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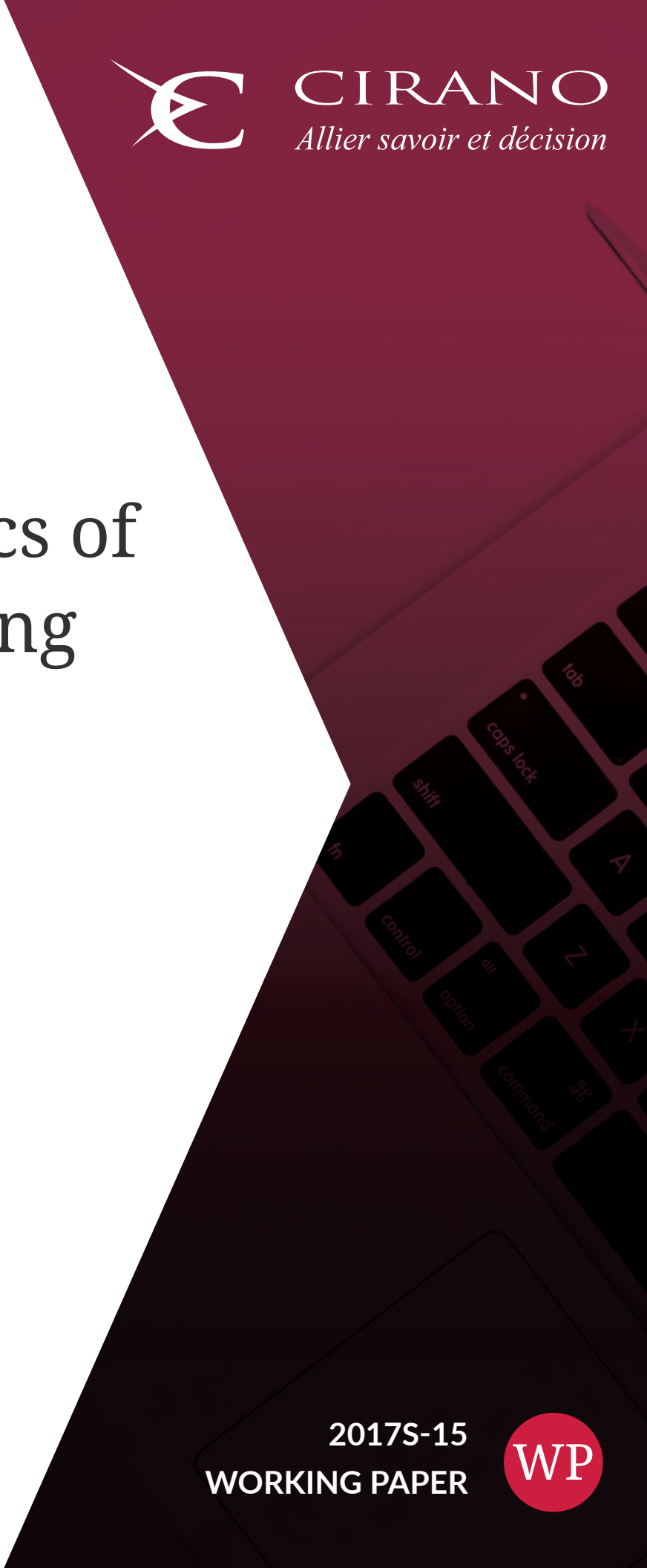
The Economics of Private Copying

MARCEL **BOYER**



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The Economics of Private Copying

Marcel Boyer[*]

Résumé/Abstract

I review private copying laws and practices in different jurisdictions, with a particular emphasis on the methodology followed in France to determine rightsholders' compensation for the private copying of their copyrighted works in different repertoires namely audio, video, still pictures, and printed material. I discuss the economics of copyright compensation in the digital era and offer some comments on particularly important issues met in private copying.

Mots clés/Key words: Value of copyrights, copyright exceptions, private copying, information goods, digital era.

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Introduction

The World Intellectual Property Organization (WIPO) and *Stichting de Thuiskopie*, the Dutch collecting society for private copying, published a survey[1] on private copying systems that provides a global overview on law, on the recent legal developments, and on practices regarding private copying compensations or levies: "The survey provides a global view of private copying compensation (also known as private copying levies), an important element of copyright and related rights infrastructure. It aims to facilitate evidence-based decision-making and to provide an update on important developments in the private copying law and practice of countries that have such an exception in their legal arsenals."

The survey highlights the instrumental role of private copying compensation in the remuneration of all rightsholders, including authors, publishers, performing artists, and producers. It informs also the users of copyrighted works, including manufacturers, importers and other stakeholders. It covers legal developments up until October 2015 and revenue data until 2014.

Substantial differences between private copying systems remain across the world regarding, among others, tariff levels, scope of levy, liability of market players, methods of reporting, legal tools for monitoring and enforcement and methods of setting the tariff. Remuneration can be levied either on importers or manufacturers of recording devices, or be funded by the general resources of the State. Whatever the method chosen, the underlying idea is that levies for private copying be passed on to consumers, directly or indirectly. Levies on products are taken either as a percentage of the sales price or as a fixed amount.

We learn that the European Commission aimed to harmonize the European private copying compensation systems in the early 1990s, but the harmonization did not materialize at this time. Instead, legal and practical developments went on separately with little cross-border considerations. This situation is even more acute on a worldwide basis.

[1] World Intellectual Property Organization (WIPO) and Stichting de Thuiskopie, *International Survey on Private Copying, Law and Practice 2015*.

The Berne Convention allows member states to introduce exceptions and limitations to the reproduction right "under the condition that fair compensation was paid to authors and other rightsholders for loss of revenues or harm caused to the rightholder whose work had been copied." Due to the induced complexity of granting permission to large numbers of individuals and monitoring their subsequent use, the application of the reproduction right is limited within several jurisdictions to activities qualifying for "private copying".
An exception or limitation to the exclusive right, provided that rightsholders are fairly compensated, has generally been considered as the only efficient mechanism to remunerate creators for the widespread copying of their works for private or domestic use.

Private copying refers to copy made by an individual specifically for one's personal use, hence no commercial purpose. Levies on products used for copying were first introduced in Germany in 1966, thereby replacing the exclusive reproduction right with a right to equitable remuneration. In other jurisdictions, levies were bound to long-existing private copying exceptions, when it became clear that modern technological developments would exacerbate the effect of private copying on the income potential of rightsholders.

Generally, the scope of the exception applies only to downloads coming from legal sources, i.e. sites and networks whereon music and films have been uploaded with the consent of rightsholders. "There are exceptions to this rule: Russia, Switzerland and Canada do not have a specific provision regarding the source of the copy, and thus all copies made for private use fall within the scope of the exception."[2]

With practical aspects of the implementation of levy systems clarified by several judgments of the CJEU, the debate now focuses on the notion of "harm". With the Case No. C-467/08, harm caused to authors of copyright work is the criterion on which the determination of the remuneration for rightsholders should be based, when introducing a private copying exception. A consensus still needs to be found on how to interpret the concept of harm: should it be considered as an economic loss due to the foregone licensing opportunities by the

[2] In Europe, the 2015 judgement in Case No. C-435/12 of the Court of Justice of the European Union (CJEU) held that Directive 2001/29/EC (Copyright Directive) requires national legislation to make the distinction between the legality or illegality of the source from which a reproduction for private use is made.

rightsholders for the additional private copies, or as the value attached by consumers to the possibility of making private copies?
Besides, according to the CJEU, the application of a levy for the financing of fair compensation with respect to digital reproduction equipment, devices and media must be linked to the deemed use of them for the purposes of private copying. The emergence of cloud storage possibilities and online licensed services (streaming models) brings additional complexity to set the scope of the private copying exception.

The implementation of compensation systems

Appling levies to the price of recording equipment or media sold to individuals for their private purpose appears to be the most feasible and efficient method for collecting compensation from individuals. For transparency purposes, the European Parliament furthermore proposed that the levy part be mentioned in the sales price to consumer.

Depending on the jurisdiction, compensation systems can be levied on recording equipment and media, or exclusively on supports qualifying as “blank media”, as is the case in Canada. That said, it has become increasingly challenging to make a well-defined distinction between recording equipment and media, leading to different meanings given to covered devices: In France for example, as in other countries applying a media levy system, hard disks in equipment such as audio-visual recorders, set-top boxes and TV sets with integrated hard disks qualify as “blank media”. In some countries, memory units are subject to levy only when used and sold with a recording device, and not if the two are sold separately.

Multifunctional devices, such as tablets and mobile phones, are progressively added to the scope of the levy. Cloud storage inducing a possibility of limitless copy and use of protected works, have brought additional difficulties to define the scope, level, and applicability of the levies.

Depending on the country, tariff-setting models can take various forms, namely: State-funded systems with no tariffs (Spain, Finland…); Direct state intervention systems whereby tariffs, the scope of products subject to levy, and the private copying exception are determined by the legislator (Italy, Portugal, USA…); Negotiation systems between rightsholders (collecting societies administering the levies) and importers/manufacturers of consumer electronics and

the IT industry to determine tariffs (Germany, Austria…); A model in which tariffs are set by law after proposals by industries or negotiation stakeholders in special bodies appointed by the government (Belgium, Canada, France…). These special bodies serve as negotiation platforms, determine which products are subject to levy, and often advise the government for tariff-setting. Tariffs can either be set in the form of a fixed amount, or as a percentage applied on the sales or import price of the product.

One can observe in the following Table that, compared to France or even Germany, the Canadian system applies a very limited fixed amount on the sales price of media types and devices for the remuneration of rightsholders, with 0.21€ on each blank CD sold, the only type of device which is subject to levy in the country. By contrast, for each Set-top box and External HDD sold in France, 45€ and 20€ respectively are dedicated to rightsholders' compensation.

Fixed tariff for standardized media types and devices (in €, 2015)
(World Intellectual Property Organization (WIPO) and Stichting de Thuiskopie, *International Survey on Private Copying, Law and Practice 2015*.)

	CANADA (€)	FRANCE (€)	GERMANY (€)
CD (700 MB)	0.21	0.35	0.06
DVD (4.7 GB)	0	0.90	0.27
External HDD (1 TB)	0	20.00	17.00
MP3 Player (8 TB)	0	12.00	5.00
PC (500 GB)	0	0	13.19
Set-top box (500 GB)	0	45.00	34.00
Smartphone (16 GB)	0	8.00	36.00
Tablet (16 GB)	0	8.40	15.19

The collecting process of private copying remunerations is generally carried out by one collecting society appointed by the government or by rightsholders, a collecting society to which importers, manufacturers and other liable parties are required to report. Authors,

performing artist, and producers are represented on their board. In some instances (Czech Republic, Greece and the Slovak Republic), the collection is done through multiple societies representing specific groups of rightsholders.

Levy revenues can either be allocated directly to rightsholders in the case of multiple collecting societies, or in stages in the case of a single collecting society, which then allocates funds to the distributing organizations representing the respective categories of rightsholders (authors/composers, producers, and performing artists).

Distribution schemes are determined either by rightsholders' organizations or by law or state intervention, or can be the result of negotiations between the different groups of rightsholders. Levy revenues are in general first divided amongst the different categories of copied work, such as audio, video, written works, and interactive works – this first step is usually done from the results of market research on the type of works copied on the various media – and then are distributed to the related rightsholders.

Revenue collected for rightsholders tend to be highly volatile across national systems as well as over the years within a country.

Levy Revenue Trends (in €)
World Intellectual Property Organization (WIPO) and Stichting de Thuiskopie,
International Survey on Private Copying, Law and Practice 2015
(GNI: Gross National Income)

	2007 a. Total M€ b. Per capita	2014 a. Total M€ b. Per capita	VARIATION 2007-2014 (%)	2014 PER CAPITA PER €1M GNI
CANADA	a. 20.2 b. 0.61	a. 3.5 b. 0.10	-83%	€2.54
France	a. 163.4 b. 2.55	a. 228.3 b. 3.45	+40%	€106.22
GERMANY	a. 148.8 b. 1.81	a. 281.2 b. 3.48	+89%	€96.81
ITALY	a. 71.0 b. 1.21	a. 78.0 b. 1.27	+10%	€49.21
SPAIN	a. 40.7 b. 0.90	a. 5.0 b. 0.11	-88%	€4.78
US	n/a	a. 0.4 b. 0.00	n/a	€0.03

In 2014, the German system is the most favorable one for the remuneration of rightsholders, in absolute terms with more than 280 million € levied, and in relative terms with 3.48 € of revenue per capita. Total revenue went up by 89% during the 2007-2014 period..

Canada experienced a significant decrease of 83% in the revenue recorded, from 20 million € in 2007 to 3.5 million € in 2014, the latter representing 0.10 € per capita. The Canadian Private Copying Collective can receive levies only on blank media (blank CDs).

Due to unfavorable legal developments (see below), Spain also showed a major drop in revenue collected in the 2007-2014 period with an 88% decrease, going from 40 million € to 5 million €. This represents only 0.11 € per capita.

As for revenue collected relative to Gross National Income, France ranked first in 2014 in the above list[3], with €106.22 collected per capita per million € of GNI, followed by Germany with €96.81. The US and Canada have by far the lowest levels of levies relative to GNI, with €0.03 and €2.54 respectively.

Recent legal development in Europe and Canada

UK.

The UK introduced in October 2014 a private copying exception, whereby individuals were granted permission to make copies of content they owned, including storing them in the cloud. The transfer of copies from one individual to another could only be done on a private and temporary basis. The UK drafted exception did not stipulate any mechanism to compensate rightsholders. European law, by which the UK must abide, requires private copying exception be accompanied with compensation to rightsholders, except where harm to rightsholders is minimal. The UK government supposed for its draft a minimal impact on rightsholders, an argument which was then challenged in court by music organizations. They launched a judicial review of the UK government's decision to introduce a private copying exception. In July 2015, declaring the draft unlawful, the Court quashed the government's decision.

[3] Hungary actually leads with €279.16, France comes second in the overall study.

Spain.

In the 2010 Padawan v SGAE case, the Court of Justice of the European Union (CJEU) held that indiscriminate application of the private copying levy to all types of digital reproduction equipment, devices and media, including situations in which such equipment were acquired for purposes clearly unrelated to private copying, was not compatible with the 2001 Information Society (or "Copyright") Directive.

The CJEU wrote: "The concept of 'fair compensation', within the meaning of Article 5(2)(b) of Directive 2001/29/EC[4] … on the harmonisation of certain aspects of copyright and related rights in the information society, must be regarded as an autonomous concept of European Union law which must be interpreted uniformly in all the Member States that have introduced a private copying exception, irrespective of the power conferred on the Member States to determine, within the limits imposed by European Union law in particular by that directive, the form, detailed arrangements for financing and collection, and the level of that fair compensation."

The CJEU added: "Article 5(2)(b) of Directive 2001/29/CE must be interpreted as meaning that the 'fair balance' between the persons concerned means that fair compensation must be calculated on the basis of the criterion of the harm caused to authors of protected works by the introduction of the private copying exception. It is consistent with the requirements of that 'fair balance' to provide that persons who have digital reproduction equipment, devices and media and who on that basis, in law or in fact, make that equipment available to private users or provide them with copying services are the persons liable to finance the fair compensation, inasmuch as they are able to pass on to private users the actual burden of financing it."

And finally: "Article 5(2)(b) of Directive 2001/29/CE must be interpreted as meaning that a link is necessary between the application of the levy intended to finance fair compensation with respect to digital reproduction equipment, devices and media and the deemed use of

[4] The article 5(2)(b) says: "Member States may provide for exceptions or limitations to the reproduction right provided for in Article 2 in the following cases: in respect of reproductions on any medium made by a natural person for private use and for ends that are neither directly nor indirectly commercial, on condition that the rightsholders receive fair compensation which takes account of the application or non-application of technological measures referred to in Article 6 to the work or subject matter concerned."

them for the purposes of private copying. Consequently, the indiscriminate application of the private copying levy, in particular with respect to digital reproduction equipment, devices and media not made available to private users and clearly reserved for uses other than private copying, is incompatible with Directive 2001/29/CE."

The Padawan decision represented a turning point in the EU private copying legislation, and lead to follow-up cases in many European countries as well as new court cases before the CJEU to clarify the ruling further.

This case is a nice example of the sayings "the best is the enemy of the good" and "the road to Hell is paved with good intentions." In trying to unreasonably fine tune the system (certainly a good intention), the Court may have imposed large losses on rightsholders. If the private copying regime had to charge the levy only on those buyers who confirm their intention to copy music, it is quite clear that almost nobody would say so and the private copying regime would fall apart. No policy implementation scheme is perfect in all respect and all schemes represent reasonable compromises between the precision with respect to the objectives and the cost of the implementation.

In the EGEDA and Others v Administración del Estado and Others (2016) case, the CJEU was asked to rule on whether a system of fair compensation for private copying satisfy Article 5(2)(b) of Directive 2001/29/CE if the system, while being based on the estimated harm caused to rightsholders, is financed by the general government budget without ensuring that the cost of that compensation falls on the users of the private copying exception.

The Court answered in the negative as follows (June 2016): "Article 5(2)(b) of Directive 2001/29/EC … must be interpreted as precluding a scheme for fair compensation for private copying which, like the one at issue in the main proceedings, is financed from the General State Budget in such a way that it is not possible to ensure that the cost of that compensation is borne by the users of private copies."

Sweden.

A Swedish Arbitration Board issued a judgment in the proceedings between Copyswede, the Swedish collecting society for private copying levies, and the Universal Media Alliance (UMA), October 24, 2012. The judgment stipulated that rightsholders are entitled to

compensation for private copying on external hard drives and USB flash drives. Copyswede and UMA have had different views on whether external hard drives and USB flash drives are associated with an obligation to pay compensation for private copying. Specifically the disagreement is about whether these products can be considered to be "particularly suitable" for private copying in the manner that is required for liability under the Swedish Copyright Act and the underlying EU Directive. In October 2011, following negotiations between Copyswede and UMA, the parties agreed to let an Arbitration Board determine the question whether there are legal grounds for remuneration on external hard drives and USB flash drives. The Board concluded that the products are covered by the current legislation and that compensation should be paid according to the Swedish Copyright Act. The remuneration is, in accordance with the agreement, 80 SEK (about 12 C$) per unit for external hard drives and 1 SEK/GB (about C$0.15/GB) up to 80 GB USB flash drives with a storage capacity of more than 2 GB.

Canada.

In October 2012, the Canadian Government issued a regulation aimed to exclude microSD cards and similar cards from the definition of "audio recording medium" and therefore prevent the Copyright Board from setting a levy on such cards to compensate rightsholders for the private copying of music on those recording media and devices. The main and sole argument of the Government was that such a levy would "increase the costs to manufacturers and importers of these cards, resulting in these costs indirectly being passed on to retailers and consumers … thereby negatively impacting e-commerce businesses and Canada's participation in the digital economy [sic!]."[5] The Government added: "The objectives of these Regulations are to support the Government of Canada's commitment to promoting a digital economy that encourages the development and early adoption of new technologies; and avoid an additional cost on the manufacture or importation of microSD cards, which are commonly used in smartphones and other technologies that drive the digital economy.
The *MicroSD Cards Exclusion Regulations (Copyright Act)* exclude microSD cards (the

[5] One wonders if the Minister convinced the cabinet of the necessity of exempting microSD card for fear of falling back to the Stone Age, as, he must have predicted, those countries where private copying levies exist on microSD cards (more precisely on devices incorporating such cards) will soon be strangers if not refugees in the emerging digital world!

technical standards of which are set by the SD Association) from the definition of 'audio recording medium' for the purposes of the private copying regime, meaning that no tariff can be certified for their importation or manufacture."

It would be challenging to find another regulation so confusedly, poorly and wrongly justified. One wonders why the cost of creators' compensation is so directly targeted, while other more important costs, including capital costs, energy costs, labor costs, and government's own taxes, incurred in manufacturing or importing microSD cards are not. This is tantamount to expropriating land without compensation in order to reduce the cost of developing the land! In business, the risk of a change in regulation, the regulatory risk, is part of the normal if not daily challenges faced by firms. But in copyright protection it is the individual creators and artists who are directly hit by this change in regulation.

The Canadian Government claimed that its microSD card exclusion regulations imposed "no expected costs to the public, industry or copyright owners since the Regulations seek to maintain the current no-levy status of microSD cards." Quite the contrary, the Regulations are at odds with the spirit and intent of the 1997 amendments to the Copyright Act that introduced an exception for private copying thereby making private copying legal, but with a promise of compensation of rightsholders. A change in copying technology made that compensation illusory (CPCC, the Canadian collecting society for private copying levies, collected some 40 million C$ in 2004 but less than 4 million C$ today) as the old leviable supports are becoming obsolete and the new copying technologies and supports are declared exempt from levies.

The competitive market value of and compensation for private copying

As an explicit example of the way private copying is valued, let us consider the case of France, whose methodology is both quite explicit and more advanced if somewhat typical of what is done in many other jurisdictions.

In France, the private copying system covers four different goods or fields: music or audio, films and other videos, still images or photographs, and printed material, books in particular. Each of them is covered by the private copying legislation and subject to compensation of creators or artists as rightsholders. My account of the methodology, agreements and dissents finds its source in documents from both rightsholders advocates and industry representatives.

A Commission is responsible for determining the mediums or supports subject to a levy and the rate or rates applicable to each medium. It is composed of 24 members (12 representatives of rightsholders, 6 industry representatives, and 6 representatives of consumers; it is chaired by a state representative. hence the composition of the Commission gives rightsholders a significant quasi control on its decisions even if balanced by the power of the Conseil d'État to overturn decisions that may appear unjustified.

The private copying exception to copyright protection and enforcement call for proper compensation of rightsholders for the losses suffered as a result of the copyright-exempted copies being made. The Conseil d'État, the overall regulatory body supervising the private copying system, specified that compensation for private copying "must be set at a level capable of generating income … generally similar to what would be obtained from fees to be charge to each author of private copies if it were possible to establish and collect them." The Conseil stated also that the Commission should base its decisions on studies of uses, not merely on assumptions or equivalences.

The implementation of the rules laid down by the Conseil d'État therefore requires a multi-step process: the determination on the basis of a study of uses the volume of relevant copies; the measurement of the compensation of rightsholders in the proxy sector; the determination, on the basis of the above elements, of the levy applicable to each medium (copy support).

The Commission undertook studies by questionnaires on the private copying behavior of consumers to determine the volume of copies being made. The results made it possible to identify the copying behaviors, which are covered by the exception and which call for compensation, and those, which do not: copies made from illicit sources are not covered and were excluded, and copies made from legal downloading were also excluded. The studies reflected the practice of copying over a period of six months.

The next step is the determination of compensation in the proxy sectors. The objective being to determine the rightsholders' compensation for each particular use of their works in private copying, it was necessary to obtain an estimate of the compensation received for the commercial exploitation of their works.

In order to achieve this, the rightsholders proposed the following methodology to determine which proxy to use as indicative of the compensation to consider, that is, to estimate what compensation formula and rate for each of the four areas of interest. The methodology will turn out to be the main subject of dissent between rightsholders' and industry representatives. The following are in a nutshell the propositions of rightsholders' representatives:

- For the audio repertoire, the proxy is a 4-minute musical title acquired as a download at a price of € 0.65 (excluding VAT) corresponding to an average of the higher price of a single title download and the lower price per unit of an album download.
- For the video repertoire, the proxy suggested is the sale price € 18.60 corresponding to an average price of a film in classic DVD and Blu-ray and the price of a film for a family of 4 in a cinema.
- For the repertoire of images, the proxy suggested is the average 0.42 € price of a digital image download on mobile phones.
- For the repertoire of literary works, the proxy suggested is a 7 € price corresponding to an average selling price 10 € for a book available on traditional market reduced by 30% to take into account the discount observed in the digital market compared to the traditional market.

The following are the criticisms and propositions of industry representatives (AFNUM). In general, AFNUM proposed to take into consideration all possible equivalent licit experiences for each of the four sectors, not only the particular experiences suggested by the rightsholders' representatives, which are arguably biased upward. When the suggested experience is not priced on a well-functioning market, it will be necessary to consider different factors that will lead to a comparison between the experience value enjoyed by a consumer's consumption of a private copy and the experience value enjoyed by the consumer's consumption of an original version whose value is known.

- For the audio repertoire, AFNUM proposes to consider the following proxies: the listening to a musical content acquired as a legal download, the same audio content listened to in streaming, the same audio content listened to an radio, and the same audio content viewed from a legally acquired DVD/BR sold commercially. Each of these video experiences must be evaluated through its relevant market price data and

its relative usage value with respect to the private copy experience. For instance, if the original experience or usage value is twice the usage value of the private copy experience, then its proxy value or price would be cut by half. When all four adjusted proxy values are so obtained, the resulting private copying compensation proxy corresponds to the average of the adjusted proxies.

- For the video repertoire, AFNUM proposes to consider the following proxies: the viewing of a video content acquired as a legal download, the same video content viewed on TV, the same video content viewed in a cinema, and the same video content viewed from a legally acquired DVD/BR sold commercially. Each of these video experiences must be evaluated through its relevant market price data and its relative usage value with respect to the private copy experience. For instance, if the original experience or usage value is twice the usage value of the private copy experience, then its proxy value or price would be cut by half. When all four adjusted proxy values are so obtained, the resulting private copying compensation proxy corresponds to the average of the adjusted proxies.
- For the repertoire of images, a similar methodology would be applied. Details not yet known.
- For the repertoire of literary works, a similar methodology would be applied. Details not yet known.

The other steps are similar to those proposed by the rightsholders' representatives. These involve the proper consideration of the rightsholders´ share in relevant commercial sectors, the 85% abatement based on the "fact" that the value for consumers of a private copy must be, should be, or is significantly lower than the value of the original first time access to or experience with a copyrighted work, and the translation of the resulting compensation rates into levies on recognized recording media and devices. This is done by taking into consideration the copying capacity of each medium or device and the private copying activity typical of each medium as measured on the basis of a survey covering the last 6 months of activity, which is then extended to two years, the expected average lifetime of the recording media.

For illustration purposes, here is how the rightsholders' representatives' proposals would proceed. Again, there is not much conflict on those subsequent steps, even if the starting point is significantly different.

For the four repertoires, multiplying the proxy price by the rightsholders´ share in commercial sector leads to:

- For audio, 0.65 € for a title of 4 minutes compensation extended to one-hour multiplied by 52.80% (the average shareholders' share) gives an hourly compensation of € 5.15 for audio content copied.
- For the video sector, 50% of € 18.60, or € 9.30, but reduced to one hour from one and a half hour movies, leads to a compensation of 6,20 € per hour of movie type content copying. In addition, a lower compensation of € 4.03 per hour was retained for non-film video content (35% discount) copying.
- For the still image, 0.42 € times 42%, or 0.176 € per fixed image copied.
- In the case of literary work, € 7 times 40%, or € 2.80 per book copied. And compatible rates for other type of printed material copied (newspaper articles for instance).

In the end, rightsholders' representatives on the Private Copying Commission proposed those proxy compensation levels corresponding to what they earn in the respective commercial sectors used as proxy, namely 5,15 € per hour of audio, 6,20 € per hour of video, 0,176 € per fixed image and € 2.80 -per book.

These values are then reduced by 85% to obtain the proposed compensations. Rightsholders representatives justified this reduction of 85% by stating that the value for consumers of a private copy must be significantly lower than the value of the original first time access to or experience with a copyrighted work in the context of commercial exploitation. This significant 85% abatement applied uniformly across all repertoires finds its origin in 2001 negotiations within the Commission.

Hence, the compensation received by rightsholders from the commercial use of their work, that is, between 40% and 52.8% of the public price (excluding taxes) depending on the repertoire considered minus an abatement of 85% across all repertoires, translates into a private copy compensation of 7% on average of the public price.

The private copy compensation as proposed by rightsholders' representatives versus the compensation proposed industry representatives (AFNUM) are therefore:

- € 0.773 per hour for music or € 0.0515 for a title of 4 minutes versus AFNUM proposal of a compensation of € 0.024 for the same title, which is slightly less than half (47%; or € 0.360 per hour) the compensation emerging from the rightsholders' proposals.
- € 0.93 per hour for a film (or a concert), hence € 1.40 for a 90-minute film (and € 0.60 per hour for other types of audiovisual works, taking into account the "non-film" reduction of 35%), that is, € 0.04 for a 4-minute video clip) versus AFNUM proposal of a compensation of € 0.22 for a 90-minute film, which is less than 16% of the compensation emerging from the rightsholders' proposals.
- € 0.026 for a still image versus AFNUM proposal of a compensation that is still forthcoming.
- 0.42 € for a book (which is further modulated for the private copying of other types of text) versus AFNUM proposal of a compensation that is still forthcoming.

The next step is to translate those compensations per hour or unit into compensation per medium, device, or support subject to a levy. This is done by taking into consideration the copying capacity of each medium and the private copying activity typical of each medium as measured on the basis of a survey covering the last 6 months of activity, which is then extended to two years, the expected average lifetime of the recording media.[6]

For the audio repertoire, The Conseil Supérieur de l'Audiovisuel (CSA) measured the average number of 4-minute music tracks copied on average for each medium. This volume of minutes would be expressed on an hourly basis and then multiplied by the above compensation rate of € 0.77 per hour (rightsholders' proposal) versus € 0.360 per hour (AFNUM), that is, for the 6 month period covered amounts of 4.94 € versus 2.30 € for a MP4 player, 1.94 € versus 0.90 € for a multimedia hard disk, 3.61 € versus 1.68 € for a multimedia

[6] The current list of compensation level in euros for the different devices subject to a levy was published on December 14 2012 by the Commission and appeared in the *Journal officiel de la République Française* on December 26 2012.
http://www.lexisnexis.fr/pdf/DO/Dxcision_du_14_dxcembre_2012_de_la_Commission_prxvue_x_lxarticle_L._311-5_du_CPI.pdf

touch pad, 3.52 € versus 1.64 € for the MP3 player, etc. These amounts, obtained for a private copying practice over 6 months would be extended to 24 months (thus multiplied by 4) to obtain the levy to be applied to each medium or device: 19.76 € versus 9.21 € for a MP4 player, 7.74 € versus 3.62 € for a multimedia hard disk, 14.44 € versus 6.73 € for a multimedia touch pad, 14.08 € versus 6.56 € for the MP3 player, etc.

For the audiovisual repertoire, the number of eligible video files copied is multiplied by the average length of a video file (films, TV series, videos, documentaries, concerts and shows), which goes from 4 to 90 minutes depending on the type of content, then multiplied by the hourly compensation rate proposed for digital video, which as discussed above differs according to whether it is a movie or a concert or another video, each being brought to a one hour duration.

For the repertoire of the still images, the reasoning is similar up to the difference that the calculation is done by picture and not per hour of content. By way of example, for the multimedia hard drive, CSA had calculated an average of 4.3 still images copied on average by users over a period of 6 months. By multiplying 4.3 frames by 0.026 € of RCP (rightsholders' proposal; AFNUM proposal is forthcoming), we get 0.11 € of RCP to be collected on this support for the private copying of still images.

As regards the repertory of literary works, the reasoning is similar as CSA measured copying practices for books, scores and song lyrics, full newspapers, and newspaper articles, all corrected to make it possible to compare the different types of copied content to a book. Again as measured by CSA over a period of 6 months.

The final rate applicable to the different media or devices are abated for large-capacity media to take account of the fact that the quantity of copies made does not vary linearly with the copying capacity beyond a certain point, which depends on the medium considered. The final rate also take into account the level or weight of the compensation so obtained in the selling price of the media, in order to avoid price increases that would significantly affect the market demand for the media considered. Finally, a capacity cap is also considered for very large copying capacity media.

Comments

Step 3a of the French procedure

It is difficult not to support the AFNUM proposal to take into account all possible experiences that compare with the relevant private copying experience. It is likely to generate a more objective value by taking all relevant experiences that are priced in the commercial sectors.

For audio proxies, AFNUM considers that music can be enjoyed from four different sources namely Hertzian radio, streaming (non-interactive simulcasting, semi-interactive, or interactive webcasting), downloads, and CDs. In each case, an estimate of the relative usage value per private copying audio unit (a 4-minute audio file) is obtained in four steps, First, a measure of commercial revenue per unit is obtained (revenue per listener per hour in Hertzian radio, revenue per play in streaming, average price of a title downloaded, average price per title on the CD market). Second, the share of rightsholders is the commercial value per unit (selling price) is obtained for the four sources. Third, the conversion factor between a private copying experience and the experience from the source considered is applied to obtain the private copying usage value for the source considered. Finally, an abatement factor of 85% is applied as representative of the secondary status of a private copy versus the original first time listening experience for each source. All proxy experiences are thus brought to comparable measures of usage value whose average provides the private copying usage value estimate we need.

Similarly, for video proxies, AFNUM proposes to consider three sources of video experience for a 90-minute movie namely TV, DVD, and cinema. A procedure similar to the one followed for audio files is used to obtain the private copying usage value estimate we need. And so on for the other repertoires, still pictures and books or equivalents.

Two factors of interest are the share of rightsholders in the commercial value or price, which is relatively high at an assumed 50% level, and the abatement level of 85% which at least for audio and still pictures may be too high a discount. The first factor is favorable to rightsholders but the second is not. It is not clear that the two effects balance one way or another. In fine, we get a combined effect on the private copy usage value of (X*EQV/15)*0.5*0.15 = (X*EQV/15)*0.075 where X is measured as the commercial

revenue per unit (for instance, in audio, the total radio revenue per listener-hour, one of four proxies) and EQV is the conversion factor of the private copy experience versus the original proxy experience (for instance, in audio, the relative value of listening to a 4-minute song as a private copy versus listening to it on radio, which is assumed to be the same, hence EQV = 1 in this case), the product being divided by 15 to bring it from an hour basis to a 4-minute basis.

The competitive market value of copyrighted works

The main criticism one could make to the approach is that the competitive market value of music (a 4-minute audio file for instance in radio) need not correspond to the measure proposed on the basis of radio stations accounting data. The value is estimated at X*0.5/15 on the basis of the amount paid by the commercial radio industry to rightsholders (as mentioned above, the 50% factor is probably too high - it is about 6% in Canada - and it will be corrected once the real data are obtained from radio stations),

But if such royalty payments to rightsholders are determined by regulation (administrative tribunal or commission) rather than on competitive markets, it may represent an under-estimation of the competitive market value of music in Hertzian radio.

In Boyer (2017b)[7], I find that the royalty payments made by commercial Hertzian radio stations in Canada fall short of the competitive market value of music by a factor of 4.5, that is, payments total about C$ 100 million while the competitive market value is estimated, on the basis of operators' choices and behavior, at C$ 450 million. For satellite radio, I find that the royalty payments made by US based SiriusXM fall short of the competitive market value of music by a factor of 2.8, that is, payments total about US$ 457 million while the competitive market value is estimated, on the basis of choices and behavior of SiriusXM operator, at US$ 1.2 billion. As for semi-interactive music streaming service Pandora, I find that the royalty payments made by the US based webcaster fall short of the competitive market value of music by a factor of 1.28, that is, payments total US$ 734.4 million (2016),

[7] See Marcel Boyer (2017b), "The Three-Legged Stool of Music Value: Hertzian Radio, SiriusXM, Spotify", August 31, a slightly revised version of https://www.tse-fr.eu/sites/default/files/TSE/documents/ChaireJJL/PolicyPapers/pp_the_three-legged_stool_of_music_value_hertzian_radio_siriusxm_spotify_marcel_boyer_july_2017.pdf

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while the competitive market value is estimated, on the basis of Spotify interactive adjusted market-based per play rate, at US$ 936.7 million.

All those royalty rates are regulated except for Spotify whose rates are primarily or mostly unregulated, hence market-based. If that is so also in France, then the revenue per listener-hour on radio (one of the four proxies) would be biased downward.

However, it would be non-efficient and non-optimal to charge commercial users and end consumers the competitive market value of the music they consume, in particular in private copying, given the information good character of musical works and sound recordings and the significant value generating properties of digital technologies in terms of lower cost of dissemination and customization. It is imperative that other complementary ways be found to compensate rightsholders for the competitive market value of their created works/assets.

It might be useful to recall here that in the context of public policies towards educational services there is a clear separation between the pricing of services to end users, the students and their parents, and the compensation of educational services / content providers namely teachers and administrators and other personnel who are arguably compensated at their competitive market value.

Similarly in public policies towards healthcare, there is a clear separation between what end consumers, the patients, pay and what the providers of healthcare services/content namely doctors, nurses, administrators and other personnel are receiving as compensation, which arguably correspond to their competitive market value.

In Boyer (2017a)[8] I suggest that one possibility to achieve the competitive market compensation of creators might be to bring all "beneficiaries" (primary users, ISP, equipment manufacturers, end consumers, and Governments) into one class or group of users and to make that group as a whole jointly and severally responsible for ensuring the proper competitive market compensation of creators. Those beneficiaries would be

[8] Marcel Boyer (2017a), "The Competitive Market Value of Copyright in Music: A Digital Gordian Knot", August 31, a slightly revised version of https://www.tse-fr.eu/sites/default/files/TSE/documents/ChaireJJL/PolicyPapers/pp_the_competitive_market_value_of_copyright_in_music_a_digital_gordian_knot_marcel_boyer_july_2017.pdf

responsible for finding a sharing formula to determine their respective contributions to foot the bill. It is equivalent to considering a chain of stakeholders (users) between the creators and the end consumers of music, a complex endeavor. This chain of beneficiaries represents the Elephant in the room, alongside rightsholders and direct users. That is a difficult problem, never properly addressed before.

The sought-after solution to this problem would involve the design of tariffs or contributions imposed at different stages of the value chain between creators and end consumers, hence on different beneficiaries of copyrighted musical assets, those beneficiaries being once again the direct users and ISP, equipment manufacturers, end consumers, as well as Governments as the collectives of end consumers. If indeed music fuels the Internet and is leading the digital transition, such a program is urgently needed.

The 85% abatement

The 85% abatement used to convert the original first time experience value per unit into a private copy value per unit is applied across all repertoires namely audio, video, still pictures, and printed material (books). Its origin dates back to 2001 negotiations among members of the Commission.

Clearly, once one has read a book, say a novel, the value of a second private copy made for personal use and made from licit sources is certainly limited, given that one may not value highly the interest of having a second copy to be able to read the same novel once more if not repeatedly, say on the beach or during a trip. The value of a private copy in this case is mainly for backup or "insurance" reason, in case the original is lost. Even in this case, the loss incurred if the novel is lost may not be very high. The same goes on with movies and possibly but not so clearly with still pictures: once one has watched a movie or owns a still picture, getting a second copy may not carry high value.

In these three cases, there is likely a big difference between the original first time experience value and the secondary private copy value: the abatement of 85% appears warranted.

But in the case of music, the abatement may not be warranted. For audio files, the value may increase rather than decrease as the possibility of listening to a song is expanded. If making a private copy of a song allows one to listen to it more often, then the value of the copy may be

the same as the value of the original first time experience of listening to it say on an original CD. Music is a good subject to habit formation: the more you hear a good song, composition and lyrics, the more likely you are to enjoy it. People do like to hear repeatedly the same audio files; the immense success of interactive streaming services speaks very high for it. In such a case, no abatement would be warranted or at least a much smaller than 85% abatement would be more appropriate.

A percentage is not a price

Because of the challenging factors involved in pricing copyrighted works, percentages are often used for determining royalty payments. Expressing royalties as a percentage of an accounting base (*e.g.*, revenues) serves different specific purposes such as allowing for (a) savings in transaction costs; (b) immunity to accounting manipulations if the base rate is well-chosen and valid; and (c) risk-sharing between rightsholders and users.

The methodologies proposed by rightsholders' representatives and AFNUM are based on the expression of copyrights payments as percentages of some rate base. However, expressing royalty payments as a percentage of a rate base does not provide any indication about the price of copyrights. This follows because a percentage is not a price.

There is no reason to believe that the proper price to be paid for the same inputs, namely the right to copy, would correspond to the same percentage of revenues irrespective of the characteristics of the underlying industries in question, because the same price for the same inputs used in two different industries will in general turn out to represent quite different percentages of the value of the industry outputs (revenues).

The following example can help illustrate why a percentage is not a price. Suppose an apartment in a low income housing project is valued at $100,000. Suppose also an apartment of the same size and configuration in a high income housing project is valued at $1,000,000, *i.e.*, ten times more. Suppose that the same quantity and quality of paint is used for both apartments. As expected, the cost of painting the two apartments would be the same as the law of one price applies to the input market (*i.e.*, paint). Let us suppose that the actual cost of paint for the high value apartment is $1,000, *i.e.*, 0.1 per cent of the value of the apartment. If one takes the 0.1 per cent as the "price" of the paint to be paid for the low value apartment,

one would get a price in dollar terms of 0.1 per cent x $100,000 = $100, or one-tenth of the cost of the same amount and quality of paint used. In fact, the cost of paint expressed as a percentage of the value of the two apartments would be quite different: 1.0 per cent for the low value apartment and 0.1 per cent for the high value apartment, a difference by a factor of ten for the same quantity and quality of paint.

Applying this reasoning to the commercial radio and DPA industries, one is led to conclude that the same price for the same rights for the same repertoire of musical works and sound recordings, when expressed in percentage terms, will represent a much higher percentage in lower value added industries, where the main input is music such as in online music services (webcasting, music downloads), than in the higher value added industries, where musical works and sound recordings are one input among many such as radio. In other words, the same price would yield very different percentages.

Conclusion

Confronted with an increasing use of their copyrighted works in a globalized and digital context, rightsholders are struggling to protect their copyrights, which should allow them to capture a fair (competitive) share of the value their created works or assets generate. The main copyright challenge today is to adapt copyright law and practice to the digital age. These adaptations are done differently and unequally across jurisdictions and debates about the regulations, the scope of the exceptions - including fair dealing/use and private copying -, and the means of securing fair compensation for rightsholders are still ongoing.

Nevertheless, levy systems tend to adapt to new technology and new devices in many countries, in France and Germany for instance, but not in others, for instance in Canada where the compensation for private copying is restricted to copies made on blank CDs, a copying technology that is disappearing at a fast rate. Restricting leviable media to blank CDs is a negation of the social contract granting the copyright exception for private copying in exchange for a promise to ensure fair compensation for rightsholders.

There is an intentional willingness to compensate rightsholders for private copying, whose exclusive rights have been narrowed by the private copying laws and regulations. Total worldwide revenues from private copying levy systems increased from 598 million € in 2007

to more than 804 million € in 2014.[9] However, levies tend to present a high degree of disparity and volatility. And as shown in the WIPO survey, EU countries are by far the largest contributors in the global private copying compensation, representing a stable 92% of total compensation over the years. In this field, the US and Canada noticeably lag behind.

[9] World Intellectual Property Organization (WIPO) and Stichting de Thuiskopie, *International Survey on Private Copying, Law and Practice 2015*.