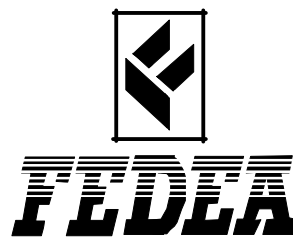


ESTUDIOS SOBRE LA ECONOMIA ESPAÑOLA

Optimal user charges on judicial litigation. An analysis for the Spanish case

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OPTIMAL USER CHARGES ON JUDICIAL LITIGATION

An Analysis for the Spanish Case*

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ABSTRACT: The paper studies the design of a user charge on judicial litigation, which aims both to reduce the congestion of the judicial system, and cover part of the direct costs of the system. In order to do that, we use an economic model, which embodies all the variables that affect both the individual decision to litigate, and the social consequences of it, i.e., congestion costs and higher judicial costs. The paper also makes use of numerical simulations in order to get a clearer idea of the parameters on which the user charge depends. The simulations have attempted to get a picture as close as possible of the present Spanish Judicial System, given the statistical information currently available.

JEL Code: K41, H21, H23

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1. Introduction

Through this short piece of work, we pretend to analyse by means of the economic theory the implementation of an optimal user charge on judicial litigation. Of course, the qualification of the user charge as optimal is conditioned on the aims that are behind the creation of the charge. In our case, that aims come directly from the current reality of the Spanish Judicial System. In particular, with respect to that system some opinions have stated that in the near future there will produce (even) longer delays in the Courts of Justice, unless some measures are adopted. Among these measures, some propose the restoration of the user tax ("tasa judicial"), which was abolished by the Parliament in 1986, due both to efficiency (?) and equity causes (Vid. Santos Pastor, 1993, pp. 307-9)¹.

Among those who have announced a likely increase in the congestion costs in the Courts, and to mitigate the problem propose the re-introduction of the "tasa judicial", we find Guillem Vidal, president of the Higher Court of Justice of Catalonia (TSCJ), or Joaquín Bayo, the Senior Judge of Barcelona. Namely, the latter is in favour of the "tasa judicial" "...in order to reduce the number of lawsuits, and so avoid that the society as a whole has to pay judicial actions that are run by big firms, which dispose of more than enough means to fund themselves their whims, but which make use of the justice due to its priceless character" (*La Vanguardia*, 23rd, March, 1999). Hence, according to him not only efficiency issues would justify the introduction of the charge (or any other policy), but also equity issues. From the academia, there has also emerged an outstanding analyst of the Spanish system that would find its reintroduction right, though he thought it was quite unlikely to happen, at least in the medium or short run (Santos Pastor, op. cit, p. 139).

This study does not enter into consideration of the degree of validity of the Senior Judge of Barcelona's statements, but simply takes them as given, and then using the tools of the economic theory designs a user charge that attempts to achieve the "great chaos" he foresees in the future does not happen. All the same, the introduction of the user charge is by no means the only solution to the congestion problems of Justice. Thus, we can clearly

¹ In the Appendix attached at the end of this paper, we describe the main characteristics of such user charge.

differentiate two completely different types of policies: first, policies that affect the supply of justice, and secondly, those policies that instead affect the demand of justice. The introduction of the user charge lies within this latter type of policy.

For example, a typical supply policy would consist in increasing the number of judges, or the material means at their disposal, so they both would be costly to the public sector. However, not all supply policies have to be costly, since they instead could consist in trying to improve the organisation of the system², or providing better incentives (in money terms, or labour promotion) to the judges to incite them to be more efficient (if possible). With respect to demand policies, these can at the same time be divided into two groups: those that directly condition the demand of justice through regulations, e.g., establishing minimum amounts of claimed liability in order to be able to access the service of the Courts of Justice; and second, those policies that affect indirectly the demand through variations in the price of the access to justice, e.g., establishing a user charge. Obviously, in order the charge be effective, the demand of access to Justice has to be sensitive to variations in the price, or put differently, in order the user charge be effective it must be relatively significant with respect to the expected benefit for the litigant that will emanate from the Judicial process.

As we have noted above, some of the supply policies have the disadvantage with respect to the demand policies that require to be financed from the Public Sector, while the latter do not, and additionally in the case of the user charge even provide extra public revenues³. However, this economic advantage clearly faces political problems of social acceptance, by the future potential plaintiffs (and by those who have clear vested interests

² For instance, within this particular type of supply policies, Bayo proposes (*La Vanguardia*, op. cit.). that the different accusations accumulated against the same person do not disperse, and be conducted to hands of the first judge in order this can apply the condition of recidivist immediately. The first section of the paper cites some other supply policies.

³ This is the usually so-called "double dividend" in the literature of environmental economics, when taxes are set up in order to correct negative environmental externalities. Nevertheless, that public resources do not always have to be consider as a "double dividend", especially in the case of the charge, as legally it is defined as a fiscal figure explicitly designed to cover the costs of a public service. Then, depending on the weight of the objectives attached to the charge, to cover the judicial costs or reducing delay in the service, the qualification of the extra public resources as first or double dividend shall be given.

in the market, typically the lawyers), as first, it means an increase in the fiscal pressure, and second would be against the fact socially accepted of the priceless and free character of the access to justice. In any case, and especially under those circumstances just cited, that type of supply policies that opt to improve the organisation of the courts of justice or increase the efficiency of the judges would undoubtedly represent the first best solution. Finally, the demand policy of setting minimum levels of claimed liability to access justice does not look nor equitable nor efficient. It does not look efficient to discriminate according the claimed liability, since this way frivolous suits ("litigios de bagatela" in Vidal's words), which are one of the most important causes of delay, would not be penalised. For example, suppose a minimum level of claimed liability of 1.200.000 ptas., then a suit in which a person/firm claims for 1.000.000 ptas., and has an objective probability of winning the case of 20% would not be able to access justice, while a person/firm that claims for 100.000.000 ptas, but with an objective probability of winning of 0.002% would do, though both claims have the same expected benefit. Therefore, frivolous suits would still be run, though their judicial costs and congestion costs are undoubtedly over the expected benefit, and that type of situations are normally inequitable as well, as those who engage in litigation when have so few chances of winning the case do so because the cost of litigation for them is very low, normally big firms, which usually dispose of their own team of lawyers⁴.

To conclude, we stress again that the role of this paper is nor assessing the degree of congestion of the judicial system in Spain nor discussing potential reasons of that (potential) congestion, which causes the delay in the judicial decisions⁵, nor recommend any particular judicial policy, but as a public economist working out how a user charge should be designed *if* there were important problems of congestion, and even problems of financing the judicial system, and *if* this solution were considered optimal and feasible over the rest of policies.

⁴ However, note that setting up minimum levels according to expected benefits like in the example above is technically impossible, since that we have called objective probability cannot be objectively known ex-ante, but after a minimum revision of the case with minimum legal guarantees. In any case, the aim of the example is to show up how the minimum standards should ideally be established, and the perverse consequences of not doing so.

⁵ Vid. Santos Pastor (1989) on the effects of congestion on the judicial system.

The structure of the paper is as follows: in the next section, we discuss some aspects of the Spanish Judicial System that were stressed in a recent White Report on the Spanish Judicial System (1997); in section three, we present the model that describes the behaviour of all the agents involved in the decision to engage in litigation; next, we construct a numerical simulation of the model in order to get a clearer picture of the optimal user charge with respect to changes in key variables that affect the model⁶; finally, we present some conclusions.

2. The White Paper on Justice (1997)

Before studying the shape of an optimal user charge, we will comment certain aspects of the Spanish Judicial System. In order to do so, we will employ the Report that was done in 1997 to assess the present situation of the Administration of Justice in Spain. That Report also provides valuable data about the delays in several bodies of the administration of justice and the opinion of the people with respect to the Courts of Justice.

First, the Report offers interesting statistics about the delays that currently operate in the Spanish Judicial System (p. 255):

Table 1: *Global Numbers of initial delays in the Administrative Jurisdiction during the period 1995-1996*

<i>Year</i>	<i>Pending cases at the beginning of the year</i>	<i>Incoming</i>	<i>Solved</i>	<i>Pending cases at the end of the year</i>	<i>Minimum initial delay (in months)</i>
1995	210.061	138.079	103.967	244.173	28,18
1996	244.173	141.232	113.767	271.638	28,65

⁶ Unfortunately, though the analytical model we think can be applied to the Spanish Judicial System, we have not been able to properly calibrate the numerical model in order it could totally replicate such System. The lack (or sometimes, enough reliability) of all the necessary information is the cause of it. However, the White Report we comment in Section 2 has permitted to us to discern some key parameters of the analytical model in order to carry out the numerical simulations.

Given that numbers, and taking a discount rate equal to 5%, each pta. claimed transformed into 0,8917 ptas. due to delays in 1995, and into 0,8900 in 1996⁷.

Second, through and extensive inquiry the Report finds out to what extent the people makes use of the Justice in order to solve conflicts (vid. pp. 366 and 367 of the Annex of the Report). In particular, when they are asked “What would you do if were in conflict with other person?”, the 60,3 % answered they would try to get a private agreement, the 13,5 % would ask for the intervention of a third person outside the Judicial System, and finally, the 23 % would use the Judicial System. Obviously, the cases that are embodied in that particular question are civil, while the main congestion produces in the administrative arena (*contencioso-administrativo*). However, the percentage of the 23% sheds light on to what extent the people makes use of the Judicial System, though it does not on who particularly does it to a greater extent, i.e., big firms versus individual persons.

Third, the Report also stresses the importance of enjoying of a reliable statistical source with respect to the Judicial System (pp. 67-69):

“ A reliable statistics and not only based on quantitative issues, but also qualitative information, is the indispensable starting point (...) for any Judicial policy. Issues like the judicial personnel, the definition of personnel needs,..., the study of litigation, and so the analysis of potential legal and organisation reforms, must have their foundation on a good statistics system” (p. 67).

Unfortunately, this study will still lack such statistical foundation (Vid. footnote 6 of the paper).

Finally, among others, the Report cites the following inconveniences of the present system (pp. 315-318):

⁷ From now on, we will call “discount rate” the rate at which one pta. claimed at the present moment transforms into the future.

- a) Imprecision in the share of competencies among the bodies that form the Administration of Justice.
- b) Malfunctions in the management between the regional governments and the State bodies.
- c) Delays and ineffectiveness.

Hence, the Report simply stresses problems of supply, since even the problem c) is according to the Report due to the multiplicity of requests and authorities within the judicial system. Given this, it is logical that the proposals of the Report focus on supply policies. For instance, they propose (pp. 318-324):

- i) Simplification of requests.
- ii) Competencies attribution to the regional governments.
- iii) Simplification of the organic and functional bodies.

On the whole, the Report serves to us: first, to obtain valuable information to carry out the simulations, and second, makes us explicit the importance of the supply aspects that negatively affect the Judicial System. Hence, according to the Report, it is likely that the user charge by itself does not completely eliminate all the problems of administration of Justice in Spain.

3. The Model

To find out what should the optimal user charge on the decision to litigate be, we will suppose N -identical potential plaintiffs. In order to simplify notation, along all the text we will set $N=1$. The structure of the sequential decisions of the agent involved in the decision is the following:

1st. The Social Planner sets up a user charge conditional on the decision of a plaintiff (P) to litigate.

2nd. A P balances the expected costs, which include the charge, and benefits of engaging in litigation against another agent, the defendant, D . We do not allow for the possibility of private settlement between P and D , either because its costs are too high (in comparison to litigation), or simply due to not having been able to reach an agreement. If expected costs are lower than expected benefits, she engages in litigation, otherwise she does not, and the game ends at this stage.

3rd. If according to (2) P decides to engage in litigation, she asks for representation to an advocate (A), who then decides whether to accept or not the case (as we will later show, this will not become a binding assumption in our model).

4th. If A does accept the case, next she has to decide the level of effort that will exert on the case on behalf of P .

Our main objective is to find out the optimal user charge that has to be imposed on the decision to litigate, given the externalities litigation generates, which we will later on properly describe, and a certain amount of income to be collected to cover judicial expenses. As usual, we have to operate backwards to solve such kind of sequential problems, and so each agent will take as given the decision of those who precede her. Therefore, we start solving the fourth stage.

3.1. *Once A has accepted the case, decides what level of effort to exert.*

The solution to this first problem will be trivial. The notation we will use is the following: p_j is the probability the j - P has of winning the case, so $p_j \in [0,1]$, which value is set according to A 's beliefs, which are private information; $K(E)$ is the rate of transformation of that probability, which varies according to the level of effort, E , exerted by A , $K(E) \geq 1$; X_j is the liability P claims for; α is the percentage of such liability A earns iff P wins the case; $\tilde{Z}$ is the fixed amount of money A charges to P by her legal services, independently of the final result of the trial; finally, $C_A(E)$ are the costs of the advocate by

having represented P , which depend positively on her effort. The variables depending on E we assume have the following properties⁸:

$$\begin{aligned} \partial K / \partial E \equiv K'(E) \geq 0; \quad K''(E) \leq 0; \quad K(0) = 1; \quad K(\infty) = K_{\max} \equiv \bar{K}; \text{ and } K'(E) = 0 \Rightarrow E \rightarrow \infty \\ C'_A(E) \geq 0; \quad C''_A(E) \geq 0; \quad C_A(0) = C_A^{\min} \equiv \underline{C}_A \text{ (i.e., fixed costs); and } C'(E) = 0 \Rightarrow E \rightarrow 0 \end{aligned}$$

We assume A will choose the level of effort from the following maximisation problem:

$$\begin{aligned} \text{Max}_E \quad & K(E) \cdot \tilde{p}_j \cdot [(\alpha \cdot X_j) + \tilde{Z} - C_A(E)] + [1 - (K(E) \cdot \tilde{p}_j)] \cdot [\tilde{Z} - C_A(E)] \end{aligned}$$

from the First Order Condition (FOC) with respect to E , we implicitly obtain the optimal level of effort, E^* ,

$$E : \quad K'(E^*) \cdot \tilde{p}_j \cdot (\alpha \cdot X_j) = C'_A(E^*), \quad [1]$$

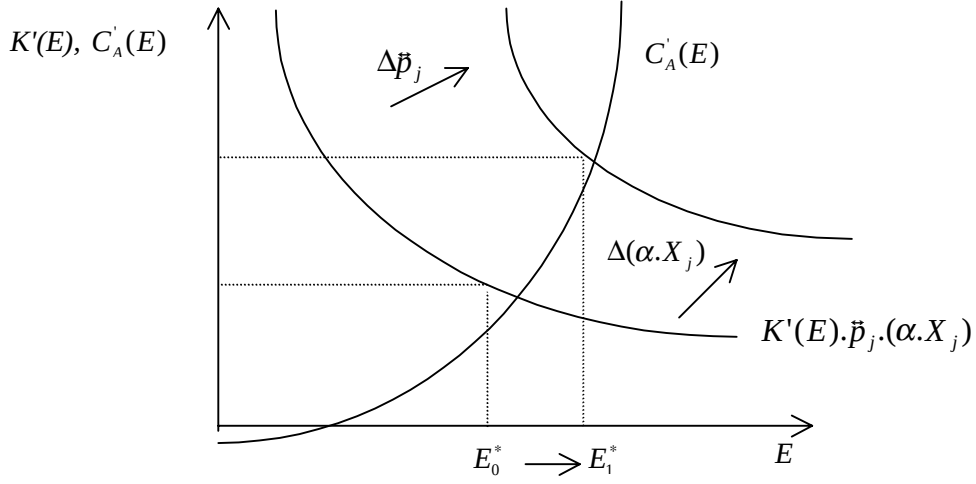
that is, at the optimum, A equalises the marginal benefit from exerting an additional unit of effort (left-hand side of the FOC) to its marginal cost (right-hand side). Hence, we have obtained the function of A 's effort, which expresses as $E^* = e(\tilde{p}_j, X_j, \alpha)$. Operating simple comparative static over that FOC, we can sign out the following derivatives:

$$\frac{dE}{d\tilde{p}_j} = (\alpha \cdot X_j) \cdot \left\{ \frac{(K')^2}{K' \cdot C''_A - K'' \cdot C'_A} \right\} \geq 0; \quad \frac{dE}{d(\alpha \cdot X_j)} = (\tilde{p}_j) \cdot \left\{ \frac{(K')^2}{K' \cdot C''_A - K'' \cdot C'_A} \right\} \geq 0$$

as $K' \cdot C''_A - K'' \cdot C'_A \equiv \omega \geq 0$. The level of effort of A increases with the amount of the variable retribution, and the subjective probability of winning the case. The graph below shows the advocate's effort at equilibrium and the direction of variations from that

⁸ For functions of a single variable, partial differentiation is indicated by a prime; for functions of several variables, total differentiation is indicated by subscripts.

equilibrium.



Note the following particular cases ("corner solutions"):

- 1) If $\alpha.X_j = 0$, or $\bar{p}_j = 0$, or both, the FOC transforms into $C'_A(E^*) = 0$, and $E^* \rightarrow 0$ (recall she has already accepted to represent P 's legal interests).
- 2) If $C'_A(E) = 0, \forall E$, then $K'(E^*) \cdot \bar{p}_j \cdot (\alpha.X_j) = 0$, so $K'(E^*) = 0$, and consequently $E^* \rightarrow \infty$.

3.2. The Advocate decides whether to represent or not the Plaintiff.

In order to make such decision, A ponders the following inequality, given an optimal level of effort she will exert, E^* :

$$K(E^*) \cdot \bar{p}_j \cdot (\alpha.X_j) \geq W_0 - \bar{Z} + C_A(E^*) \quad [2]$$

W_0 is the "reservation rent" A can earn non-accepting the case. Depending on the structure

of the market of advocates, these rents will be greater than, or 0 (in this latter case, the market for A's is perfectly competitive, and so does not leave to them rents). From expression [2], we find out the "critical level of probability"⁹, $\tilde{p}_j$, beyond which A will accept the case, and viceversa,

$$\tilde{p}_j = \frac{W_0 - \bar{Z} + C_A(E^*)}{\alpha.X_j}, \quad \text{so } \tilde{p}_j = \tilde{p}(W_0, \bar{Z}, X_j, \alpha) \quad [3]$$

From now on, we will assume that such "critical level" is non-binding, i.e., $\bar{Z}$ is big enough with respect to $W_0 + C_A(E^*)$. Therefore, in the case P decides to litigate (which depends on the binding constraint we will next analyse), A will always accept the case.

3.3. The Plaintiff decides whether to litigate or not.

P 's problem will be very similar to the previous one. Hence, P will find it optimal to litigate iff the following condition holds:

$$K(E^*).p_j.[\delta.(1-\alpha).X_j - \tilde{Z} - T] - [1 - (K(E^*).p_j)].[\tilde{Z} + T] \geq 0 \quad [4]$$

i.e., she will litigate always in the case the expected benefits are greater than expected costs, taking as given A's effort (see section 2.1), and A's "critical level of probability" (see 2.2). δ is the inter-temporal rate of discount of the expected benefits P is claiming for, p_j is P 's subjective probability (normally, different from $\tilde{p}_j$), and T is a user charge conditional on accessing the Courts of Justice.

We can then state P 's probability level, p_j , beyond which it is optimal for her to litigate,

⁹ See, e.g., Polinsky and Rubinfeld (1998).

$$\bar{p}_j = \frac{\tilde{Z} + T}{\bar{\delta} \cdot X_j \cdot (1 - \alpha) \cdot K(E^*)} \leq 1 \quad [5]$$

so $\bar{p}_j = \bar{p}_j(X_j, \tilde{Z} + T, 1 - \alpha, \bar{\delta})$, as we already know $\tilde{p}_j$ is non-binding, or in other words, it is always the case that $\bar{p}_j \geq \tilde{p}_j$. Note that $\bar{\delta}$ is taken as given by P , so the discount rate is a parameter, $\bar{\delta}$, though we will next see this is not the case, but $\bar{\delta}$ depends on $\bar{p}_j$.

Again, operating comparative static over the implicit function given by [5], we find out the following reactions of P :

$$\frac{dp_j}{dT} = \frac{1}{X_j \cdot (1 - \alpha) \cdot \bar{\delta} \cdot \{K^* + \bar{p}_j \cdot K'_{E^*} \cdot E_{p_j}\}} \geq 0 \quad [6]$$

An increase in the user charge unambiguously strengthens the conditions to find it optimal to litigate; exactly the same analytical formula applies for marginal variations in $\tilde{Z}$. Variations in the expected net award, $(1 - \alpha) \cdot X_j$, that derives from litigation produces a decrease in $\bar{p}_j$,

$$\frac{dp_j}{d[(1 - \alpha) \cdot X_j]} = -\frac{p_j}{(1 - \alpha) \cdot X_j} \cdot \left\{ \frac{K^* + (1 - \alpha) \cdot X_j \cdot K_E \cdot E^*_{(1 - \alpha) \cdot X_j}}{K^* + \bar{p}_j \cdot K_E \cdot E_{p_j}} \right\} \leq 0 \quad [7]$$

as can be checked from [1], $E^*_{(1 - \alpha) \cdot X_j} = (1/\varpi) \cdot [C'_A \cdot K' / (1 - \alpha) \cdot X_j] \geq 0$, so *ceteris paribus*, induces more litigation.

The discount rate can be lessened in function of the level of litigation, so from this fact derive the "congestion costs" of the judicial system. P takes such value as given when taking her private decisions, from which follows a negative externality on the rest of plaintiffs, which depends on the level of litigation in the following way,

$$\delta = \delta[\Omega(p_j)], s.t. \delta_\Omega \leq 0 \quad [8]$$

where $\Omega \equiv 1 - F(\bar{p}_j) = \int_{\bar{p}_j}^1 f(\bar{p}_j) d\bar{p}_j$, being $F(\bar{p}_j)$ the distribution function of potential plaintiffs over $\bar{p}_j$, $f(\bar{p}_j)$ is the density function, and as we have previously said the total population of potential plaintiffs has been normalised to the unity. We assume that when the distribution of potential plaintiffs above the "critical level of probability" increases, i.e., there is more demand for litigation, there will be more congestion, and so the discount rate will be lower. Thus, $\delta_\Omega \leq 0$. Another externality derived from the decision to litigate comes from the fact that the plaintiffs when forming such decision do not take into account the increase provoked in the marginal judicial costs either. That is, this latter type of cost depends on the total amount of plaintiffs, $\Omega(\bar{p}_j)$, such that $C_\Omega \geq 0$, where C are the judicial costs.

3.4. The Social Planner sets up a user charge on litigation.

In function of all previous optimal behaviours, the Social Planner (SP) designs a user charge, in such a way that pretends to achieve a minimum amount of revenue collection, and most important, it is designed to incite P to internalise the negative effects on congestion and judicial costs her decision to engage on judicial litigation provokes.

To model such objective, we will assume the SP minimises the summation of those two types of costs, given the demand of litigation, expression [5], and an external revenue requirement, R^{10} . Therefore, the SP's problem is the following:

¹⁰ That seems to us a reasonable objective function, given a positive social benefit of the judicial system itself, which we take as a parameter. In words, Pastor (1993, p. 42) attach a very similar objective to judicial policy, which would consist "... in the maximisation of the access to Justice, given an amount of resources, or in the minimisation of the social costs of the process (those derived from the judicial errors and direct costs), given a level of judicial tutelage". In a different way, Shavell (1982) defines the "socially appropriate" incentive to bring suit such that private parties take into account the legal expenses of the process, but also the potential benefit that her action derives in the reduction of the likelihood the potential defendants cause damages to the potential plaintiffs.

$$\begin{aligned}
& \underset{T}{Min} \quad C(\bar{p}) - \delta(\bar{p}) \equiv \underset{T}{Max} \quad \delta(\bar{p}) - C(\bar{p}) \\
& \text{s.t.} \quad T \cdot \int_{\bar{p}_j}^1 f(p_j) \cdot dp_j \geq R \quad (\beta)
\end{aligned}$$

which FOC expresses as follows:

$$T : \quad \delta_{\Omega} \Omega_{p_j} \cdot \bar{p}_T^j - C_{\Omega} \cdot \Omega_{p_j} \cdot \bar{p}_T^j + \beta \cdot \{T \cdot \Omega_{p_j} \cdot \bar{p}_T^j + \Omega\} = 0$$

where $\bar{p}_T^j$ has already been characterised in [6]. We define the "marginal social costs of litigation" $\pi \equiv (C_{\Omega} - \delta_{\Omega})/\beta \geq 0$, as the increase in litigation costs (congestion costs and judicial costs per se) in terms of social planner's revenue, β , when the number of plaintiffs increases¹¹, so from the FOC can show the implicit optimal user charge as:

$$T^* = \pi + \frac{\theta(p_j)^{-1}}{p_T^j} = \pi + \frac{X_j \cdot (1 - \alpha) \cdot \bar{\delta} \cdot (K^* + \bar{p}_j \cdot K_{E^*} \cdot E_{p_j}^*)}{\theta(p_j)} \geq 0 \quad [9]$$

once we have inserted expression [7], and $\theta(\bar{p}_j) = f(\bar{p}_j)/(1 - F(\bar{p}_j))$ is the conditional probability that the amount of plaintiffs decreases when the "critical level of probability", $\bar{p}_j$, marginally increases, given that up to that point there are $1 - F(\bar{p}_j)$ plaintiffs. This is the so-called "hazard rate". Therefore, we can clearly check how the charge is additively composed by two parts: the first one contains the negative effects on congestion and judicial costs derived from litigation, and the second one, complies with the revenue requirement¹². In the following section, on the basis of the theoretical model, we carry out a series of numerical simulations in order to describe the Spanish Judicial System as close as

¹¹ Note the total number of plaintiffs is $N \cdot \Omega$, where in our case, in order to simplify notation, we have set $N = 1$.

¹² Note how the shape of the optimal user charge in [9] follows the so-called *Sandmo Additivity Property*, Sandmo (1975). That is, the taxation of a good or service that produces negative externalities is additively composed by two parts, on the one hand, that which internalises the social damage caused by its consumption, and on the other hand, that which attempts to obtain public revenues at the least marginal cost.

possible.

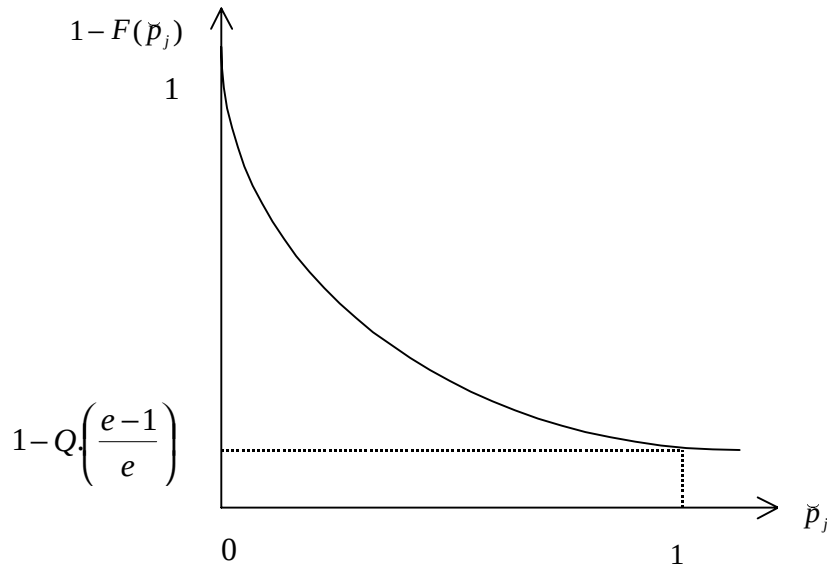
4. A numerical example: Comparative static

4.1. Methodology

The numerical simulations will serve us to get a clearer idea of the how the optimal user charge, implicitly defined by [9], depends on certain variables of the model, so developing a comparative static study. To do so, we will first assume some functional forms that will relate all the variables we have previously defined. First, we assume $\tilde{p}_j$ follows an exponential distribution,

$$F(\tilde{p}_j) = Q.(1 - e^{-\tilde{p}_j}); \quad \text{and} \quad f(\tilde{p}_j) = Q.e^{-\tilde{p}_j} \quad [10]$$

where Q is a constant to be calibrated from the numerical example, which reflects other factors different from $\tilde{p}_j$ that can influence the decision to litigate, e.g, degree of optimism, opportunity costs of litigation, both in time terms and money terms, or any other that might affect the tendency of the population (or the individual, since recall $N=1$) to litigate.



According to [10], graphically represented above, even when $\check{p}_j = 1$, as long as $Q \leq \frac{e}{e-1}$, some potential litigants will engage in litigation, while if $\check{p}_j = 0$, all the litigants will do, independently of the value of Q .

With respect to congestion costs, we model them in the following way:

$$\delta = \delta \cdot (1 - \Omega^2); \text{ s.t. } \partial\delta/\partial\Omega = -2 \cdot \Omega \cdot \delta \leq 0, \text{ and } (\partial(\partial\delta/\partial\Omega)/\partial\Omega) = -2 \cdot \delta \leq 0 \quad [11]$$

so we assume congestion costs are increasing in the number of plaintiffs. δ is the base or minimum discount rate (there is an unavoidable delay due to the normal administrative process, given the structural characteristics of the judicial system), such that if $\Omega \rightarrow 0$, the discount rate approaches the normal one, and in the limit when $\Omega = 1$ (all the potential plaintiffs become real litigants) the discount rate reaches its minimum, so $\delta \in [0, \delta]$.

The judicial costs we assume evolve according to the following formula, C ,

$$C = FC + c \cdot \Omega^2; \text{ s.t. } \partial C/\partial\Omega = 2 \cdot c \cdot \Omega \geq 0, \text{ and } (\partial(\partial C/\partial\Omega)/\partial\Omega) = 2 \cdot c \geq 0 \quad [12]$$

FC are the judicial fixed costs, while c is the variable cost. Total costs are increasing in the amount of plaintiffs. Hence, if $\Omega \rightarrow 0$, there would only be fixed costs (e.g., the buildings of the courts), while if $\Omega = 1$, $C = FC + c$ (recall we have normalised the number of potential plaintiffs to one). We can again range the judicial costs within a closed interval, $C \in [FC, FC + c]$.

Finally, the private costs of the advocate, C_A , are represented in the following way:

$$C_A = FC_A + c_A \cdot (E^2 - 1); \text{ s.t. } \partial C_A/\partial E = 2 \cdot c_A \cdot E \geq 0, \text{ and } (\partial(\partial C_A/\partial E)/\partial E) = 2 \cdot c_A \geq 0 \quad [13]$$

Thus, $E \geq 1$, and if $E = 1$, null level of effort, there are not variable costs for A ;

$C_A \in [FC_A, \infty]$. The function that relates the efforts of A with the positive results for P of winning the trial represents as:

$$K = \log E, \text{ s.t. } \partial K / \partial E = 1/E \geq 0, \text{ and } (\partial(\partial K / \partial E) / \partial E) = -1/E^2 \leq 0 \quad [14]$$

so we assume that A has to exert a minimum level of effort, $E \geq 1$, in order P has chances of winning, independently of her original probability of doing it.

4.2. Numerical Results

In the Tables attached to the end of the paper (after the appendix), we present the value of the optimal user charge, according to variations in the amount of claimed liability (X). Nevertheless, we will do so within different contexts: first, depending on the way the advocate charges her services to the plaintiff; second, depending on the value of the unitary judicial costs through c ; third, for different values of what we have called base discount rate (δ); and finally, for different values of the unitary costs of the advocate (c_A). Given the lack of statistical information of the Spanish Judicial System (vid. footnote 6), we have calibrated a system that only partially reflects the Spanish one, with the hope that in the future it will be possible to do reflect it completely. Therefore, given the following artificial values:

$$\tilde{Z} = 100.000 \text{ ptas}; c = 4.000 \text{ ptas}; FC = 0; c_A = 2.000; \alpha = 0,05; X = 1.000.000 \text{ ptas};$$

we have set $\hat{\delta} = 0.95$, and $\Omega = 0,23$ (according to the data presented in Section 1 of the paper), in such a way that using expression [11] we have:

$$\delta = \hat{\delta}(1 - \Omega^2) = 0,95.(1 - 0,23^2) = 0.899745$$

i.e., such value approximates very closely to the value given by the Table 1 (with a "discount rate" of 5%): each pta. claimed approximately transforms into 0.9 ptas. Given all

that parameters, in the calibration we have obtained $Q = 6,76029$. That means that

$$\begin{aligned} \text{if } p_j &= 0, \text{ then } \Omega \equiv 1 - F(p_j) = 1 \\ \text{if } p_j &\geq 0.16, \text{ then } \Omega \equiv 1 - F(p_j) = 0 \end{aligned}$$

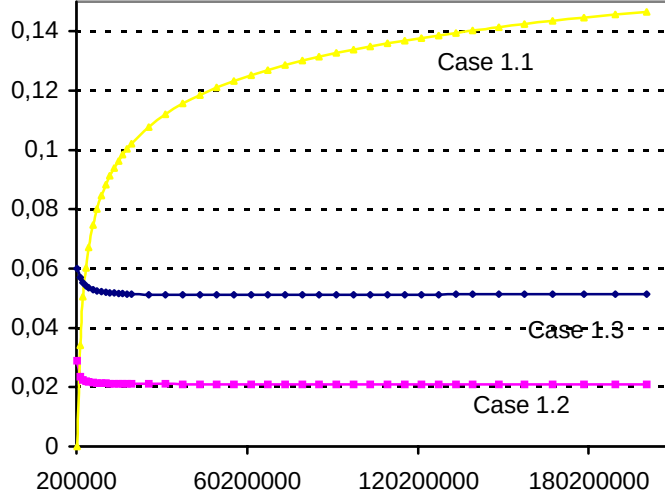
Finally, the shadow price of public resources (the Lagrangean multiplier of the Social Planner's problem) has been set to one, $\beta = 1$. Later on, in the numerical simulations, such parameter also keeps that value, and can be shown that the results are not very sensitive to variations of β .

A) *Optimal user charge for different methods of payment to the advocates.*

In order to accommodate the fixed fee, $\tilde{Z}$, to the amount of liability, X , ex-ante the simulations, we have calculated the former as a parameter always equal to 10% of X , independently of the result of the trial. In Tables 3.1, 3.2 and 3.3, we present the value of the user charge with the particularity that each of them reflects a different method of payment to the advocates. In the first case (1.1), it would be the “normal one”, the advocate charges a fixed amount and a percentage of X in case of winning the case ($\alpha = 0.05$); in the second case (1.2), he charges only a fixed amount, so $\alpha = 0$ (analytically, that supposes according to the assumptions set up in section 3.1 that $E^* = 0$, and $K(E^*) = 1$), $\tilde{Z}$ is a 10% higher than its normal value; and finally, in the third case (1.3), $\alpha = 0.25$ and $\tilde{Z} = 0$. The next graph compares the value of the average user charge rate, $AT^* = T^*/X$, in each of the three payment systems quoted above.

That one quoted as “normal case” is the one which implies for all values of claimed liability both the greatest average user charge and greatest marginal user charge (case 1.1), being the average tax rate increasing in the claimed liability, while the other two cases, case 1.3 and case 1.2, the average user charge remains practically constant at 5,5% and 2%, respectively.

Graph 1: Average user charge rate for different methods of advocates charges



In comparison with case 1.1, the presence of a greater value of $\tilde{Z}$ in case 1.2 "mitigates" the need of T , since both variables have the same effects on the demand of litigation (see expression [5]). In case 1.2, given that $\alpha = 0$, $K=1$, we have that

$$\tilde{p}_j = \frac{Z + T}{\delta X}; \quad T = \pi + \frac{\delta X}{\theta(\tilde{p}_j)}$$

so the "critical probability level" and the average tax rate remains practically constant along all the range of values of X . Moreover, in conjunction with what has just been stated above, the high value of $\tilde{p}_j$ provokes the low value of T , since θ is increasing in $\tilde{p}_j$ as we will later show.

In case 1.1, the percentage of litigants is always greater, and so are the negative externalities. Anyhow, the correct comparison to do is within each case, i.e., between the situation with and without charges given a system of payment. Thus, in both situations we can check from the Tables how the introduction of the user charge provokes an important

decrease in the variable judicial costs, and at the same time an increase in the inter-temporal discount rate.

Finally, the method of payment that reflects the case 1.3 brings about high percentages of litigation, since then, for example, without user charge, P would always engage in litigation (see expression [5], for $T = \tilde{Z} = 0$), and so A would do in accordance with our assumptions of section 3.2 that rule her behaviour. This is so since according to the method of payment "cuota litis" all the risks of litigation fall on A , but as derives from our model, she will accept the case, so the great level of litigation. In spite of this fact, which points out in the direction of increasing the value of T , we can check how the second part of expression [9] points out right in the opposite direction, i.e., to a decrease in T . This latter fact is due to the lower value of the net claimed liability, $(1 - \alpha)X$, and to the lower value of the discount rate. This decrease in the net claimed liability and in δ with respect to case 1.1 makes the optimal user charge to be lower, despite the higher percentages of litigation for all values of X .

On the other hand, we can finally check how the shape of the average user charge is decreasing in $\tilde{p}_j$. This is partly due to the increasing "hazard rate", which recall appears in the denominator of the second part of expression [9]:

$$\frac{\partial \theta(\tilde{p}_j)}{\partial \tilde{p}_j} = \frac{Qe^{-\tilde{p}_j}(Q-1)}{(1-Q-Qe^{-\tilde{p}_j})^2} \geq 0; \quad \frac{\partial}{\partial \tilde{p}_j} \left(\frac{\partial \theta(\tilde{p}_j)}{\partial \tilde{p}_j} \right) = \frac{(Q-1)Qe^{-\tilde{p}_j}[1-F(\tilde{p}_j)]}{[Q-1+f(\tilde{p}_j)]^3} \geq 0$$

where the second partial derivative effectively holds for $Q=6,76029$. This provokes that the higher the "critical probability level", the higher the "hazard rate", and so *ceteris paribus*, the lower the optimal user charge. This is so since at a high "critical probability level", the marginal loss of plaintiffs due to an increase in the user charge is great, given all the litigants-contributors that have already been lost up to that point, so the "marginal cost of taxation" is higher then. This property specially applies to case 1.1, while for case 1.2 $\theta(\tilde{p}_j)$ remains practically constant for all values of X , and in case 1.3 we have seen such

effect compensates for the low value of claimed liability and lower discount rates for all X .

B) *Optimal user charge for different values of normal discount rate, δ .*

In this second simulation (see Tables 3.1, 4.1, 4.2, 4.3 and 4.4), the values of δ , are 0,95 (case 1.1), 0,8 (case 2.1), 0,6 (case 2.2), 0,3 (case 2.3) and 1 (case 2.4). The rest of values are identical to those used in the calibration. A higher “normal or base discount rate”, δ , can mean two very different things: either a structural inefficiency of the Judicial System, or a greater accuracy of the judicial process result, i.e. there produce less mistakes in the judicial decision. However, in our model, since the accuracy of the result is not contemplated (otherwise, it should have been included in the objective function to be maximised by the Social Planner), so we assume zero judicial errors, a higher “normal or base discount rate” has to be interpreted as higher inefficiency of the judicial process, *ceteris paribus*.

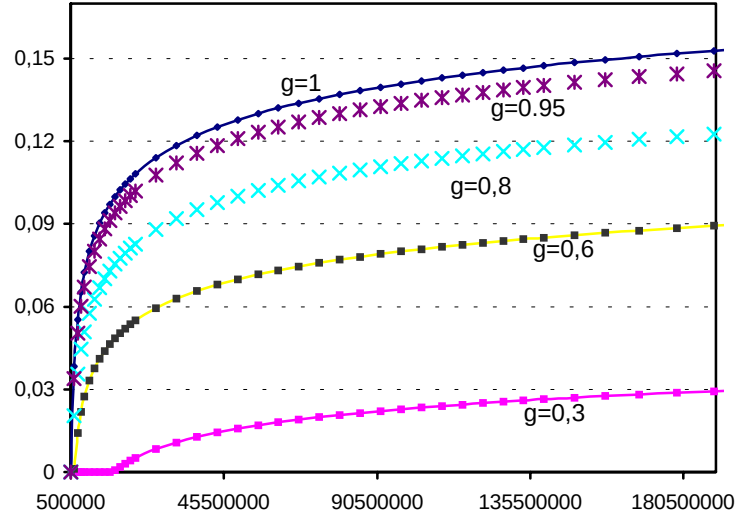
The effects of a variation in the base discount rate are very similar to those that would produce in front of variation in the claimed liability. However, in the former case they are not so acute, since variations in δ do only affect the critical level of probability of P^{13} , but not A 's effort, which remains constant for any value of δ (see expression [1]).

We can observe from the implicit expression [9] how a greater δ , both supposes an increase in the value of π , and also an increase in the part of T that aims to collect revenues for all values of X . The reason is simple: first, a greater δ decreases $\bar{p}_j$ (see expression [5]), which *ceteris paribus* provokes more congestion and judicial costs, so the need of a greater T (through π); and second, for an increasing “hazard rate” in $\bar{p}_j$, we check how a greater value of δ also supposes a greater T in the second part of expression [9] at an increasing rate, since can be checked how the “marginal tax rate”, $(\Delta T / \Delta X)$, is increasing, though the average tax rate is decreasing.

¹³ Recall that the plaintiff considers the discount rate as a parameter when forming the “critical probability level”, so $\delta = \bar{\delta}$.

Then, graphically the optimal user charge evolves according to the variation of X for the different values of δ in the following way:

Graph 2: Average user charge rate for different "normal" discount rates



Note that in the graph $g \equiv \delta$. Paradoxically, our optimal user charge provokes that the more inefficient the administration of justice is, the lower the average user charge rate is for each value of X .

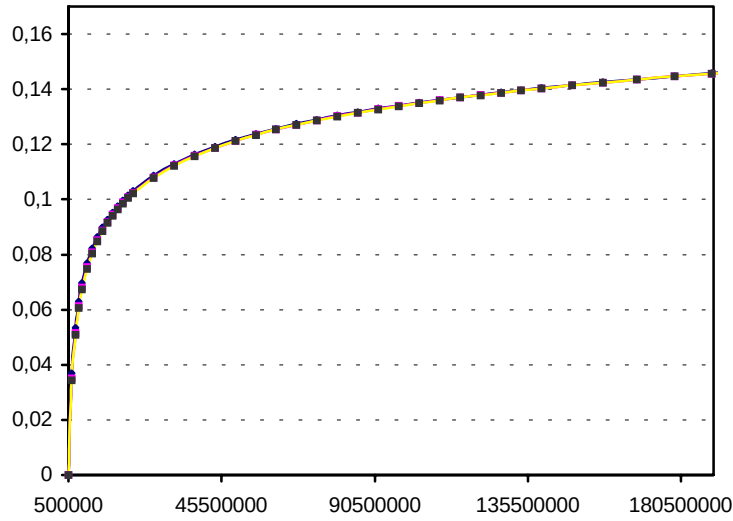
C) *Optimal user charge for different values of unitary judicial costs, c .*

In this case, we allow to vary the unitary judicial costs which enter the expression of total judicial costs in [12], and then obtain an optimal user charge in each case for the different values of X . These values of c are: 4.000 ptas (case 1.1), 8.000 ptas (case 3.1), 15.000 ptas.(case 3.2), 35.000 ptas (case 3.3). The results are shown in Tables 3.1, 5.1, 5.2 and 5.3, respectively.

As expected, if we compare all four cases from the Tables, can check how the optimal user charge is increasing in the value of the unitary judicial costs in order to

internalise the externality that arises in the judicial costs. However, graphically, we can observe how in relative values with respect to X the user charge does not vary much in each one of the situations. This is provoked by the relatively small value of c in comparison with the values of X .

Graph 3: *Average user charge rate for different unitary judicial costs*



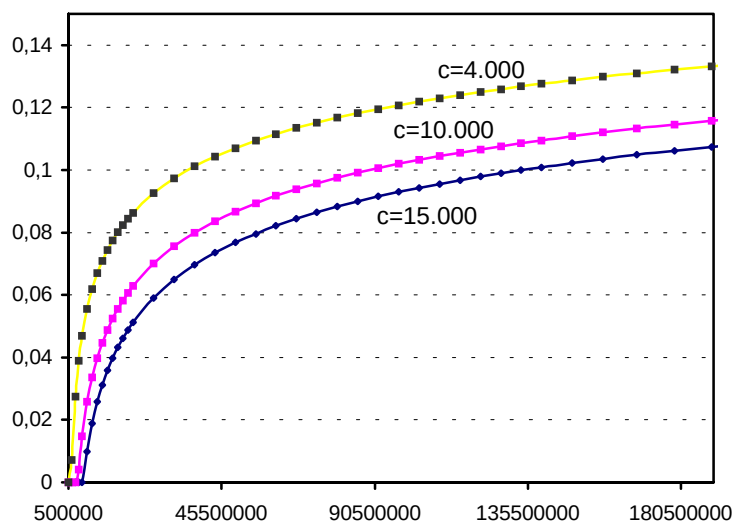
D) *Optimal user charge for different values of unitary advocate's costs, c_A .*

The values of c_A we have used for the comparative static analysis have been: 2.000 ptas. (case 1.1), 4.000 ptas. (case 4.1), 10.000 ptas. (case 4.2) and 15.000 ptas. (case 4.3), and the results are shown in Tables 3.1, 6.1, 6.2 and 6.3, respectively.

A higher value of c_A unfailingly provokes a decrease in A 's effort, E , as can be easily checked from total differentiation of expression [1]. Hence, this fact causes an increase in the P 's critical level of probability, $\bar{p}_j$, and so less demand of litigation, and less congestion and direct judicial costs, keeping all the rest of parameters of the model constant. This forces the reduction of the optimal user charge together for all values of X .

This last comparative analysis, together with that one analysed in the series of cases 3, has simply served us to bear in mind that when setting up the user charge if we want to achieve certain objectives will have to be taken into account the context in which litigation develops.

Graph 4: *Average user charge rate for different unitary advocates' costs*



5. Conclusions

We end the paper with some comments, which only partially pretend to justify the introduction of the user charge, since the comments of the Introduction still apply. The "tasa judicial" was abolished in 1986, precisely when the "Value Added Tax" (VAT) was introduced in the Spanish Fiscal System. Some of those who are against the user charge, correctly argue that the VAT, which is paid by the plaintiff for the advocates' services, has occupied the space left by the user charge. According to our model, that is true, since it would add in the numerator of expression [5], through the increase of the advocates' fees. However, the tax base of the VAT are the advocate's fees while the tax base (as we have considered it) of the user charge rate is the claimed liability. Therefore, the effective

average tax rate of the VAT will always be below the simulated values of the user charge. Moreover, in most of the simulated cases, the “optimal” average user charge rate is increasing in the monetary amount of the claimed liability, while in the VAT the average tax rate is constant.

The responsibility of setting up such user charge is in hands of the regional governments (*Comunidades Autónomas*), which on behalf of the central government administer such public function within their territory¹⁴. Given their secular lack of own financial instruments, we think the introduction of the user charge (which revenue collection in 1985 was about 6.000 millions of ptas.) would be positive from the perspective of their fiscal responsibility. However, this kind of matters have to be carefully dealt at the political level, that is, citizens shall not see the restoration of the user charge as a mere increase in the fiscal pressure, but a means to correct the *potential* inefficiencies and inequities of the judicial system¹⁵.

The political economy of introducing such a user charge would suppose the implementation of a tax schedule in function of the claimed liability. That is the objective parameter on which the user charge should be based on. However, if the Social Planner has information about a certain group of potential plaintiffs that has a lower inherent "critical probability level", e.g. big firms, she could decide either to apply the user charge only to that group or simply set up two different tax schedules. That is a decision of the Social Planner on the basis of her private information and social judgements.

The Table below reflects the dividends the “user charge” would offer in different settings (according to diverse cases properly described in section 4.2)¹⁶: first, the user

¹⁴ Vid. López (1994), especially pp. 160-164, about the competencies the Spanish regional governments have on the administration of justice.

¹⁵ The social attitude towards increases in fiscal pressure and towards the functioning of the Spanish Judicial System is well reflected in the following statement of Alvira and García (1999), which derives from public-opinion polls: "The Administration of Justice works badly, and most of the society does not think that it needs more funding..." (p. 28). Additionally, among all the public services provided by the State "Justice" is the service with the worst qualification, and with a decreasing valuation since 1994 (vid. Table 1, p. 27).

¹⁶ The quantitative results of the introduction of the "user charge" should be taken carefully, since we have

charge lessens the externalities of litigation that produce both in the discount rate and in the unitary judicial costs; and, second, it allows the public administration to collect additional revenues. Thus, the user charge makes possible to achieve two dividends, the main one, the internalisation of the externalities that emanate from judicial litigation, and the second one, to collect additional revenues. However, we also stress a third dividend, which we have already cited in the paragraph above: the possibility of using the fiscal responsibility by the regional governments. This is a qualitative dividend, but also very important, given the claims for more revenues of the regional governments. Of course, not all the regional governments would need to establish such user charge, but would depend on their particular litigation demand, judicial costs structure and social objective function to maximise: that means fiscal responsibility.

Table 2: *Main results in the demand of judicial litigation, variable judicial costs and discount rate due to the introduction of the “user charge” (at X=6.000.000 ptas)*

	<i>Case 1.1</i>	<i>Case 1.2</i>	<i>Case 1.3</i>	<i>Case 2.2</i>	<i>Case 3.2</i>	<i>Case 4.2</i>
<i>User charge (ptas.)</i>	447.557	127.885	317.540	199.458	452.351	154.516
<i>Decrease in the number of litigants</i>	47,33%	57,97%	18,92%	51,66%	47,83%	57,16%
<i>Increase in the discount rate</i>	40,44%	4,57%	∞%	12,63%	40,73%	7,83%
<i>Decrease in the variable judicial costs</i>	72,26%	82,33%	34,25%	76,63%	72,78%	81,64%

already said that the currently available information for Spain is limited.

6. References

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APPENDIX:

Description of the Spanish “user charge” on judicial litigation before 1986

In fact, legally what existed before 1986 was not a user charge on judicial litigation, but an indirect tax on it (Vid. *Texto Refundido de la Ley del Impuesto sobre Trasmisiones Patrimoniales y Actos Jurídicos y Documentados*, Act 3050/1980, 30th December, Arts. No. 40 to 47). Therefore, it was a tax, so the revenue collected from it was not affected to the provision of Justice. Despite this legal fact, with respect to the economic effects on judicial litigation there is no difference between both tax figures, it is still a higher cost for the litigant. Next, we describe the main elements that shaped the tax.

Among others, the facts that caused the tax due were (arts. 51.1, 51.2):

- a) Jurisdictional resolutions and arbitration awards, the writings of those related with them, and also those formalities and judicial proceedings that are carried out, and testimonies.
- b) The writings addressed to the public administrations, and certificates, licences, permissions and authorisations that emanate from them.

In case a), the person or persons legally obliged to pay the tax are those interested by the resolutions or arbitration award. In case b), the person that addresses the writings, or the person to whom such writings are addressed (art. 52).

The tax base (art. 53) was normally the monetary amount of claimed liability. In penal cases, the tax base will be calculated as the summation of the fines and pecuniary sanctions to be imposed.

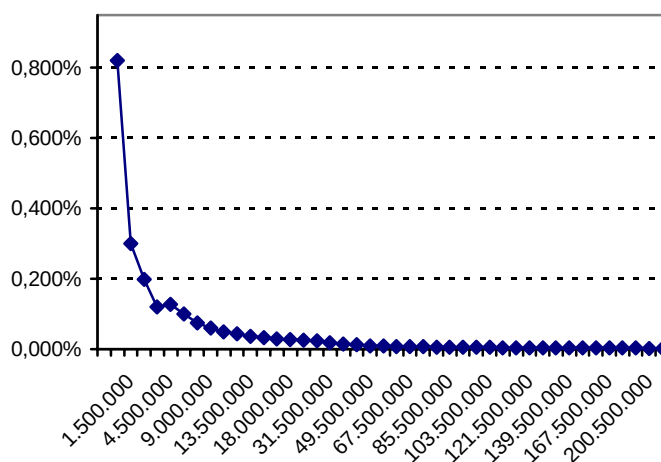
Finally, the tax due was calculated from the tax schedule that we present below (note we have transformed the monetary amounts that appear in the original tax schedule into 1999 prices). Then, the tax due depended both on the amount of claimed liability, and

on the number of sheets of the resolution that emanates from the Judge. The tax price per sheet was increasing in the amount of claimed liability. In those cases that the claimed liability was not pecuniary each sheet implied a tax price of 82 ptas.

Table: *Spanish Tax Schedule on Judicial litigation before 1986*
(Act 3050/1980, Art. 54.2)

<i>Claimed liability</i>	<i>Ptas per sheet</i>
Up to 2.721 ptas	14
2.722 - 13.606 ptas	27
13.607 - 68.031 ptas	41
68.032 - 272.124 ptas	82
272.125 - 680.309 ptas	150
680.310 - 1.360.618 ptas	231
1.360.619 - 2.721.236 ptas	299
2.721.236 - ptas	449

Graph : *Average tax rate on judicial litigation (No. of sheets: 10)*



The fact the tax price per sheet was increasing in absolute values with respect to the claimed liability did not impede the tax was regressive with respect to the amount of claimed liability (i.e., the average tax rate is decreasing), as the graph right above shows (in the graph, the average tax rate has been calculated setting the number of sheets equal to 10 independently of the monetary valuation of the claimed liability). Moreover, the average tax rates are well below to any set of simulated average tax rates according to our model. However, we stress again the aim of a tax is not the same of a user charge, so this could explain the divergence between our simulated values and those that emanate from the effective tax rates given by the tax schedule applicable before 1986¹⁷. That is, as we have said in the beginning of the paper “the qualification of the user charge (or the tax figure) as optimal is conditioned on the aims that are behind the creation of the charge” (or the tax figure), and then if the aims are not equal, the tax figures cannot be compared in terms of optimality.

¹⁷ Additionally, one could argue that the necessary number of sheets for a judicial writing depends positively on the amount of claimed liability.

Table 3.1: *Optimal user charges for different values of claimed liability, where advocates' fees embody both a proportional and a fixed amount*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1709	0	0,9500	0,00%	0,1945	0	0,9500
1.500.000	51.016	15,99%	0,1327	102	0,9257	36,27%	0,0990	526	0,8250
2.500.000	126.093	22,79%	0,1213	208	0,9007	47,64%	0,0806	908	0,7344
3.500.000	210.764	26,51%	0,1151	281	0,8832	53,15%	0,0718	1130	0,6817
4.500.000	301.939	28,99%	0,1110	336	0,8702	56,56%	0,0664	1280	0,6461
6.000.000	447.557	31,55%	0,1068	398	0,8554	59,90%	0,0611	1435	0,6091
7.500.000	601.214	33,37%	0,1038	445	0,8442	62,16%	0,0576	1546	0,5829
9.000.000	761.130	34,75%	0,1015	483	0,8353	63,83%	0,0550	1630	0,5630
10.500.000	926.155	35,86%	0,0997	514	0,8278	65,13%	0,0530	1697	0,5471
12.000.000	1.095.489	36,78%	0,0982	541	0,8215	66,18%	0,0513	1752	0,5340
13.500.000	1.268.540	37,56%	0,0969	564	0,8160	67,05%	0,0500	1798	0,5229
15.000.000	1.444.858	38,23%	0,0958	585	0,8111	67,80%	0,0488	1839	0,5133
16.500.000	1.624.085	38,82%	0,0949	603	0,8068	68,44%	0,0478	1874	0,5050
18.000.000	1.805.933	39,35%	0,0940	619	0,8029	69,01%	0,0469	1905	0,4975
19.500.000	1.990.165	39,82%	0,0932	634	0,7993	69,52%	0,0461	1933	0,4909
25.500.000	2.747.342	41,33%	0,0908	683	0,7877	71,09%	0,0437	2022	0,4698
31.500.000	3.530.860	42,45%	0,0890	721	0,7788	72,23%	0,0420	2087	0,4544
37.500.000	4.335.243	43,33%	0,0876	751	0,7717	73,10%	0,0406	2137	0,4424
43.500.000	5.156.863	44,04%	0,0864	776	0,7657	73,79%	0,0395	2178	0,4327
49.500.000	5.993.147	44,64%	0,0854	797	0,7607	74,37%	0,0386	2213	0,4245
55.500.000	6.842.172	45,16%	0,0846	816	0,7562	74,87%	0,0379	2242	0,4175
61.500.000	7.702.453	45,61%	0,0839	832	0,7523	75,29%	0,0372	2268	0,4115
67.500.000	8.572.807	46,02%	0,0832	847	0,7488	75,66%	0,0367	2290	0,4061
73.500.000	9.452.271	46,38%	0,0826	860	0,7457	76,00%	0,0362	2310	0,4013
79.500.000	10.340.045	46,70%	0,0821	872	0,7428	76,29%	0,0357	2328	0,3970
85.500.000	11.235.455	47,00%	0,0816	884	0,7402	76,56%	0,0353	2345	0,3931
91.500.000	12.137.926	47,27%	0,0812	894	0,7377	76,81%	0,0349	2360	0,3895
97.500.000	13.046.962	47,52%	0,0808	903	0,7354	77,04%	0,0346	2374	0,3862
103.500.000	13.962.128	47,76%	0,0804	912	0,7333	77,24%	0,0342	2387	0,3832
109.500.000	14.883.046	47,97%	0,0801	921	0,7314	77,44%	0,0339	2399	0,3803
115.500.000	15.809.376	48,18%	0,0798	928	0,7295	77,62%	0,0337	2410	0,3777
121.500.000	16.740.818	48,37%	0,0794	936	0,7277	77,79%	0,0334	2420	0,3752
127.500.000	17.677.102	48,55%	0,0792	943	0,7261	77,94%	0,0332	2430	0,3729
133.500.000	18.617.984	48,72%	0,0789	949	0,7245	78,09%	0,0329	2439	0,3707
139.500.000	19.563.244	48,88%	0,0786	956	0,7230	78,23%	0,0327	2448	0,3686
148.500.000	20.988.904	49,11%	0,0783	965	0,7209	78,43%	0,0324	2460	0,3657
157.500.000	22.423.354	49,32%	0,0779	973	0,7190	78,61%	0,0322	2472	0,3630
167.500.000	24.026.850	49,53%	0,0776	981	0,7169	78,79%	0,0319	2483	0,3602
178.500.000	25.801.694	49,76%	0,0772	990	0,7148	78,98%	0,0316	2495	0,3573
189.500.000	27.587.326	49,96%	0,0769	998	0,7129	79,16%	0,0313	2506	0,3547
200.500.000	29.383.078	50,15%	0,0766	1006	0,7110	79,32%	0,0311	2517	0,3523

Table 3.2: *Optimal user charges for different values of claimed liability,
where advocates' fees are a fixed quantity*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	14.497	7,99%	0,1463	319	0,9439	26,08%	0,1158	1.043	0,8854
1.500.000	35.423	11,30%	0,1406	452	0,9379	26,08%	0,1158	1.043	0,8854
2.500.000	56.344	11,97%	0,1395	479	0,9364	26,08%	0,1158	1.043	0,8854
3.500.000	77.265	12,25%	0,1390	490	0,9357	26,08%	0,1158	1.043	0,8854
4.500.000	98.185	12,41%	0,1388	497	0,9354	26,08%	0,1158	1.043	0,8854
6.000.000	129.566	12,55%	0,1385	502	0,9350	26,08%	0,1158	1.043	0,8854
7.500.000	160.946	12,64%	0,1384	505	0,9348	26,08%	0,1158	1.043	0,8854
9.000.000	192.326	12,69%	0,1383	508	0,9347	26,08%	0,1158	1.043	0,8854
10.500.000	223.707	12,73%	0,1382	509	0,9346	26,08%	0,1158	1.043	0,8854
12.000.000	255.087	12,76%	0,1382	510	0,9345	26,08%	0,1158	1.043	0,8854
13.500.000	286.467	12,78%	0,1381	511	0,9345	26,08%	0,1158	1.043	0,8854
15.000.000	317.847	12,80%	0,1381	512	0,9344	26,08%	0,1158	1.043	0,8854
16.500.000	349.227	12,82%	0,1381	513	0,9344	26,08%	0,1158	1.043	0,8854
18.000.000	380.608	12,83%	0,1380	513	0,9344	26,08%	0,1158	1.043	0,8854
19.500.000	411.988	12,84%	0,1380	514	0,9343	26,08%	0,1158	1.043	0,8854
25.500.000	537.509	12,87%	0,1380	515	0,9343	26,08%	0,1158	1.043	0,8854
31.500.000	663.030	12,89%	0,1379	516	0,9342	26,08%	0,1158	1.043	0,8854
37.500.000	788.551	12,90%	0,1379	516	0,9342	26,08%	0,1158	1.043	0,8854
43.500.000	914.071	12,91%	0,1379	517	0,9342	26,08%	0,1158	1.043	0,8854
49.500.000	1.039.592	12,92%	0,1379	517	0,9341	26,08%	0,1158	1.043	0,8854
55.500.000	1.165.113	12,93%	0,1379	517	0,9341	26,08%	0,1158	1.043	0,8854
61.500.000	1.290.634	12,93%	0,1379	517	0,9341	26,08%	0,1158	1.043	0,8854
67.500.000	1.416.155	12,93%	0,1379	517	0,9341	26,08%	0,1158	1.043	0,8854
73.500.000	1.541.676	12,94%	0,1379	517	0,9341	26,08%	0,1158	1.043	0,8854
79.500.000	1.667.196	12,94%	0,1379	518	0,9341	26,08%	0,1158	1.043	0,8854
85.500.000	1.792.717	12,94%	0,1379	518	0,9341	26,08%	0,1158	1.043	0,8854
91.500.000	1.918.238	12,94%	0,1379	518	0,9341	26,08%	0,1158	1.043	0,8854
97.500.000	2.043.759	12,94%	0,1379	518	0,9341	26,08%	0,1158	1.043	0,8854
103.500.000	2.169.280	12,95%	0,1379	518	0,9341	26,08%	0,1158	1.043	0,8854
109.500.000	2.294.801	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
115.500.000	2.420.321	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
121.500.000	2.545.842	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
127.500.000	2.671.363	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
133.500.000	2.796.884	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
139.500.000	2.922.405	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
148.500.000	3.110.686	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
157.500.000	3.298.967	12,95%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
167.500.000	3.508.168	12,96%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
178.500.000	3.738.290	12,96%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
189.500.000	3.968.411	12,96%	0,1378	518	0,9341	26,08%	0,1158	1.043	0,8854
200.500.000	4.198.533	12,96%	0,1378	518	0,9340	26,08%	0,1158	1.043	0,8854

Table 3.3: *Optimal user charges for different values of claimed liability, where advocates' fees are proportional and conditional on the result of the trial ("cuota litis")*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	30.036	59,78%	0,0613	1429	0,6105	100,00%	0,0000	4.000	0,0000
1.500.000	85.508	72,46%	0,0416	2100	0,4512	100,00%	0,0000	4.000	0,0000
2.500.000	138.140	76,36%	0,0356	2333	0,3960	100,00%	0,0000	4.000	0,0000
3.500.000	189.830	78,43%	0,0324	2460	0,3656	100,00%	0,0000	4.000	0,0000
4.500.000	241.079	79,76%	0,0304	2544	0,3457	100,00%	0,0000	4.000	0,0000
6.000.000	317.540	81,08%	0,0284	2630	0,3255	100,00%	0,0000	4.000	0,0000
7.500.000	393.752	81,99%	0,0270	2689	0,3114	100,00%	0,0000	4.000	0,0000
9.000.000	469.849	82,66%	0,0260	2733	0,3009	100,00%	0,0000	4.000	0,0000
10.500.000	545.894	83,18%	0,0252	2768	0,2926	100,00%	0,0000	4.000	0,0000
12.000.000	621.922	83,61%	0,0245	2796	0,2859	100,00%	0,0000	4.000	0,0000
13.500.000	697.953	83,96%	0,0240	2820	0,2803	100,00%	0,0000	4.000	0,0000
15.000.000	773.998	84,26%	0,0236	2840	0,2754	100,00%	0,0000	4.000	0,0000
16.500.000	850.066	84,53%	0,0232	2858	0,2713	100,00%	0,0000	4.000	0,0000
18.000.000	926.159	84,76%	0,0228	2873	0,2676	100,00%	0,0000	4.000	0,0000
19.500.000	1.002.281	84,96%	0,0225	2887	0,2643	100,00%	0,0000	4.000	0,0000
25.500.000	1.307.067	85,60%	0,0215	2931	0,2540	100,00%	0,0000	4.000	0,0000
31.500.000	1.612.328	86,05%	0,0208	2962	0,2465	100,00%	0,0000	4.000	0,0000
37.500.000	1.918.023	86,40%	0,0203	2986	0,2408	100,00%	0,0000	4.000	0,0000
43.500.000	2.224.111	86,68%	0,0199	3006	0,2361	100,00%	0,0000	4.000	0,0000
49.500.000	2.530.550	86,92%	0,0195	3022	0,2323	100,00%	0,0000	4.000	0,0000
55.500.000	2.837.307	87,12%	0,0192	3036	0,2290	100,00%	0,0000	4.000	0,0000
61.500.000	3.144.350	87,29%	0,0190	3048	0,2262	100,00%	0,0000	4.000	0,0000
67.500.000	3.451.656	87,44%	0,0188	3058	0,2236	100,00%	0,0000	4.000	0,0000
73.500.000	3.759.203	87,58%	0,0186	3068	0,2214	100,00%	0,0000	4.000	0,0000
79.500.000	4.066.970	87,70%	0,0184	3076	0,2194	100,00%	0,0000	4.000	0,0000
85.500.000	4.374.944	87,81%	0,0182	3084	0,2176	100,00%	0,0000	4.000	0,0000
91.500.000	4.683.108	87,91%	0,0181	3091	0,2159	100,00%	0,0000	4.000	0,0000
97.500.000	4.991.450	88,00%	0,0179	3097	0,2144	100,00%	0,0000	4.000	0,0000
103.500.000	5.299.960	88,08%	0,0178	3103	0,2129	100,00%	0,0000	4.000	0,0000
109.500.000	5.608.627	88,16%	0,0177	3109	0,2116	100,00%	0,0000	4.000	0,0000
115.500.000	5.917.443	88,23%	0,0176	3114	0,2104	100,00%	0,0000	4.000	0,0000
121.500.000	6.226.399	88,30%	0,0175	3119	0,2092	100,00%	0,0000	4.000	0,0000
127.500.000	6.535.488	88,37%	0,0174	3124	0,2082	100,00%	0,0000	4.000	0,0000
133.500.000	6.844.704	88,43%	0,0173	3128	0,2071	100,00%	0,0000	4.000	0,0000
139.500.000	7.154.041	88,49%	0,0172	3132	0,2062	100,00%	0,0000	4.000	0,0000
148.500.000	7.618.260	88,57%	0,0171	3138	0,2048	100,00%	0,0000	4.000	0,0000
157.500.000	8.082.722	88,64%	0,0169	3143	0,2036	100,00%	0,0000	4.000	0,0000
167.500.000	8.599.056	88,72%	0,0168	3148	0,2023	100,00%	0,0000	4.000	0,0000
178.500.000	9.167.326	88,80%	0,0167	3154	0,2009	100,00%	0,0000	4.000	0,0000
189.500.000	9.735.894	88,87%	0,0166	3159	0,1997	100,00%	0,0000	4.000	0,0000
200.500.000	10.304.739	88,94%	0,0165	3164	0,1986	100,00%	0,0000	4.000	0,0000

Table 4.1: Optimal user charges for different values of claimed liability, and base discount rate=0,8

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1813	0	0,8000	0,00%	0,2310	0,0000	0,8000
1.500.000	30.816	10,66%	0,1417	45	0,7909	25,01%	0,1176	250,1086	0,7500
2.500.000	88.889	17,72%	0,1298	126	0,7749	38,28%	0,0957	586,2349	0,6828
3.500.000	155.747	21,61%	0,1232	187	0,7626	44,73%	0,0853	800,3128	0,6399
4.500.000	228.559	24,20%	0,1189	234	0,7532	48,73%	0,0789	949,8769	0,6100
6.000.000	345.885	26,88%	0,1145	289	0,7422	52,65%	0,0726	1108,9862	0,5782
7.500.000	470.570	28,79%	0,1113	331	0,7337	55,31%	0,0684	1223,5560	0,5553
9.000.000	600.985	30,24%	0,1089	366	0,7268	57,26%	0,0653	1311,6636	0,5377
10.500.000	736.079	31,41%	0,1070	395	0,7211	58,79%	0,0629	1382,4803	0,5235
12.000.000	875.117	32,37%	0,1054	419	0,7162	60,03%	0,0610	1441,2272	0,5118
13.500.000	1.017.559	33,19%	0,1041	441	0,7119	61,06%	0,0593	1491,1308	0,5018
15.000.000	1.162.993	33,90%	0,1029	460	0,7081	61,93%	0,0580	1534,3107	0,4931
16.500.000	1.311.091	34,52%	0,1019	477	0,7046	62,69%	0,0568	1572,2273	0,4856
18.000.000	1.461.589	35,08%	0,1010	492	0,7016	63,36%	0,0557	1605,9257	0,4788
19.500.000	1.614.270	35,58%	0,1001	506	0,6987	63,96%	0,0548	1636,1763	0,4728
25.500.000	2.243.541	37,17%	0,0975	553	0,6895	65,81%	0,0519	1732,6005	0,4535
31.500.000	2.896.940	38,35%	0,0956	588	0,6824	67,15%	0,0498	1803,5326	0,4393
37.500.000	3.569.451	39,27%	0,0941	617	0,6766	68,17%	0,0482	1858,9892	0,4282
43.500.000	4.257.754	40,03%	0,0929	641	0,6718	69,00%	0,0469	1904,1510	0,4192
49.500.000	4.959.489	40,66%	0,0919	661	0,6677	69,68%	0,0459	1942,0192	0,4116
55.500.000	5.672.899	41,21%	0,0910	679	0,6641	70,26%	0,0450	1974,4771	0,4051
61.500.000	6.396.622	41,69%	0,0902	695	0,6610	70,76%	0,0442	2002,7785	0,3994
67.500.000	7.129.574	42,11%	0,0895	709	0,6581	71,20%	0,0435	2027,7961	0,3944
73.500.000	7.870.873	42,49%	0,0889	722	0,6555	71,59%	0,0429	2050,1612	0,3900
79.500.000	8.619.786	42,84%	0,0883	734	0,6532	71,94%	0,0424	2070,3433	0,3859
85.500.000	9.375.697	43,15%	0,0878	745	0,6510	72,26%	0,0419	2088,7002	0,3823
91.500.000	10.138.078	43,44%	0,0874	755	0,6490	72,55%	0,0414	2105,5109	0,3789
97.500.000	10.906.474	43,71%	0,0869	764	0,6472	72,82%	0,0410	2120,9972	0,3758
103.500.000	11.680.490	43,95%	0,0865	773	0,6455	73,06%	0,0407	2135,3371	0,3729
109.500.000	12.459.775	44,18%	0,0862	781	0,6438	73,29%	0,0403	2148,6760	0,3703
115.500.000	13.244.020	44,40%	0,0858	788	0,6423	73,50%	0,0400	2161,1346	0,3678
121.500.000	14.032.950	44,60%	0,0855	796	0,6409	73,70%	0,0397	2172,8127	0,3654
127.500.000	14.826.317	44,79%	0,0852	802	0,6395	73,89%	0,0394	2183,7949	0,3632
133.500.000	15.623.899	44,97%	0,0849	809	0,6382	74,06%	0,0391	2194,1536	0,3612
139.500.000	16.425.492	45,14%	0,0846	815	0,6370	74,23%	0,0389	2203,9504	0,3592
148.500.000	17.635.004	45,38%	0,0842	824	0,6353	74,46%	0,0385	2217,7063	0,3565
157.500.000	18.852.572	45,60%	0,0839	832	0,6336	74,67%	0,0382	2230,4668	0,3539
167.500.000	20.214.280	45,83%	0,0835	840	0,6319	74,89%	0,0378	2243,6280	0,3513
178.500.000	21.722.238	46,07%	0,0831	849	0,6302	75,12%	0,0375	2257,0290	0,3486
189.500.000	23.240.086	46,29%	0,0828	857	0,6286	75,32%	0,0372	2269,4478	0,3461
200.500.000	24.767.210	46,49%	0,0825	865	0,6271	75,52%	0,0369	2281,0088	0,3438

Table 4.2: *Optimal user charges for different values of claimed liability, and base discount rate=0,6*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,2008	0	0,6000	0,00%	0,3079	0	0,6000
1.500.000	1.886	0,77%	0,1587	0	0,6000	1,90%	0,1568	1	0,5998
2.500.000	35.482	8,31%	0,1458	28	0,5959	18,99%	0,1276	144	0,5784
3.500.000	76.663	12,49%	0,1386	62	0,5906	27,33%	0,1137	299	0,5552
4.500.000	122.983	15,28%	0,1339	93	0,5860	32,52%	0,1052	423	0,5365
6.000.000	199.458	18,19%	0,1290	132	0,5802	37,62%	0,0968	566	0,5151
7.500.000	282.284	20,25%	0,1255	164	0,5754	41,08%	0,0912	675	0,4988
9.000.000	370.055	21,84%	0,1229	191	0,5714	43,63%	0,0871	761	0,4858
10.500.000	461.864	23,10%	0,1208	214	0,5680	45,62%	0,0839	832	0,4751
12.000.000	557.077	24,16%	0,1190	233	0,5650	47,23%	0,0813	892	0,4661
13.500.000	655.228	25,05%	0,1175	251	0,5623	48,58%	0,0791	944	0,4584
15.000.000	755.962	25,83%	0,1162	267	0,5600	49,73%	0,0773	989	0,4516
16.500.000	858.996	26,51%	0,1151	281	0,5578	50,72%	0,0757	1.029	0,4456
18.000.000	964.101	27,11%	0,1141	294	0,5559	51,60%	0,0743	1.065	0,4403
19.500.000	1.071.091	27,66%	0,1132	306	0,5541	52,37%	0,0731	1.097	0,4354
25.500.000	1.515.067	29,40%	0,1103	346	0,5481	54,81%	0,0692	1.202	0,4198
31.500.000	1.979.877	30,69%	0,1082	377	0,5435	56,56%	0,0664	1.279	0,4081
37.500.000	2.461.194	31,70%	0,1065	402	0,5397	57,90%	0,0643	1.341	0,3989
43.500.000	2.956.149	32,53%	0,1051	423	0,5365	58,98%	0,0626	1.391	0,3913
49.500.000	3.462.708	33,23%	0,1040	442	0,5337	59,88%	0,0612	1.434	0,3849
55.500.000	3.979.351	33,83%	0,1030	458	0,5313	60,64%	0,0600	1.471	0,3794
61.500.000	4.504.904	34,36%	0,1021	472	0,5292	61,30%	0,0590	1.503	0,3746
67.500.000	5.038.430	34,83%	0,1014	485	0,5272	61,88%	0,0580	1.531	0,3703
73.500.000	5.579.167	35,25%	0,1007	497	0,5255	62,39%	0,0572	1.557	0,3664
79.500.000	6.126.484	35,62%	0,1001	508	0,5239	62,85%	0,0565	1.580	0,3630
85.500.000	6.679.846	35,97%	0,0995	518	0,5224	63,27%	0,0559	1.601	0,3598
91.500.000	7.238.800	36,29%	0,0990	527	0,5210	63,65%	0,0553	1.621	0,3569
97.500.000	7.802.951	36,58%	0,0985	535	0,5197	64,00%	0,0547	1.639	0,3542
103.500.000	8.371.957	36,85%	0,0981	543	0,5185	64,33%	0,0542	1.655	0,3517
109.500.000	8.945.517	37,11%	0,0977	551	0,5174	64,63%	0,0537	1.671	0,3494
115.500.000	9.523.364	37,34%	0,0973	558	0,5163	64,90%	0,0533	1.685	0,3472
121.500.000	10.105.260	37,57%	0,0969	564	0,5153	65,17%	0,0529	1.699	0,3452
127.500.000	10.690.990	37,77%	0,0966	571	0,5144	65,41%	0,0525	1.711	0,3433
133.500.000	11.280.362	37,97%	0,0962	577	0,5135	65,64%	0,0522	1.723	0,3415
139.500.000	11.873.200	38,16%	0,0959	583	0,5126	65,86%	0,0518	1.735	0,3398
148.500.000	12.768.614	38,43%	0,0955	591	0,5114	66,16%	0,0513	1.751	0,3373
157.500.000	13.670.992	38,67%	0,0951	598	0,5103	66,44%	0,0509	1.766	0,3351
167.500.000	14.681.285	38,93%	0,0947	606	0,5091	66,73%	0,0505	1.781	0,3328
178.500.000	15.801.321	39,18%	0,0943	614	0,5079	67,03%	0,0500	1.797	0,3304
189.500.000	16.929.904	39,43%	0,0939	622	0,5067	67,30%	0,0496	1.812	0,3282
200.500.000	18.066.506	39,65%	0,0935	629	0,5057	67,55%	0,0492	1.825	0,3262

Table 4.3: *Optimal user charges for different values of claimed liability, and base discount rate=0,3*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,2594	0	0,3000	0,00%	0,6159	0	0,3000
1.500.000	0	0,00%	0,2112	0	0,3000	0,00%	0,3136	0	0,3000
2.500.000	0	0,00%	0,1952	0	0,3000	0,00%	0,2553	0	0,3000
3.500.000	0	0,00%	0,1863	0	0,3000	0,00%	0,2274	0	0,3000
4.500.000	0	0,00%	0,1803	0	0,3000	0,00%	0,2103	0	0,3000
6.000.000	0	0,00%	0,1740	0	0,3000	0,00%	0,1936	0	0,3000
7.500.000	0	0,00%	0,1696	0	0,3000	0,00%	0,1824	0	0,3000
9.000.000	0	0,00%	0,1662	0	0,3000	0,00%	0,1741	0	0,3000
10.500.000	0	0,00%	0,1634	0	0,3000	0,00%	0,1677	0	0,3000
12.000.000	0	0,00%	0,1612	0	0,3000	0,00%	0,1625	0	0,3000
13.500.000	8.720	0,48%	0,1592	0	0,3000	1,07%	0,1582	0	0,3000
15.000.000	29.330	1,45%	0,1576	1	0,2999	3,19%	0,1545	4	0,2997
16.500.000	51.556	2,29%	0,1561	2	0,2998	5,04%	0,1514	10	0,2992
18.000.000	75.238	3,05%	0,1548	4	0,2997	6,66%	0,1486	18	0,2987
19.500.000	100.244	3,73%	0,1536	6	0,2996	8,10%	0,1461	26	0,2980
25.500.000	211.528	5,92%	0,1499	14	0,2989	12,64%	0,1384	64	0,2952
31.500.000	337.460	7,54%	0,1471	23	0,2983	15,90%	0,1328	101	0,2924
37.500.000	474.999	8,82%	0,1449	31	0,2977	18,42%	0,1286	136	0,2898
43.500.000	622.130	9,86%	0,1431	39	0,2971	20,45%	0,1252	167	0,2875
49.500.000	777.424	10,75%	0,1416	46	0,2965	22,13%	0,1224	196	0,2853
55.500.000	939.812	11,51%	0,1403	53	0,2960	23,57%	0,1200	222	0,2833
61.500.000	1.108.469	12,18%	0,1392	59	0,2956	24,81%	0,1179	246	0,2815
67.500.000	1.282.736	12,77%	0,1382	65	0,2951	25,90%	0,1161	268	0,2799
73.500.000	1.462.078	13,30%	0,1373	71	0,2947	26,87%	0,1145	289	0,2783
79.500.000	1.646.050	13,78%	0,1364	76	0,2943	27,75%	0,1130	308	0,2769
85.500.000	1.834.277	14,22%	0,1357	81	0,2939	28,54%	0,1117	326	0,2756
91.500.000	2.026.440	14,62%	0,1350	86	0,2936	29,26%	0,1105	342	0,2743
97.500.000	2.222.261	14,99%	0,1344	90	0,2933	29,92%	0,1094	358	0,2731
103.500.000	2.421.500	15,34%	0,1338	94	0,2929	30,53%	0,1084	373	0,2720
109.500.000	2.623.945	15,66%	0,1332	98	0,2926	31,10%	0,1075	387	0,2710
115.500.000	2.829.408	15,97%	0,1327	102	0,2924	31,63%	0,1066	400	0,2700
121.500.000	3.037.721	16,25%	0,1323	106	0,2921	32,13%	0,1058	413	0,2690
127.500.000	3.248.734	16,52%	0,1318	109	0,2918	32,59%	0,1050	425	0,2681
133.500.000	3.462.311	16,77%	0,1314	112	0,2916	33,03%	0,1043	436	0,2673
139.500.000	3.678.329	17,01%	0,1310	116	0,2913	33,44%	0,1036	447	0,2665
148.500.000	4.006.690	17,35%	0,1304	120	0,2910	34,02%	0,1027	463	0,2653
157.500.000	4.339.956	17,66%	0,1299	125	0,2906	34,55%	0,1018	478	0,2642
167.500.000	4.715.639	17,99%	0,1293	129	0,2903	35,10%	0,1009	493	0,2630
178.500.000	5.135.027	18,32%	0,1288	134	0,2899	35,66%	0,1000	509	0,2618
189.500.000	5.560.434	18,62%	0,1283	139	0,2896	36,18%	0,0992	524	0,2607
200.500.000	5.991.489	18,91%	0,1278	143	0,2893	36,66%	0,0984	538	0,2597

Table 4.4: Optimal user charges for different values of claimed liability, and base discount rate=1

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1679	0	0,9500	0,00%	0,1848	0,0000	0,9500
1.500.000	57.529	17,50%	0,1301	123	0,9694	39,31%	0,0941	618,0260	0,8455
2.500.000	138.075	24,22%	0,1189	235	0,9413	50,16%	0,0766	1006,3422	0,7484
3.500.000	228.470	27,90%	0,1128	311	0,9221	55,41%	0,0682	1228,1164	0,6930
4.500.000	325.543	30,34%	0,1087	368	0,9079	58,66%	0,0631	1376,5740	0,6559
6.000.000	480.246	32,87%	0,1046	432	0,8919	61,85%	0,0581	1530,1869	0,6175
7.500.000	643.203	34,66%	0,1016	481	0,8799	64,00%	0,0547	1638,5497	0,5904
9.000.000	812.586	36,03%	0,0994	519	0,8702	65,59%	0,0522	1720,7858	0,5698
10.500.000	987.215	37,12%	0,0976	551	0,8622	66,83%	0,0503	1786,2600	0,5534
12.000.000	1.166.267	38,03%	0,0962	578	0,8554	67,83%	0,0488	1840,1857	0,5400
13.500.000	1.349.136	38,79%	0,0949	602	0,8495	68,66%	0,0475	1885,7331	0,5286
15.000.000	1.535.358	39,46%	0,0938	623	0,8443	69,37%	0,0464	1924,9595	0,5188
16.500.000	1.724.567	40,04%	0,0929	641	0,8397	69,99%	0,0454	1959,2697	0,5102
18.000.000	1.916.467	40,56%	0,0920	658	0,8355	70,53%	0,0446	1989,6600	0,5026
19.500.000	2.110.814	41,03%	0,0913	673	0,8317	71,01%	0,0438	2016,8617	0,4958
25.500.000	2.908.990	42,51%	0,0889	723	0,8193	72,51%	0,0415	2103,0883	0,4742
31.500.000	3.734.208	43,61%	0,0871	761	0,8098	73,59%	0,0399	2166,0772	0,4585
37.500.000	4.580.844	44,47%	0,0857	791	0,8022	74,42%	0,0386	2215,0791	0,4462
43.500.000	5.445.175	45,18%	0,0846	816	0,7959	75,08%	0,0376	2254,8321	0,4363
49.500.000	6.324.557	45,77%	0,0836	838	0,7905	75,63%	0,0367	2288,0636	0,4280
55.500.000	7.217.019	46,28%	0,0828	857	0,7858	76,10%	0,0360	2316,4759	0,4209
61.500.000	8.121.034	46,73%	0,0821	873	0,7817	76,50%	0,0354	2341,1973	0,4147
67.500.000	9.035.389	47,12%	0,0814	888	0,7780	76,86%	0,0348	2363,0099	0,4092
73.500.000	9.959.095	47,48%	0,0809	902	0,7746	77,18%	0,0343	2382,4782	0,4044
79.500.000	10.891.331	47,80%	0,0804	914	0,7716	77,46%	0,0339	2400,0216	0,4000
85.500.000	11.831.404	48,09%	0,0799	925	0,7688	77,72%	0,0335	2415,9580	0,3960
91.500.000	12.778.726	48,36%	0,0795	935	0,7662	77,95%	0,0332	2430,5357	0,3924
97.500.000	13.732.785	48,60%	0,0791	945	0,7638	78,17%	0,0328	2443,9509	0,3890
103.500.000	14.693.137	48,83%	0,0787	954	0,7615	78,36%	0,0325	2456,3609	0,3859
109.500.000	15.659.392	49,05%	0,0784	962	0,7594	78,55%	0,0322	2467,8949	0,3830
115.500.000	16.631.202	49,25%	0,0780	970	0,7575	78,72%	0,0320	2478,6586	0,3803
121.500.000	17.608.260	49,43%	0,0777	978	0,7556	78,88%	0,0317	2488,7405	0,3778
127.500.000	18.590.286	49,61%	0,0775	985	0,7539	79,03%	0,0315	2498,2153	0,3754
133.500.000	19.577.034	49,78%	0,0772	991	0,7522	79,17%	0,0313	2507,1461	0,3732
139.500.000	20.568.272	49,94%	0,0769	997	0,7506	79,30%	0,0311	2515,5869	0,3711
148.500.000	22.063.108	50,16%	0,0766	1.006	0,7484	79,49%	0,0308	2527,4308	0,3681
157.500.000	23.566.966	50,37%	0,0763	1.015	0,7463	79,66%	0,0305	2538,4089	0,3654
167.500.000	25.247.834	50,58%	0,0759	1.023	0,7442	79,84%	0,0303	2549,7229	0,3626
178.500.000	27.108.078	50,80%	0,0756	1.032	0,7419	80,02%	0,0300	2561,2334	0,3597
189.500.000	28.979.396	51,00%	0,0752	1.040	0,7399	80,19%	0,0297	2571,8928	0,3570
200.500.000	30.861.102	51,19%	0,0749	1.048	0,7380	80,34%	0,0295	2581,8088	0,3545

**Table 5.1: Optimal user charges for different values of claimed liability,
and unitary judicial costs= 8.000 ptas**

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1703	0	0,9500	0,00%	0,1945	0	0,9500
1.500.000	51.650	15,74%	0,1331	198	0,9265	36,27%	0,0990	1.052	0,8250
2.500.000	127.144	22,59%	0,1216	408	0,9015	47,64%	0,0806	1.816	0,7344
3.500.000	212.088	26,35%	0,1153	555	0,8840	53,15%	0,0718	2.260	0,6817
4.500.000	303.466	28,85%	0,1112	666	0,8709	56,56%	0,0664	2.559	0,6461
6.000.000	449.314	31,44%	0,1069	791	0,8561	59,90%	0,0611	2.871	0,6091
7.500.000	603.146	33,28%	0,1039	886	0,8448	62,16%	0,0576	3.091	0,5829
9.000.000	763.203	34,67%	0,1016	962	0,8358	63,83%	0,0550	3.259	0,5630
10.500.000	928.346	35,79%	0,0998	1.025	0,8283	65,13%	0,0530	3.393	0,5471
12.000.000	1.097.781	36,72%	0,0983	1.079	0,8219	66,18%	0,0513	3.503	0,5340
13.500.000	1.270.921	37,50%	0,0970	1.125	0,8164	67,05%	0,0500	3.597	0,5229
15.000.000	1.447.317	38,18%	0,0959	1.166	0,8115	67,80%	0,0488	3.677	0,5133
16.500.000	1.626.614	38,78%	0,0949	1.203	0,8071	68,44%	0,0478	3.748	0,5050
18.000.000	1.808.526	39,31%	0,0941	1.236	0,8032	69,01%	0,0469	3.810	0,4975
19.500.000	1.992.816	39,78%	0,0933	1.266	0,7996	69,52%	0,0461	3.866	0,4909
25.500.000	2.750.186	41,30%	0,0908	1.365	0,7879	71,09%	0,0437	4.044	0,4698
31.500.000	3.533.854	42,43%	0,0890	1.440	0,7790	72,23%	0,0420	4.173	0,4544
37.500.000	4.338.359	43,30%	0,0876	1.500	0,7718	73,10%	0,0406	4.274	0,4424
43.500.000	5.160.082	44,02%	0,0864	1.550	0,7659	73,79%	0,0395	4.357	0,4327
49.500.000	5.996.453	44,63%	0,0855	1.593	0,7608	74,37%	0,0386	4.425	0,4245
55.500.000	6.845.556	45,15%	0,0846	1.631	0,7564	74,87%	0,0379	4.484	0,4175
61.500.000	7.705.907	45,60%	0,0839	1.664	0,7524	75,29%	0,0372	4.535	0,4115
67.500.000	8.576.323	46,00%	0,0832	1.693	0,7489	75,66%	0,0367	4.580	0,4061
73.500.000	9.455.844	46,37%	0,0827	1.720	0,7458	76,00%	0,0362	4.620	0,4013
79.500.000	10.343.669	46,69%	0,0821	1.744	0,7429	76,29%	0,0357	4.657	0,3970
85.500.000	11.239.127	46,99%	0,0817	1.766	0,7402	76,56%	0,0353	4.690	0,3931
91.500.000	12.141.643	47,26%	0,0812	1.787	0,7378	76,81%	0,0349	4.720	0,3895
97.500.000	13.050.720	47,51%	0,0808	1.806	0,7355	77,04%	0,0346	4.748	0,3862
103.500.000	13.965.926	47,75%	0,0804	1.824	0,7334	77,24%	0,0342	4.773	0,3832
109.500.000	14.886.880	47,97%	0,0801	1.841	0,7314	77,44%	0,0339	4.797	0,3803
115.500.000	15.813.244	48,17%	0,0798	1.856	0,7296	77,62%	0,0337	4.820	0,3777
121.500.000	16.744.719	48,36%	0,0795	1.871	0,7278	77,79%	0,0334	4.840	0,3752
127.500.000	17.681.034	48,54%	0,0792	1.885	0,7262	77,94%	0,0332	4.860	0,3729
133.500.000	18.621.946	48,71%	0,0789	1.898	0,7246	78,09%	0,0329	4.879	0,3707
139.500.000	19.567.232	48,87%	0,0786	1.911	0,7231	78,23%	0,0327	4.896	0,3686
148.500.000	20.992.932	49,10%	0,0783	1.929	0,7210	78,43%	0,0324	4.921	0,3657
157.500.000	22.427.422	49,31%	0,0779	1.945	0,7190	78,61%	0,0322	4.943	0,3630
167.500.000	24.030.956	49,53%	0,0776	1.962	0,7170	78,79%	0,0319	4.967	0,3602
178.500.000	25.805.838	49,75%	0,0772	1.980	0,7149	78,98%	0,0316	4.991	0,3573
189.500.000	27.591.508	49,96%	0,0769	1.997	0,7129	79,16%	0,0313	5.013	0,3547
200.500.000	29.387.298	50,15%	0,0766	2.012	0,7111	79,32%	0,0311	5.033	0,3523

Table 5.2: *Optimal user charges for different values of claimed liability,
and unitary judicial costs=15.000 ptas*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1695	0	0,9500	0,00%	0,1945	0,0000	0,9500
1.500.000	52.708	15,33%	0,1338	353	0,9277	36,27%	0,0990	1973,0929	0,8250
2.500.000	128.929	22,24%	0,1222	742	0,9030	47,64%	0,0806	3404,2549	0,7344
3.500.000	214.359	26,07%	0,1158	1.019	0,8854	53,15%	0,0718	4236,8418	0,6817
4.500.000	306.097	28,62%	0,1116	1.228	0,8722	56,56%	0,0664	4798,4763	0,6461
6.000.000	452.351	31,25%	0,1072	1.465	0,8572	59,90%	0,0611	5382,5930	0,6091
7.500.000	606.493	33,12%	0,1042	1.645	0,8458	62,16%	0,0576	5796,2380	0,5829
9.000.000	766.801	34,54%	0,1018	1.789	0,8367	63,83%	0,0550	6110,9422	0,5630
10.500.000	932.153	35,68%	0,1000	1.909	0,8291	65,13%	0,0530	6361,9593	0,5471
12.000.000	1.101.767	36,61%	0,0985	2.011	0,8226	66,18%	0,0513	6568,9865	0,5340
13.500.000	1.275.063	37,41%	0,0972	2.099	0,8170	67,05%	0,0500	6744,0411	0,5229
15.000.000	1.451.598	38,10%	0,0960	2.177	0,8121	67,80%	0,0488	6894,9407	0,5133
16.500.000	1.631.020	38,70%	0,0951	2.247	0,8077	68,44%	0,0478	7027,0275	0,5050
18.000.000	1.813.045	39,24%	0,0942	2.309	0,8037	69,01%	0,0469	7144,1024	0,4975
19.500.000	1.997.438	39,72%	0,0934	2.366	0,8001	69,52%	0,0461	7248,9534	0,4909
25.500.000	2.755.150	41,25%	0,0909	2.553	0,7883	71,09%	0,0437	7581,6804	0,4698
31.500.000	3.539.081	42,38%	0,0891	2.694	0,7794	72,23%	0,0420	7825,0736	0,4544
37.500.000	4.343.801	43,27%	0,0877	2.808	0,7721	73,10%	0,0406	8014,6058	0,4424
43.500.000	5.165.705	43,99%	0,0865	2.903	0,7662	73,79%	0,0395	8168,4838	0,4327
49.500.000	6.002.232	44,60%	0,0855	2.984	0,7610	74,37%	0,0386	8297,1954	0,4245
55.500.000	6.851.472	45,12%	0,0847	3.054	0,7566	74,87%	0,0379	8407,2958	0,4175
61.500.000	7.711.944	45,58%	0,0839	3.116	0,7526	75,29%	0,0372	8503,1334	0,4115
67.500.000	8.582.470	45,98%	0,0833	3.172	0,7491	75,66%	0,0367	8587,7265	0,4061
73.500.000	9.462.090	46,35%	0,0827	3.222	0,7459	76,00%	0,0362	8663,2535	0,4013
79.500.000	10.350.007	46,67%	0,0822	3.268	0,7430	76,29%	0,0357	8731,3308	0,3970
85.500.000	11.245.549	46,97%	0,0817	3.310	0,7404	76,56%	0,0353	8793,1884	0,3931
91.500.000	12.148.143	47,25%	0,0812	3.348	0,7379	76,81%	0,0349	8849,7856	0,3895
97.500.000	13.057.293	47,50%	0,0808	3.384	0,7357	77,04%	0,0346	8901,8800	0,3862
103.500.000	13.972.567	47,73%	0,0805	3.418	0,7335	77,24%	0,0342	8950,0808	0,3832
109.500.000	14.893.585	47,95%	0,0801	3.449	0,7315	77,44%	0,0339	8994,8860	0,3803
115.500.000	15.820.010	48,16%	0,0798	3.479	0,7297	77,62%	0,0337	9036,7053	0,3777
121.500.000	16.751.542	48,35%	0,0795	3.507	0,7279	77,79%	0,0334	9075,8824	0,3752
127.500.000	17.687.912	48,53%	0,0792	3.533	0,7263	77,94%	0,0332	9112,7052	0,3729
133.500.000	18.628.874	48,70%	0,0789	3.558	0,7247	78,09%	0,0329	9147,4184	0,3707
139.500.000	19.574.210	48,86%	0,0787	3.581	0,7232	78,23%	0,0327	9180,2338	0,3686
148.500.000	20.999.980	49,09%	0,0783	3.615	0,7211	78,43%	0,0324	9226,2813	0,3657
157.500.000	22.434.534	49,30%	0,0780	3.646	0,7191	78,61%	0,0322	9268,9712	0,3630
167.500.000	24.038.136	49,52%	0,0776	3.678	0,7170	78,79%	0,0319	9312,9734	0,3602
178.500.000	25.813.090	49,74%	0,0772	3.712	0,7149	78,98%	0,0316	9357,7492	0,3573
189.500.000	27.598.826	49,95%	0,0769	3.742	0,7130	79,16%	0,0313	9399,2174	0,3547
200.500.000	29.394.676	50,14%	0,0766	3.771	0,7111	79,32%	0,0311	9437,8018	0,3523

**Table 5.3: Optimal user charges for different values of claimed liability,
and unitary judicial costs=35.000 ptas**

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,1677	0	0,9500	0,00%	0,1945	0	0,9500
1.500.000	55.421	14,27%	0,1356	9.991	0,9306	36,27%	0,0990	25.388	0,8250
2.500.000	133.698	21,32%	0,1237	14.926	0,9068	47,64%	0,0806	33.348	0,7344
3.500.000	220.535	25,31%	0,1171	17.715	0,8892	53,15%	0,0718	37.203	0,6817
4.500.000	313.328	27,97%	0,1127	19.580	0,8757	56,56%	0,0664	39.592	0,6461
6.000.000	460.778	30,73%	0,1081	21.513	0,8603	59,90%	0,0611	41.932	0,6091
7.500.000	615.836	32,68%	0,1049	22.877	0,8485	62,16%	0,0576	43.514	0,5829
9.000.000	776.881	34,16%	0,1025	23.915	0,8391	63,83%	0,0550	44.679	0,5630
10.500.000	942.848	35,35%	0,1005	24.742	0,8313	65,13%	0,0530	45.588	0,5471
12.000.000	1.112.989	36,32%	0,0989	25.424	0,8247	66,18%	0,0513	46.324	0,5340
13.500.000	1.286.744	37,14%	0,0976	26.001	0,8189	67,05%	0,0500	46.937	0,5229
15.000.000	1.463.686	37,86%	0,0964	26.499	0,8139	67,80%	0,0488	47.459	0,5133
16.500.000	1.643.474	38,48%	0,0954	26.935	0,8093	68,44%	0,0478	47.911	0,5050
18.000.000	1.825.829	39,03%	0,0945	27.322	0,8053	69,01%	0,0469	48.309	0,4975
19.500.000	2.010.524	39,53%	0,0937	27.669	0,8016	69,52%	0,0461	48.662	0,4909
25.500.000	2.769.232	41,10%	0,0912	28.772	0,7895	71,09%	0,0437	49.766	0,4698
31.500.000	3.553.933	42,26%	0,0893	29.582	0,7803	72,23%	0,0420	50.559	0,4544
37.500.000	4.359.277	43,16%	0,0878	30.215	0,7730	73,10%	0,0406	51.167	0,4424
43.500.000	5.181.705	43,90%	0,0866	30.731	0,7669	73,79%	0,0395	51.656	0,4327
49.500.000	6.018.683	44,52%	0,0856	31.164	0,7617	74,37%	0,0386	52.062	0,4245
55.500.000	6.868.318	45,05%	0,0848	31.536	0,7572	74,87%	0,0379	52.406	0,4175
61.500.000	7.729.143	45,51%	0,0840	31.860	0,7532	75,29%	0,0372	52.704	0,4115
67.500.000	8.599.985	45,92%	0,0834	32.147	0,7496	75,66%	0,0367	52.965	0,4061
73.500.000	9.479.893	46,29%	0,0828	32.404	0,7464	76,00%	0,0362	53.198	0,4013
79.500.000	10.368.074	46,62%	0,0822	32.637	0,7435	76,29%	0,0357	53.406	0,3970
85.500.000	11.263.859	46,93%	0,0818	32.848	0,7408	76,56%	0,0353	53.595	0,3931
91.500.000	12.166.678	47,20%	0,0813	33.042	0,7383	76,81%	0,0349	53.767	0,3895
97.500.000	13.076.038	47,46%	0,0809	33.221	0,7360	77,04%	0,0346	53.925	0,3862
103.500.000	13.991.509	47,70%	0,0805	33.387	0,7339	77,24%	0,0342	54.071	0,3832
109.500.000	14.912.712	47,92%	0,0802	33.541	0,7319	77,44%	0,0339	54.206	0,3803
115.500.000	15.839.311	48,12%	0,0798	33.686	0,7300	77,62%	0,0337	54.332	0,3777
121.500.000	16.771.008	48,32%	0,0795	33.821	0,7282	77,79%	0,0334	54.450	0,3752
127.500.000	17.707.534	48,50%	0,0792	33.949	0,7265	77,94%	0,0332	54.560	0,3729
133.500.000	18.648.646	48,67%	0,0790	34.070	0,7250	78,09%	0,0329	54.664	0,3707
139.500.000	19.594.124	48,83%	0,0787	34.184	0,7234	78,23%	0,0327	54.762	0,3686
148.500.000	21.020.094	49,06%	0,0783	34.344	0,7213	78,43%	0,0324	54.899	0,3657
157.500.000	22.454.836	49,28%	0,0780	34.493	0,7193	78,61%	0,0322	55.026	0,3630
167.500.000	24.058.634	49,50%	0,0776	34.647	0,7173	78,79%	0,0319	55.156	0,3602
178.500.000	25.833.790	49,72%	0,0773	34.804	0,7152	78,98%	0,0316	55.289	0,3573
189.500.000	27.619.714	49,93%	0,0770	34.950	0,7132	79,16%	0,0313	55.411	0,3547
200.500.000	29.415.742	50,12%	0,0766	35.086	0,7113	79,32%	0,0311	55.525	0,3523

Table 6.1: *Optimal user charges for different values of claimed liability,
and unitary advocates' costs=4.000 ptas*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,2176	0	0,9500	0,00%	0,4966	0	0,9500
1.500.000	10.771	3,66%	0,1537	5	0,9487	9,66%	0,1434	37	0,9411
2.500.000	68.404	13,27%	0,1373	70	0,9333	30,91%	0,1078	382	0,8592
3.500.000	136.427	18,33%	0,1287	134	0,9181	40,19%	0,0926	646	0,7966
4.500.000	211.510	21,62%	0,1232	187	0,9056	45,64%	0,0838	833	0,7521
6.000.000	333.734	24,96%	0,1177	249	0,8908	50,77%	0,0756	1.031	0,7051
7.500.000	464.656	27,30%	0,1138	298	0,8792	54,14%	0,0703	1.172	0,6716
9.000.000	602.336	29,06%	0,1109	338	0,8698	56,56%	0,0664	1.280	0,6461
10.500.000	745.522	30,46%	0,1086	371	0,8619	58,42%	0,0635	1.365	0,6258
12.000.000	893.345	31,61%	0,1067	400	0,8551	59,90%	0,0611	1.435	0,6091
13.500.000	1.045.162	32,58%	0,1051	424	0,8492	61,13%	0,0592	1.495	0,5950
15.000.000	1.200.485	33,41%	0,1037	447	0,8439	62,16%	0,0576	1.546	0,5829
16.500.000	1.358.928	34,14%	0,1025	466	0,8393	63,05%	0,0562	1.590	0,5723
18.000.000	1.520.177	34,79%	0,1014	484	0,8350	63,83%	0,0550	1.630	0,5630
19.500.000	1.683.977	35,37%	0,1005	500	0,8311	64,51%	0,0539	1.665	0,5546
25.500.000	2.360.816	37,21%	0,0975	554	0,8185	66,63%	0,0506	1.776	0,5282
31.500.000	3.065.754	38,56%	0,0953	595	0,8087	68,13%	0,0483	1.857	0,5090
37.500.000	3.792.900	39,61%	0,0936	628	0,8009	69,27%	0,0465	1.919	0,4941
43.500.000	4.538.367	40,47%	0,0922	655	0,7944	70,18%	0,0451	1.970	0,4821
49.500.000	5.299.396	41,19%	0,0910	679	0,7888	70,93%	0,0440	2.012	0,4721
55.500.000	6.073.935	41,80%	0,0900	699	0,7840	71,56%	0,0430	2.048	0,4635
61.500.000	6.860.396	42,34%	0,0892	717	0,7797	72,10%	0,0421	2.079	0,4561
67.500.000	7.657.518	42,81%	0,0884	733	0,7759	72,58%	0,0414	2.107	0,4496
73.500.000	8.464.274	43,24%	0,0877	748	0,7724	73,00%	0,0408	2.132	0,4438
79.500.000	9.279.812	43,62%	0,0871	761	0,7692	73,37%	0,0402	2.154	0,4385
85.500.000	10.103.416	43,97%	0,0865	773	0,7663	73,71%	0,0397	2.174	0,4338
91.500.000	10.934.475	44,29%	0,0860	785	0,7637	74,02%	0,0392	2.192	0,4294
97.500.000	11.772.459	44,58%	0,0855	795	0,7612	74,31%	0,0387	2.209	0,4255
103.500.000	12.616.910	44,85%	0,0851	805	0,7589	74,57%	0,0383	2.224	0,4218
109.500.000	13.467.423	45,11%	0,0847	814	0,7567	74,81%	0,0380	2.239	0,4184
115.500.000	14.323.640	45,35%	0,0843	822	0,7547	75,03%	0,0376	2.252	0,4152
121.500.000	15.185.241	45,57%	0,0839	831	0,7527	75,24%	0,0373	2.264	0,4122
127.500.000	16.051.941	45,78%	0,0836	838	0,7509	75,44%	0,0370	2.276	0,4094
133.500.000	16.923.482	45,97%	0,0833	845	0,7492	75,62%	0,0367	2.287	0,4067
139.500.000	17.799.628	46,16%	0,0830	852	0,7476	75,79%	0,0365	2.298	0,4043
148.500.000	19.122.024	46,42%	0,0826	862	0,7453	76,04%	0,0361	2.313	0,4008
157.500.000	20.453.664	46,67%	0,0822	871	0,7431	76,26%	0,0357	2.326	0,3975
167.500.000	21.943.418	46,92%	0,0818	881	0,7409	76,49%	0,0354	2.340	0,3942
178.500.000	23.593.706	47,18%	0,0814	890	0,7386	76,72%	0,0350	2.354	0,3908
189.500.000	25.255.326	47,41%	0,0810	899	0,7364	76,94%	0,0347	2.368	0,3877
200.500.000	26.927.572	47,64%	0,0806	908	0,7344	77,13%	0,0344	2.380	0,3848

Table 6.2: *Optimal user charges for different values of claimed liability,
and unitary advocates' fees=10.000 ptas*

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	0,4238	0	0,9500	0,00%	0,4515	0	0,9500
1.500.000	0	0,00%	0,2038	0	0,9500	0,00%	0,3525	0	0,9500
2.500.000	0	0,00%	0,1714	0	0,9500	0,00%	0,1945	0	0,9500
3.500.000	14.437	2,16%	0,1563	2	0,9496	5,75%	0,1501	13	0,9469
4.500.000	66.232	7,47%	0,1472	22	0,9447	18,60%	0,1283	138	0,9171
6.000.000	154.516	12,68%	0,1383	64	0,9347	29,59%	0,1100	350	0,8668
7.500.000	252.460	16,20%	0,1323	105	0,9251	36,27%	0,0990	526	0,8250
9.000.000	357.922	18,79%	0,1280	141	0,9164	40,85%	0,0916	668	0,7915
10.500.000	469.511	20,82%	0,1246	173	0,9088	44,24%	0,0861	783	0,7640
12.000.000	586.253	22,47%	0,1218	202	0,9020	46,88%	0,0818	879	0,7412
13.500.000	707.432	23,84%	0,1195	227	0,8960	49,01%	0,0784	961	0,7218
15.000.000	832.498	25,02%	0,1176	250	0,8905	50,77%	0,0756	1.031	0,7051
16.500.000	961.019	26,04%	0,1159	271	0,8856	52,27%	0,0732	1.093	0,6905
18.000.000	1.092.647	26,93%	0,1144	290	0,8811	53,56%	0,0712	1.147	0,6775
19.500.000	1.227.093	27,73%	0,1131	308	0,8769	54,68%	0,0694	1.196	0,6660
25.500.000	1.788.754	30,24%	0,1089	366	0,8631	58,08%	0,0640	1.349	0,6295
31.500.000	2.381.337	32,04%	0,1059	411	0,8525	60,42%	0,0603	1.460	0,6032
37.500.000	2.998.292	33,44%	0,1036	447	0,8438	62,16%	0,0576	1.546	0,5829
43.500.000	3.635.303	34,56%	0,1018	478	0,8365	63,53%	0,0555	1.614	0,5666
49.500.000	4.289.319	35,50%	0,1003	504	0,8303	64,64%	0,0537	1.671	0,5530
55.500.000	4.958.071	36,30%	0,0990	527	0,8248	65,57%	0,0523	1.720	0,5415
61.500.000	5.639.810	36,99%	0,0978	547	0,8200	66,36%	0,0510	1.762	0,5316
67.500.000	6.333.146	37,60%	0,0968	566	0,8157	67,05%	0,0500	1.798	0,5229
73.500.000	7.036.949	38,14%	0,0960	582	0,8118	67,66%	0,0490	1.831	0,5151
79.500.000	7.750.286	38,63%	0,0952	597	0,8082	68,20%	0,0482	1.860	0,5082
85.500.000	8.472.369	39,08%	0,0944	611	0,8049	68,68%	0,0474	1.887	0,5019
91.500.000	9.202.530	39,48%	0,0938	624	0,8019	69,12%	0,0468	1.911	0,4962
97.500.000	9.940.189	39,85%	0,0932	635	0,7991	69,52%	0,0461	1.933	0,4909
103.500.000	10.684.844	40,20%	0,0926	646	0,7965	69,88%	0,0456	1.953	0,4861
109.500.000	11.436.053	40,52%	0,0921	657	0,7940	70,22%	0,0451	1.972	0,4816
115.500.000	12.193.426	40,82%	0,0916	666	0,7917	70,53%	0,0446	1.990	0,4774
121.500.000	12.956.613	41,10%	0,0912	676	0,7896	70,82%	0,0441	2.006	0,4735
127.500.000	13.725.303	41,36%	0,0907	684	0,7875	71,09%	0,0437	2.022	0,4698
133.500.000	14.499.214	41,61%	0,0903	692	0,7856	71,35%	0,0433	2.036	0,4664
139.500.000	15.278.091	41,84%	0,0900	700	0,7837	71,59%	0,0429	2.050	0,4631
148.500.000	16.455.218	42,17%	0,0894	711	0,7811	71,92%	0,0424	2.069	0,4586
157.500.000	17.642.300	42,47%	0,0889	721	0,7787	72,23%	0,0420	2.087	0,4544
167.500.000	18.972.210	42,78%	0,0884	732	0,7761	72,54%	0,0415	2.105	0,4501
178.500.000	20.447.542	43,10%	0,0879	743	0,7735	72,86%	0,0410	2.123	0,4457
189.500.000	21.935.058	43,39%	0,0874	753	0,7711	73,15%	0,0405	2.140	0,4417
200.500.000	23.433.988	43,67%	0,0870	763	0,7688	73,42%	0,0401	2.156	0,4380

**Table 6.3: Optimal user charges for different values of claimed liability,
and unitary advocates' fees=15.000 ptas**

<i>Claimed liability</i>	<i>Optimal user charge</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>	<i>% Litigants</i>	<i>Critical prob.</i>	<i>Variable jud. Costs</i>	<i>Discount rate</i>
500.000	0	0,00%	1,0000	0	0,9500	0,00%	1,0000	0	0,9500
1.500.000	0	0,00%	0,2458	0	0,9500	0,00%	0,9931	0	0,9500
2.500.000	0	0,00%	0,1960	0	0,9500	0,00%	0,3019	0	0,9500
3.500.000	0	0,00%	0,1750	0	0,9500	0,00%	0,2070	0	0,9500
4.500.000	0	0,00%	0,1628	0	0,9500	0,00%	0,1677	0	0,9500
6.000.000	59.183	5,09%	0,1513	408	0,9475	13,04%	0,1377	1.043	0,9338
7.500.000	141.440	9,49%	0,1437	759	0,9414	23,00%	0,1209	1.840	0,8997
9.000.000	231.532	12,70%	0,1383	1.016	0,9347	29,59%	0,1100	2.367	0,8668
10.500.000	328.031	15,17%	0,1341	1.213	0,9281	34,34%	0,1022	2.747	0,8380
12.000.000	429.929	17,16%	0,1307	1.373	0,9220	37,97%	0,0962	3.038	0,8130
13.500.000	536.477	18,81%	0,1279	1.505	0,9164	40,85%	0,0916	3.268	0,7915
15.000.000	647.101	20,21%	0,1256	1.617	0,9112	43,21%	0,0877	3.457	0,7726
16.500.000	761.350	21,42%	0,1236	1.714	0,9064	45,19%	0,0845	3.615	0,7560
18.000.000	878.856	22,48%	0,1218	1.799	0,9020	46,88%	0,0818	3.751	0,7412
19.500.000	999.317	23,43%	0,1202	1.874	0,8979	48,35%	0,0795	3.868	0,7279
25.500.000	1.506.183	26,36%	0,1153	2.109	0,8840	52,72%	0,0725	4.217	0,6860
31.500.000	2.045.427	28,46%	0,1119	2.277	0,8731	55,67%	0,0678	4.454	0,6555
37.500.000	2.610.164	30,07%	0,1092	2.405	0,8641	57,85%	0,0644	4.628	0,6321
43.500.000	3.195.858	31,36%	0,1071	2.509	0,8566	59,54%	0,0617	4.763	0,6133
49.500.000	3.799.305	32,43%	0,1053	2.594	0,8501	60,90%	0,0596	4.872	0,5977
55.500.000	4.418.125	33,34%	0,1038	2.667	0,8444	62,03%	0,0578	4.963	0,5844
61.500.000	5.050.483	34,13%	0,1025	2.730	0,8394	63,00%	0,0563	5.040	0,5730
67.500.000	5.694.924	34,82%	0,1014	2.786	0,8348	63,83%	0,0550	5.106	0,5630
73.500.000	6.350.264	35,43%	0,1004	2.835	0,8307	64,56%	0,0539	5.164	0,5541
79.500.000	7.015.527	35,99%	0,0995	2.879	0,8270	65,20%	0,0528	5.216	0,5461
85.500.000	7.689.888	36,49%	0,0987	2.919	0,8235	65,78%	0,0519	5.262	0,5389
91.500.000	8.372.648	36,94%	0,0979	2.955	0,8204	66,30%	0,0511	5.304	0,5324
97.500.000	9.063.203	37,36%	0,0972	2.989	0,8174	66,78%	0,0504	5.342	0,5264
103.500.000	9.761.027	37,75%	0,0966	3.020	0,8146	67,21%	0,0497	5.377	0,5209
109.500.000	10.465.659	38,10%	0,0960	3.048	0,8121	67,61%	0,0491	5.409	0,5157
115.500.000	11.176.691	38,44%	0,0955	3.075	0,8096	67,98%	0,0485	5.438	0,5110
121.500.000	11.893.759	38,75%	0,0950	3.100	0,8073	68,32%	0,0480	5.466	0,5065
127.500.000	12.616.537	39,04%	0,0945	3.124	0,8052	68,64%	0,0475	5.491	0,5024
133.500.000	13.344.733	39,32%	0,0940	3.146	0,8031	68,94%	0,0470	5.515	0,4985
139.500.000	14.078.080	39,58%	0,0936	3.166	0,8012	69,22%	0,0466	5.538	0,4948
148.500.000	15.187.237	39,95%	0,0930	3.196	0,7984	69,61%	0,0460	5.569	0,4897
157.500.000	16.306.715	40,28%	0,0925	3.223	0,7958	69,97%	0,0454	5.598	0,4849
167.500.000	17.561.906	40,63%	0,0919	3.250	0,7932	70,34%	0,0449	5.627	0,4800
178.500.000	18.955.496	40,98%	0,0913	3.279	0,7904	70,70%	0,0443	5.656	0,4751
189.500.000	20.361.704	41,31%	0,0908	3.305	0,7879	71,04%	0,0438	5.683	0,4705
200.500.000	21.779.732	41,61%	0,0903	3.329	0,7855	71,36%	0,0433	5.708	0,4663