



ISTITUTO DI STUDI E ANALISI ECONOMICA

The Rule Incentives that Rule Civil Justice

by

Daniela Marchesi

ISAE, Piazza dell'Indipendenza, 4, 00185 - Roma - Italy

e-mail: d.marchesi@isae.it

Tel. +39 06 44 48 22 20

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ISAE - Piazza dell’Indipendenza, 4 - 00185 Roma.

Tel. +39-06444821; www.isae.it

ABSTRACT

The excessive length of civil judicial proceedings may be understood being the consequence of a disequilibrium between demand and supply of justice. A comparison between EU countries and a statistical and analytical investigation demonstrates that the problems do not rest in insufficient supply - which has been the general opinion - but in pathological demand for civil justice. Opportunistic behaviour incentivized by the procedural rules and by the excessive length of trials is at the root of such demand. Therefore changing the formula which determines lawyer's fees should be the first reform introduced.

Keywords: Efficiency of civil justice, Comparison among EU countries an the Italian case, supply of justice, pathological demand of justice, effectiveness of reform.

JEL Classification: K4.

NON-TECHNICAL SUMMARY

The excessive length of civil judicial proceedings may be understood being the consequence of a disequilibrium between demand and supply of justice. A comparison between EU countries and a statistical and analytical investigation demonstrates that the main problems do not rest in insufficient supply – which has been the general opinion. Using data sourced from ISTAT and the Ministry of Justice and applying an econometric analysis to the Italian courts utilizing a translog function, the outcome is that a certain degree of inefficiency in the supply side derives from the size of the courts. Problems in the supply side do exist, but they are not so overwhelming as to be the principal cause of such dramatic delays in the justice system: the demand side is the area where the main problems nest. The data suggest the existence of what we could define the pathological component of demand, inasmuch as they do not derive from a real need to resolve an uncertain juridical issue, but from requirements of a different order.

The analytical model developed in the paper shows that opportunistic behaviour incentivized by the procedural rules and by the excessive length of trials is at the root of such demand.

Until now on the demand side, policies regarding the legal rate of interest and fee shifting have been few and inadequate.

But the fundamental problem, the most basic and, surprisingly, unproposed reform, is that of changing the lawyers' fee formula. To obtain effective incentives, the lump sum formula must be adopted.

REGOLE E INCENTIVI PER UNA GIUSTIZIA CIVILE EFFICIENTE

SINTESI

La lunghezza eccessiva dei processi civili può essere considerata come il risultato di un disequilibrio tra domanda e offerta di giustizia. Nel *paper*, dal confronto tra paesi UE e l'indagine analitica e statistica emerge che il problema non è dovuto ad un'offerta insufficiente, ma piuttosto ad una significativa componente patologica della domanda di giustizia. Componente attivata da una serie di incentivi di comportamento distorti prodotti dal sistema giuridico sui protagonisti della contesa - il giudice, le parti e i loro difensori -. Vengono proposte diverse indicazioni di *policy* per modificare e rendere virtuosi tali incentivi. Tra le riforme proposte quella di modificare la formula di determinazione dell'onorario degli avvocati dovrebbe essere la prima ad essere introdotta.

Parole chiave: Efficienza della giustizia civile, Comparazione tra paesi UE e il caso italiano, Dimensione dell'offerta di giustizia, Domanda patologica di giustizia, Efficacia delle riforme.

Classificazione JEL: k4.

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1 INDICATORS OF THE EFFICIENCY OF CIVIL JUSTICE

Different and sometimes incompatible parameters come into play when assessing the quality of a court system. Civil justice has at least three aspects: truth - that is the correctness of judgements - time and cost¹. To optimize all three aspects together is not possible, and the first parameter in particular is less compatible with the other two. But all other things being equal a trade-off between public spending on justice and length of judicial proceedings emerges. An offer of justice greater than demand would resolve these cases in the shortest time, but would also subtract resources from the other public services. In countries with a sufficiently high level of judicial development - where the impartiality of its judges and equality of protection offered by laws are overriding principles - the correctness of judgement is addressed by guaranteeing both parties the right to present all of their arguments for the attention of the judge. For such countries, it is common sense to assume the objectivity of judgement as a rule, with material differences in the judicial systems by and large limited to the duration and cost of the legal process. Although this time factor and cost may well reflect differences in legal traditions, focusing on the former would provide a richer analysis of the system's impact on economic performance.

2 THE DIFFICULTY OF COMPARATIVE ANALYSIS

However, even by focusing the analysis on length and cost only, an international comparison of the performance indicators of civil justice is not an easy task. Comparative research on judicial systems is still at an early stage, and the availability of data differs greatly from country to country. In some cases official statistics on input and output don't exist. Even when national data are available, comparison is hindered by considerable differences between national court rules, rules on disputation of sentences, and the division of competences among judging organs. Because of these differences, data with apparently similar denominations pertain in point of fact to phenomena that differ enormously from country to country.

¹ A.A.S. Zuckerman, *Civil Justice in Crisis*, Oxford University Press, Oxford, 1999, pag. 3 .

Attempts to build homogeneous databases have been few in number, and remain at an early stage. Some research centres, such as Business International and IMD, have developed qualitative indicators of the efficiency of justice. These indicators are derived from surveys conducted across a wide sample of countries, including both developed and lesser developed nations.

Even if generally used in economic literature, these indicators have limited effectiveness in catching the differences among judicial systems of developed countries, as they will have been conceived with the aim of evaluating the level of country-risk as a guide for investors, and used to compare extremely dissimilar countries (from Germany to Bangladesh). For this reason they primarily reflect the degree of independence of judges and the level of corruption of the courts system. The duration of proceedings and the public and private costs of justice, which are on the contrary the core of this analysis have less weight.

The European Commission and World Bank provide homogeneous databases on the costs and duration of proceedings². Both databases are collected through surveys, but the majority of their variables are not the outcome of subjective rankings, but represent rather a study of rules and regulations, with outputs being measured in terms of an objective characteristic, such as time or cost. In order to homogenize data, both of them refer to a hypothetical case: for instance a breach of contract for the value of 3,000 dollars. The World Bank database is more up-to-date (data refer to 2003) and includes a higher number of countries (nearly 140 countries are surveyed) than that of the European Commission (data refer to year 1996 for 15 countries). The World Bank variables, however, refer to enforcement proceedings, as the hypothetical case chosen is the collection of an insolvent check. To analyze the causes of inefficiencies in civil justice, not enforcement proceedings, but actions requiring adjudication of substantive rights must be considered the core of the issue. This type of proceeding is the focus of the European Commission database³, and thus better suits the aim of this paper. Even if these data refer to 1996, the comparison is still valid. Several countries have partially reformed their justice systems since that date, but the overall situation has not changed significantly.

² S. Djankov, R. La Porta, F. Lopez-de-Silanes, A. Shleifer, Legal Structure and Judicial Efficiency: the Lex Mundi Project, Working Paper downloadable from www.worldbank.org; s. djankov, R. La Porta, F. Lopez-de-Silanes, A. Shleifer, Courts, in "Quarterly Journal of Economics", 2003.

³ Von Freyhold, Vial & Partner Consultants, The Cost of Legal Obstacles to the Disadvantage of Consumers in the Single Market, Report for the European Commission, DG XXIV Consumer Policy and Consumer Health Protection, 1998.

3 COST AND DURATION OF CIVIL PROCEEDINGS IN THE EUROPEAN UNION

The European Commission statistics use a hypothetical case of litigation for breach of contract. Two values of such contract are considered: 50,000 Euros and 200,000 Euros, in order to reflect differences in duration and costs in relation to the value and complexity of the dispute. Values refer to 1996 and hence are related to the set of rules in force at that time. Comparing the data (see Table 1) Italy is shown as the country with the longest duration of judicial proceedings: to complete the three levels of adjudication more than 9 and a half years are required. That is about 70% more than the average time required in the EU, and more than double the time required in Germany or the United Kingdom.

Comparing the justice efficiency indicators through three levels of adjudication is not strictly correct, but is the best choice given the data. In effect, the rules for appealing differ considerably from one country to another, and above all, the incidence of appeal varies widely from country to country. For this reason the most accurate methodology of comparison would be to weigh the variables (cost and time) referring to the second and third degrees versus how frequently they are used in each country. Unfortunately this information is not at present available, and hence employing all three levels provides the best harmonization of data.

After 1996, some countries, among them Italy, started reforming judicial proceedings, albeit if reform remains at an early stage or unfinished. Despite these reforms, the overall situation does not visibly differ from that of 1996. Italy has to deal with excessive slowness of civil justice, but other countries also have problems with duration: on average judicial proceedings last four years; a span decidedly incompatible with good performances of the economic system.

If our comparison applies the cost factor, Italy stands in a much better position (see Table 2). For the parties involved Italian civil proceedings cost less than the EU average: 54% less if the amount is 50,000 Euros, 39% less if the amount is 200,000 euros. Italy's costs have a ratio of one to eight with those of the United Kingdom, which are the highest in the European Union.

In most countries the bulk of costs go in lawyer's fees (93% in Italy, 99% in Spain). Germany is an exception, as lawyer's fees account for only 66% of costs, the remainder being court fees.

On the scale of importance, duration comes before cost. The reason for this will be illustrated and demonstrated in the following pages, but, anticipating

the results, the time variable has a major impact as it can lead to a path of increasing congestion in civil justice.

The excessive length of judicial proceedings may be interpreted as the consequence of a mismatch between demand and supply of justice. The aim of this paper is to investigate if in Italy it is the supply that is insufficient - which is the general opinion - or if, on the contrary, the mismatch is due to excessive demand.

4 THE SUPPLY OF JUSTICE IN EUROPE AND ITALY

In December 2004, a comprehensive and homogeneous database⁴ reporting public expenditure for justice in EU countries (see Table 3) was published for the first time.

The data reveal that Italian public expenditure for justice is not at all low when compared with that of other EU countries whose proceedings take less time. According to the EU data, in Sweden, Germany and Netherlands legal proceedings for the same subject matter last half the time required in Italy. These countries, however, spend a similar amount of public resources to Italy (44 Euros per inhabitant in Sweden, 53 in Germany, 41 in Netherlands, compared to 46 in Italy).

This outcome corroborates previous data, albeit fragmentary and not highly homogeneous, relating to 1996 and to 1999 (Marchesi 2003).

Nevertheless, public expenditure data do not provide a true picture of supply levels. Not only because they are affected by wage levels of judges in the various countries (according to the CEPEJ report, Italian judges earn 30% more than their French colleagues, but 50% less than English judges) but also because the levels of such expenditure are strongly influenced by the national characteristics of individual justice systems. For instance, expenditure in the United Kingdom appears much lower than that of other countries, but in the U.K. a large part of legal proceedings are conducted in the lawyers' offices rather than the courts. This also occurs in civil law countries, into which category fall all other EU countries with the exception of Ireland. Thus a large portion of the legal system's costs is directly charged to citizens as a kind of fee.

⁴ European Commission for the Efficiency of Justice (CEPEJ), *European Judicial Systems 2002*, Document CEPEJ (2004) 30, Strasbourg, 2004.

For this reason, legal aid plays an important role in the U.K. and extensive public resources are devolved to fund it; thus they account for double the expenditure specific to court proceedings (53.8 euros per inhabitant for Legal Aid, 16.89 Euros for the courts (see Table 3). In the light of this new evidence, a rather surprising result emerges: if funding for legal aid is included expenditure in the United Kingdom is higher than in Italy. Another example is the case of Germany, one of the best performers in terms of duration. Germany makes a high level of public expenditure on justice (53.15 € per inhab). but two thirds of this amount is covered by fees imposed on the parties for resorting to judicial proceedings.

A more valid assessment of supply in each country could be derived from a comparison of the number of professional judges per inhabitant (see Table 4). The ranking (Table 4) has not appreciably changed during the last five years, apart from Italy, which has improved its position in terms of supply size following an extensive recruitment policy in the justice sector.

This indicator, however, also entails some problems as it cannot account for non professional judges, and subsequently underestimates the supply of those countries where justices of the peace, for example, are widely used. It is also true that this type of judge is difficult to take into account, as their competences differ widely from country to country. In some countries they are entitled to judge only minor civil claims, in others, criminal trials also fall within their competence.

In spite of these reservations, one fact clearly emerges from this comparison: in Italy the resources, both financial and human, devoted to the justice system are not inferior to those of other EU countries with better performances in terms of duration of legal proceedings.

Even if public expenditure on justice in Italy is high and has continuously grown over the past decade (by 140%), the state of the justice system is grave and constantly worsening. The number of pending civil and criminal suits has not reduced during this period, on the contrary, it is still growing at a strong rate. During the last decade the number of cases has doubled, and over the last twenty years the duration of civil proceedings has increased by 90%, or 97% if only proceedings of an economic nature (for example breach of contract, debt recovery etc.) are considered. In 2004, to conclude the first and second judicial levels required about 2,800 days.

The number of judges, and their productivity too, have also seen a steady increase. Since the 'fifties, the number of professional judges per inhabitant has increased by about 80% and their productivity has increased almost 65%. Hence this steady increase in the duration of legal proceedings cannot be due to a lack in the aggregate supply. A parameter that remains to be analyzed is

whether a misallocation of resources amongst the various judicial districts is the cause of such an inefficient outcome

5 PROBLEMS ARISING FROM THE ALLOCATION OF RESOURCES BETWEEN JUDICIAL DISTRICTS

Assessing the allocation of resources between one area and another utilizing simple indicators produces puzzling results.

There are three main parameters which may be used to assess the territorial distribution of judges and administrative staff: the percentage per inhabitant, the percentage versus number of new proceedings, the percentage versus the number of pending cases. None of these parameters serves better than the other: the first is a neutral measurement of uniformity of service across different regions of the country, the second and third measure the adequacy of resources in relation to the caseload. But the statistical data produced using one rather than another of these parameters are surprisingly different, even when comparing the second and third parameters, which may refer to a similar phenomenon (see Table 5)

Interesting results are however obtained if an econometric analysis based on an industrial economic approach is performed. Using data sourced from ISTAT and the Ministry of Justice and applying an econometric analysis to the Italian courts utilizing a translog function, the outcome is that a certain degree of inefficiency in the supply side derives from the size of the courts.

5.1 The translog input requirement function

The production function of justice has two inputs: labor - that is, the number of judges, administrative staff, and investigative policemen - and capital - that is buildings and equipment -.

An accurate assessment of the value of capital is rendered impossible by both theoretical difficulties and by lack of data.⁵ However, more than 80% of the

⁵ See A. ANTONELLI, D. MARCHESI, Dimensione e Composizione Ottimali degli Uffici Giudiziari e effetti dell'Introduzione del Giudice Unico, in "Ricerche della commissione Tecnica della Spesa Pubblica", n. 6 1999.

production costs for justice derive from labor⁶ input, and hence our econometric analysis can be focused exclusively on this factor without compromising our results. It is further possible to focus only on the number of judges, as administrative staff represent a perfect complement, as demonstrated in Antonelli & Marchesi (1999).

The functional form of the production function chosen is the translog:

$$\begin{aligned} \ln y = & \alpha_0 + \alpha_1 \ln x_1 + \alpha_2 \ln x_2 + \alpha_3 \ln x_3 + \alpha_4 \ln x_4 + \frac{1}{2} \alpha_{11} (\ln x_1)^2 \\ & + \frac{1}{2} \alpha_{22} (\ln x_2)^2 + \frac{1}{2} \alpha_{33} (\ln x_3)^2 + \frac{1}{2} \alpha_{44} (\ln x_4)^2 + \alpha_{12} \ln x_1 \ln x_2 + \\ & \alpha_{13} \ln x_1 \ln x_3 + \alpha_{14} \ln x_1 \ln x_4 + \alpha_{23} \ln x_2 \ln x_3 + \alpha_{24} \ln x_2 \ln x_4 + \\ & \alpha_{34} \ln x_3 \ln x_4 + \beta \ln x_5 \end{aligned}$$

Where: y is the number of judges, x_1 is criminal proceedings concluded with a judgement; x_2 civil proceedings in labor and social security issues that concluded with a judgement; x_3 other civil proceedings on economic issues; x_4 civil proceedings concluded without a judgement; x_5 the total amount of pending cases.

If we include the variable “pending cases” in this function, problems emerge. In effect, as it is not possible to ascertain what stage each suit has reached, it is impossible to discriminate their role both in output - inasmuch as they reflect progression in a case - and input, as they are a semi-processed product providing input for the further progression or conclusion of the proceedings. For this reason, pending cases are included in the function as a control variable.

The estimates refer to two different years and scenarios: 1996, before the “*giudice unico*” (single judge) reform, and 2001 after the reform had been introduced, in order to assess its impact. This reform simplified procedural rules and in the majority of cases reduced from three to one the number of judges charged with judging the suit. This streamlining also unified two types of court for each judicial district: the *Preture* and the *Tribunali* . The *Tribunali* were those courts empowered with handling the most important cases (either for their monetary value of the litigation or for the gravity of the crime) and the *Preture* were those courts empowered to rule on less important cases from a pecuniary viewpoint, or on labor issues. At present only the *Tribunali* remain, as the reform abolished the *Preture*. Nonetheless, the rules of procedure in the former are very similar to those that were in force in the *Preture*.

⁶ See A. ANTONELLI, D. MARCHESI as above.

Thus in our estimates the type of case (i.e. type of output) is the same in both years, but due to the unification of the two types of courts following the reform, this 1996 sample is shared between them, whereas in 2001 it is totally assigned to the *Tribunali*⁷. The results of the 1996⁸ estimates are shown in Tables 6 and 7. The value of the coefficients is as we would have predicted: the most labor-intensive proceedings are those that conclude with a judgement, and civil suits are even more labor-intensive than criminal proceedings. This makes sense, as in Italy civil proceedings are conducted on a written basis, and contrary to criminal justice, there are no simplified forms of proceedings provided by the law. Labor proceedings follow court rules that are simpler and faster than those of other civil proceedings (especially before the reform), and our estimates register that type of proceeding as not significant. The most relevant result of the analysis is that the indicator of total returns on scale calculated with coefficients of the explanatory variables shows increasing returns⁹.

To analyze whether such increasing returns are fully exploited or not is useful to plot the value of the scale elasticity index for each court¹⁰ (see Chart.1 and Chart 2). This consists of a graph where the horizontal axis registers the size of the court (i.e. the number of judges assigned to each court) and the vertical axis shows the value of the index.. Each dot corresponds to a court. The efficiency value of the index is 1, for a value higher than 1, the court would be more efficient if its scale were increased. The opposite is true for an index value lower than 1.

Both graphs show that the majority of courts are too small to be efficient. In detail, before the reform 89% of the *Preture* and 87% of the *Tribunali* were too small.

The effects of the reform are shown in Table 8 and Chart 3 . The value of the coefficient in Table 8 shows that simplifying court rules shifted the weight

⁷ In 1996 there are 167 observations for *Preture* and 167 for *Tribunali*. In 2001 there are 164 observations for *Tribunali*. The sources of the data are the Ministry of Justice and ISTAT.

⁸ This estimate is in A. Antonelli e D. Marchesi (1999).

⁹ The indicator S of the total returns of scale is calculated as:
$$S = \frac{1}{\sum_i \alpha_i}$$

¹⁰ The scale elasticity index *ES* for each court is calculated as:
$$ES = \frac{1}{\sum_{i=1}^4 \frac{\partial y}{\partial x_i}}$$

The returns of scale are increasing for $ES < 1$, decreasing for $ES > 1$ and constant for $ES = 1$. The efficiency of scale is achieved when $ES = 1$.

among civil proceedings in absorbing labor: the labor suits that were excluded from the reform are now much more labor intensive, whereas other civil proceedings (streamlined by the reform) are less labor intensive.

The impact of unifying *Preture* and *Tribunali* and the consequent increase of scale of the courts are shown in Chart 3. (the graph is constructed in the same way as previously). At the present time, the percentage of courts that are too small is lower than before, at around 72%.

The increasing returns of scale are allegedly due mainly to the effect of specialization in the activities of judges. As shown above, 72% of Italian courts are too small now (a quarter of them employ even less than 10 judges). The consequence is that the same judge has to rule on both civil and criminal cases. In a slightly better scenario, the judge has to rule on only civil cases, but which concern extremely various issues (divorce, company law, inheritance, breach of contract etc.). In this scenario, specialization is rendered impossible. The importance of specialization accrues from the fact that in Italy improvements in the professional quality of judges is exclusively based on experience, or learning by doing. Unfortunately, judges seem to be strongly adverse to a mandatory specialization. In the past few years various occasional attempts at reform requiring specialization at entry level have encountered resistance.

The econometric analysis further reveals that a reform introduced to change some procedural rules had a knock-on effect; that of the enlargement of Italian courts, and produced a positive impulse to the productivity of judges throughout the entire system. As a consequence of the introduction of this reform, the caseload of the courts have halted their spiralling rate of increase.

Unfortunately, results have not further improved owing to a reform concerning the territorial distribution of the Italian courts not yet being introduced. This ulterior reform should unify several contiguous judicial districts in order to make courts larger. At present the Italian territory is divided into 167 judicial districts for the administration of justice, and each of them has a court, a dense and now irrational distribution defined almost a century ago when when travel was slow.

In conclusion, problems in the supply side do exist, and they lie in misallocation of resources, as the large majority of courts are too small. These problems, however, are not so overwhelming as to be the defining cause of the snail' s pace in Italian justice.

6 THE PATHOLOGICAL ASPECT OF THE DEMAND FOR CIVIL JUSTICE

To summarize, in Italy the time required to conclude suits is extraordinarily long. The general opinion is that this is due to lack of supply. As we have seen I have explained that problems in the supply side do exist, but they are not so overwhelming as to be the principal cause of such dramatic delays in the justice system.

So let's analyse the demand side to verify if that is the area where the main problems nest.

About 60% of the demand for legal justice is composed of suits on economic matters (mainly ownership, contracts and debts). What is surprising is that this group comprises disputes of really low monetary value: 60% of them are litigations for less than 5,000 Euros, and of this 60%, only a quarter concern disputes for more than 2,500 Euros. In addition, even in the first degree proceedings only 38% of cases conclude with a judgement. The other 62% in the main end in the withdrawal of one of the parties, or in a settlement reached during the suit, which generally occurs after the proceedings have been drawn out over a long period of time. These data suggest the existence of what we could define the pathological component of demand, inasmuch as they do not derive from a real need to resolve an uncertain juridical issue, but from requirements of a different order. In fact, it is common opinion in this sector that judges are frequently called to rule on suits that are so trivial, either for the low value of the matter, or for the evident certainty in attributing rights, they should never have come to court.

This statistical and anecdotal information implies that there is a segment of demand that could be defined as *pathological*, inasmuch as it derives from opportunistic behaviour and not from the necessity of resolving controversial juridical issues.

7 THE PATHOLOGICAL COMPONENT OF DEMAND

To outline the relationships between the rules governing initiation of legal proceedings and the existence of incentives to use them in a distorted and abusive fashion, I have elaborated a model that hypothesizes rational behaviour of the agents and pinpoints the conditions under which it is economically

benefits the party clearly in the wrong to appear in court rather than to honour contractual commitments. In the model normative factors and the cost of access to justice are taken into account.

The principal conclusion is that the extensive duration of trials may determine a pathological expansion in the demand for justice, creating a vicious circle of congestion causing further congestion. The pathological demand for justice, it emerges, is directly related to the difference between the market interest rate and the legal rate of interest and to the average duration of trials, and inversely related to the quota of trial expenses that the losing party will be obliged to pay to the winning party.

The difference between legal and market rates is significant from two points of view: i) in absolute value, because the convenience for the party in the wrong to defer payment due, and thus an incentive to pathological behavior; ii) in terms of predictability, because the greater the volatility of market rates of interest, the greater the uncertainty in predicting the pay-off (i.e. the minimum sum of money for which it is convenient to settle and which the counterpart is ready to accept), thus preventing a settlement without going to court. As such a settlement would be net of trial expenses, it would be more advantageous for both parties than going to court. In other words, a high degree of unpredictability on the outcome of market interest rates for the duration of the lawsuit, introduces a high degree of uncertainty in the counterpart's expectations on losses or gains deriving from waiting for the lawsuit to conclude, making the bargaining margin so ample as to bar any chance of agreement.

This explains why in many cases the parties reach an agreement, or one of the parties abandons the suit, in the course of proceedings. In fact, as time passes and the proceeding is drawing near to conclusion, the time horizon for predicting market rate trends narrows, the forecast loses uncertainty and thus reduces the bargaining margin. The benefit in settling or abandoning the lawsuit becomes clearer, thus favoring the choice that brings the case to an end. If this hypothesis were not valid, the pathological recourse to justice could not be explained, as it brings the disadvantage to both parties of having to pay legal fees.

8 THE PATHOLOGICAL DEMAND FOR JUSTICE AS THE RESULT OF RATIONAL BEHAVIOUR. AN ANALYTICAL MODEL

This model relates to a civil suit of an economic matter. For the sake of simplicity, we assume that there are only two agents, although the intervention of a third party could be included, at the cost of introducing some formal complications. For clarity, we assume that the subject of the litigation is damage to value C caused by agent A to B . However, this same hypothesis is applicable to any other form of breach or obstruction of the law. We also assume that A knows he is in the wrong, and deems the sum claimed by B to be fair. This is a strong hypothesis but, as will become evident in the course of our analysis, it does not invalidate the results of the model.

A has two choices:

- 1) To acknowledge being in the wrong and to pay the amount C claimed by B ;
- 2) Not to pay and be brought to court.

The latter choice can bring two different outcomes:

- 2.1) The trial runs its entire course and ends with a judgement that by assumption can only be unfavourable to A , who will be required to pay the pecuniary value of the damages, plus the accrued legal interests and part of B 's legal fees. In addition, A must also pay his own legal costs. The cost to A of this outcome will be:

$$C(1 + i_l)^n + aS_b + S_a \quad (1)$$

where:

C is the amount of money claimed by B , or the monetary value of the damages;

i_l is the legal rate of interest;

n is the number of days from the beginning of the controversy to the moment of the judgement;

S_a is the trial costs of A ;

aS_b is the part of B 's legal costs that A will be required to refund.

2.2) during the trial B agrees to settle for a sum of money less than C, or even abandons the suit.

To fully investigate these foregoing choices before A among the alternatives 1) and 2), let's analyze separately hypothesis 2.1) and 2.2).

8.1 Absence of uncertainty

8.1.1 The choice of A between the alternatives 1) and 2.1)

If hypothesis 2.1) has 100% probability of happening, 1) is the only rational choice for A, unless the difference between the market and the legal rate of interest is so large as to make the opportunity cost of choice 1) equal or greater than the expected cost of choice 2.1).

The opportunity cost of alternative 1) is given by $C(1+i_m)^n$. In fact, by paying C at once, A loses the market interest rate accrued throughout the duration of the trial to the sum C.

From equation (1), the condition of indifference between the two choices is:

$$C(1+i_m)^n = C(1+i_l)^n + aS_b + S_a \quad (2)$$

with $0 < a \leq 1$

or setting $\alpha = \frac{S_a}{C}$ and $\beta = \frac{S_b}{C}$

$$i_m = -1 + \left[(1+i_l)^n + \alpha + a\beta \right]^{\frac{1}{n}} \quad (3)$$

with $0 < a \leq 1$.

Therefore the condition for which A chooses 2.1) is:

$$i_m \geq -1 + \left[(1+i_l)^n + \alpha + a\beta \right]^{\frac{1}{n}} \quad (4)$$

with $0 < a \leq 1$.

8.1.2 The choice of A between alternative 1) and 2.2)

If the hypothesis 2.2) has 100% probability of happening, A must choose between the opportunity cost of alternative 1) and the cost of alternative 2.2). The opportunity cost of alternative 1 is given by:

$$C(1+i_m)^h \quad (5)$$

with $h < n$.

Where h is the number of days between the start of the suit and the settlement.

The cost of alternative 2.2) is:

$$bC(1+i_l)^h + S_a \left(\frac{h}{n} \right) \quad (6)$$

with $h < n$

$$0 \leq b < 1$$

where: b is the percentage of payment of damages that B claims for settlement. If $b=0$, B gives up the suit.

$S_a \left(\frac{h}{n} \right)$ is the percentage of legal fees paid by A (a relation between fees and length of the proceedings is assumed in order to introduce the formula that determines the lawyer's fees in Italy).

Then the condition of indifference is:

$$C(1+i_m)^h = bC(1+i_l)^h + S_a \left(\frac{h}{n} \right)$$

with: $h < n$

$$0 \leq b < 1$$

or:

$$i_m = -1 + [b(1+i_l)^h] + \alpha \left(\frac{h}{n} \right)^{\frac{1}{h}} \quad (7)$$

with:

$$0 \leq \frac{h}{n} < 1$$

and the condition by which A chooses alternative 2.2) is:

$$i_m \geq -1 + [b(1+i_l)^h] + \alpha \left(\frac{h}{n} \right)^{\frac{1}{h}} \quad (8)$$

with:

$$0 \leq \frac{h}{n} < 1$$

Comparing equation (8) with (4), we can immediately verify that for the same value of i , α and n , the value of i_m that satisfies equation (8) is smaller than the value which satisfies equation (4). In fact for h that tends to n , and for b that tends to 1, as the situation becomes more unfavorable for A, equation (7) becomes very similar to equation (3). In particular, the left side of (7) tends to become equal to equalize the right hand of (3), except for S_b which is missing in (7). This implies that for the same value of i , α and n , equation (8) requires a value of i_m , which is smaller than that satisfying (4).

8.1.3 The choice in conditions of uncertainty

We can now remove the hypothesis of an absence of uncertainty adopted above, and analyse the choice of A between alternatives 1) (to pay) and 2) (not to pay). Since A cannot know with certainty which of the two outcomes 2.1 or 2.2 will occur, he assigns a probability p to each outcome. The uncertainty is correlated to the predictions A must make about the length of the proceedings, the trend of the variables relevant to his decision for the period of the trial, and above all to B's predictions about the same variables. The value of probabilities associated to the possible outcomes depends on the contractual strength of B, which is influenced by four variables:

- the quota of trial expenses refunded by A, aS_b ,
- the legal rate of interest i_l ;
- the market rate of interest i_m ;
- the expected length of the suit, n .

In fact, if B decides to settle after h days from the beginning of the proceedings, he gets:

$$bC(1 + i_l)^h(1 + i_m)^{n-h} - S_b\left(\frac{n}{h}\right) \quad (9)$$

Where:

$bC(1 + i_l)^h$ is that part of damages, augmented by legal interest, that B is claiming as settlement;

$(1 + i_m)^{n-h}$ is the interest at market rate that B predicts getting by investing C for $n-h$ days at the expected market interest rate (it hence also represents the opportunity cost of waiting for the judgement);

$S_b\left(\frac{n}{h}\right)$ are the trial expenses legal costs born by B till the moment of the settlement, which in this outcome are not sustained by A.

If, instead, B opts to wait for the judgement, he gets:

$$C(1 + i_l)^n - S_b(1 - a) \quad (10)$$

Where $S_b(1-a)$ is the percentage of trial expenses legal costs that are not refunded to him by A, which therefore, remain his obligation.

The condition by which B holds out without settling in advance is given by:

$$(1 + i_l)^n - S_b(1 - a) \geq bC(1 + i_l)^h(1 + i_m)^{n-h} - S_b\left(\frac{n}{h}\right) \quad (11)$$

Thus the contractual strength of B, that is his advantage in staying in the dispute until judgment is reached, is inversely related to; the gap between market and legal interest rates, to the ratio between legal costs and pecuniary value of the litigation and the expected length of proceedings. The value of C is known to A, since it is the object of the litigation; A can also predict, thanks to the advice of his/her lawyer, with fair accuracy the values of n and of S_b . The greatest uncertainty concerns B's expectations about market interest rate in period n . On the basis of the values that B can be expected to assign to the variables in equation (11), A attributes a probability to every possible choice of B. Then, for A the condition of indifference between alternatives 1) and 2) becomes:

$$i_m = p_{k+1} \left\{ -1 + \left[(1 + i_l)^n + a\alpha + \beta \right]^{\frac{1}{n}} \right\} + p_f \left\{ -1 + \left[b(1 + i_l)^h \alpha \left(\frac{h}{n} \right) \right]^{\frac{1}{h}} \right\} \quad (12)$$

with:

$$0 \leq b < 1$$

$$f = 1, \dots, k$$

$$p_f + p_{k+1} = 1$$

Therefore, the condition for which A chooses not to pay and hence the premise for pathological demand is:

$$i_m \geq p_{k+1} \left\{ -1 + \left[(1 + i_l)^n + a\alpha + \beta \right]^{\frac{1}{n}} \right\} + p_f \left\{ -1 + \left[b(1 + i_l)^h \alpha \left(\frac{h}{n} \right) \right]^{\frac{1}{h}} \right\} \quad (13)$$

with:

$$0 \leq b < 1$$

$$f = 1, \dots, k$$

$$p_f + p_{k+1} = 1$$

On the basis of the condition of choice expressed by equation (13), it is possible to express pathological demand as:

$$d_p = f(i_m, i_b, n, \alpha, \alpha\beta) \quad (14)$$

Such pathological demand is directly related to the expected duration of the suit, and to the gap between legal and market interest rate and inversely related to the ratio between legal costs and the pecuniary value of the litigation for both A and B.

9 THE PATHOLOGICAL DEMAND: A GLANCE AT THE DATA

Graph 4 describes the trend of the differential between BOT (Italian Treasury Bonds) and the legal interest rate and a proxy variable of pathological demand. This proxy is the annual ratio between the number of new civil suits and GDP, under the assumption that the physiological side of demand is tightly linked to economic activity, and for this reason to GDP.

In order to simulate the agent's expectations about the gap between Italian Treasury Bonds and the legal interest rate during the course of proceedings, the variable for this gap has been brought forward two years in relation to the variable for pathological demand.

The graph shows the relation between that gap and pathological demand. The reaction of pathological demand to the shock of 1990 when the legal interest rate rose, as the result of a reform, from 5% to 10%, is remarkable.

The relevance of the expected length of proceedings to pathological demand largely derives from the fact that it amplifies the effects produced by this gap. Given a fixed gap, the longer the expected duration of the suit, the lower the bargaining power of the party in the right. In point of fact, given a fixed gap, a longer duration increases the opportunity cost for the wronged party of waiting for a judgment. As a consequence, the probability assigned by the party in the wrong to the chance of reaching an advantageous settlement (or even

withdrawal of the suit by the opposite party) during proceedings increases, and hence pathological demand is incentivated.

The duration of proceedings amplifies the effect of the interest gap even more directly, as the greater the duration, the more advantageous delaying payment becomes. Even the effects produced by the market interest rate volatility are amplified by longer proceedings, as prolonging the predictive time horizon increases uncertainties about market rates, and the gap between pay-off values widens. So when the interest gap is high, positive and volatile, longer proceedings introduce an explosive element to pathological demand. The result is a loop: an increase in duration that provokes an increase in demand that, given a fixed supply, increases congestion in the system, and consequently further prolongs duration, and so on. The exponential growth of the duration of proceedings on economic issues shown by the data corroborates the existence of this loop. We may thus assume that any change to legislation which induces an extension of the physiological duration of proceedings produces a multiple growth effect on the true length of proceedings.

In order to reduce the pathological side of demand, adjusting the legal interest rate to one from the market (for example, Italian Treasury Bonds) would be appropriate, and could be made at the time of judgement, *ex post* (with retroactive effect). This adjustment should be made in order to bring the legal interest rate up to the market interest value, as it occurred year by year during the proceedings. Eliminating *ex post* the gap between these two rates will resolve:

- i) the problems linked to the foresight of the two agents and the consequent problems implied by differences in assessing pay-offs.
- ii) The problems linked to the value of the interest gap and to the consequent imbalance in the bargaining power of the two parties.

Up until 1996, the legal interest rate had been fixed by law from the beginning of the century and, as we saw have seen, remained virtually unchanged for a very long period. In 1996 the rules changed and from that moment the legal interest rate has been determined year by year by the Minister of the Treasury in relation to the market rate pertaining to the previous year. Even though this new rule introduces a relation of dependency for the legal rate on that of the market, it does not seem to be efficient. In fact, this adjustment is not applied *ex post*, but *ex ante*, and is not automatically applied, but is instead at the Minister's discretion. Not only does this add a new, element of uncertainty to the imbalance between the parties predictions, but introduces an element of individual estimates to predictions for future legal interest rates.

As for fee shifting, in Italy the law rules that the court fees and the lawyers' fees of the winning party be charged to the losing party. But there are several exceptions to this rule, both regarding the portion of those fees that the loser is actually required to repay and also regarding any refund being imposed by the judgment at all. In effect the law states that if the fees are deemed by the judge to be excessive, it is possible to enforce payment of only a part, and that if there are "just causes" the judge can sentence each party to bear his or her own fees.

In addition, in the case of a settlement being reached during the proceeding, sharing the fees between each party is the rule.

As a consequence, the party in the right, even in the best case - that is if she or he achieves a crushing victory -, is refunded by the other party only a portion of the fees that she or he sustained, and in all other cases has to bear the total amount of these fees. In the model for the party in the wrong, the value of $a\beta$ is low in the case of a judgment and zero in the case of settlement. The evident consequence is an incentive to pathological demand.

10 THE IMPORTANCE OF THE FORMULA FOR CALCULATING LAWYER'S FEES

For pathological demand, the formula for calculating the lawyer's fees is even more important¹¹ than the level of the fees themselves.

A formula that links the level of fees to the duration of proceedings adds the interest of the lawyer to the opportunistic interest of the party.

Form country to country, lawyers' fees are broadly speaking calculated on the basis of three different methods:

- 1) **Lump sum.** The fees are a flat rate and their level depends on the pecuniary value of the litigation, but is not influenced by unforeseen complications to proceedings and by the subsequent extra work for the lawyer. In the Union this formula is the rule in Germany, Denmark, Greece and Portugal, but only for assistance in court for the last (see Table 9).

¹¹ See H.M. Kritzer, W. Felstiner, A. Sarat, D. Trubek, *The Impact of fee Arrangement on Lawyer Effort*, in, *Law and Society Review*, n.19, 1985, pp.251-278; H.M. Kritzer, *The Justice Broker: Lawyers and Ordinary Litigation*, Oxford University Press, New York, 1990.

- 2) **Hourly fees.** The level of fees depends on the time spent by the lawyer in preparing the suit and in assisting the client in court. This fee level per hour may be unregulated, determined by the law and linked or not to the value of the litigation and urgency of the case. The hourly fee formula is, albeit under varying terms, the most commonly adopted method in European countries. It is the rule in Belgium, Finland, France, Ireland, Netherlands, United Kingdom and Sweden.
- 3) **“Piece -Work” fees.** The level of these fees is based on a mandatory forensic tariff elaborated by law and depends on the quantity of work done by the lawyer in preparing the litigation and assisting the client in court (for example, a fee for each document written, a fee for each outline proposed etc.). The level of each single fee is also correlated to the pecuniary value of the litigation. The only country that uses this rule is Italy (see Table 8).

To each of these formulas contingency fees may or not be added. Finally, independently of the formula adopted by the various court systems, there may be specific cases of lawyers who are employees of a third party, such as an insurance company or a trade union. In this case the lawyer’s earnings are related solely to her/his wage, and is completely unconnected to the issue, the pecuniary value and even the outcome of the litigation.

Independently from the level of fees, our formula is relevant to determining behavioral incentives that influence the choices offered to lawyers. These incentives affect three aspects of the lawyer’s behavior:

- 1) The quality of service, in terms of time and work devoted to the litigation.
- 2) The benefits of reaching a pre-trial settlement of the dispute or a settlement during proceedings but before the judgment.
- 3) The benefits of protracting proceedings for as long as possible.

As regards the quality of service, hourly fees incentivate the lawyer to invest considerable time and work in the case, as maximizing the time invested determines a maximized return of earnings.

In the case of lump sum fees, the lawyer is incentivated to minimize his/her efforts, as given the fixed revenue, by so doing he/she minimizes costs (the time invested) and maximizes returns.

In both cases a typical principal-agent problem arises. The client (the principal) who has less information than his/her lawyer (the agent) about the optimal effort to be invested in the litigation has opposing interests to his/her lawyer (in the case of hourly fees, the client prefers the minimization of time,

and for lump sum fees the client prefers maximization of work) and does not know how to control the lawyer. The contingency fee is an efficient correction for the case of lump sum fees because the client's objective (maximization of the lawyer's work) becomes a variable of the profit function of the lawyer: if the effort invested is too low, the judgment will be negative and the lawyer will lose their fee.

The formula remains relevant even when considering the role played by lawyers in urging the parties to reach a settlement. In the case of lump sum fees, lawyers have much more interest in coming to a settlement. In Germany, where this form of fee fixing is the norm, fees are paid in three instalments: the first one scheduled to be paid at the beginning of litigation, the second on the first hearing in court, the third on judgment. In order to avoid losing the second and third payments, lawyers tended not to encourage clients to reach a pre-trial settlement to avoid coming to trial. As a result, German legislation was modified and the lawyer is now allowed to charge for two payments in the case of a pre-trial settlement. In this way a strong incentive for reaching settlements was introduced, and the number of suits rapidly decreased.

But the strongest incentives to settlement occur when the lawyer is an employee of others (insurance company, trade union, etc..), in which case his or her earnings are totally unrelated to the issue, the pecuniary value and even the outcome of the suit. For this reason it is in the lawyer's interests to minimize the work involved, and reaching a settlement becomes economically convenient.

In the Netherlands, congestion in civil justice has decreased as a consequence of the development of the insurance market. The insurance companies which employ their own lawyers offer insurance against the costs incurred in the event of a civil suit. The result is that 96% of suits involving insured parties ends with a settlement before proceedings begin.

The lawyers' fees formula may not only be an incentive, or not, to the settlement, but may also be an incentive to protract proceedings for as long as possible. A comparison between European countries shows a relation between the formula and the duration of proceedings. Four of the five countries topping the rank for the average length of cases - Austria, Portugal, Denmark and Germany - do not have formulas that link the level of fees with the duration of proceedings, as the lump sum fee is the norm. As we have seen, this formula is the only one that incentivates lawyers to minimize their work and so shorten the duration of suits. In the two other formulas, on the contrary, incentives are for lawyers to protract proceedings. But the most perverse of these formulas is that of the Italian system, where lawyers have the greatest incentive to make proceedings as complicated and protracted as possible. The effects of such incentives are further amplified by the wide powers that Italian legislation

confers on the parties - and their lawyers - in conducting proceedings. The result is that in the game that governs the duration of litigations, the players number five: the two parties, their lawyers and the judge. Three of them have interest in prolonging proceedings to a maximum, one of them (the judge) is a sort of powerless witness, and the last one (the party in the right) is the only player who would benefit from concluding the suit as soon as possible. In Italy the lawyers fees formula has played, and still plays, an important role in impeding the efficiency of justice and in obstructing the processes of reform that could cut proceedings short.

This problem, however, is not exclusively Italian. Recently, in every country throughout Europe the lawyers' lobby has opposed any attempt at reform (see Zuckerman 1999) which would imply shorter trials. In several cases they have been successful. In England for example, the lawyers' lobby successfully blocked the introduction of lump sum fees. Even in Germany, which boasts one of the most efficient systems of legal legislation, residual inefficiencies are caused by the high number of appeals. Those lawyers who have invested a lot in time and preparatory work for the first degree are incentivated to encourage their client to submit an appeal, from which they are likely to gain further earnings without much additional effort. It is no coincidence that German lawyers opposed strongly, and successfully, attempts at reform introducing a limitation to the possibility to appeal.

11 CONCLUSIONS AND PROPOSALS

The congestion in court systems and the excessive length of proceedings are the result of a mismatch between supply and demand for justice.

This paper shows that, contrary to common opinion, in Italy supply side problems are relatively small in comparison to those on the demand side.

Even if the principal inefficiencies of supply are caused by excessively small courts, which do not take advantage of economy of scale and of the specialization in the activities of judge, policies aimed at improving the judicial system have until now only been concerned with increasing the number of judges.

The number of judges per 10,000 inhabitants has risen constantly since the 'fifties, and this growth has even accelerated over the last decade, with an increase of 80%. Other policies related to the supply side were adequately

focused, but insufficiently strong. At the moment about 70% of Italian courts are too small to be efficient, and a reform of the territorial distribution of the courts is necessary and urgent. Several attempts at reform implying the concentration and/or the merger of some courts have been made, but none have ever reached discussion stage in parliament.

Improving the specialization of judges should also be considered a priority, not only because this would increase their productivity, but also because in Italy the professional development of judges relies exclusively on learning by doing. Applicants become professional judges at young age following competitive public examination on a wide range of juridical matters. After this their career is based solely on seniority¹². These career structure does not even incentivate judges to enhance their professional skills, but as the rules governing a judicial career can produce negative externalities on judges impartiality, introducing change is not an easy task. Currently in Italy a bitter struggle concerning reform of the selection and career structure of judges is being conducted between judges and the Ministry of Justice. Specialization provides a partial solution to this dilemma, by increasing the productivity of judges without introducing ambiguous forms of external control over judicial activity.

Until now on the demand side, policies regarding the legal rate of interest and fee shifting have been few and inadequate.

But the fundamental problem, the most basic and, surprisingly, unproposed reform, is that of changing the lawyers' fee formula. To obtain effective incentives, the lump sum formula must be adopted. It is of no importance if the level of fees are fixed by law or unconstrained, but it is, on the contrary, extremely important to allow the lawyer to claim two thirds of the total fee, as occurs in Germany, if a settlement is achieved before proceedings in front of the court begin,. This change of formula is required also for potential reforms that confer greater power on the judge in conducting proceedings, and /or that reduce the average number of hearings in the proceedings brought to court. In 1990 a reform of civil proceedings was approved in Italy, but nonetheless has never been applied because of strong opposition from lawyers, who went so far as to strike for almost a year. Actually this reform combined with the present formula would drastically reduce in their earnings. As a result of such opposition five years later a counter-reform was approved that expunged the unimplemented rules of the 1990 reform most effective in reducing the number of hearings and in shortening the proceedings.

Lawyers' fees in Italy are not so high in comparison with those of other countries. The Italian formula, on the contrary, is the most pernicious because it

¹² See C.Guarnieri & P.Pederzoli (1997).

is an incentive to complicate proceedings and engender a large number of hearings, even causing a lack of transparency that precludes competition among lawyers. So, low fees could perhaps allow bargaining with the lawyer's lobby to change the formula to a lump sum in exchange for higher fee levels. This would be in the general interest, as it would make it possible to reduce the length of proceedings without reducing the rights guaranteed to the parties concerned.

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