major streaming music sites. Price disparities like this create an environment where large platforms such as YouTube hold a huge competitive advantage in operating costs compared to other players in this segment. In 2014 the IFPI stated that services protected by the safe harbors "claim they do not need to negotiate licenses for the music available on their platforms, or conclude licenses at artificially low rates". (Beard, T. R., PhD, Ford, G. S., PhD, & Stern, M., PhD., 2017) The main disconnect in licensing negotiations appears to be that there may be multiple unlicensed copies of a particular song despite compliance with safe harbor provisions essentially allowing online service providers to offer access to music without paying royalties and still claim safe harbor protection from infringement. The system of notice and takedown does not mean that the content will stay down, creating an expensive and almost impossible legal battle for rightsholders.

Through these safe harbor provisions internet platforms have enjoyed the benefits of free-riding on content. By hiding behind safe harbors these platforms have been allowed exponential

growth opportunities which have allowed some (namely YouTube) to yield monopoly power over the market by allowing their costs to be much lower than competitors because copyright consent is not explicitly required by law. Most competitors in this space i.e. digital service providers do not qualify for safe harbor and thus are subject to higher content costs than those that do qualify for safe harbor. These provisions have not only weakened the positions of their more traditional opponents such as cable operators but they also give them the aforementioned advantages over newer digital service providers. With such large advantages in operating costs and the backing of major parent companies, large players such as YouTube can employ predatory pricing in the event that there is a competitor that threatens to harm their market share.

Although these consequences were unforeseen when these safe harbor provisions were outlined in US and EU digital copyright laws they have been addressed due to recent legislation in the EU. The passage of The Directive of the European Parliament and of the Council on copyright in the Digital Single Market comes after months of deliberation and lobbying attempts by YouTube aimed at blocking the legislation. In the coming years we will see if this legislation properly addressed the safe harbor concerns or will anti-lobbying efforts in individual member states lessen their impact on their competitive advantage. (Beard, T. R., PhD, Ford, G. S., PhD, & Stern, M., PhD., 2017)

Content ID

As chatter grew from the rightsholder community YouTube and some other platforms accused of thriving by free riding off of safe harbor provisions created Content ID systems aimed to remove those damages after arguing that they are as against copyright infringement as rightsholders and will take down offending content immediately. These arguments by internet

platforms are what led to the safe harbor loopholes that have allowed them to thrive as technology has evolved, by absolving them from liability. Below is YouTube description of their Content ID system:

> Copyright owners can use a system called Content ID to easily identify and manage their content on YouTube. Videos uploaded to YouTube are scanned against a database of files that have been submitted to us by content owners. Copyright owners get to decide what happens when content in a video on YouTube matches a work they own. When this happens, the video gets a Content ID claim. Copyright owners can choose different actions to take on material that matches theirs:
>
> Block a whole video from being viewed
> Monetize the video by running ads against it; in some cases sharing revenue with the uploader
> Track the video's viewership statistics
> Any of these actions can be country-specific. A video may be monetized in one country, and blocked or tracked in another. (How Content ID works - YouTube Help, 2019)

In theory this Content ID system seems like the safe harbor solution it set out to be but this system is not available to all rightsholders. There are specific criteria that they must meet and also must be evaluated to determine whether or not each applicant needs the tool for their works. Instead of making this system available to anyone who uploads their content to the platform YouTube seemingly reserves the system for larger rightsholders leaving smaller or

independent creators to fight this copyright battle alone. In this environment musicians not affiliated with large companies are likely to have no proper way to prevent their work from being exploited by YouTube without payment. With YouTube essentially having the choice to use Content ID on works that they see fit, it puts them in the position to cherry pick the works they choose to protect and utilize this privileged position even when negotiating rates with rightsholders in the future state outlined by the EU Directive on Copyright. I am of the opinion that Content ID should be an all-or-nothing proposition. (Liebowitz, 2018)

It is a bold claim to say that an algorithmic based Content ID can remove all of the damages from safe harbor when the problem persists as well as the competitive advantages that allowed them to thrive due to lower payments to rightsholders. These claims by YouTube are more to escape criticism while protecting their competitive advantage. Prior to these new legislative changes copyright owners were required to find infringements while platforms with advanced technologies used the safe harbor to avoid liability. It is impossible to think that rightsholders with much less financial backing will be able to find infringements within the billions of uploads on a platform such as YouTube with nearly 2 million logged in users worldwide. The current legal environment does not incentivize platforms such as YouTube to have the best Content ID systems because the value created by musical content is exponentially higher than the penalty of taking down infringing content.

When infringing content is found by a copyright owner on their user generated internet platforms the user has to submit a takedown notice to have their content taken down if it is found to be infringing. Once the content has been taken down the alleged violator will need to submit a

counter-notification appeal stating their case for why the content is non-infringing. If a copyright owner cannot show that they have begun legal proceedings within ten days, the content is then allowed back on to the website. With this being the environment, it is easy to see why it is impossible for most rightsholders to constantly pay for litigation and the major record labels have argued as such.

Dr. Stan J. Liebowitz's Economic Analysis of Safe Harbor Provisions laid out a hypothetical analysis of how easy it would be to have an infringing track on a YouTube in perpetuity due to the current process. He goes on to say:

> If it were to take 12 hours for the copyright owner to find the offending file and have it removed by the UUC site, then it would merely take two new uploaded copies (separated by 12 hours) per day of an infringing work for the work to be constantly available for downloading by others. This implies that 730 uploads per year could keep a particular infringing work virtually always available during that year. Yet, popular works seem to be uploaded by an order of magnitude above the rate of two per day. Any website with sufficiently many users uploading copyrighted materials in large enough numbers could, if it desired, ensure that infringing popular songs or videos be taken down slowly enough to keep them almost continuously available, while still appearing to remove them in a manner that seemed consistent with the takedown provisions of the DMCA, since there are no specific time limits.
>
> 46.Using more recent bits and pieces of information that Google makes available, we can try to infer how many infringing files are uploaded to YouTube in a year. Google stated

in 2016 that “The Content ID team22 has resolved millions of invalid claims [presumably uploads that should not have been blocked by Content ID] in the last year alone.” Taking the plural usage of ‘millions’ in the above quote to mean at least 2 million disputes resolved in favor of the uploader, and YouTube’s statement that they only considered one fourth of these claims valid, a minimum value for the number of Content ID disputes was 8 million per year.

47. Since Google also tells us that “fewer than 1% of the [Content ID] claims are disputed,” the clear implication is that the minimum estimate of files (claims) that Content ID tagged as copyright infringing was more than 800 million per year, on YouTube alone, of which 600 million were considered to be infringing. This is a staggeringly large number of infringing files, and given how it was calculated it is an underestimate due to the likelihood that “millions” means more than two million and “fewer than 1%” could mean considerably less than 1%.

48.The enormous size of this copyright infringement is generally backed up by statements from UMG that the number of files (both from Content ID and UMG’s efforts) thought to infringe UMG’s copyrights on YouTube, was 100,000 per day. This works out to 36.5 million per year. Quadruple that value for the other two major labels plus independent labels and the total rises to about 150 million. Double that value for infringement claims from the movie industry. Then add in copyright owners from the television and adult video industry, and the number of files that might be thought to be infringing could easily be near a billion. (2018)

Spotify Financial Analysis (Estimated Impact of CRB Rate Increases stemming from the MMA)

Our historical results for any prior period are not necessarily indicative of results expected in any future period.

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(in € millions, except share and per share data)				
Consolidated Statement of Operations Data:					
Revenue	5,259	4,090	2,952	1,940	1,085
Cost of revenue	3,906	3,241	2,551	1,714	911
Gross profit	1,353	849	401	226	174
Research and development	493	396	207	136	114
Sales and marketing	620	567	368	219	184
General and administrative	283	264	175	106	67
	1,396	1,227	750	461	365
Operating loss	(43)	(378)	(349)	(235)	(191)
Finance income	455	118	152	36	28
Finance costs	(584)	(974)	(336)	(26)	(19)
Share in (losses)/earnings of associate	(1)	1	(2)	—	—
Finance income/(costs) - net	(130)	(855)	(186)	10	9
Loss before tax	(173)	(1,233)	(535)	(225)	(182)
Income tax (benefit)/expense	(95)	2	4	5	6
Net loss attributable to owners of the parent	(78)	(1,235)	(539)	(230)	(188)
Net loss per share attributable to owners of the parent(1)					
Basic	(0.44)	(8.14)	(3.63)	(1.62)	(1.40)
Diluted	(0.51)	(8.14)	(3.63)	(1.62)	(1.40)
Weighted-average ordinary shares outstanding(1)					
Basic	177,154,405	151,668,769	148,368,720	141,946,600	134,408,240
Diluted	181,210,292	151,668,769	148,368,720	141,946,600	134,408,240
Consolidated Statement of Cash Flows Data:					
Net cash flows from/(used in) operating activities	344	179	101	(38)	(74)
Net cash flows used in investing activities	(22)	(435)	(827)	(67)	(21)
Net cash flows from financing activities	92	34	916	476	65
Net increase/(decrease) in cash and cash equivalents	414	(222)	190	371	(30)
Selected Other Data (unaudited):					
EBITDA(2)	(11)	(324)	(311)	(205)	(172)
Free Cash Flow(2)	209	109	73	(92)	(94)

	As of December 31,				
	2018	2017	2016	2015	2014
	(in € millions)				
Consolidated Statement of Financial Position Data:					
Cash and cash equivalents	891	477	755	597	206
Short term investments	915	1,032	830	—	—
Working capital	99	38	689	73	73
Total assets	4,336	3,107	2,100	1,051	474
Convertible Notes	—	944	1,106	—	—
Total equity/(deficit) attributable to owners of the parent	2,094	238	(240)	229	36

(1) See Note 11 to our consolidated financial statements for an explanation of the calculations of our basic and diluted net loss per share attributable to owners of the parent as well as our basic and diluted weighted-average ordinary shares outstanding.

*Courtesy of Investors.Spotify.com (Spotify Technology S.A. FORM 20-F., 2019)

	Year ended December 31,					
	2018	2018 Unadjusted	2017	2016	2015	2014
Consolidated Statement of Operations Data (in millions)						
Revenue	5,259	5,259	4,090	2,952	1,940	1,085
Cost of Revenue	4,765	3,906	3,241	2,551	1,714	911
Gross Profit	494	1,353	849	401	226	174
Research and development	493	493	396	207	136	114
Sales and marketing	620	620	567	368	219	184
General and administrative	283	283	264	175	106	67
	1,396	1,396	1,227	750	461	365
Operating loss	(902)	(43)	(378)	(349)	(235)	(191)
Finance income	455	455	118	152	36	28
Finance costs	(584)	(584)	(974)	(336)	(26)	(19)
Differences caused by increases in licensing costs	**(859)**					
Share in (losses)/earnings of associate	(1)	(1)	1	(2)	-	-
Finance income/(costs) - net	(989)	(130)	(855)	(186)	10	9
Loss before tax	(1,892)	(173)	(1,233)	(535)	(225)	(182)
Income tax (benefit)/expense	(95)	(95)	2	4	5	6
Net loss attributable to owners of the parent	(1,797)	(78)	(1,235)	(539)	(230)	(188)
Net loss per share attributable to owners of the parent (1)						
Basic	-0.44	-0.44	-8.14	-3.63	-1.62	-1.4
Diluted	-0.51	-0.51	-8.14	-3.63	-1.62	-1.4
Weighted-average ordinary shares outstanding (1)						
Basic	177,154,405	177,154,405	151,668,769	148,368,720	141,946,600	134,408,240
Diluted	181,210,292	181,210,292	151,668,769	148,368,720	141,946,600	134,408,240
Consolidated Statement of Cash Flows Data						
New cash flows from/(used in) operating activities	344	344	179	101	(38)	(74)
Net cash flows used in investing activities	(22)	(22)	(435)	(827)	(67)	(21)
New cash flows from financing activities	92	92	34	916	476	65
Net increase/(decrease) in cash and cash equivalents	414	414	(222)	190	371	(30)
EBITDA						
Net loss attributable to owners of the parent	(78)	(78)	(1,235)	(539)	(230)	(188)
Finance (income)/costs - net	130	130	855	186	(10)	(9)
Income tax (benefit)/expense	(95)	(95)	2	4	5	6
Depreciation and amortization	32	32	54	38	30	19
EBITDA	(11)	(11)	(324)	(311)	(205)	(172)
Selected Other Data (unaudited)						
EBITDA (2)	(11)	(11)	(324)	(311)	(205)	(172)
Free Cash Flow (2)	209	209	109	73	(92)	(94)

*2018 estimates based on the CRB rate increase to 22% of Total Content Costs

2018–2022 ALL-IN ROYALTY RATES

	2018	2019	2020	2021	2022
Percent of Revenue	11.4	12.3	13.3	14.2	15.1
Percent of TCC	22.0	23.1	24.1	25.2	26.2

*Courtesy of Copyright Royalty Board (Copyright Royalty Board, Library of Congress 24th ed., Vol. 84, Rep.)

	Total Difference ($millions)	2022	2022 Unadjusted	Y4 CAGR	2021	2021 Unadjusted	Y3 CAGR	2020	2020 Unadjusted	Y2 CAGR	2019	2019 Unadjusted	CAGR	2018	2018 Unadjusted
Consolidated Statement of Operations Data (in millions)															
Revenue		2,134	2,134	-11%	2,389	2,389	-15%	2,797	2,797	-21%	3,544	3,544	-33%	5,259	5,259
Cost of Revenue		3,418	2,708	-17%	3,247	2,594	-19%	3,198	2,577	-23%	3,341	2,714	-31%	4,765	3,906
Gross Profit		(1,284)	(574)	-198%	(859)	(205)	-4%	(400)	221	-27%	203	830	-40%	494	1,353
Research and development		214	214	-10%	237	237	-14%	274	274	-20%	342	342	-31%	493	493
Sales and marketing		310	310	-8%	338	338	-11%	381	381	-17%	458	458	-26%	620	620
General and administrative		124	124	-10%	138	138	-13%	159	159	-19%	197	197	-30%	283	283
		647	647	-9%	713	713	-13%	815	815	-18%	997	997	-28%	1,396	1,396
Operating loss		(1,931)	(1,222)	-26%	(1,571)	(918)	-27%	(1,215)	(594)	-25%	(794)	(167)	45%	(902)	(43)
Finance income		92	92	-18%	113	113	-24%	149	149	-34%	227	227	-50%	455	455
Finance costs		(82)	(82)	-22%	(105)	(105)	-29%	(148)	(148)	-40%	(248)	(248)	-58%	(584)	(584)
Differences caused by increases in licensing costs	**(2,611)**		**(710)**			**(654)**			**(621)**			**(627)**		**(859)**	
Share in (losses)/earnings of associate														(1)	(1)
Finance income/(costs) - net														(989)	(130)
Loss before tax														(1,892)	(173)
Income tax (benefit)/expense														(95)	(95)
Net loss attributable to owners of the parent														(1,797)	(78)
Net loss per share attributable to owners of the parent (1)															
Basic														-0.44	-0.44
Diluted														-0.51	-0.51
Weighted-average ordinary shares outstanding (1)															
Basic														177,154,405	177,154,405
Diluted														181,210,292	181,210,292
Consolidated Statement of Cash Flows Data															
New cash flows from/(used in) operating activities														344	344
Net cash flows used in investing activities														(22)	(22)
New cash flows from financing activities														92	92
Net increase/(decrease) in cash and cash equivalents														414	414
EBITDA															
Net loss attributable to owners of the parent														(78)	(78)
Finance (income)/costs - net														130	130
Income tax (benefit)/expense														(95)	(95)
Depreciation and amortization														32	32
EBITDA														(11)	(11)
Selected Other Data (unaudited)															
EBITDA (2)														(11)	(11)
Free Cash Flow (2)														209	209

*Estimates based on CRB rate increases through 2022

Copyright Royalty Board effects on Spotify

During the fight to pass the music modernization act that changed the rate setting formula for the Copyright Royalty Judges, the Copyright Royalty Board (CRB) announced a determination that would increase the percentage of revenue received by performance rights organizations, publishers and songwriters by 44% between January 2018 and December 2022. Their ruling extensively states in the federal register that "For licensing of musical works for all service offerings, the all-in rate for performances and mechanical reproductions shall be the greater of the percent of service revenue and Total Content Cost (TCC) rates in the following table". (Copyright Royalty Board) I have pasted the table above for your reference. Spotify has since appealed this ruling subsequent to the passage of the Music Modernization Act to the ire of the songwriter community and even some of its executives who have stepped down in response to this appeal. The CRB rate increase to 22% of total content costs would have costed Spotify $859 million in profit this year based on the increase in their costs of revenues. As a company who is now publicly traded they have an obligation to shareholders which may be at odds to the relationships of creatives. These pressures may be at the heart of the reason Spotify is appealing this rate increase. Over the four-year period from 2018-2022 I have estimated an approximate loss of 2.6 billion over the four-year period based on the Computed Annual Growth Rate (CAGR) and yearly rate increases of approximately one point a year set out by the CRB's ruling.

Beggars Group Financial Statements (Modified for Estimated Piracy Effects)

Beggars Group		
Consolidated Profit and Loss Account for year ended 31 December 2017		
	2017	**2016**
Turnover including share of associates and joint ventures	72,425,671	70,624,136
less share of turnover of:		
Joint ventures	(34,907,007)	(36,936,467)
Associates	-	(448,952)
Group turnover	37,518,664	33,238,717
Cost of sales	(14,712,042)	(13,633,703)
Gross profit	22,806,622	19,605,014
Distribution expenses	(3,489,202)	(1,834,561)
Administrative expenses	(15,601,026)	(13,931,401)
Other operating income	37,140	71,070
Group operating profit	3,753,534	3,910,122
Share of profit of joint ventures	4,484,318	8,728,881
Share of profit of associates	-	28,999
Amounts written off investments	-	(110,901)
Loss on disposal of fixed asset investments	-	(15,781)
Total operating profit	8,237,852	12,541,320
Interest receivable	1,788	13,724
Profit on ordinary activities before taxation	8,239,640	12,555,044
Tax charge on profit on ordinary activities	(1,267,996)	(701,820)
Profit for the financial year	6,971,644	11,853,224
Estimated losses to piracy*	**431,775**	
Modified profits due to estimated piracy losses*	**7,403,419**	
Profit attributable to:		
Owners of the parent	6,642,847	11,751,826
Non-controlling interests	328,797	101,398
	6,971,644	11,853,224

*Courtesy of Beggars Group found on Companies House

Exploration of Piracy Effects on the Beggars Group's 2017 Financial Statements

In my analysis of the changing copyright environment led me to explore the effects of piracy on one of the largest indie label groups in the world and especially the UK due to a track record of success from artists such as FKA Twigs, Jamie XX and the rights to the early catalog of megastar Adele. According to the British Phonographic Industry's (BPI) 2017 "All About Music Report", The Beggars Group accounted for 3.6% and 2.1% of chart eligible album sales in the years 2015 and 2016 respectively. (BPI, 2017) In the interest of not being too optimistic I estimated the percentage of chart eligible sales at 2.5% rather than 2.85% which would've been the average of the two years. After multiplying the percentage of chart eligible sales by the total sales revenue in the UK, I then multiplied the country level estimates of lost sales by country by 5.7% which was calculated in a study by the European Union Intellectual Property Office (EUIPO) on The Economic Cost of IPR Infringement in the Recorded Music Industry. (European Union Intellectual Property Office, 2016) This series of calculations led me to an estimated piracy effect of 431,775 Euros which is 5.7% of their reported profit of 6,971,644 Euros. This estimate seems modest but there cannot be a true estimate of piracy effects due to the lack of credible information about displacement and understanding of whether these pirates contribute to the music industry in other ways such as concert attendance or word of mouth marketing to their friends or social network followers who in turn could financially contribute where they may not have previously.

Methodology

In order to compile these estimates, there was extensive research on industry reports focusing on the holistic music industry and the independent music sector. These industry reports consist of multiple reputable sources such as the 2016 EU IPO the Economic Cost of IPR Infringement in the Recorded Music Industry, WINTEL's 2018 Worldwide Independent Market Report, the 2019 IFPI Global Music Report, 2018 IFPI Consumer Insight Report and lastly the BPI 2017 All About Music Report. These reports consist of extensive research from a variety of sources that have looked at sales data from their members to compile estimates of a variety of industry factors.

In estimating the effects of the Copyright Royalty Board's latest rate increases to 22.0%, 23.1%, 24.1%, 25.2% and 26.2% of Total Content Costs (TCC) from 2018-2022 and 11.4%, 12.3%, 13.3%, 14.2% and 15.1% of total revenue over the same period. (Copyright Royalty Board) I first computed the Computed Annual Growth Rate (CAGR) in order to estimate the income statement figures from 2019-2022. Once I estimated the CAGR for each of the relevant years I then multiplied the costs of revenue by the published rate off TCC as well as the total revenue by the outlined rates to determine which was greater. In the CRB's rate determination the total amount to publishers etc. would be the greater of those two totals each year. I repeated this method for each total and unsurprisingly the percentage of Total Content Costs turned out to be higher each year. These rate increases would have had a $859 million negative effect on Spotify profits in 2018 and approximately $2.6 billion negative effect over the five-year period. With potentially billions of dollars in extra content costs and an already tight margin, it is no surprise that Spotify has appealed these rate increases.

My method of computing the piracy effects on the Beggars Group began with the British Phonographic Industry's (BPI) 2017 "All About Music Report", that concluded that The Beggars Group accounted for 3.6% and 2.1% of chart eligible album sales in the years 2015 and 2016 respectively. (BPI, 2017) In the interest of conservatism, I estimated the percentage of chart eligible sales at 2.5% rather than the average of the years which would've totaled 2.85%. After multiplying Beggars' estimated percentage of chart eligible sales by the total indie sales revenue in the UK which totaled 7,575,000 Euros, I then multiplied that total by 5.7% which is the estimate of lost sales to piracy in the UK computed by the European Union Intellectual Property Office (EUIPO) in their study titled The Economic Cost of IPR Infringement in the Recorded Music Industry. This series of calculations led me to an estimated piracy effect of 431,775 Euros which equates to 6.1% of their 2017 reported profit of 6,971,644 Euros.

Limitations

As with any market estimates or studies there were limitations to these calculations. In calculating the Spotify specific effects of the Copyright Royalty Board's rate increases I realized that I did not have their specific content costs which likely did not constitute the total costs of revenue which is the multiple I used to compute the effects of the rate increases. I was also limited by the fact that I estimated four years' worth of financial statements by computing the CAGR which has limitations in and of itself. The CAGR estimates the future by using the past which cannot consider future market conditions and changes to the legislative and regulatory environment that will now allow arms-length negotiations with rightsholders which will undoubtedly modify their costs of doing business. With Spotify's continued push to convert free users to paid subscribers as well as their entry into emerging markets their revenue should be drastically different in the years to come.

Estimating the effects of piracy on a large indie such as Beggars Group comes with its own set of challenges. There are many factors that make estimating piracy hard due to the fact that although someone may pirate content that does not mean that the pirate does not contribute to Beggars Group in a different way such as attending concerts or providing old school word of mouth marketing to their friends in person or over social networks. To give a personal example I pirated thousands of songs in the early 2000s but I also attended multiple concerts per year and spread the word about lesser known artists to my friend group which I continue to do to this day. In the past the European Union Intellectual Property Office (EUIPO) estimated piracy losses to be 170 million euros ($190 million dollars) in 2014 which computed to 5.2% of all music sales revenue. (European Union Intellectual Property Office, 2016) That figure was met with skepticism in the music industry due to the fact that 170 million euros is a relatively small percentage of a multi-billion-dollar industry that still considers piracy to be a strong threat to sales. In the 2018 IFPI Music Consumer Insight Report it was stated that 38% of users obtain their musical content through copyright infringement. (IFPI, 2018) A hypothetical calculation of 38% of a modest one billion in sales would equal 380 million alone. This year the global music industry hit 19 billion in revenue which would indicate that the sales lost to piracy would be much higher than estimated.

Conclusion

In researching the changing copyright environment encompassing the largest territories in the music industry it is clear to see why these topics were so widely debated. As my research concluded due to the Copyright Royalty Board's rate increases, Spotify stands to lose approximately $2.6 billion in profits due to the increases in revenue that they will be mandated to pay to songwriters, publishers and PROs. As a result of the subsequent Music Modernization

Act these statutory rates will be able to be negotiated on an arm length basis which should allow them to be more equitable in the future. I believe that fair negotiations are the only way to ensure that one party isn't being strong-armed into a deal that they didn't at least get the opportunity to negotiate. As we speak Spotify is continuing its lawsuit against the CRB's rate increase and it is unclear what the result of this lawsuit will be. It is impossible to determine the ramifications if Spotify is successful in this lawsuit but it is clear that the rates will never be as low as they have in the past due to the subsequent passage of the MMA. This dispute has divided the music industry back into the factions that they were in during the intense negotiations for the MMA throughout the years. It is putting the creator community against most of the streaming community except Apple, Tidal and others who accepted the rate increases without dispute. I will be paying very close attention as there are new developments in this case.

Even more difficult, is determining the impact of piracy on the revenue of an individual independent label. Estimating the displacement of music as a whole is very difficult because unlike other forms of content, piracy cannot replace live concerts which is why a study on the displacement rates of various media estimated the rate for music to be 0% with a large margin of error. (Van der Ende, M., Poort, J., Haffner, R., De Bas, P., Yagafarova, A., Rohlfs, S., & Van Til, H., 2015) I can personally attest to this fact as I pirated many albums but still consistently attended concerts and provided guerilla marketing through word-of-mouth. Another limitation to estimating the effects of piracy is the complexity of the licensing deals in the music industry and the relative secrecy of their terms. It is not safe to say that each recording label has the same deal with each streaming service and there is also a difference in the payouts from the paid subscriber tier and the free tier. Add in the fact that subscription prices are not the same in each territory and the formula becomes too complicated to estimate with any significant certainty.

The European Union Intellectual Property Office (EUIPO) estimated that the recording industry lost 170 million Euros to piracy while other authorities such as the International Federation of the Phonograph Industry (IFPI) later asserted that 38% of users obtain their content through copyright infringement. In an industry that generated revenues of $19.1 million (21.4 Euros) it is hard to fathom piracy estimates in the 200 million Euro range. With these limitations it is not surprising that the 2016 study was the only time the IFPI has attempted to break piracy effects down into financial terms. Broadly, it is a large problem that is very difficult to quantify.

Landmark legislation such as the Orrin G. Hatch–Bob Goodlatte Music Modernization Act, Directive of the European Parliament and of the Council on Copyright in the Digital Single Market as well as the historical rate increase legislated by The Copyright Royalty Board are setting out to make payouts to rightsholders more equitable to the value that the music industry provides. The developments that stem from this legislation will be ongoing as each member state of the EU has to implement its own version of the European Commission's directive which could have its own ramifications worth monitoring. I am particularly interested in how smaller companies will implement Content ID due to their new liability for infringing content on their platform. Content ID is very expensive to implement and could possibly create an environment similar to Amazon Cloud Services where competitors are forced to license the technology from giants such as Facebook or YouTube, preserving the competitive advantage that they already have due to their size. Spotify's legal fight against the CRBs rate increases are just beginning and will have consequences that reverberate throughout the streaming landscape by either drastically effecting their operating costs or reputation going forward. Similar to the EU eCommerce legal framework and US Digital Millennium Copyright Act approximately 20 years ago that created the often-exploited safe harbor provisions, these changes to digital copyright

acts will create unforeseen consequences that will need to be continually monitored as technology evolves over time.

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