VISUAL ARTISTS' RESALE ROYALTY: AN APPLICATION OF THE PRINCIPAL AND AGENT MODEL

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ABSTRACT. The visual artist's resale royalty right entitles an artist to a percentage of the price received by subsequent owners when her works are resold. Adopted by the integrity of EU countries in 2006, the question of the Federal recognition of this right in the US is currently discussed. Economic analysis of this right mostly concluded its inefficiency. In this paper we examine the issue from the stand point of incentives provided by each legal framework, with and without this right, for the artists. We argue that an optimal mechanism designed to implement a maximum level artistic effort in the society coincides with the adoption of this right.

1. INTRODUCTION

The visual artists' Resale royalty or *droit de suite* entitles the author of an original work in the domain of visual arts to an economic interest in its successive sales. The *droit de suite* is granted to the authors of works for which the usual attributes of copyright can not appropriately function: unlike literary, musical and cinematographic works painting and sculpture cannot be dissociated from their original material form – in other words they cannot be copied. Therefore the artist's compensation becomes the price received form the sale of the original material form plus the eventual royalties from its reproduction through other media such as the painting's photography. This right originated in France (and that is why it is routinely called droit de suite in non French speaking countries as well). The painter Jean-François Millet's 1858 famous painting, *The Angélus,* was resold after the First World War at a considerable price while the artist's family was living in extreme poverty at exactly the same time, it is said the painter's daughter was selling flowers in the streets of Paris.[1] Two considerations have motivated the legislator to accord this right. The first one is purely financial. Given the partial dysfunctionality of reproduction of the copyrighted works in painting and sculpture the compensation of a non-negligible proportion of artists may become quite modest. On the other hand increases in the price of the works are mostly the result of the establishment of the artist's name. In economic terms there is an externality to be internalized that can also be interpreted as a fairness concern. Hence fairness considerations and

[1]Jean-François Millet (1814-1875) spent his youth working on the land, but by 1837 he arrived in Paris and eventually enrolled in the studio of Paul Delaroche. Peasant subjects from the early 1850s were Millet's principal concern, and as a result he periodically faced the charge of being a socialist. Important collections of Millet's pictures are to be found in the Museum of Fine Arts, Boston, and in the Louvre.

creating a supplementary compensation for the artist are the motivations behind *droit de suite.*

This right is specified in terms of percentage shares that are determined by law for several ranges of resale prices, normally in a regressive manner, while the average compensation of the artist arguably varies. It covers a period similar to the validity period of other copyrights. Moreover the right is inalienable which means the artist can not contractually or otherwise withdraw from the resale royalties. Note that not all works of art are eligible for resale royalty. In general all legislations have limited the right to the cases where first, the work is resold in an auction or *via* a professional dealer, and second its resale price is higher than a given threshold. In the table below we reproduced the ranges of resale prices and the legislative percentage share of the artist along the average amount of royalty received by the artist within each range as it is specified by the French legislator.

Resale Price in Euro	Royalty %	Average Royalty
1-3,000	0	0
3,001-50,000	4	1,060
50,001-200,000	3	3,750
200,001-350,000	1	2,750
350,001-500,000	0.5	2,125
500,000 and higher	0.25	$\geq$1,250

After the French recognition of this right in the early 20th century other countries in continental Europe gradually adopted it. Therefore legally speaking the resale royalty became a part of copyright dispositions in the Civil Law (as opposed to the Common Law) regimes. In the Common Law countries the adoption was long debated but has partially taken place recently as a result of the EU's harmonization in 2001, and so European Common law countries (UK and the Republic of Ireland) have now recognized this right. Furthermore Australia and New Zealand voted their national legislation in 2005. This right is not recognized by the US with the exception of the state of California. Given the considerable share of this country in the market for visual arts, recognition by the US is an important issue. Mainly this recognition would facilitate the international trade of paintings and sculptures and spare parties from considering issues that can be raised through conflicts of laws.

The federal US adoption of this right was debated not only from a legal stand point but also from the view point of economic efficiency. The economists who have analyzed the consequences of the resale royalty have generally concluded its inefficiency. For instance in Greffe (2005, pp. 139-145) it has been debated that this right is susceptible to reduce the number of transactions in the art market and may reduce the first sale price ultimately harming young artists, while a more general treatment of the issue is present in Coase (1972). The question is treated within an optimal risk sharing setting in Solow (1998). And still within an efficiency framework, the administrative costs of the implementation of this right have been considered in Stanford (2003). Those who are in favor of the recognition of this right tend to concentrate upon the uneven bargaining power between the artist and the art dealer, and condemn the profits that the dealers and auction houses make from young artists (see, for example, Perloff 2003). This division of opinion of economists has contributed to the non-harmonization of legislations at the universal level.

In this paper we examine the question within a principal and agent (PA) model and a justification of this choice is necessary. We believe that the PA model is appropriate for this analysis for several reasons. The first reason is the protectionist, and as a result, highly regulated nature of this right. As we mentioned in the previous paragraphs, the resale royalty right's content (the percentage received by the artist) is determined by the legislator but also the right is inalienable. These two attributes alone show that the contractual scheme is to a large extent dictated by the legislator. On the other hand in most Western countries the promotion of production of works of art is done under public policies. Hence the legislator has an objective to pursue in this domain, and this goal could be both maximization of the value of the artistic production and the implementation of the highest level of artistic effort.[2] Thus we find the PA model is a suitable framework. We will examine the question from a mechanism design approach taking the regulator (or legislator; these two words are used in this paper interchangeably) as the designer of a mechanism meant to induce the efficient contractual scheme in the context. Using the general framework of the PA model our conclusion is in favour of the recognition of this right as we show that it indeed implements a higher level of artistic effort while maximizing the value of artistic production. The approach taken is intuitive.

In the next section we make the necessary parallel between the PA model and our question and then we present the conclusion derived from the PA model. Then we set out the consequences of the first section's analysis with the generic legal framework of droit de suite to draw the conclusions about its efficiency. The paper then offers some concluding remarks.

2. The Parallel with Principal and Agent Model

We begin by introducing some notation that will facilitate the application of the PA model, however note that the treatment is intuitive. As we said in the introduction, in principle when we face a legislation on visual artists' resale royalty we have a legislator who is concerned about the aggregate value of the works of art along with the quantity produced, desiring to enact a contractual scheme to provide adequate incentives for the realization of these aims.

The specific PA model that we will apply relies on the presence of moral hazard, the necessary condition for which is unobservable effort. We argue that this is the case here. Let us assume that the value of the life time production of the artist i is given by y_i, and this quantity depends upon an effort level, e. However the effectiveness of the effort provided by the artist depends upon a stochastic factor θ that captures such things as the correspondence of her style to the critics' opinion and the public's taste as well as simply her luck. In order to be realistic, we assume that providing artistic effort involves some costs (disutility) for the artist. On the other hand each artist faces an alternative option of employment outside the production of the works of art. In other words the artist has a given level of reservation utility which can be attained by giving up her artistic career and entering some other employment.

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[2]Other options for the objective of the legislator are clearly possible. For example, we could assume that he would like to make artists better off (increasing their levels of utility), or the objective could be one of social welfare. We have elected to use the value of the artistic output since it appears to correspond to the cultural agenda of many legislators.

In order to make the analysis as intuitive as possible and without loss of generality we assume that the effort level is a discrete variable taking on only two levels,[3] high effort e_H and low effort e_L, where of course $e_H > e_L$. Likewise the value of the artistic production is also assumed to take two possible values, y_1 and y_2 with $y_1 > y_2$. In principle, either level of y is possible with either level of e, but y_1 is more likely to occur if the artist chooses e_H, and y_2 is more likely to occur if the artist's choice is e_L. Together, the fact that the legislator is assumed to be interested in the effort level of the artist, and *a priori* this effort is not deducible from the final value of the artist's production (at least before a certain amount of time has gone by, enough time for the art market to value the work), and the impossibility of monitoring such endeavours, the situation corresponds closely to what we have as moral hazard in the PA model. Given our assumption that the legislator desires a greater level of y, he would prefer the artist to choose e_H rather than e_L, and he must therefore devise a payoff mechanism that will provide the artist with the correct incentives to make that choice. To make the scenario of the PA model as intuitive as possible we shall assume that the artist can provide only one of the two levels of effort in a life time career, that is, she cannot switch between effort level choices over time.

The artist makes her decision over the quantity and quality of her life time production based on the level of compensation balanced by the costs of effort and considering the level of the outside option, or reservation utility. The level of compensation in turn is defined by the contractual terms. Obviously the contractual terms can provide incentives for either cases of high effort or low effort by the artist. Before going any further we shall clarify some points about the contractual terms. The phrase *contractual terms* as it is employed in this paper should be understood as the terms and conditions through which the life time production of an artist is compensated. As such it is better understood as an abstract concept standing for the total amount of money received by the artist as a result of the total number of sales (and resales if applicable) of the works.

Note that the explicit contractors are artists and art dealers hence the legislator is not directly a part of the contracts. However, by intervening in the normal functioning of the market the legislator assumes the role of drawing the guidelines of the contracts. As we mentioned in the introduction it is for this reason that in this paper the legislator is treated as the principal while the art dealer is not playing any explicit role. In other words given that the contractual terms become statutory in the presence of the usual legislations on the resale royalty right, the legislator can readily stand for the principal for she dictates the contractual terms. Finally, in correspondence with the standard PA model, in our setting it is plausible to assume that the agents in the model – the artists – are risk averse, while the principal – the legislator – is risk neutral.

Now, having sketched the general lines of the PA model, we can readily draw the conclusions that this model offers with respect to our subject mattter. Recall that in the PA setting we have two opposing conclusions of optimal contracting. One comes from optimal risk sharing according to which in such contractual settings the risk neutral party should assume all the risks which translates to a flat compensation

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[3]The effort choice by the artist can be interpreted in many ways, including time spent working, care taken while working, keeping up to date with what the market dictates as being valuable, etc.

for the agent, here the artist. On the other hand the nature of the undertaking implies that the agent's unobservable and costly effort has an impact on the realized profits of the venture – here the value of the works produced. The solution to the situation just described, moral hazard, in combination with the optimal risk sharing problem is evident from the PA model. The PA model concludes that besides the situation in which it is contractually agreed upon that the agent should provide the lowest level of effort, in which case she is paid a flat compensation, the agent's compensation should be adjusted to the level of realized profit in accordance with the probability distribution of the level of realized profit conditional of the level of effort. This implies that the agent must accept some risk since the effect of effort on the level of realized profit is stochastic, and so the utility level attained by the agent is also random. And recall that this compensation will in general include the possibility that it goes below the flat compensation depending on the probability distribution of the profit conditional on effort. These terms and conditions, as we know, are the second best contractual scheme.

If we admit that upon the intervention of the legislator in drawing the guidelines of the contracts in this domain we are facing a principal and agent setting then we can use the conclusions above to decide what an optimal contract might look like. At this point, we need to distinguish between the cases of low and high effort. In the case for which it is optimal that the artist only provides the low level of effort, it is optimal to spare her from risk taking and provide her with a flat compensation. Let us denote the wage compensation that achieves this choice by w_L. If the artist is paid w_L regardless of the final observed value of her output, then it will always be optimal for the artist to choose the low level of effort, so paying w_L is incentive compatible for the case of low effort. On the other hand, in the case for which it is optimal to induce the artist to provide the high level of effort the optimal compensation scheme must provide some variation of the compensation and the utility level of the artist based on the realized value of the life time production of the artist – that is, the artist must be made to accept some of the risk involved. In this case, call the artist's life time compensation $w(y) = \{w_1, w_2\}$, where w_1 is the compensation for the case when y_1 is observed to occur, and w_2 is the compensation for the case in which y_2 is observed to occur. We know from the standard PA model that in order for the high effort contract to be incentive compatible, we require $w_1 \geq w_L \geq w_2$.

In the next section we compare the optimal contract with the implications of resale royalty right.

3. APPLICATION

Here we explain how the current legislations on resale royalty right coincide with the general format of the optimal contract meant to implement high levels of artistic effort, e_H. We argued that an optimal contract which intends to implement higher levels of artistic effort (desirable from the hypothetical regulator's stand point) should provide artist's with a non-constant compensation, that is the artist should share the risk of the effectiveness of her artistic endeavor. As such the integral compensation of the artist may be lower or higher than the no royalty setting:

Let's call the artist's total compensation, for a single work of art, in a regime with no resale royalty NRR and let's call the total compensation in a regime with

resale royalty right RRR. NRR is then only the first sale price while RRR is either only the first sale price or the first sale price plus resale royalties.

$RRR = RRR_1 + \sum RRR_i$ where the subscript i is an index for each eligible for resale royalty right resale, hence the index i can range from 0 to quite a few.

It can be formally shown that with the resale royalty right the first sale price is likely to decline. The intuition is straight forward: a profit maximizing art-dealer is willing to pay a lower price for a painting or sculpture if the expected price received from the resales of the painting has be shared with the artist. On the other hand the willingness to accept of the artist for the first sale price will also decline if she expects to receive some revenues from the future resales. Hence the market equilibrium price of the first sale will decline compared to a jurisdiction in which no resale royalty right is accorded. If we call the first sale price in a resale royalty regime RRR_1 then one can readily see that $NRR > RRR_1$. However the total compensation of the artist in a resale royalty right regime, RRR, may be lower or higher than NRR. If the values of the artistic output are sufficiently low (even, perhaps, lower than the theshold required for the resale royalty to apply), then we will surely get $RRR < NRR$. This is the case of an artistic output of y_2. But if the artistic output is high (y_1), then the resale royalty will apply and only then is it possible that $RRR > NRR$. As we can see, RRR is an increasing function of the value of the artistic output which starts out (when $y = y_2$) below NRR, and if properly designed, it will go above NRR for the case when $y = y_1$. The positive impact of the resale royalty on an artist's compensation is the result of stochastic factors that may affect an artist success, *but also of her own effort* to maintain the stream of production in the art market and building up a name.

Now it can be seen that the above two conditions of the eligibility for resale royalty as *the presumptions of higher levels of artistic effort* the recognition of a resale royalty mimics the basic format of the optimal mechanism designed to implement e_H rather than e_L:

(i) The artist's compensation is not flat. It depends on the number of eligible resales;

(ii) The artist's compensation is jointly determined by a stochastic factor and artist's effort hence the artist takes some risk over her compensation and in turn her utility;

(iii) If the resale scheme is properly designed, the artist will have an incentive to provide higher levels of effort which translates into not giving up on the artistic career as her future success causes a reevaluation of her previous, already sold, works' and thus increased compensation as a result of resale royalties.

Now if we review the prescription of an optimal contract for the case in which it is optimal to implement the higher levels of artistic effort, we see the correspondence of the model's prescription and the relationship (implicit contract) between the artist and the legislator. Thus, we can see why a resale royalty regime is a way to achieve these goals.

4. CONCLUSION

We have argued that an optimal contractual design where the legislator's goal is to implement higher levels of artistic effort coincides with the adoption of the resale

royalty right.[4] Recalling the two features of the resale royalty right, protection of artists from profit-seeking behavior of dealers and promotion of artistic production by increasing the total compensation of artists, this right seems to be in general up to these tasks. However we believe there are some other questions that can be formally studied. We believe with respect to the *inalienable* nature of the resale royalty right in Civil law regimes where the prototype is French law one can argue that tby removing this constraint (the impossibility of withdrawing from the resale royalty right), the artist would be free to choose the framework (with or without royalty from the first sale or anytime afterward) that may be desirable. However given that the legal framework is *taken as given* it is possible that abolishing the mandatory nature of the resale royalty would modify both parties', artists and dealers, behavior. The other debatable issue with the resale royalty right is that in most systems the royalties are calculated on the basis of the integrality of each resale price rather than the increase in the work's price while an argument based on externalities would uniquely justify the latter conception, and we think more formal research can be carried out to compare the two alternatives. Moreover the cost of the second best equilibrium is inherently related to the risk preferences of the presumably risk averse party, the artist. Empirical, and perhaps experimental studies could be used to explore the appropriateness of the assumption that artists are indeed risk averse, and well as the magnitude of the eventual costs of the second best equilibrium.

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[4]This intuitive discussion can also be formalized mathematically.