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Efficient allocation of risk as an economic function
of Collecting Societies

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EFFICIENT ALLOCATION OF RISK AS AN ECONOMIC FUNCTION OF COLLECTING SOCIETIES

INTRODUCTION

Intellectual property² is been regulated differently depending on the legal system, though mainly through copyright and author's rights (*droit d'auteur*). Despite the differences between both legal systems, the solutions brought to intellectual property issues are frequently converging. This is the case for copyright collecting societies, created in both systems to help the author to exploit the work. However, a unified definition³ of this type of societies does not exist at the international level. The reason why is probably that these societies work in a different way in each national legal ordering and therefore their regulation and their functions vary from country to country. For instance, in author's rights systems⁴, two main functions of copyright collecting societies are the development of activities that help creation, encourage live entertainment and promote artists' formation, namely the cultural function, and the representation of authors as a professional community⁵, namely the social function. In copyright systems, these functions have a minor importance and in some legal orderings they simply do not exist. Nevertheless, the economic function of collecting societies is one element in which both legal systems are converging⁶.

In the words of Katz "A simple reading of the relevant legislation regarding public performance might convey the impression that users reach agreements and obtain licenses from individual copyright holders. In practice, however, agreements between users and individual copyright holders are rare. In most cases, users negotiate, obtain licenses and pay royalties to Performing Rights Organizations, which operate on behalf of numerous copyright holders, typically all (or an overwhelming majority) of the

² For the purpose of this paper the concept of intellectual property is taking into account only literary and artistic works.

³ Nevertheless at the European level, a definition can be found in the Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, article 1 (4): "For the purpose of this Directive, 'collecting society' means any organization, which manages or administers copyright or rights related to copyright as its sole purpose or as one of its main purposes".

⁴ LUCAS, A and LUCAS H-J. *Traité de la propriété littéraire et artistique*, 3rd edition, ed. LexisNexis, Litec, (2006), p. 557. POUILLAUD-DULIAN, F. *Le droit d'auteur*, ed. Economica, (2005), p. 683. CARON, CH. *Droit d'auteur et droits voisins*, ed. Litec, (2006), p. 368.

⁵ For instance, in the section relating to collecting societies, the French Intellectual Property Code in article L. 321-9 provides: " Ces sociétés utilisent à des actions d'aide à la création, à la diffusion du spectacle vivant et à des actions de formation des artistes : 1^o 25% des sommes provenant de la rémunération pour copie privée ; 2^o La totalité des sommes perçues en application des articles... ".

⁶ "La gestion collective des droits d'auteur, qui consiste pour des organisations spécialisées "à négocier avec les utilisateurs éventuels, à leur accorder moyennant paiement d'une redevance appropriée, des autorisation en les assortissant des conditions voulues, à percevoir les redevances et à les répartir entre les titulaires de droits". LUCAS, A and LUCAS H-J. Op, Cit. p. 557.

copyright holders within a jurisdiction”⁷. This situation takes place probably because collective administration is less costly and less risky for right-holders and consumers.

In the economics and law and economics literature of copyright, the economic function of collecting societies has been mainly treated as a way to diminish transaction costs. However, another possible function which is the transfer of risk has been ignored. Few scholars have paid attention to this risk approach: Watt and Snow⁸ and Katz⁹, among others. Nevertheless, their approach is respectively related to allocative efficiency in relation with the economics of collective income distribution and to the risk of liability for the consumer. The aim of this paper is to analyse and include the risk dimension as an explanation of the economic function of collecting societies. The utility of the theory resides in helping the author to decide whether to self-administer or collectively administer his protected rights. To take into account this new dimension of risk permits to go further than the classical analysis of transaction costs. Through the risk analysis, the author will be able to determine which protected rights administration would most likely give him an expected income.

The functioning of collective administration of works varies from country to country. Therefore, it is not possible to establish a general principle describing how the relations between copyright actors are carried out. Nevertheless, in the majority of countries the right-holder¹⁰ has three choices. First, he can decide to individually administer his work, but it implies that he has to self-produce it. Secondly, he can licence totally or partially his rights to an intermediary who will produce the work and depending on the type of work the intermediary can be a publisher or an editor. If the intermediary has a license for the totality of the rights, he at his turn has to license to a collecting society those rights that he cannot exercise for instance the right of public performance. Thirdly, the author can license totally or partially his rights to a collecting society. For the purpose of this paper, the first choice will be referred to hereinafter as individual administration and the second and third choices will merge into what hereinafter will be referred to as collective administration.

Each type of administration implies different outcomes which will depend on the costs of transaction, the risks involved in the transaction and the probabilities that an expected income will take place. Therefore, the first section of the paper will describe the different elements associated with taking this decision, in particular the asymmetries in information that can be present in the negotiation, the degree of uncertainty that an expected income will take place (probability) and the effect of market power in the copyright administration market. The second section will describe the different risks derived from copyright administration, taking into account the risks that should be faced by copyright-holders and by consumers¹¹. The third section purports to describe in terms of probability and utility functions, the different attitudes that these three actors can have towards copyright administration risks and explains some options to reduce risk in this field.

⁷ KATZ, A., *The Potential Demise of Another Natural Monopoly: Rethinking the Collective Administration of Performing Rights*, 1(3) *Journal of Competition Law & Economics* 541 (2005), 544.

⁸ SNOW, A. and WATT, R., *Risk sharing and the distribution of copyright collective income*, in TAKEYAMA, L., GORDON, W., et TOWSE, R., *Developments in the economics of copyright. Research and analysis*, Cheltenham, Edward Elgar, (2005).

⁹ Katz. Ob. Cit.

¹⁰ Here the notion right-holders is intended to include also authors of protected works.

¹¹ The notion consumers is equivalent to users of copyright.

1. Some economic elements related to copyright administration.

1.1 Asymmetric information

Asymmetry of information can be defined as the “situation in which a buyer and a seller possess different information about a transaction”¹². In our case, right-holders (sellers) and users (buyers) possess different information about the licensing transaction, e.g. to value differently the good, or to estimate differently permitted uses of the work. These asymmetries of information imply a risky contracting situation which may to a certain extent be improved by transferring the administration to a collecting society. This is possible because collecting societies may have better information than right-holders and users to transact. Hence, the society can help right-holders and users to ease the transaction.

Adverse selection and moral hazard are two consequences of information asymmetries. In a market transaction it is possible that sellers and buyers have different information in relation with the quality of the good. The problem persists because it is costly to obtain accurate information in relation with the quality of the asset. The adverse selection is defined as a “form of market failure resulting from asymmetric information: if insurance companies must charge a single premium because they cannot distinguish between high-risk and low-risk individuals, more high-risk individuals will insure making it unprofitable to sell insurance”¹³. In practical terms “adverse selection refers to situations where one side of the market can’t observe the “type” or quality of the goods on other side of the market. For this reason it is sometimes called a hidden information problem”¹⁴.

Moral hazard takes place e.g. in the insurance market. In fact a full protection by insurance will produce a lack of interest to take care of the asset which is being insured. In the words of Varian: “When it sets its rates the insurance company has to take into account the incentives that the consumers have to take an appropriate amount of care. If no insurance is available, consumers have an incentive to take the maximum possible amount of care”¹⁵. In practical terms, “moral hazard refers to situations where one side of the market can’t observe the actions of the other. For this reason it is sometimes called a hidden action problem”¹⁶. Therefore there is a trade-off which implies that high-risk bearers will not be insured or poorly insured and as a consequence they will take care of the insured good and low-risk bearers will be highly insured and will take scarce care of the insured asset.

To diminish the asymmetric information problem and its consequences, collecting societies can signal¹⁷ right-holders and users. By offering blanket licenses collecting societies are signalling. On the one hand, the signal for users is that they will have access to a set of protected works (the repertory) and thus access to a bundle of protected rights. On the other hand, the signal for right-holders is that their work will be

¹² PINDYCK, R., and RUBINFELD, D., *Microeconomics*, 6th ed., Upper Saddle River, New Jersey, Pearson Education Inc. - Prentice Hall, (2005), p. 596.

¹³ PINDYCK and RUBINFELD, Op. Cit. p. 598.

¹⁴ H. VARIAN, *Intermediate microeconomics. A modern approach*, 6th edition., New York, W.W. Norton & Company, (2006), p. 674.

¹⁵ Ibid. p. 673.

¹⁶ Ibid. p. 674.

¹⁷ Market signaling: process by which sellers send signals to buyers conveying information about product quality. PINDYCK and RUBINFELD, Op. Cit. p. 601.

licensed to a great number of users, because users will have more incentives to have access to the repertory than to a single protected work.

1.2. Uncertainty and risk

Uncertainty and risk are two concepts that can be differentiated. Risk is “when an outcome may or may not occur, but its probability of occurring is known” and uncertainty “when an outcome may or may not occur and its probability of occurring is not known”¹⁸. In these definitions probability plays a central role, as both risk and uncertainty imply that it is just a matter of chance that a particular outcome will happen but is not sure that it will happen, because it depends on probabilities.

Under intellectual property rights administration, right-holders and users face uncertain conditions to contract. The probability¹⁹ that the expected outcome²⁰ will be attained depends on the combination of the elements related to the administration, e.g. negotiation, licensing, monitoring protected rights and payment of royalties. In other words, it will depend on how effective the administration will be. Thus, right-holders and users contract under uncertainty and the risk is not to obtain the expected outcome.

Collecting societies possess better market information as well as more appropriate monitoring means than the author to administer protected rights more effectively. Therefore, the probability to attain the expected outcome is greater.

1.3 Market power

Market power is reflected in collective bargaining. It is defined as the “ability of a seller or buyer to affect the price of a good”²¹. The exercise of this power can affect both: right-holders and users.

On the one hand, the bargaining power can be exercised by the collecting society when it represents authors as a community. Thus, collecting societies act as a pressure group influencing the law making process.

On the other hand, the bargaining power can be exercised by offering blanket licenses. In this case the extent of the repertory is fundamental, because the greater the repertory, the greater the bargaining power. This offer places the collecting society in a force position to negotiate, because for the user it will be less costly and less risky to access directly the repertory and therefore the user has great incentives to contract directly with the collecting society.

2. RISKS: DESCRIPTION

Protected works can be exploited either individually or collectively through collecting societies. While administering individually protected rights, right-holders and even users are in presence of information asymmetries. Indeed, this asymmetry leads to risks that affect their commercial relation.

¹⁸ SLOMAN, J. *Economics*, 5^{ème} éd., Prentice Hall, (2003), p. 59.

¹⁹ Probability is defined as the “expected relative frequency of a particular outcome; the proportion of successful outcomes to all outcomes”. ARON, A and ARON, E., *Statistics for the behavioral and social sciences*, 2nd, ed., Upper Saddle River, Prentice Hall, (2002), p. 4.

²⁰ In this precise case refers to the amount of money that the right-holder is expected to receive out of the administration of protected rights.

²¹ PINDYCK and RUBINFELD. *Op. Cit.* p. 669.

2.1. RISKS FACED BY THE RIGHT-HOLDER

Due to information asymmetries, the author bears principally four kinds of risks: First, the risk of contract negotiation; secondly the risk of collecting the royalties; thirdly, the risk of taking legal action in the case of breach of the contract and fourthly, the risk of not detecting infringement and misuse of the work.

2.1.1. *The risk of contract negotiation: fix improper contract (license) provisions.*

The Berne Convention protects authors of literary and artistic works and authors of dramatic, dramatico-musical and musical works granting them the exclusive right to authorise certain uses of their works. To the first group of authors, the convention grants five exclusive rights: the right of translation (article 8), the right of reproduction (article 9), the right of broadcast (article 11bis), the right of public recitation (article 11ter) and the right of adaptation (article 12). To the second group of authors, the Convention grants the right of performance and the right of translation (article 11).

Authors exercise their exclusive right through contracts. In these contracts, authors can authorise certain or all uses granted by the convention and can determine the extension of this authorisation. Two dimensions have to be taken into account: the parties' asymmetry of information and the parties' market power.

While administering individually their rights, authors should negotiate the contract provisions with the users. The author would not know the preferences of the final user. Depending on the parties, the information can differ between one and the other. Two possibilities can be envisaged: if the license process is between the author and a final user, the most likely is that both parties lack accurate market information and consequentially the task of valuing the work is risky. If the license process is between the author and an intermediary (e.g. a radio station), the most probable outcome is that the intermediary user has more information about the market and therefore will try to get a price which will be lower than the author's profit maximising level.

The power dimension is present within the relations between the author and an intermediary. The reason is that the intermediary has more market power than the author, thus he can place himself in a strong negotiating position. Under this hypothesis, the user can be a powerful party or can be organised within a collective body (e.g. publishers, radio, television, cable and video broadcasting societies, music background for audio-visual works, libraries, entertainment industries including concert halls and promoters, restaurants, bars, nightclubs, hotels, shopping malls, shops, medical centres, etc.). The risk for the author is that he will have less bargaining power than the intermediary and he can be obliged to accept undesired contractual conditions to license his work.

The described risks can be transferred to a collecting society, which will be placed in a stronger bargaining position and therefore will be able to bear this contractual negotiation risk. Collecting societies have better market information to set the conditions under standard-form contracts. In this case the risk is allocated more efficiently. In the words of Hillman and Rachlinski²²: "Businesses standardize their risks

²² RACHLINSKI, J., and HILLMAN, R., *Standard-Form Contracting in the Electronic Age*, 77 New York University Law Review 429 (2002), p. 11.

and reduce bargaining costs by offering one set of terms to all consumers". For the collecting society, it is easier to establish the exploitation conditions of authors work and define the way and the periodicity in which the royalties will be paid. In this way, they are better placed to collect the royalties.

2.1.2. The risk of collecting the royalties: non-payment.

Through individual administration, the author should contact directly each consumer to collect the due royalties. However, frequently, it is difficult or even not possible to recover the total amount of money owed. In this case, the author should face alone this risk, which also implies investing in searching the debtor and prosecute him.

This risk of not recovering due amounts can be avoided simply by transferring it to a collecting society. The collecting society has a better infrastructure to set contract conditions, including those of payment; recover the due royalties, and ultimately to prosecute the debtor in case of non payment. In any case, even if a suit for non-payment is taking place, the author will always receive the payment of part of his royalties' on-time. It means that the collecting society had licensed the protected work to a multiplicity of users. On the one hand the author will always receive at least the percentage of the royalties paid by those punctual debtors. On the other hand, in the cases in which applies, the author would benefit of performance payments, based on the number performances of the work and the used media.

2.1.3. The risk of taking legal action in the case of breach of the contract: costs of legal procedure and risks.

In case of non payment of royalties, the author is forced to sue the user to recover the due amounts. This implies to hire a lawyer who will deal with the case and to provide all the elements that will constitute the necessary evidence to win the case. To take legal action is always costly. The fees for obtaining a specialised legal representation are always high. Authors are not in the majority of the cases super-stars, so they cannot really afford the payment of elevated fees to be represented.

Collecting societies can bear this risk, because they have the means to work with a body of specialized lawyers who deal with intellectual property litigation cases. Through collective administration, collecting societies represent its members whose rights are collectively administered. Then, due to the fact that the collecting society grants blanket licenses, the royalties that are recovered correspond to the media in which the protected work was performed, such as radio and television stations, cinemas and general users. In this sense, the royalty that the collecting society pays to each single author for the administration of his rights corresponds to a fraction of the royalties that the society recovers for the blanket license. This is the reason why the society takes in charge the legal expenses in case of breach of the contract and pays the royalties to the author in case of non payment by the user.

Another aspect that should be considered is that collecting societies in author's rights countries fulfil the role of author's representative (as individual and as community). In this sense, it is entitled to take legal action against those persons who are attempting at authors welfare and to exercise specific legal actions²³ on their behalf. In this order of

²³ For instance, in France the *action oblique*, *action en contrefaçon*, ask for civil indemnisation in case of a *action penale*, etc. CARON, Ch. Op. Cit. p. 367 and 368.

ideas, authors can be fully legally represented by collecting societies and therefore be better equipped to defend their rights. Collecting societies also fulfil a social role acting as a public interest group influencing the law making process on behalf of authors.

2.1.4. *The risk of not detecting infringement and misuse of the work: impossibility of monitoring accurately.*

On the one hand, one of the objectives of conferring licenses is that within the contract, uses of the work are described in order to specify which ones are authorised by the author to the user²⁴. But not always contract provisions are respected and in some cases the user exceeds the use that has been permitted. On the other hand, the user can make use of the work without having a license. For the author, it is very complex to monitor the accomplishment of good uses of the work. The author should survey each consumer to detect and catch the transgressors. In this sense, infringement would be hardly detectable and will also be costly. The risk of not detecting infringement is therefore very high.

By shifting the risk to a collecting society, the author can avoid it. By means of collective administration, the administration of protected rights can be more efficiently administered and the market of copyright can also increase its efficiency.

2.2. RISKS FACED BY THE USER²⁵

Due to the deficiency of information, users²⁶ face three risks: first, the risk of not paying the market price; secondly, the risk of liability as described by Katz, and thirdly, the risk of contracting with the wrong right holder.

2.2.1. *The risk of not paying the market price: authors tend to ask a superior price for their work than the market price.*

Through individual administration, the author would set a price for the protected work. To set a profit maximising price, the author will need to know at least the elasticity of demand of the work to determine which price to set and which quantity to produce. The problem is that in the majority of cases the author is not in possession of this information. Moreover, if it is the first time that the work is sold on the market, it will not be easy to determine necessary elements to estimate the demand for the work as the potential market, the willingness to pay certain price and the quantity of goods that should be supplied to meet the demand, among others. Pindyck and Rubinfeld make reference to how to price a best-selling novel in the following terms: "What about price? Setting the price of the hardbound edition is difficult because, except for a few authors whose books always seem to sell, publishers have little data with which to estimate demand for a book that is about to be published. Often, they can judge only from the

²⁴ The Berne Convention in its article 11(1) provides: "Authors of dramatic, dramatico-musical and musical works shall enjoy the exclusive right of authorizing: (i) the public performance of their work, including such public performance by any means of process; (ii) any communication to the public of the performance of their work".

²⁵ The empirical quantification of the risk faced by the user will be developed in a second paper and it will analyse the decision that an intermediary user has to make between contact directly the author or to contact and negotiate with a collecting society.

²⁶ For the purpose of the paper, user will include final-users (consumers) and intermediary users as radio and television stations, etc.

past sales of similar books. But usually only aggregate data are available for each category of book. Most new novels, therefore, are released at similar prices”²⁷. Nevertheless, in some countries the government establishes ceiling prices for certain type of goods, e.g. in Germany, Austria and Switzerland the government established ceiling prices for books, the *Buchpreisbindung*.

In addition, from a psychology point of view and also due to the lack of information, authors tend to overestimate the value of their work. In this sense, F. Greffe²⁸ explains that “authors as isolated persons (in relation with the market), know really bad the possibilities of the enhanced value in the future of their works”. Authors can have the figures of cost of creation and production but they do not know exactly the demand curve for their goods. What usually happens is that authors compare the prices of substitute goods of their works which are already sold on the market and then they will set a price that in some extent will be competitive and will correspond to the demand curve. Nevertheless, the risk is that the price set by the author for the first time will not be a profit maximising one.

Collecting societies would possess more market information to fix a profit maximising price to the work. As a consequence, for the user it will be more interesting to contract directly with the collecting society than with the author. Nevertheless, for some protected works, mostly the works of art of young artists, in the majority of the cases it is difficult to fix a profit maximising price since the beginning, due to the fact that “the economic value of a work of art cannot be determined until it is confirmed by the market”²⁹.

2.2.2. The risk of liability: infringement.

This is a risk described by Katz within his article: “The potential demise of another natural monopoly: rethinking the collective administration of performing rights”³⁰, when he treats blanket licenses as a risk management tool. Katz studies the right of reproduction and focuses on the problem of on-line music distribution. He argues that “Copyrighted music has traditionally been distributed without any protecting technology. Therefore, once a user gains access to the work by obtaining a copy of it, he can technically perform it without obtaining any license. If he does so, however, and is caught, he may be liable for infringement”. Further he argues: “[...] because the purchase of a CD does not entitle the user to perform it publicly, users are exposed to the risk of liability”.

He further provides one possible solution. According to him, “a blanket license that authorizes unrestricted access to the licensor’s repertoire reduces the risk of being held liable for infringement, at least with respect to the works in the licensor’s repertoire”. He concludes then that “it is obvious that only a blanket license offered by a seller with a significant repertoire can effectively reduce the risk of infringement [...]”.

²⁷ PINDYCK and RUBINFELD. Op. Cit. p. 385.

²⁸ GREFFE, X., *Arts and artists from an economic perspective*, Paris, Economica / UNESCO, (2002), p. 99.

²⁹ GREFFE, X., Op. Cit. p. 101.

³⁰ KATZ, A., Op. Cit. P. 576.

2.2.3. *The risk of contracting with the wrong right-holder: wrong payment, thus payment to the wrong right-holder or not to all right-holders.*

On the one hand, the consumer can contract with a person who says that he is the right holder when in fact he is not. Here we are dealing with a criminal offence. For the consumer, it is risky to determine who the true right-holders are. Therefore, it will be less risky to deal with a collecting society. In this case, the consumer will be rather sure that the collecting society represents the rights of the right right-holder. This is to be added to the benefits of having access to all collecting society repertory thanks to blanket licences.

On the other hand, sometimes it is hard for the consumer to identify who holds the rights. In some cases, it can be a multiplicity of persons depending on the protected work. For instance, in relation with the public performance or broadcast of sound recordings, a multiplicity of actors can hold rights, among them the person who wrote the lyrics, the composer of the music and the performing artist. The consumer faces the risk of not being sure to whom he should pay the royalties. In the case in which the producer of the sound recording holds the rights, it is not that difficult to identify to whom the consumer should pay the royalties. But in the case in which writer, composer and performing artist hold the rights, it can be complicated for the consumer to identify all the right holders. He may identify all of them, but also he may identify only part of them. In this case, he is exposed to the risk of infringement and legal action can be taken.

A similar point was raised by Katz³¹, who argues that “even a properly licensed performer of music can be placed at risk if the song that she performs infringes another copyright holder’s rights and the “true” copyright holder is not a party to the license agreement. When a blanket license is used, the chances that it covers the “true” copyright holder as well are great”.

3. RISK REDUCTION

The interest of risk reduction is to minimise the expected damages that an undesirable outcome could produce. In a transaction, this risk reduction will increase the probability to attain the expected outcome.

As has been seen, it is more risky for authors to self-administer protected rights. As a result, authors and users have an incentive to transfer to collecting societies the risks related to the administration. Accordingly, the collecting society can be in charge of defining and negotiating contract clauses, setting the price, licensing the work, recovering the royalties and taking legal action in case of breach of the contract, as well as monitoring the use of the work to detect probable infringement.

Collecting societies can bear more efficiently the described risks; on the one hand, because they have great incentives to be on the market, due to its active participation on the market and to the demand for the assets it administers. Therefore, the society has relevant market information, enough to know the demand curve and thus set the price at a market and profit maximising level. On the other hand, due to the fact that collecting societies represents the interests of several members (author’s, editors,

³¹ KATZ, A. Op. Cit. p. 577.

composers, etc.) they have the force of a pressure group and thus they have a stronger bargaining power than authors alone.

3.1. ATTITUDES TOWARDS RISK

Every individual is characterized by one of the following three types of attitudes towards risk: risk-aversion, defined as a person “preferring a certain income to a risky income with the same expected value”³²; risk-neutrality, defined as a person “being indifferent between a certain income and an uncertain income with the same expected value”³³; and risk-proclivity, defined as a person “preferring a risky income to a certain income with the same expected value”³⁴. We will assume that authors and consumers are mostly risk-averse, due to the fact that risk aversion is believed to be most prevalent³⁵.

To take a decision the author has to estimate the risk involved in each type of administration. He has to take into account the variability of the income and the probability to obtain the income. The decision will depend to some extent on the attitude that the author will have towards risk. Thus, if the author is risk-averse, he will be most inclined to select a less risky administration, in our particular case, he will prefer to let a collecting society administer his rights. If the author is risk-lover, he will then be most persuaded by the individual administration which is more risky but gives him the probability to increase the income. If the author is risk neutral, he will be indifferent to both types of administration, therefore he will choose any of them.

Statistical concepts such as mean³⁶ and variance³⁷ are indicators of the expected income and the variability respectively. Assume that a composer wants to disseminate a song he just composed. To sell his work, he has to choose to administrate the protected rights derived from the song individually or collectively.

If the composer decides to individually administer, he has to negotiate, license, monitor and recover the royalties by himself, which implies that the income will depend on his efforts to efficiently administrate his rights. Suppose there are two equally payoffs for this individual administration, which implies a probability of 50 in each case. First, if the administration is efficient the payoff will be € 800. Secondly, if the administration is less efficient the payoff will be € 400.

If the composer decides to let a collecting society administer his rights, the society will negotiate, license, monitor, recover the royalties and distribute it to the composer. As the administration of protected rights is at the core of the collecting society activities, in the majority of cases it is better placed than the composer to efficiently administer. Through collective administration the composer will obtain a certain income of € 600.

³² PINDICK and RUBINFELD, Op. Cit. p. 157.

³³ Ibid, p. 157.

³⁴ Ibid, p. 157.

³⁵ KARNI, E., *Attitudes towards risk*, In The new Palgrave dictionary of economics and the law, NEWMAN, P., (ed), Macmillan reference ltd, (1998), p. 116.

³⁶ Mean it is defined as the “arithmetic average of a group of scores”. ARON, A and ARON, E., *Statistics for the behavioral and social sciences*, 2nd, ed., Upper Saddle River, Prentice Hall, (2002), p. 23.

³⁷ Variance is the “measure of how spread out a set of scores are; average of the squared deviations from the mean; standard deviation squared”. Ibid, p. 27.

The expected income for individual administration in hundreds of euros will be given by: $0.5(800)+0.5(400)= 600$

The variance is the sum of the squared deviations from the mean, weighted by their respective probabilities.

Calculating the standard deviation for individual administration:

$$0.5(800-600)^2 + 0.5(400-600)^2 = 40,000$$

$$SD = \sqrt{40,000} = 200$$

As far as through collective administration the author obtains a certain income, the dispersion is zero.

The variance shows that although both administrations have the same expected income, in the case of collective administration there is no variability, because it is zero. It serves to show that collective administration is less risky than individual administration.

The previous demonstration of the variance between individual and collective administration, shows a situation in which the expected income is the same for both administrations. It is possible to show graphically how the composer might evaluate risky outcomes from individual and collective administration. We will add to the previous exercise a difference in the expected income.

Figure 1 shows the composer's preference towards risk when he is risk-averse. The vertical axis represents the level of utility and the horizontal axis represents the level of income expressed in euros. The curve OG represents the composer's utility function, which explains the level of utility that can be attained at each level of income with collective administration. Here the composer's marginal utility diminishes as income increases, because the level of utility increases from 15 to 31 to 34 as income increases from € 250 to € 1,000 to € 1,200.

Assume that the composer has an income of € 600 from the collective administration of his protected song. But he is considering individually administering it, which gives him a probability of .5 to increase the income to € 1,000 or a probability of .5 to fall to € 250. The expected income is given by: $(0.5)(1000)+(0.5)(250)=625$.

The utility level will be calculated by: $u = \sqrt{I}$, with I = income in hundreds of euros.

The utility level associated with an income of € 250 is 15.81 given by: $u = \sqrt{250} = 15.81$ and the utility level associated with an income of 1,000 is 31.62 given by: $u = \sqrt{1000} = 31.62$. Individual administration is compared with collective administration which has a utility level of 24.49 associated with an income of € 600, given by: $u = \sqrt{600} = 24.49$. The expected utility $E(u)$ ³⁸ of individual administration should be calculated:

$$E(u) = \left(\frac{1}{2}\right)u(250) + \left(\frac{1}{2}\right)u(1,000) = 0.5(15.81) + 0.5(31.62) = 23.72$$

³⁸ Expected utility is defined as "sum of the utilities associated with all possible outcomes, weighted by the probability that each outcome will occur". Pindyck and Rubinfeld, *Ob. Cit.* p. 156.

Individual administration offers a higher income (€ 625 versus € 600) but a lower expected utility (23.72 versus 24.49) than collective administration. Thus, collective administration is preferred to individual administration.

The composer has to calculate how much money he will be willing to pay to the collecting society, in order to decide whether to collectively or individually administer his rights. This amount of money can be calculated in terms of a risk premium, defined as the maximum amount of money that a risk-averse person will pay to avoid taking a risk³⁹. The magnitude of the risk premium is calculated on a case by case basis, because it depends on the risky alternatives that the author faces.

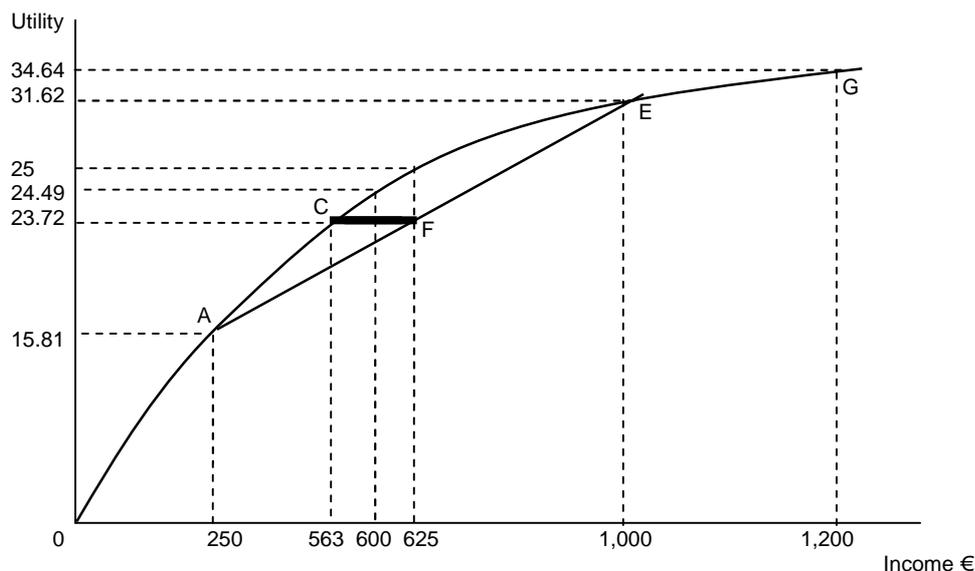


Figure 1. Risk aversion

In figure 1 the segment CF represents the risk premium for the composer. It indicates the maximum price that the composer is willing to pay to translate an uncertain income of € 625 into a certain income of € 600. What certain income would give the author a utility of 23.72? The risk premium is given by: $23.72 = \sqrt{I} = 23.72^2 = 563$. Income will be € 563, so, $RP = 625 - 563 = 62$.

To decide whether to collectively or to individually administer his rights, the composer will compare the risk premium with the price that the collecting society asks as administration fee. The collecting society fixes a fee that at least covers the costs of administration. This fee shows the amount at which the collecting society is willing to supply the administration service. If the administration fee is zero, author's choice for collective administration will cost him € 25, given by: $625 - 600 = 25$. Because € 25 < € 62, the author will choose collective administration.

To efficiently supply the administration service, the collecting society can ask a maximum administration fee of € 37, given by: $62 - 25 = 37$. Hence, if the administration fee is € 37, the author will be indifferent to both administrations. If the administration fee is lower than € 37, the author will choose collective administration. If the administration fee is greater than € 37, the author will choose individual administration.

³⁹ PINDYCK and RUBINFELD. Op. Cit. p. 158.

Figure 2 shows a risk-proclivity option. The utility will be calculated by: $U=I^2$, with I = income in hundreds of euros. The utility level associated with an income of € 250 is 6.25 given by: $u=2.50^2=6.25$. The utility level associated with an income of € 600 is 36, given by: $u=6^2=36$. The utility level associated with an income of € 625 is 39.09, given by: $u=6.25^2=39.06$. The utility level associated with an income of € 1,000 is 100, given by: $u=10^2=100$ and the utility level associated with an income of € 1,200 is 144, given by: $u=12^2=144$. The expected utility $E(u)$ of individual administration should be calculated:

$$E(u)=\left(\frac{1}{2}\right)u(250)+\left(\frac{1}{2}\right)u(1,000)=0.5(6.25)+0.5(100)=53.13$$

What certain income would give the author a utility of 53.13? The expected income is given by: $I=\sqrt{53.13}=7.29$, so $I=729$.

Because the administration fee charged by the collecting society will always be nonnegative, the composer will choose individual administration. The composer will be indifferent to both administrations, if assuming that the collecting society charges no fee, the certain income would have been € 729. In the case of a certain income higher than € 729, the composer will prefer this certain income. But in the case of a certain income lower than € 729, the composer would prefer the uncertain income. Therefore, in our example, the certain income being € 600, for all nonnegative fees, the risk-loving author will prefer the uncertain income.

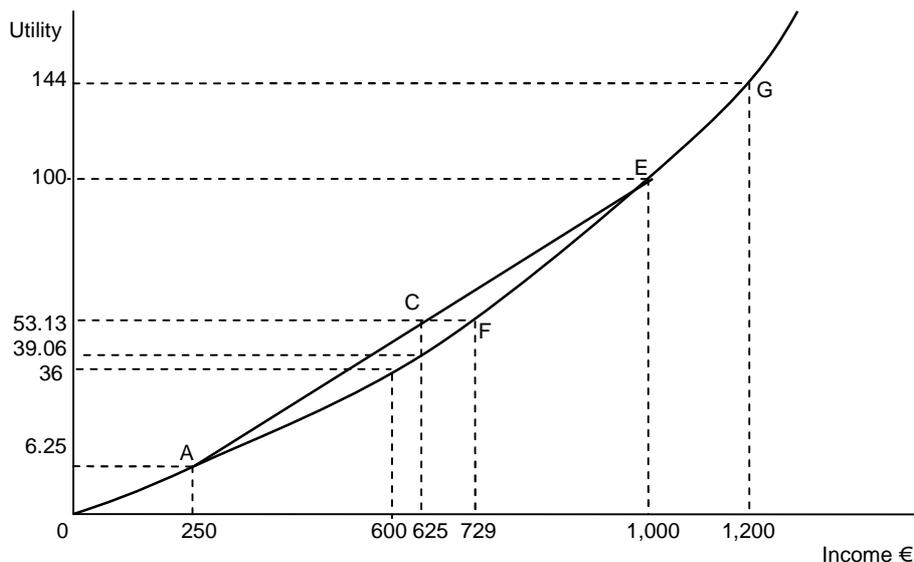


Figure 2. Risk-proclivity

Figure 3 shows the composer as risk neutral. The expected income is given by: $(0.5)(1000)+(0.5)(250)=625$. The utility will be calculated by: $U=I$, with I = income in hundreds of euros. The utility level associated with an income of € 250 is 2.5 given by: $u=2.5$. The utility level associated with an income of € 563 is 5.63, given by: $u=5.63$. The utility level associated with an income of € 600 is 6, given by: $u=6$. The utility level associated with an income of € 625 is 6.25, given by: $u=6.25$. The utility level associated with an income of € 1,000 is 10, given by: $u=10$ and the utility level

associated with an income of € 1,200 is 12, given by: $u=12$. The expected utility $E(u)$ of individual administration should be calculated:

$$E(u) = \left(\frac{1}{2}\right)u(250) + \left(\frac{1}{2}\right)u(1,000) = 0.5(2.5) + 0.5(10) = 6.25$$

What certain income would give the author a utility of 6.25? The expected income is given by: $E(I)=625$.

When the expected income in the case of individual administration is equal to the certain income in the case of collective administration the composer will be indifferent to both collective and individual administration. In our example, the composer will choose the individual administration because € 625 > € 600.

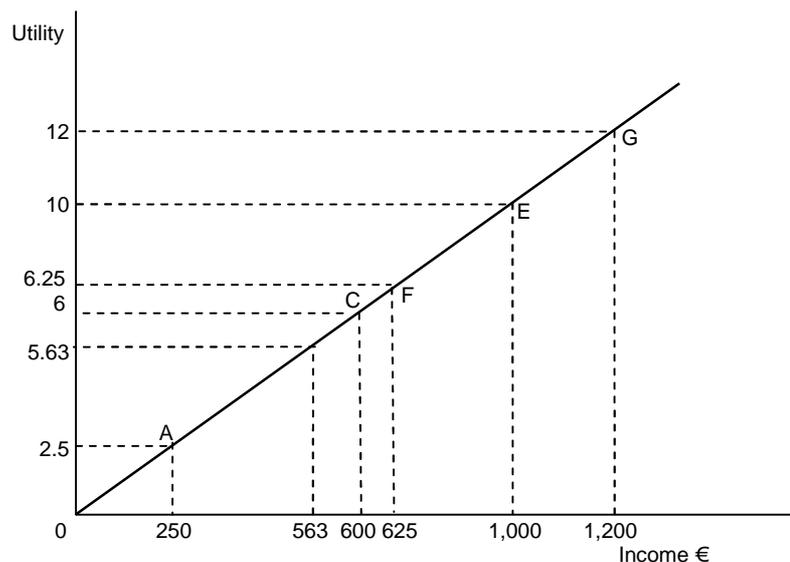


Figure 3. Risk-neutrality

3.2. HOW TO REDUCE RISK

Several ways of reducing risk can be envisaged: risk diversification, shifting the risk to a stock market, buying insurance⁴⁰ and investing in additional information⁴¹.

Shifting the risk to a stock market and buying insurance do not apply to the particular environment of protected rights administration. Therefore we will only focus on investing in additional information and on risk diversification.

3.2.1. Investing in additional information

As described before there are two main sources of uncertainty to individually administer protected rights. On the one hand, right-holders and users face the problem of asymmetric information. On the other hand, in the majority of cases, author's market information is incomplete to efficiently administer his rights. These two main sources

⁴⁰ VARIAN, H., *Intermediate microeconomics. A modern approach*, 6 ème éd., New York, W.W. Norton & Company, (2006), p. 224-230.

⁴¹ PINDYCK and RUBINFELD. Op. Cit. p. 164.

lead to the contractual risks described in section 2. As the source of the uncertainty is related to a “lack” of information one way of avoiding bearing these risks is to invest in additional information, getting it from collecting societies. The reason is that the information gathered by collecting societies could be more trustable than the information gathered by the author himself.

The way collecting societies work on each area of intellectual property varies from country to country. The majority of collecting societies work as civil societies. Nevertheless not all of them charge an entrance right to become a member, e.g. the American Society of Composers, Authors and Publishers – ASCAP do not ask any fee to become a member⁴² but the French *Société des auteurs, compositeurs et éditeurs de musique* – SACEM ask an entrance fee of € 115 for the year 2007⁴³ and the German *Gesellschaft für musikalische Aufführungs und mechanische Vervielfältigungsrechte* – GEMA, request a “non-recurring admission fee amounts to € 51.13 for composers and/or lyricists and to € 102.26 for music publishers, plus 19% VAT. In addition, members must pay an annual fee of € 25.56”⁴⁴. This is the reason why it is not possible to compare the entrance fee to the risk premium.

Authors and users have to decide between the different risky options to administer the rights. Depending on the attitude that each person will have towards risk and the expected income, a more risky or a less risky option will be taken. If they are risk-averse they will choose the collective administration that implies a less risk in the administration, in this case they have to measure the amount of money they are willing to pay as risk premium to get rid of the risk. If they are risk-lovers, they have to counter-balance the amount of money that they are risking by the gamble compared with the amount of money that they have to pay as a risk premium. The optimal combination of risk and money left will be the optimal outcome, which implies that the administration that will leave the better utility and better expected income will be chosen, in this case individual administration. If they are risk neutral they will be indifferent to these money and risk variations.

3.2.2. Risk spreading

Collecting societies can reduce their risk through diversification⁴⁵. On the one hand, collecting societies develop their activities and collect the royalties coming from the performance of protected works in different mediums, e.g. television, radio, live performance, cable, telephone music on hold, ring-tones, background music, etc. This means that the royalties are recovered when the protected work has been performed lively or mechanically and that it covers all types of performances.

On the other hand, collecting societies are composed of all type of members, including well known and less known ones. As far as the collecting society offers a blanket license, the user has access to the repertory constituted by a bundle of protected works

⁴² See the ASCAP web site www.ascap.com.

⁴³ See the SACEM web page www.sacem.fr

⁴⁴ See the GEMA web site www.gema.de

⁴⁵ Diversification is the division of invested funds over numerous assets or stocks. The result is that each stock is a minuscule part of the portfolio... The consequence is that diversification reduces risk... But, despite their diversification, investors cannot avoid the overall risk of economic performance. GEORGAKOPOULOS, N., Principles and methods of law and economics. Basic tools for normative reasoning, New York, Cambridge University Press, (2005), p. 203.

belonging to two categories of artist: the known and the less known. In this sense and thanks to the notoriety of certain artists, the collecting society will be able to license the entire repertory including both categories of artists, implying the recovery of royalties for both of them. The annual rates for blanket licenses depends on the collecting society, but the majority of societies take into account the type of business including the size of the establishment and the potential audience and the manner in which the music is performed.

This wide scope of action let collecting societies to diversify their risk. As a consequence their administration is more efficient than individual administration.

CONCLUSION

The administration of copyright protected works can be conducted individually or collectively. Through individual administration, right-holders and users face two kinds of risks. On the one hand, they face information problems. On the other hand, in the majority of cases, right-holders do not have a strong bargaining position.

The information problem carries as a consequence on the one hand, that the right-holder would not efficiently set proper contract provisions, would not set a profit maximising price to the work, would not recover all the due royalties, would not efficiently detect all infringements in case of misuse of the work and will be obliged to prosecute in justice the transgressor in case of breach of the contract. On the other hand, users (consumers) neither have enough market information. This implies the risk of contracting with the wrong right-holder of the work, or contracting and paying the royalties to just a part of the right-holders and not to all right-holders of a specific protected work.

Not to have a strong market position entails the risk for the author to give up some of his rights while negotiating with a stronger party which has better bargaining power.

All these risks can be transferred to a collecting society which is placed in a better position to bear more efficiently the risk and to better administer the protected rights. This is due to a multiplicity of factors: collecting societies have a stronger bargaining position to bear the contractual risks; they can gather better market information to set a profit maximising price for the protected work; they have a stronger infrastructure to detect infringement of the protected work and thus to efficiently monitor; they can offer blanket licenses which constitute an incentive for users to obtain licenses. The combination of these elements makes collective administration less risky than individual administration. As collecting societies are better positioned to bear the risk, the probability of getting the expected income is more certain than with individual administration.

Each type of administration implies certain risks. The magnitude of the risks depends on the way the administration is carried out. The author has to compare the risk involved in each administration with the amount of money from his income that he is willing to give up in order to get rid of the risk. Hence, the author will compare the risk premium with the collecting society administration fee. If the administration fee is smaller than the risk premium, a risk-averse author will prefer to let the collecting society administer his rights. If the fee is larger, the author will prefer to administer his rights himself.

Taking into account that the majority of persons tend to be risk-averse, collective administration could be the better option to obtain the expected income of protected

rights administration. The author can benefit from the risk spreading possibilities of collective administration. He can simply invest in additional information adhering to a collecting society.