Eur J Law Econ (2010) 30:267–300
DOI 10.1007/s10657-010-9164-0

An economic theory of the regulation of preliminary measures

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Published online: 30 May 2010

Abstract Preliminary measures adopted early in litigation are crucial for plaintiffs, given existing court delays and changing economic environment, but can also harm a blameless defendant. Therefore, some form of regulation is needed to minimize the harms that can result and discard non-optimal measures. Law and economic scholars have suggested that courts should control requests for preliminary measures, but this form of regulation fails to explain existing legislations, both in civil law and common law countries. This article argues that non-optimal preliminary measures can be more efficiently filtered through a strict liability regime, and that their judicial control should be residual.

Keywords Civil procedure · Preliminary measures · Economic analysis

JEL Classification K41

1 Introduction

Preliminary measures are an important device in many cases that are litigated today. By adopting a preliminary measure at the beginning of a trial, a judge can ensure the implementation of the decision that shall be taken only after hearing the parties' pleadings and the evidence in full. For example, by adopting a preliminary attachment of the defendant's property on the basis of the complaint, the judge can forestall a maneuver by the defendant to become insolvent during the proceedings and guarantee that the plaintiff will be able to collect a judgment in its favor (Wasserman 1992). A preliminary measure can also be useful to advance the

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enforcement of a potential future judgment, when delaying such enforcement may make it impossible or very difficult to make the plaintiff whole. For instance, an impecunious victim of an accident may obtain a preliminary payment of money to pay for medical assistance pending the proceedings (Wasserman 1990). In sum, a preliminary measure is many times crucial for the effectiveness of judicial decisions. In fact, it is frequent to hear today that many cases would not be even brought before the courts if preliminary relief was not available. Indeed, the need for this mechanism has become especially apparent in the last half of the twentieth century, as a result of the increasing court delays in rendering final decisions and the speed of the changes in the social and economic environment in which litigation takes place.

However, the usage of preliminary measures remains relatively low as a general device. For instance, in Spanish commercial law cases during the year 2002, preliminary injunctions were requested in around 10.8% of the cases, but in civil law cases in the same year preliminary measures were only requested in 6.8% of the cases (Ramos Romeu 2006: 66–67, 68–69). In a sample of patent suits in US. Federal Courts, a type of litigation for which scholars agree that preliminary measures are particularly crucial, Lanjouw and Lerner (1996: 17) found that preliminary measures were requested in 19% of the cases. Cunningham (1995: 219) says that before 1978 the rate of use of preliminary measures in those cases was even lower as a result of a distrust of the mechanism by judges and litigants. Overall, these numbers are far from the rate of usage that one would have expected or desired, given the importance of those measures according to most scholars and practitioners.

This may be because, in spite of their beneficial effects, preliminary measures are also problematic because they may protect an undeserving plaintiff and harm a blameless defendant. Because a preliminary measure will be adopted before the final decision on the merits, and the outcome of the case remains uncertain, there is an inherent risk of a harm to the defendant. This fact has cast a murky shadow on the institution. It is not infrequently that scholars have advanced a narrow interpretation of the possibility of obtaining this form of relief; or they imposed a substantial burden on the plaintiff to show that the measure should issue; or argued for a tight judicial control of preliminary measure requests (Wright et al. 1986: §2948; Lanjouw and Lerner 1996; Silberman 1987: 300–301; Shehadeh and Stewart 2001). In this vein, present procedural regulations of this institution tend to be very protective of defendants: judges are required to control a variety of factors before adopting a preliminary measure, plaintiffs can be held liable for the harms that an unjustified preliminary measure causes, and usually a bond must be posted before the measure is enforced to ensure that the defendant will be compensated if harm occurs.

Now in fact, beyond the reluctance of part of the bar, the academia and judges, to engage in such form of relief, the present regulation of preliminary measures may be at the heart of the problems that the institution faces to achieve a better usage rate. Indeed, one of the thesis of this article is that the effectiveness of preliminary measures both in civil law and common law jurisdictions is severely impaired in part because much weight is put in the judicial control of requests for preliminary measures to filter non-optimal measures at the expense of other mechanisms, such as liability for the harm that measures cause, which could be much more effective in

this task. Moreover, present legal mechanisms tend to be redundant, and therefore inefficient, which leads to an overprotection of defendants. Legislators and scholarship have failed to take into account how the different parts of the regulation of preliminary measures complement each other and the special factual circumstances in which decisions on preliminary measures are taken.

The object of the present paper is to offer a general economic theory of the regulation of preliminary measures which answers the problems that the institution raises and takes into account the empirical circumstances in which the rules must be applied. In particular, the focus will be on preliminary measures that courts can adopt in civil cases involving patrimonial issues, and criminal and family cases are set aside, albeit the extension of the theory to those should not be difficult. For this, it draws on the existing literature on preliminary measures and the work of scholars on the optimal structure of the law.

This is how the paper proceeds. In Sect. 2, the present regulation of preliminary measures in civil and common law countries is briefly explained, and compared. After that, the conventional economic theory on the institution is presented and criticized for failing to explain the existing regulations and practices in a variety of legal systems. Section 3 lays down the framework of the issues that preliminary measures raise and then Sect. 4 the various ways in which legal systems could address those problems. Section 5 dwells into the choice between two particular forms of regulation: liability for harms caused by preliminary measures and the judicial control of preliminary measures, and argues that both mechanisms are complementary but that there are reasons to prefer, as a general matter, a liability system. Section 6 analyzes further the optimal liability regime and argues for the application of strict liability for the harms caused by preliminary measures. Section 7 then considers the possible failure of the liability system when plaintiffs are insolvent and analyzes a variety of mechanisms that could be used to counteract those. It argues that, as a general rule, the use of bonds or securities, which the party requesting a preliminary ruling has to post, to counter the possibility of insolvent plaintiffs may be efficient. By a "bond" I mean, here a throughout this article an amount of money that the party that wishes to obtain a preliminary measure must deposit by the court in order to guarantee the payment of the damages that may result from the measure, and that will only be returned if that party wins the case. If it loses, it shall be applied to the payment of the damages caused by the preliminary measure. Instead of money, legal systems usually accept that a bank guarantee or similar be delivered to the court. Then it offers a solution to the fact that bonds prevent poor plaintiffs from requesting optimal preliminary measures. Finally, Sect. 8 investigates the optimal configuration of a system of judicial control, given the existence of a liability system and suggests a particular standard which has not been articulated before and which takes into account the existence of other legal mechanisms.

2 Existing regulations and analysis of preliminary measures

To begin, it will be useful to spend a moment on the existing regulations of preliminary measures in civil and common law countries, and the mainstream

economic literature on those, to show that current scholarship has failed to appreciate the intricacies of the institution.

2.1 The regulation of preliminary measures in civil and common law countries

Both common law and civil law jurisdictions establish very similar legal mechanisms, with some small differences that do not lead to great differences in practice. I shall use the US as a model of a common law jurisdiction -as Leubsdorf (1978) shows that the US and the UK are comparable-, and Spain, whose regulation resembles very much those of Italy and Germany, as an example of a civil law jurisdiction.

First, as a general matter both under US law and Spanish law a plaintiff may be held liable for the harms that a preliminary measure causes on the defendant (Note 1959: 338; Ramos Romeu 2006: 177–179). In the typical case, the defendant may file a petition for damages in which it will have to show that he has suffered damages, which can be attributed to the plaintiff, and sometimes, he will also have to show that the plaintiff was negligent in requesting the measure. The actual liability regime tends to be underspecified both in common law and civil law countries (Note 1959: 340–343; Carnelutti 1925; Ramos Romeu 2006: 236–257). One needs to draw on the general principles of liability to fill this gap, which usually means that a negligence regime applies (Note 1959: 340–343, 347–348). In Spain, courts have actually adopted a standard of care which is higher than usual: the plaintiff will not be held liable for "bare negligence", but rather the defendant will have to show that the plaintiff was "grossly negligent" or "reckless" (Ramos Romeu 2006: 245–246). The formal justification for this is that by requesting a preliminary measure the plaintiff is actually exercising his right to a due process. The economic explanation behind this standard of care might be that courts face many difficulties in determining whether in fact the plaintiff was negligent, which leads them to set a higher standard of care, which is what one would have predicted from the economic theory of tort rules (see Cooter and Ulen 2003: 341–342; Shavell 2004b: 225). Another less candid explanation is that they are unwilling to recognize their errors in granting unjustified preliminary measures.

Second, both under US law and Spanish law a plaintiff will usually have to post a bond to obtain the measure (Note 1959: 333; Morton 1995: 1863; Ramos Romeu 2006: 319–320), although under both systems the legislators or judges must or may excuse plaintiffs from this requirement under certain circumstances (Note 1959: 338–339; Morton 1995: 1882–1891; Ramos Romeu 2006: 326–340). Most notably, traditionally a plaintiff in both systems does not have to post a bond if he is notoriously solvent (Morton 1995: 1866; Ramos Romeu 2006: 325, 339) or if he is likely to prevail on the merits (Morton 1995: 1866; Ramos Romeu 2006: 336–337), or there is no material harm to the defendant (Morton 1995: 1883–1885). I any case, the bond must be posted before the measure is enforced or otherwise the measure will not be enforced (Note 1959: 338).

Moreover, although in the US, the amount is nominally discretionary (Note 1959: 338–339; Morton 1995: 1892), under both systems the amount of the bond usually takes into account the damages that the defendant can suffer from the injunction.

And it is set lower than that actual amount of damages taking into account considerations such as the likelihood that the plaintiff will prevail on the merits, whether the plaintiff is solvent, or even public interest considerations (Ramos Romeu 2006: 350–354; Morton 1995: 1892–1896). A slight difference between the two systems may be that in the US the amount of the bond imposes a limit on the damages that a defendant is able to recover from an undeserved preliminary measure (Note 1959: 343–344; Leubsdorf 1978: 559; Morton 1995: 1864, 1870–1871), whereas in Spain, the amount of the bond does not impose such limit, and all damages caused by the measure can be recovered (Ramos Romeu 2006: 275).

Third, both under US law and Spanish law the judge will have to control that the request meets a pre-set legal standard before issuing the preliminary measure. The formulation of the standard varies slightly in both systems. The usual standard under the US Federal Rules of Civil Procedure says that the court should verify "(1) the significance of the threat of irreparable harm to the plaintiff if the injunction is not granted; (2) the state of the balance between this harm and the injury that granting the injunction would inflict on defendant; (3) the probability that the plaintiff will succeed on the merits; and (4) the public interest" (Wright et al. 1986: §2948; Lee 2001: 111). Some scholars however suggest that under US law the court must weight (1) the plaintiff's need of such protection against (2) the possibility and extent of injury to the defendant (Note 1959: 335). Under the Spanish Code of Civil Procedure, a court has to consider (1) whether there is the serious risk of a harm pending the proceedings for the plaintiff's claim if a measure is not granted (*periculum in mora*), and (2) whether the plaintiff is likely to prevail on the merits (*fumus boni iuris*). If both circumstances hold, the preliminary measure will be granted (Ramos Romeu 2006: 454–458; Calamandrei 1945: 76–77). It is worth mentioning also that both in Spain and the US, there are particular statutes that establish a different standard of judicial review for the adoption of preliminary measures in some cases. We shall not go into the details of these here, but advance that the theory that is developed can also account for them.

We can observe some differences in the standard of judicial control between those two countries. First of all, whereas the common law standard requires that the harm that the plaintiff can suffer if the measure is not granted be "irreparable", the civil law standard does not, and therefore civil law courts could grant measures in more cases than common law courts. But in practice common law courts are also more lenient than what the standard might suggest and issue preliminary measures in circumstances that fall short of being irreparable (Leubsdorf 1978: 561–563; Wasserman 1990: 663–668). Then, under Spanish law, there is no general requirement to take into account the public interest, which there is under US Law. But in fact, in legislation regarding specific sectors, the analysis of the public interest is also required (Ramos Romeu 2006: 441–442). Finally, under both standards courts should take into account whether the plaintiff will prevail on the merits, but under US law the court also has to balance the harms that the plaintiff and the defendant may suffer, whereas under Spanish law no such balancing is required, but instead the court should check that there is a serious risk of a harm for the plaintiff. Now in fact, as I show elsewhere, Spanish Courts do balance the harms that both parties may suffer as a general rule (Ramos Romeu 2006: 459–469).

Moreover, as Lee (2001: 113) shows, some US courts apply a standard which is closer to that in Spain: the preliminary injunction shall issue if the plaintiff is "likely to succeed on the merits" and "will suffer irreparable harm if the injunction is denied". Still, I would tend to think that under this standard, US courts would continue to balance the hardships as Spanish courts do, for reasons that we will see later in Sect. 8. In any case, from reading opinions in both countries, the general impression that one gets is that courts undertake a very thorough analysis of those requirements before issuing a preliminary measure. Indeed, hearings with both parties usually take place in both jurisdictions before a decision is issued.

2.2 Conventional economic analysis of preliminary measures

Having seen the existing regulations of preliminary measures from a comparative legal perspective, I now turn to the theoretical underpinnings of those from an economic perspective. Indeed, scholars have claimed that the current state of the law on preliminary measures has sound economic grounds (Leubsdorf 1978: 541; Posner 2003: 605–607).

Conventional wisdom among law and economics scholars has it that a preliminary measure should be adopted if the judge finds that the expected harm that the plaintiff shall suffer from not adopting the measure outweighs the expected harm that the defendant shall bear from adopting it (Leubsdorf 1978: 541–544; Posner 2003: 605–607). To formalize this claim, let p be the probability that the plaintiff will prevail at trial, H_p be the magnitude of the harm to the plaintiff if a preliminary measure is not adopted and H_d be the magnitude of the harm to the defendant if the measure is adopted. The claim is that a measure should be adopted if

$$p \times H_p > (1 - p) \times H_d.$$

The judge will have to determine the values of the parameters in the concrete case, this is, it will have to gauge the exact p in the case, and the precise values of H_p and H_d. The parties to the case will have to submit the evidence to allow the judge to perform this task. The application of this standard guarantees the minimization of the harms that may be involved in any single situation in which preliminary measures are requested.

2.3 Unsound economic analysis or misguided law

The parallelisms between the theoretical account and the current state of the law on preliminary measures are not difficult to draw (Leubsdorf 1978: 544–548). First, both acknowledge the relevance of the probability that the plaintiff prevails at trial. Second, both require the judge to take into account the harms that the parties may suffer. Legal systems do this in different ways, for sure, but all acknowledge their relevance at least. Third, the public interest can also be taken into account in the economic formula, either as an increase in the magnitude of H_p or H_d as the case may be.

But these parallelisms are shallower than they seem. In fact, the theory fails to explain much of the actual regulation of the use of preliminary injunctions today both in common law and civil countries. To begin, it fails to say anything about the liability system for the harms that the preliminary measure may cause, which all jurisdictions establish, and the bond that plaintiffs must post, which is so important in practice. What role does this liability play? Why isn't the judicial control of requests sufficient? Does the existence of the bond affect in any way the task of the judge? Second, it is less clear than it seems that the wording of the law requires the judge to perform the type of cost-benefit analysis that the theory suggests. This is easier to see in civil law jurisdictions: formally, the judge is not required to gauge the harms to both parties. But even in common law jurisdictions the "Posner formula" has not gone unchallenged as a significant departure of existing US law (Silberman 1987: 304–306; Mullenix 1987: 542, 547). Moreover, sometimes procedural regulations do not require the judge to make any kind of verification at all before issuing a preliminary measure, but rather the measure is automatic under certain circumstances. Why does the legal system sometimes get rid of the judicial control of such requests? In fact, the judicial control of preliminary measures is recent. Leubsdorf (1978: 527–528) notes that the current US standard for preliminary relief is a century old and that medieval courts failed to exercise any sort of control. In Ramos Romeu (2006: 56–59), I show, with a review of the relevant literature, that in Spain in the eighteenth century, the judicial control of preliminary measures requests was also practically inexistent.

The natural question to ask then is whether today's regulations of preliminary measures are not grounded on a solid economic analysis, or whether the economic analysis of preliminary measures is missing something important. My own view is that the second proposition might be right, at least in part, which is what I shall try to show in the following sections. Lawyer-economists have been too simplistic in their analysis of the regulation of preliminary measures and have failed to appreciate that the judge's control over requests for preliminary measures is only a part of a broader regulation. What is more, there are reasons to believe that this judicial control is not the desirable way of regulating the institution and that the form of the legal standard that the general theory straightly suggests is unfit to allow a swift functioning of this type of relief.

3 Optimal preliminary measure and optimal regulation

To develop a coherent theory of the adequate regulation of preliminary measures, one should recast the terms of the problem that this institution raises. This requires us to make a clear distinction between the "optimal preliminary measure" and the "optimal regulation of preliminary measures". Let us see this distinction in more detail and then derive some consequences for the regulation of this institution.

The most important question that a theory of preliminary measures should answer is "what is a desirable measure?" To this, adherents of cost-benefit analysis have a clear general answer: a measure is desirable if it avoids a greater expected harm than that which it causes. This is precisely what conventional economic analysis has said:

a measure is desirable, or optimal, if $p \times H_p > (1 - p) \times H_d$. Note of course that from the point of view of a corrective theory of justice this answer might not be satisfactory: for instance, to the extent that it allows for a measure to be adopted to protect an undeserving plaintiff—usually meaning by that a plaintiff who has the odds against him, because $p < 0.5$, it gives a wrong answer to the question. But I shall here set aside this type of criticism, because it opens a philosophical debate that could take us too far from the issue at hand. I shall assume that the answer of conventional economic analysis is in principle acceptable.

Legal scholars have also criticized this suggestion by lawyer-economists as a rationalization of an inherently subjective decision, as an illusory objectivity and a fraud. See Mullenix (1987). We shall not dwell into those criticisms since legal concepts are as malleable as economic concepts. A "legal formula" can be manipulated as much as an "economic formula". On the other hand, it is simply not true that the "economic formula" tries to hide anything. It says that the judge has to take into account several parameters and does not hide that their estimation may be itself subjective.

Note further that this answer is a simplification and makes a variety of assumptions. First, it assumes that the decision maker has all the relevant information to decide on the measure. In practice, it is often the case that a preliminary measure is needed urgently, and there is no time to hear the defendant. As it must be adopted on the evidence presented by the plaintiff only, there is a serious risk that important information is missing or is being overlooked. Other times, both parties can put forward some evidence, but there is no time to bring in all the evidence that would necessary to make the claim, nor time for the decision maker to evaluate it. Second, it presupposes that preliminary measures generate no administrative costs—adoption, enforcement and monitoring costs—which is obviously a simplification. Third, it is based on the supposition that the consequences of granting or denying a preliminary measure are actually certain, which is also not necessarily the case. In the typical case, whether the plaintiff will suffer any harm if the measure is not adopted may be itself uncertain. Fourth, it presumes that the measure removes all harms that the plaintiff may suffer, but in the real world this is not often the case, either. Finally, it presupposes that the decision maker is not risk averse. In sum, the model is a simplification, and it is useful in providing a general theoretical answer to the question. But one would of course want to take into account all those other aspects in order to give a practical answer to real-world litigants.

This is the reason why the previous question should be distinguished from the next important question that a theory of preliminary measures should address: what type of regulation would make it such that only optimal preliminary measures were adopted? The conventional answer of lawyer economists is that the judge should be endowed with the power to make the exact determination of whether the measure is optimal in the instant case by hearing both parties, analyzing the evidence in detail, and applying the standard. But this answer jumps too quickly from the premises of what makes a measure desirable to the conclusion that the judge should make such determination: it precisely overlooks some of the issues that we have just seen. For instance, it fails to appreciate the administrative costs of such a regulation of

preliminary measures and it does not take into account that judges can make errors. I will set aside the question of whether the power to issue preliminary measures should be endowed to judges in the first place. One could think of a system in which this power was assigned to some other type of authority or individual. We shall come back to some of those considerations in the next section where several forms of regulation are analyzed. But in any case, note for now that a theory of preliminary measures should also give an answer to why this particular form of regulation is optimal in itself, given the empirical characteristics of the world and the population of cases to which it applies. A distinction must be made between the "efficiency of decisions" and the "efficiency of rules" (Kornhauser 2000b: 90–92).

4 Forms of regulation of preliminary measures

While in this paper I shall take for granted that the simple economic model offers a good answer to the question of whether a measure is desirable, I shall try to enrich our perspective by showing that the legal system could get at it through several forms of regulation, each of which has its own advantages and disadvantages (Shavell 1987: 277–286; Shavell 2004b: 92–101, 571–581).

First of all, to avoid undesirable measures, the plaintiff could be held liable for the harms caused by a preliminary measure. The idea is that through a liability system, the plaintiff would internalize the harm that a preliminary measure could cause and would be lead to request a preliminary measure only to the extent that it was optimal in the circumstances of the case. This form of regulation has the advantage that it allows courts to capture all the information that plaintiffs have as to whether a preliminary measure is optimal or not. It has the disadvantage that is requires that the plaintiff be able to pay for the harms he causes, and that the protection of the defendants' interest is postponed until later, which may not be an adequate form of protection for some rights or interests.

Second of all, the use of preliminary measures could be regulated through a system of liability for the benefits that a plaintiff derives from a preliminary measure (Polinsky and Shavell 1994). This is, the defendant would be able to recover from the plaintiff all benefits that the latter has obtained through the preliminary measure. Through this regime, the plaintiff would be lead to request optimal measures by removing its incentives to request non-optimal measures. The advantage of this regime, again, is that it allows courts to capture the information that private parties have as to whether a measure is optimal. The disadvantage is that it will only work if the plaintiff can derive a benefit from the measure, the benefit can be transferred to the other party, and the amount of the benefit is at least equal to the amount of the harm of the defendant.

Third, to filter non-optimal measures, a system of judicial control of requests for preliminary measures could be established. The regulation of judicial control could, in its turn, take one of two main forms. Under one system, the legislator could regulate the types of cases and the circumstances under which a preliminary measure is optimal. The judge would be asked to control in the instant case that those circumstances hold. Under the alternative system, the legislator would defer to

the judge the control of whether a preliminary measure is optimal, presumably by using a standard which is similar to that which we have seen. The advantage of any of these regimes is that they protect defendants before any harm takes place. The disadvantage is that they require the legislator to know the circumstances under which a measure would be optimal, or the court to have sufficient information to make the findings that the standard requires. Furthermore, they do not in themselves compensate injured defendants, whose compensation would have to be channeled through other institutions.

Fourth, preliminary measures requests could be controlled through the use of administrative or criminal sanctions, either monetary of non-monetary. Under this form of regulation, a plaintiff would be deterred from requesting non-optimal measures because of the threat of a sanction that the courts would impose. In particular, courts could collect monetary fines. The advantage of this form of regulation is that it may contribute to the protection of the defendant's interest beyond the actual harms that can be caused. Moreover, it could be particularly desirable in circumstances in which monetary compensation would not be adequate (Shavell 1987: 231–235). The disadvantage is that it would not compensate the defendant for his injuries. Note finally that one of the disadvantages of fines that the economic analysis usually points out would not be applicable in the case of preliminary measures. It is usually claimed that fines have the disadvantage that the Government must somehow find out that a violation of the law has occurred. In the case of preliminary measures, everything takes place before the judge, and therefore this would not turn out to be a problem.

Fifth, a sort of "pigouvian tax" or "government insurance" for the use of preliminary measures could also theoretically control plaintiff's behavior. Under this system, the judge or the legislator would set the amount of a tax or insurance premium that a plaintiff would have to pay in order to obtain a preliminary measure. Presumably, the amount of the tax or premium would vary with the probability that the plaintiff prevails a trial and the magnitude of the harm. If the tax or premium was correctly set, a plaintiff would only request a preliminary measure if it was optimal. The advantage of this system is that it could create a fund to compensate victims of unjustified preliminary injunctions. The disadvantage is that it requires the judge or the legislator to have sufficient information about the harms that a preliminary measure can cause and the risks associated with it to be able to set the tax or premium correctly, which can in fact render the working of the system impossible.

Some, but not all, of these mechanisms have been used by legal systems. Liability for harms and the judicial control of requests are usually used complementarily. We shall come back to those in the next section in more detail. Criminal sanctions are sometimes used in conjunction with a liability system (see Matscher 1985 for Austria; Carnelutti 1925 for Italy), but not widely spread. Possibly this is due to the fact that the defendant's interests are balanced out by the plaintiff's due process rights. There is the fear of seriously affecting plaintiff's incentives to use preliminary measures by criminalizing this type of behavior. In addition, even if fines were used, one would not want to do away with a system to compensate the defendant for his injuries. Liability based on the benefits is sometimes available

under US law (Note 1959: 348–351; Leubsdorf 1978: 559–560) but not generally in civil law systems. This has not been used extensively because the actual benefits that the plaintiff derives from the measure will usually coincide with what is at stake in the litigation and they are only speculative. If the plaintiff loses and the defendant has thus been harmed, a benefit will therefore not exist at all. To my knowledge, no legal system has ever established a regime of pigouvian taxes, possibly because the information and administrative costs for legislators and judges of such a system make it impossible.

There may be another problem in preliminary measure cases that Lichtman (2002) points out and for which most legal systems establish a particular solution. Lichtman shows that as the magnitude of the harm that the measure can cause rises, the magnitude of the judges' errors in determining whether the measure is actually desirable also rises, because of the existence of uncertainty. Legal systems deal with this issue by establishing the possibility for the defendant, once a measure is adopted by the judge, to post a counter-bond to guarantee all damages that the plaintiff can suffer if the measure is not adopted, in order to obtain the lifting of the measure. The counter-bound is used to pay the plaintiff if he finally wins at trial, and otherwise is returned to the defendant if the plaintiff loses. This counter-bond is usually only allowed when uncertainty as to the outcome of the case is high and damages for the defendant are large, which is what economic theory predicts. See more in Ramos Romeu (2006: 553–557).

Finally, I have set aside here another important issue that a theory of the regulation of preliminary measures should consider, this is, whether preliminary measures should be the preferred way of protecting and enforcing rights, or whether other institutions or forms of protection that have a similar function should be preferred. For instance, mortgages, bonds and self-enforcing terms in contracts could all be used to secure compliance with private agreements, thereby making the use of preliminary measures unnecessary (see Ramos Romeu 2006: 48). Similarly, Boyce and Hollis (2002b) have suggested that preliminary injunctions should not be available in patent infringement cases, but the law should rather extend the period of patent protection after infringement ceases. The idea is that these mechanisms could be socially cheaper than preliminary measures, but they deserve a further separate study.

5 Liability versus judicial control

The liability for harm caused by preliminary injunctions and the judicial control of requests are the main forms of regulation of preliminary measures. Legal and law and economic scholarship tend to emphasize the importance of judicial control, as we have seen, but liability has never been abandoned because otherwise defendants would not be compensated for their harms, which is also a desirable goal to pursue. In fact, with the extension of the system of judicial control, liability should have shifted from the plaintiff to the court system, who in practice assumes the main burden of controlling that measures are desirable, but this has never occurred,

probably for political reasons as the Government may have been reluctant to assume liability for the actions of courts.

Contrary to this mainstream scholarship, I shall argue here that a liability regime should be preferred. Indeed, part of the claim in favor of more stringent control of requests for preliminary measures is based on the idea that a liability regime *does not work* or *performs rather poorly* as a mechanism to control the incentives of plaintiffs. This has always remained an ambiguous claim since the liability system could fail for a variety of reasons. If the idea is that the liability system fails because a claim to recover damages is too expensive to be brought even if harm exists, because it takes too long, and judges fail to compensate for all harms, then this does note take into account that these problems are actually exacerbated under a system of judicial control, as I shall try to show. Needless to say, there may be more concrete circumstances under which a liability system may fail, and which make some sort of judicial control desirable. But these have not been systematically studied by scholars. Here we shall try to develop a theory that explains how those mechanisms can be used complementarily, as occurs in most legal systems.

5.1 Why liability should be preferred

The use of a liability system and a system of judicial control can be evaluated over a variety of dimensions, but here we will focus on the following: their administrative costs, the delays they cause, and the existence of judicial errors and their impact on legal certainty. My claim is that on all those dimensions, a liability regime for harm is a better form of regulation than a regimen of judicial control.

First of all, a system of judicial control generates more administrative costs than a system of liability. Indeed, the system of judicial control generates administrative costs for each request for a preliminary measure that plaintiffs make, while a liability system only generates administrative costs when the defendant tries to recover his damages from the plaintiff. This only occurs for a small proportion of preliminary measures, as the measure must have been adopted, the plaintiff must lose at trial and harm must exist. Moreover, a system of judicial control generates more administrative costs per case than a system of liability: the examination of whether a preliminary measure is optimal requires more information and is more complex than the determination of whether liability exists. For instance, a system of full-blown judicial control would require the judge to determine H_p, H_d and p. This is particularly difficult since those harms have not yet occurred. A system of liability would only require the judge to determine H_d, causality and potentially negligence (but note that I argue in favor of a regime of strict liability below). And the circumstances under which this will be done make it easier since this harm will already have occurred. Leubsdorf (1978: 556) and Mullenix (1987: 549–550) note the difficulties of applying the standard for preliminary relief.

Second of all, a system of liability is speedier than a regime of judicial control. In a regime of judicial control, the parties are required to put forward evidence, the judge needs to examine this evidence and then take a motivated decision, which may considerably delay the decision on the preliminary measures. In a liability regime, these delays do not exist at the time of the decision on the preliminary

measure. Now, it should be taken into account that preliminary measures are usually requested in situations in which a speedy response of courts is required, and therefore the disadvantage that results from this kind of delays cannot be ignored. Comparatively, a delay in the determination of liability resulting from a preliminary measure that has been adopted in a particular case, once the judgment has been rendered, is less problematic. Note that I do not argue that judicial delays do not matter at all in the determination of liability. I simply argue that they matter comparatively less.

Third, judicial errors are more likely under a system of judicial control than under a system of liability. To see why, one should take into account that a decision on a request for preliminary measures is usually taken with little information and under time pressure, while a decision on the existence of liability usually must be taken in circumstances in which more information is available and under less time pressure. This effect is boosted by the fact that most of the findings that the judge has to make under a system of judicial control bear on facts that have not yet occurred, while all the facts that are relevant to the finding of liability have already occurred when liability is litigated. As the risk of judicial errors distorts the incentives than substantive institutions create, a system which is less error prone should be preferred. At the extreme, a systematic error in the exercise of the *ex ante* judicial control of preliminary measures, will result let's say in that optimal preliminary measures cannot be obtained at all for a certain kind of cases, which would not occur in an error-free liability regime. Furthermore, from what has been said it is clear that *ex ante* legal uncertainty is higher in the judicial control of whether a preliminary measure is possible than in the litigation of liability. When this is coupled with the existence of fee-shifting rules, it creates great incentives against the usage of preliminary measures, whereas claims for damages caused by preliminary measures would be less deterred.

5.2 Why the liability system may fail

While all the factors above suggest that a liability regime should be preferred over a system of judicial control, a liability regime may fail under some circumstances, which are fairly typical and therefore can be taken into account when regulating preliminary measures. But not all those issues are equally important in practice and not all of them will be relevant in a given legal system. More importantly, not all of them need to be handled through a system of judicial control. I will examine here the extent to which some judicial control is necessary, and leave for later the form that it should adopt.

First of all, the preliminary measure may be absolutely undesirable, either because the probability that the plaintiff prevails at trial is actually 0, or because the plaintiff will suffer no harm if the measure is not granted, but it is still requested, either because the plaintiff is indifferent between requesting it and not requesting it, or because the plaintiff can obtain illegitimate benefits from it. Leubsdorf (1978: 555) for instance argues that "windfalls"—"illegitimate benefits"—should not be taken into account by judges to take a decision on preliminary measures, which corresponds to the idea that they may exist and not be filtered by a liability regime.

While scholars tend to highlight this problem, the truth is that it should be fairly infrequent. First of all, a preliminary measure is usually requested in conjunction with a principal complaint, and it is a fact that most complaints are actually accepted or, at least, that the great majority are not frivolous and have *some* probability of being accepted, which is all that is required to avoid this problem. Then, many preliminary measures, especially those that merely secure the enforcement of the judgment, such as a preliminary attachment of the defendant's property, do not easily create illegitimate benefits. Finally, not all illegitimate benefits will be enough to induce the plaintiff to request a preliminary measure, but rather illegitimate benefits should still be greater than expected harm. Indeed, let B be the illegitimate benefits that the plaintiff can derive from a preliminary measure. The measure will be requested only as long as $B > (1 - p)\, H_d$.

Second of all, a preliminary measure may create temporary nuisances for the rights of a defendant that are difficult to repair through the use of the liability system. For instance, if the property of the defendant is attached with the complaint and thereby loses value in the market, but then the plaintiff loses at trial and the property is still in the hands of the defendant, the property regains its value and the "temporal loss" disappears. Moreover, during the duration of the trial the defendant may have lost opportunities, for instance, to borrow money on the property, which may be hard to prove. On the other hand, it might be claimed that most of those temporary nuisances are not actual harms that the legal system should take into account and that we should not care about hard-to-prove harms anyway (Shavell 2004b: 242). But the plaintiff may have too many incentives to request a measure in those circumstances and, at least, these issues suggest that some other form of protection of the defendant's rights might be desirable, either through the judicial control of requests or even fines.

Third, a preliminary measure may cause an irreparable harm and, since the liability system is only capable of compensating in money, and money is an imperfect substitute, some control may be desirable (Leubsdorf 1978: 541). Observe, however, that this objection is weaker if the plaintiff may also suffer an irreparable harm if the measure is not granted: once both parties can suffer an irreparable harm, we are back in a standard situation. To see this, following Kornhauser (2000a), let us assume that an irreparable harm is such that $(H + 0) < (H + 1)$. If the defendant can suffer an irreparable harm but the plaintiff cannot, then $p \times (H_p + 0) < (1 - p) \times (H_d + 1)$ and the measure should not issue. But if both parties can suffer an irreparable harm, then the measure is optimal if $p \times (H_p + 1) > (1 - p) \times (H_d + 1)$. Therefore, the measure depends only on p, H_d and H_p. Perhaps then, some degree of control may be necessary to determine that, at least, the harm that the plaintiff may suffer if the measure is not granted is also irreparable.

Fourth, the liability system may fail to filter for non-optimal measures if third parties can be harmed by the preliminary measure, but may fail to bring a liability claim. Boyce and Hollis (2002a) identify this issue, for instance, in preliminary injunctions in patent validity cases. Indeed, the harm that third parties can suffer should also be taken into account to determine whether a measure is optimal, but the parties to the instant case may fail to do so. Note that if those third parties were

willing and able to bring a liability claim, then any further mechanism would be unnecessary. The issue only arises if those third parties will not actually use the liability system. Now the judge could take the harm that third parties could suffer into account before issuing the measure to evaluate whether it is really optimal. But a better alternative would be to create mechanisms to allow or make it worthwhile for those third parties to actually bring a liability complaint, such as class-actions. A regime of judicial control could have negative effects on the speediness of court decisions on preliminary measures, while class actions would not. These mechanisms usually exist in most legal systems, although their actual use varies greatly. The desirability of judicial control over these other mechanisms would therefore possibly depend on a variety of sociological factors. On the other hand, Leubsdorf (1978: 549–550) argues that third party interests should only be taken into account to the extent that substantive law says that they should be taken into account in the actual litigation. The issue is that usually third party interests may be protected by other substantive laws other than those over which the parties are battling. For instance, an independent liability claim based on general principles.

Fifth, when two preliminary measures are possible, which are both optimal on a simple cost-benefit analysis, but one causes less harm to the defendant than the other, and a negligence regime applies, the plaintiff may fail to choose the less prejudicial of the two, and therefore some additional mechanism might be desirable to avoid this. Note however that this only happens under a negligence regime, and not under a strict liability regime: under a strict liability regime, because the plaintiff will bear all harms that the measure causes, he has sufficient incentives to choose the least prejudicial measure. Moreover, even if a negligence regime were applicable, to the extent that a bond to obtain a preliminary measure was usually requested, the plaintiff would choose the preliminary measure that caused less harm to reduce the amount of the bond that he should be forced to post.

Sixth, judgment-proof plaintiffs, who are not deterred by future liability, may request non-optimal preliminary measures. To avoid those preliminary measures, some form of judicial control is desirable. This is another typical issue that legal scholars consider to argue in favor of a stringent judicial control. But, in fact, this problem is dramatically tempered in practice because generally plaintiffs have to post a bond to obtain a preliminary measure. This makes it such that only solvent plaintiffs are able to request a preliminary measure, and those plaintiffs already have sufficient incentives to request only optimal measures. However, this solution creates another issue, which is that judgment-proof plaintiffs may nonetheless have optimal preliminary measures, and may be prevented from obtaining this form of relief. We will come back to this issue below in Sect. 7.

5.3 Conclusion

To conclude, we have seen that the deterrence of non-optimal preliminary measures can be effectively and cheaply achieved through the use of a liability system, which moreover will compensate the defendant for his injuries. As a result, the judicial control of preliminary measures requests should be used only when the liability system may fail. We have also studied the specific circumstances under which this

may occur. In the following paragraphs I develop further the economic theory of the regulation of preliminary measures by focusing on two important issues: the optimal liability regime (Sect. 6) and the optimal standard of control (Sect. 8).

6 Strict liability versus negligence

Let us now consider the circumstances under which the plaintiff should be liable, this is, whether liability should be based on negligence or whether it should be strict. In this regard, we have seen that both common law and civil law systems tend to be ambiguous, and generally courts apply a negligence regime to the harms derived from preliminary measures. Many legal scholars, however, have argued in favor of a strict liability regime, mostly on formal legal arguments. As I will try to show, there are also good economic reasons to prefer a strict liability regime over a negligence regime.

First I develop a general model of liability rules for preliminary measures. Then I analyze the factors that suggest that strict liability is better than negligence, and finally I show that some issues that this regime raises are negligible.

6.1 General model of liability rules for preliminary measures

As it is well known, both a negligence regime and a strict liability regime, with the adequate defenses, can lead to the minimization of social costs (Posner 2003: 192; Cooter and Ulen 2003: 323–325; Shavell 2004b: 181). It is not difficult to show with a simple model that this is also the case for preliminary measures. Let us assume that a plaintiff considers whether to request a preliminary measure, which will be adopted if it is requested. This is, let us assume that the judge does not perform any control but adopts the measure that is requested. As before, let p be the probability that the plaintiff will prevail at trial, H_p the harm that he shall suffer if a measure is not granted and H_d the harm that the measure will inflict on the defendant. The values of those parameters may vary across cases, but in any single case it is most likely that p and H_p will be exogenous, whereas H_d will be endogenous. Let us consider the behavior of the plaintiff under the two liability regimes.

Under a strict liability regime, the plaintiff will be held liable for all the harm that the preliminary measure causes. Therefore, his expected liability when he considers whether to request it or not is $(1 - p) \times H_d$. As a result, he will only request the measure if the expected benefits that he derives from it, the expected harm that the measure avoids or $p \times H_p$, are greater than this liability, which will only be the case if $p \times H_p > (1 - p) \times H_d$. This result is optimal since a measure is only desirable if it avoids a greater harm than it causes.

Under a negligence regime, the plaintiff will be held liable if he fails to meet the standard of care set by the judge, but not otherwise. If the judge considers that a plaintiff is negligent if the preliminary measure is not optimal, then it follows that if the measure in the instant case is optimal the expected liability is 0 and if it is non-optimal it is $(1 - p) \times H_d$. The plaintiff will only request the measure if its expected benefits are greater than the expected liability: thus, if in the circumstances

of the case the measure is actually optimal, by definition it will be requested because $p \times H_p > 0$; if the measure is not optimal, then it will not be requested because by definition $p \times H_p < (1 - p) \times H_d$. This result is optimal since a measure is requested only when it is optimal.

6.2 Why strict liability should be preferred

Because both a strict liability regime and a negligence rule can lead to optimal results, the choice of a regime over the other for this particular type of social practice has to be based on other considerations, such as administrative costs, the effects of judicial errors, etc. By applying the general economic framework on tort rules to the harms derived from preliminary measures, I think that one may argue that a strict liability regime should apply.

First, note that the plaintiff is basically the party who can avoid any harm by not requesting the measure. In other words, for practical purposes, one could treat the situation as a unilateral accident, regardless of whether the preliminary measure is adopted *ex parte* or after hearing the defendant. This is clear in the first case but it should also be in the second: the harm that a defendant can externalize during the adoption of a preliminary measure is that which could occur if the plaintiff were not to obtain the preliminary measure, which will substantially coincide with the main claim. But this harm is already at stake in the main proceedings. In these circumstances, it is apparent that a regime of strict liability would be sufficient to induce the plaintiff to request optimal preliminary measures, and negligence considerations could be dropped (Cooter and Ulen 2003: 325, 333; Shavell 2004b: 181, 282). Indeed, the only way to avoid the harms associated with a preliminary measure is not to request the measure because the measure is intrinsically prejudicial and there is little that the plaintiff can do to request it "with care". In other words, p is exogenous in the adoption of preliminary measures. Economic models of tort rules usually assume that p, the level of care, is endogenous.

Second, a strict liability regime would be better than a negligence regime because it is practically very difficult to determine *a posteriori* whether the plaintiff was negligent in requesting the measure, whereas it is easier to evaluate the harm that the defendant has suffered (Cooter and Ulen 2003: 341–342). Indeed, to show that the plaintiff has failed to meet his duty of care, the defendant would have to prove that the plaintiff knew about other relevant evidence that would have made the measure undesirable but hid it from the court, or that there was evidence that he should have known but failed to verify, or that he sought the measure to obtain illegal benefits, this is, for another purpose other than the stated legal objective of the action. The preference for a strict liability regime in those circumstances is based on the distortions of the incentives of the plaintiff that a negligence regime would have when judges make errors in the determination of the magnitude of harm, the existence of causation or negligence, and in setting the standard of care (Shavell 2004b: 225, 228–229, 250–254).

Third, another reason to prefer a strict liability regime over a negligence regime is that frequently procedural regulations attribute the decision on the existence of liability for harms derived from preliminary measures to the same judge that is

hearing or has heard the substance of the case. This is done to save on administrative costs, since that judge is already familiar with the circumstances under which the preliminary measure was adopted and the merits of the case. The existence of a bond that the plaintiff has posted to obtain the measure also helps in this regard. See Note (1959: 337, 348). But, as scholars have noted, there is a risk that this judge, who adopted the measure in the first place, will be reluctant to hold the plaintiff liable because, in some sense, this would entail that he "erroneously" issued the measure. Note, of course, that it need not be a judicial "error" technically since the measure may have been optimal at the time it was taken, given the available evidence, but because the outcome was uncertain, it turns out that the plaintiff has not won. Under a negligence regime this could systematically distort the incentives of plaintiffs to request preliminary measures in the first place and make them more likely to request non-optimal measures because they would not be held liable. Under a strict liability regime, this would be less likely to occur since the judge would not have to go into issues of negligence, but simply determine whether the plaintiff is liable depending on how the merits have been decided.

A fourth factor that points in the direction of a strict liability regime is that usually the procedural regulation of this institution is applicable to a multiplicity of preliminary measures, different types of procedures, and a variety of substantive cases. This of course is desirable to the extent that it simplifies the legal regime of preliminary measures. But as a result, liability cases are likely to be very heterogeneous, which will make it harder for the judge to determine the optimal negligence standard and the actual care exercised by the plaintiff in the concrete case. Thus, strict liability becomes desirable as it simplifies the liability system overall and makes it work more swiftly (Friedman 2000: 205).

A final reason to prefer a strict liability regime is that it will generate fewer marginal costs than a negligence regime. Indeed, usually the existence of liability will be liquidated in the same proceedings in which the measure was adopted and therefore most of the legal costs associated with a judicial action will have been already incurred. Now, one of the advantages of a negligence regime is that it generates fewer cases, and thus entails fewer administrative costs, than a strict liability regime (Cooter and Ulen 2003: 343; Shavell 2004b: 283). But given how liability is procedurally channeled, this effect is not likely to be substantial. In other words, defendants' claims for damages will not be avoided. What is more, defendants are very likely to claim their damages since many times liability is declared automatically by law. This makes it such that a strict liability regime will be preferable because the administrative costs of the determination of whether the plaintiff is liable are lower under this regime than under a negligence regime (Shavell 2004b: 283).

This regime should be complemented with a duty of the defendant to mitigate the damages that the preliminary measure causes. This duty is different from simple defenses to a strict liability regime. The former will reduce the amount of the liability that can be attributed to the plaintiff to the amount of damages that would have resulted if the defendant had adopted all cost justified measures to mitigate damages plus the costs of those measures (See Shavell 2004b: 248–249). The later will exempt the plaintiff of any liability payments.

6.3 Disadvantages of strict liability and why they do not matter

Having seen the main advantages of a strict liability regime for the harms derived from preliminary measures, I shall now address several objections to the use of this regime based on some disadvantages of strict liability, and explain why, under the typical circumstances under which preliminary measures are adopted, they do not pose a significant threat.

A first disadvantage that one could think of is that, as scholars have pointed out, a strict liability regime performs worse than a negligence regime when the plaintiff may be insolvent and the magnitude of harm is endogenous, which is precisely the case in the model that we have used (Dari-Mattiacci and De Geest 2003; Dari-Mattiacci and Mangan 2005; Shavell 1986: 47; Cooter and Ulen 2003: 359). This problem, however, in preliminary measures is mainly neutralized by the fact that usually plaintiffs are required to post a bond to obtain the preliminary measure, which would guarantee that the plaintiff is mostly solvent.

A second disadvantage of strict liability is related to the establishment of causation: if judges make errors in the establishment of causation, a strict liability regime creates greater distortions in the incentives of plaintiffs than negligence (Shavell 2004b: 250–253). As a matter of fact, however, causation does not cause much trouble in liability cases for harms derived from preliminary measures because the effects of preliminary measures are usually defined by the law, the parties are readily identifiable, and therefore judges do not have significant difficulties to establish whether the harms derive from the measure requested by a given party, at least not more than to establish whether harm exists, let alone the existence of negligence.

A third disadvantage of strict liability could result from the fact that, since the defendant will be compensated for any harms that it suffers, it may lack the incentives to (1) accept the adoption of a preliminary measure that could be objectively optimal or (2) minimize the harms derived from a preliminary measure. But note that the first issue cannot be resolved by a negligence regime, or the addition of defenses to a strict liability regime, since, as I pointed out, the harm derived from a preliminary measure is mostly unilateral. This said, it may be desirable to disincentive frivolous oppositions to preliminary measures by defendants, and this could be achieved through the imposition of fines. For instance, usually legal systems establish that the judge may impose a fine to the party that violates the rules of "procedural good faith" (art. 11 Federal Rules of Civil Procedure for the US and art. 11 Ley Orgánica del Poder Judicial for Spain). As regards the second issue, it may be counteracted by the addition of a simple duty to mitigate damages, which is actually used in practice by courts (Ramos Romeu 2006: 260–266). Thus, for instance a defendant will not be able to recover all damages derived from an injunction if it failed to adopt reasonably cost-justified precautions. Thus, this criticism of strict liability is deactivated.

6.4 Conclusion

To conclude, the typical empirical and institutional circumstances in which liability is litigated make a strict liability regime more efficient than a negligence regime.

Some of the disadvantages that a strict liability regime could entail are counteracted by other aspects of the regulation of preliminary measures, such as the legal definition of the effects of preliminary measures, bond requirements and a duty to mitigate damages.

Taking into account this, the unwillingness of courts to shift to a strict liability regime in the face of an open-ended legislative text, responding to the pressure of legal scholars, is curious and needs an explanation. Possibly it is due to the fact that scholars have failed to appreciate and study all the issues that the application of a liability regime entails—because of their preference for the judicial control of preliminary measures—such as the circumstances under which harm is justified, whether harm should be foreseeable, the existence of a duty to mitigate damages, etc. In practice, all those issues arising under a liability regime are conflated and treated under the label of "negligence". But once a clear distinction is made, the advantages of a strict liability regime become apparent.

Whereas I shall not treat here in detail these other aspects of a liability regime, I would like simply to advance some guidelines: harms caused by preliminary measures are justified if the plaintiff wins at trial (Note 1959: 340 for the US), harms derived from preliminary measures need not be foreseeable as this limitation does not create further incentives for parties to reveal their type, and there should be a duty of the defendant to mitigate the damages derived from preliminary measures (Note 1959: 346). I refer the interested reader more generally to Ramos Romeu (2006: 177–225).

7 The issue of judgment-proof plaintiffs

We have seen that the existence of judgment-proof plaintiffs creates the risk that non-optimal preliminary measures will be requested and, in the absence of any additional mechanism, finally adopted. To avoid this issue, which can be fairly common in practice given the expansion of the types of claims that can be brought to court, one could think of a variety of mechanisms that law and economics scholars have studied. We will also see that the mechanism chosen by most legal systems—a bond requirement—is possibly the most efficient. However, one has to take into account that a bond requirement will bar access to preliminary relief to poor plaintiffs with optimal measures, which is an issue that also needs a solution. This section studies those issues and the basics of a regulation of a bond requirement.

7.1 Mechanisms to prevent non-optimal measures with judgment-proof plaintiffs

To address the issue of judgment-proof plaintiffs in the context of preliminary relief, one could think of a variety of legal mechanisms (Shavell 1987: 168–169; Cooter and Ulen 2003: 358–359; Dari-Mattiacci and De Geest 2003; Dari-Mattiacci and Parisi 2003): third-party liability, the regulation of preliminary requests, the establishment of minimum asset requirements, mandatory insurance, or a requirement to post a

bond. Let us see those in more detail and the problems they cause within the context that we are studying.

First, the legal system could make a third party, other than the plaintiff, who (1) has sufficient assets and (2) the power to control the behavior of the plaintiff, liable for the harms caused by the preliminary measure. Under those circumstances, the third party would control the behavior of the plaintiff so that only optimal preliminary measures were requested (Shavell 1987: 170–175). Now in a general procedural regulation of preliminary measures, it is hard to think of a third party who would meet the two requirements. In fact, procedural laws tend to be liberal and individualistic in assigning responsibilities for procedural decisions. This is reasonable to the extent that procedural laws should be worried principally with the minimization of administrative costs and judicial error, but it does not necessarily lead to optimal results broadly considered. Substantive law, however, in the regulation of a given subject matter could identify such third party, but the assignment of procedural responsibilities as a function of substantive law is an alternative that is seldom used. On the other hand, scholars usually argue that the Government budget should assume the damages that judgment-proof plaintiffs cause. Presumably, in this system, the Government would have to exert an intense judicial control of requests for preliminary measures. But we have already seen that this is not necessarily desirable since preliminary measures require speedy reactions and many times there is little that even the judge can do to determine whether a measure is really optimal because of the lack of information.

Second, one could regulate preliminary measures so as to ensure that they would only be available in cases in which the plaintiff was able to pay for the harms that it caused. In particular, one could limit the types of plaintiffs that would be allowed to request them, or the types of measures that could be adopted in a given type of case. This alternative presents several issues. First and foremost, it is not clear that the legislator can identify factors that are closely correlated with judgment-proof plaintiffs and that the judge can easily verify them in the instant case. Moreover, the choice of some factors could turn out to be discriminatory in practice. Second, in such a system, a group of cases would turn out to be excluded from the possibility of preliminary relief completely, which could be seen as undesirable, especially since preliminary measures could be optimal.

Third, one could require plaintiffs to post a bond to obtain the preliminary measure. The amount of the bond would be adjusted on the basis of the magnitude of the harm that the defendant may suffer. Judgment-proof plaintiffs, which do not have sufficient incentives to request optimal measures, would not be able to post this bond, and therefore would not be able to request any measure, whereas solvent plaintiffs would only request the measure if it is optimal in the instant case. The advantage of this system is that is allows for an absolute filter of non-optimal preliminary measures. The disadvantage is that judgment-proof plaintiffs may nonetheless have optimal measures, but their access to preliminary relief would be totally barred.

Fourth, another mechanism to address the problem of judgment-proof plaintiffs is to require mandatory insurance for the harms that the preliminary measure could cause. Through the payment of a fair premium, the insurer would assume any

payments if the plaintiff was found to be liable. This mechanism could have an important advantage over a bond, which is to reduce the costs of offering such security for plaintiffs. The costs of a fair premium could be cheaper than those of a bond. Indeed, the amount of the insurance coverage could be lower than the amount of a bond, because under an insurance regime, it would be sufficient to contract an insurance coverage that complemented the actual assets of the plaintiff, whereas under a bond system, the bond would have to cover all harms derived from the preliminary measure, since usually a bond will only be issued in exchange for a security on assets for the amount of the bond. As a result, the insurance premium would be lower than the costs of a bond. However, as scholars have pointed out, the correct functioning of such insurance would depend on the ability of insurers to observe the behavior of plaintiffs (Shavell 1986: 53, 2004a, b: 261–266), this is, in our case, their ability to determine the probability that the plaintiff would prevail at trial. The extent to which insurers would be able to do this is unclear. Possibly insurers would have to examine in more detail the cases for which insurance is requested, which could turn out to be expensive. To this, one should add that nowadays there is a considerable amount of uncertainty regarding the risks associated with preliminary measures because of a lack of empirical studies.

Fifth, the plaintiff could be asked to produce evidence on its ability to pay for the harms that it could cause. With this evidence, the judge would be able to determine whether the plaintiff has sufficient incentives to request optimal measures. Indeed, some scholars have suggested that this alternative is cheaper than other mechanisms, such as mandatory insurance (Posner 2003: 221). The drawback of this alternative, which legal scholars preoccupied with compensation have emphasized, is that, from a dynamic perspective, a solvent plaintiff today may be insolvent tomorrow: a *prima facie* solvent plaintiff could obtain a non-optimal measure today, and cause harms which he would not be able to assume later, once he is insolvent. The issue is relevant because usually the litigation of liability for the harms caused by the preliminary measure will take place a long time after the measure was requested. Now in fact, this problem also affects other mechanisms, such as bonds, that legal scholars tend to prefer. Bonds are costly to maintain and many times, after a preliminary measure is reversed and cancelled, it is desirable to return the bond to the plaintiff, because a final decision on the merits may still be pending and the litigation of the liability for the harms caused will be delayed for a long time. On the other hand, while scholars tend to assume that the decision of being solvent is endogenous for the plaintiff, in fact, it is a more plausible assumption that it depends on other production and consumption factors. For instance, a regularly functioning business is not likely to become insolvent only on the basis of the likely outcome of the litigation. Finally, the establishment of a minimum asset requirement may bar access to preliminary relief to poor plaintiffs who nonetheless have optimal measures.

We have seen that in existing regulations of preliminary measures in a variety of legal systems, bonds are the preferred mechanism to deal with the issue of judgment-proof plaintiffs. To my knowledge, none of the other mechanisms has been actually used. Third party liability has sometimes been introduced to complement a bond system: the court's liability would be engaged in cases in which

the court failed to require the plaintiff to post a bond (Ramos Romeu 2006: 183–184). Given the problems that the other mechanisms face, it is reasonable to think that a bond requirement is a more efficient alternative for the time being. But it would be desirable to try to develop the other mechanisms to the extent that they may be cheaper alternatives.

Curiously enough, this simple rationale for bond requirements has frequently been forgotten by scholars, who have offered explanations or rationalizations of the bond which sound poetic but lack any real bite. For instance, it has been said that "The injunction bond appears to be the result of the interaction of two major competing considerations. On the one hand is the traditional reluctance to penalize a plaintiff for resorting to the judicial process or to make him pay a price for his remedy. On the other is the extreme caution which often permeates judicial proceedings and is reflected in their elaborate safeguards—the apprehension of a rash result or a judgment rendered after inadequate deliberation." (Note 1959: 336). See also Calamandrei (1986: 284), and Morton (1995:1866–1872), which develop also a variety of rationales.

7.2 The regulation of a bond system

Assuming that a bond system is a good alternative to address the risk of non-optimal preliminary measures that the existence of judgment-proof plaintiffs creates, its regulation should address a series of issues: (1) the cases in which a bond should be required and (2) the amount of the bond. Let us see these two issues in more detail.

7.2.1 Factors affecting the desirability of the bond

To analyze the factors that make a bond requirement desirable, one should compare the expected harms derived from preliminary measures under a bond system with the expected harms under a no-bond system. Thus, assume that a strict liability regime applies, that the judge does not control requests for preliminary measures but that, if a bond is required, it is equal to the magnitude of the harm that the measure may cause. Assume also that a measure is optimal if $p \times H_p > (1 - p) \times H_d$ and that a solvent plaintiff is one for which solvency $S > H_d$ and an insolvent plaintiff is one for which $S < H_d$. The goal is to minimize total expected harm from engaging in this type of activity. The expected behavior of both types of plaintiffs depending on whether the measure is optimal and whether a bond is required is represented in Table 1.

Table 1 Expected behavior of plaintiffs and bond requirements

	Solvent plaintiff		Insolvent plaintiff	
	Optimal measure	Non-optimal measure	Optimal measure	Non-optimal measure
No bond	Request $(1 - p) \times H_d$	No request $p \times H_p$	Request $(1 - p) \times H_d$	Request $(1 - p) \times H_d$
Bond	Request $(1 - p) \times H_d$	No request $p \times H_p$	No request $p \times H_p$	No request $p \times H_p$

From the table above we can conclude that a bond requirement becomes desirable if the expected harms derived from non-optimal measures under a no-bond system are greater than the expected harms derived from non-requested optimal measures under a bond requirement, this is if $(1 - p) \times H_d > p \times H_p$. We can derive from this equation that, for a given proportion of insolvent plaintiffs and non-optimal measures, the bond requirement is desirable the more likely it is that the measure is non-optimal, which will be determined by p, H_p and H_d and vice versa. Observe also that, if there were no insolvent plaintiffs or the judge had information on whether the measure was optimal, a bond requirement would also be less desirable.

This model suggests that for instance the legislator could allow for preliminary measures to be adopted without a bond in cases in which the probability that the plaintiff will win at trial is close to 1, such as is the case with actions based on certain documents (e.g. commercial paper, enforcement orders), or when there is already a judicial decision, which has been appealed, but provisional enforcement is sought (Note 1959: 337–338). As a general matter, since most complaints are actually admitted, a bond requirement would not be desirable by default. For instance, in Spain, 80% of the complaints are accepted. See Pastor Prieto (2003: 82–83). For the US, Wasserman (1990: 648–649) says that in 90% of personal injury cases the defendant makes some payment to the plaintiff. The legislator could also eliminate this requirement in actions in which the group of plaintiffs that can be harmed is large, such as mass tort cases, or in cases in which the complaint is based on constitutional rights, because presumably harm would be irreparable. Finally, it could also excuse this requirement in actions in which the plaintiff is mostly solvent, such as mortgage executions by banks or eviction cases instated by owners of houses. All these factors could also be taken into account in the instant case by the judge, so as to allow for a more flexible application of general rules.

Some of these recommendations have actually been followed by legislators and judges both in common law and civil law countries, as we have seen, but not as a general rule. However some of them, such as exemptions for the "rich", are "politically incorrect" and this might be the reason why both legislators and judges fail to use such factors more often to take their decisions.

7.2.2 Factors affecting the amount of the bond

The previous section assumed that the amount of the bond was equal to the magnitude of the harm to the defendant that the preliminary measure could cause. But in fact, the amount of the bond is usually endogenous to the judge's decision. Here we will see that it is desirable that the judge sets an amount for the bond that is lower than the actual magnitude of the harm to the defendant, and the factors that he should take into account to set such amount.

Consider the situation in the same model that we have seen in the previous section, but allow the amount of the bond to vary. On the one hand, note that setting the amount of the bond higher than the magnitude of the harm that the defendant can suffer is never desirable. If the judge did so, then solvent plaintiffs who otherwise have perfect incentives to request only optimal measures may be deterred from requesting even those measures, whereas insolvent plaintiffs would not request a

measure anyway. Nothing is gained and sometimes something is lost by increasing the amount of the bond above the magnitude of the harm to the defendant.

On the other hand, setting the amount of the bond lower than the magnitude of the harm that the preliminary measure can cause is sometimes better than setting the amount of the bond equal to the magnitude of that harm. There are three main reasons that support this conclusion: first, observe that solvent plaintiffs would be perfectly deterred from requesting a non-optimal measure without a bond, but that if a bond is required and they have to bear its costs, then some of them will fail to request an otherwise optimal measure because of that extra cost; second, setting the amount of the bond lower than the magnitude of the harm also reduces the costs of the bond, and facilitates those requests for preliminary measures; third, if the bond is set lower than the amount of the harm, some plaintiffs which are almost solvent will request the bond, while it is the case that those plaintiffs are likely to hold optimal measures. In some way, given the existing uncertainty regarding whether the plaintiff is actually solvent, it is desirable to reduce the amount of the bond.

Of course, if the amount of the bond were set too low, then both solvent and insolvent plaintiffs would be able to request preliminary measures. While the former have incentives to request measures only if they are optimal, the latter could request non-optimal measures also. And particularly insolvent plaintiffs are very likely to request measures that are particularly non-optimal (Shavell 2002). So the optimal amount of a bond requirement is lower than the magnitude of the harm that the measure can cause but cannot be set too low, otherwise its positive effects disappear.

What factors should then be taken into account to reduce the amount of the bond below the actual damages that the measure can cause? Scholars have been very elusive on this issue (Shavell 2002), but presumably the model suggests that the following should be taken into account: (1) the likelihood that the measure is actually optimal, because in those cases the measure is desirable anyway; (2) whether the plaintiff is solvent. If the plaintiff is solvent, then adding the cost of the bond may lead a plaintiff not to request an otherwise optimal measure; (3) the judge's information on the magnitude of the harm to the defendant. If the judge lacks sufficient information about the actual level of damages, then the judge should reduce the amount of the bond because a lower bond is better than too high a bond.

Existing legislation seems to take into account those economic considerations to guide judges in setting the amount of the bond as we have seen. But these considerations are most of the time just hinted, not clearly fleshed out: one thing that is clear in the literature is that courts both in Common law and Civil law systems do not usually offer a good rationale for the amount of the bond and actually seem to lack good information to establish it (Morton 1995: 1904; Ramos Romeu 2006: 354–359).

In any case, observe that defendant's recovery for damages suffered as a result of the preliminary measure should not be limited to the amount of the bond, because otherwise plaintiffs would fail to have sufficient incentives in the first place, as the amount of the bond will, by definition, be lower than the amount of the actual harm suffered by the defendant. In this sense, US law seems to be at odds with what economic theory would suggest, whereas Spanish law does respond to its demands.

A plausible explanation for the structure of US law might be that limiting liability to the amount of the bond may create less administrative costs than allowing full recovery of damages, and these savings justify the divergences that result between actual damages and the amount of the bond. In Spain, I think it is rather corrective justice theories that have shaped the structure of the law on this point, rather than a sound economic analysis.

Finally, observe that I assumed that the cost of the bond could not be recovered from the losing party in the litigation, but this is not necessarily the case. Indeed, the costs of the bond could be conceptualized as an "administrative cost" of preliminary measures and, be shifted to the defendant at the end of the trial if the plaintiff was to win, under a fee-shifting regime. Under this regime, the first reason given to reduce the amount of the bond would disappear, but the others would not. A natural question to ask is whether it would be actually desirable to make the losing party assume the costs of the bond. The following considerations could be taken into account: first, shifting this cost would increase the incentives to request a measure in actions in which the plaintiff thinks he can win and decrease these in actions in which the plaintiff thinks he cannot win. To the extent that preliminary measures are an inherently risky activity, it is not clear that one would like to add this extra incentive to request them; second, if this cost was shifted, the amount of the bond would be higher, as we have seen, and this would also increase the costs of the bond. Moreover, the plaintiff could be led to post a bond which was set too high, because he would be able to recover this cost later. In general, it seems that this increase in costs is undesirable; third, as is usually the case under a fee-shifting rule, one should expect further peripheral litigation (Posner 2003: 629). This effect is not desirable since preliminary relief is already of secondary importance compared to the main action; fourth, if the amount of the bond was shifted, then the incentives of parties to set the correct bond amount would be increased. This effect is desirable since a usual problem in practice is that the judge lacks sufficient information as to the harm that the preliminary measure could cause. Overall, after taking into account all those considerations, I believe that the weight of the reasons not to shift this cost is larger than that of the reasons to shift it.

7.3 Legal aid beneficiaries

As we have seen, a big disadvantage of the bond system is that it does not allow judgment-proof plaintiffs who may nonetheless have optimal measures to obtain such form of relief. This has been forgotten by scholars today and it is not infrequent to hear that a bond is an "indispensable requirement" (Note 1959: 337). In fact, present day regulations usually do not offer an articulated alternative to this issue: for instance, legal aid beneficiaries are not usually exempt by statute from posting a bond, and therefore will be usually barred from obtaining preliminary relief, unless the court in the instant case considers otherwise (Morton 1995: 1906; Ramos Romeu 2006: 309–314). This falls short of the adequate judicial protection that legal aid beneficiaries should possibly have as a matter of constitutional law.

To deal with this problem, one can conceive two main systems, the difference lying in who exercises the control of preliminary measure requests. In one system,

the Government would assume the control of preliminary measures requested by legal aid beneficiaries through an administrative agency, before a preliminary measure was requested to the court. If the Government considered the measure to be desirable, it would assume the liability for the harms that the measure could cause, but the plaintiff would not be required to post a bond, since he would not be able to, and neither would the Government, as the Government is, in principle, solvent. Knowing that the measure is backed by the Government, the judge could behave as if a regular preliminary measure had been requested. If the Government considered the measure to be undesirable, it would not assume liability and therefore, the plaintiff would presumably be unable to obtain it, since the judge would indeed require a bond. In the second system, the legal aid beneficiary would request the preliminary measure before the courts, but the court would have to perform an intense control of the measure, well beyond that exercised for the majority of cases. If it found the measure to be optimal, it would grant it, but would not require the plaintiff to post a bond, and the Government would assume liability for any harm that the measure caused. If it found the measure to be non-optimal, it would simply deny the preliminary relief.

What are the advantages and disadvantages of both systems? Regarding administrative costs, both systems seem to be equally expensive. Presumably, the task of administratively reviewing preliminary measures requests in the first system would be entrusted to existing institutions in charge of administering legal aid and, therefore, would not entail more costs than assigning this task to courts. Regarding decision quality, courts are used to the type of evaluation of preliminary measures that the second system of "court-control" requires and could potentially reach better decisions on average, especially since they also decide the substance of cases. But this advantage could easily erode with time to the extent that the administrative body gained expertise in performing this task and court outcomes were adequately reported. On another note, the second system, in theory, has the advantage that it could work more swiftly, since requiring plaintiffs to obtain the approval of an administrative body before filing the preliminary measure request in front of courts could delay the adoption of the measure. And time is an important factor in preliminary measures since they are requested in circumstances that require an urgent solution. But in practice courts are not as agile as one would want them to be, and the administrative body could as well take a quick decision on the request, this simplifying then the request and the procedure before the courts. Finally, the first system puts in the hands of a political body the decision as to whether legal aid beneficiaries will have access to preliminary measures, while the second puts it in the hands of courts. In principle, the later would seem to be less inclined to take a decision on irrelevant (political?) factors than the first. But the first system also entrusts the decision as to the patrimonial risks that the Government would assume to a body that knows the Government's budget and participates in its elaboration, while the second puts it in the hands of courts. Now, while the Government is solvent, it is not infinitely solvent, and to the extent that it would be desirable to take into account the budget that is available to cover the harms caused by preliminary measures, the first system should be preferred.

In sum, the best system to deal with requests for preliminary measures of legal aid beneficiaries is uncertain. I am inclined to think that the second system would be best in practice, but the first is more likely to be accepted by legislators, for obvious reasons. In any case, it is worrying that, today, none of them is adequately articulated in existing regulations, neither in Civil nor in Common Law systems.

8 The standard of judicial control

As we saw before, since the liability system may fail under certain circumstances, the judicial control of the preliminary measure should be complementary of the liability for harms derived from the measure. I shall try to show that there are various standards of judicial control that could be used and that the optimal standard may vary depending on the particular circumstances of the population of cases. This section will conclude with a proposal of a general standard of preliminary measures that has not been suggested before.

8.1 Three standards of control

Judges could control requests from preliminary measures under a variety of standards, an aspect that scholars usually fail to appreciate. The standard of judicial control matters greatly because it has an important impact on the administrative costs and judicial delays of this type of relief. Let us see three standards in particular.

A first standard of judicial control is simply that which scholars within the economic analysis of law have suggested. The judge should control whether in the instant case the preliminary measures causes less harm than it avoids, this is, whether it is optimal because $p \times H_p > (1 - p) \times H_d$. It should be observed that this standard is highly information intensive since it requires the judge to determine the exact values of the parameters in the instant case and therefore requires him to study the pleadings and evidence put forward by the parties in detail. As a result, it creates substantial administrative costs and will significantly delay the decision on whether the measure should issue.

A second standard of judicial control would be much less information intensive and would simply require the judge to control that the preliminary measure is not absolutely undesirable, this is that the probability that the plaintiff will win at trial is not zero ($p \neq 0$) and that the harm that he may suffer is not inexistent ($H_p \neq 0$). Then, if this is the case, given the existence of liability, the plaintiff would only request the measure if it is optimal. This standard requires much less information and less judicial effort because the determination of the exact values of the parameters is not required: in particular, the judge in the instant case would, for example, simply check that the request is based on what formally and *prima facie* seems to be relevant evidence. Consequently, this standard involves less administrative costs and will result in a shorter delay in the decision on the measure than the higher standard of review.

A final possibility to regulate the judicial control of preliminary measures is simply to exclude it, either totally or partially. This is, the judge would not actually exercise any type of control of any of the parameters of interest in the instant case. In this case, non-optimal preliminary measures would be filtered exclusively through the liability regime. Obviously, this will eliminate most administrative costs and delays regarding the adoption of preliminary measures.

8.2 Types of issues and standards of control

Which standard of judicial control should be used? Instead of directly jumping to the conclusion that judges should use the information-intensive standard of judicial control, as most scholars have assumed, I argue here that in the context of civil cases, the less information intensive standard may be more adequate to resolve the issues that pose a greater threat to the liability regime, and more desirable because it is cheaper and less time-consuming. Let us review some of those issues to see that this is the case.

The first issue that could arise under a simple liability regime is that the preliminary measure could be absolutely undesirable. This problem, however, can be easily solved by allowing the judge to perform a summary review of the request to discard this possibility. It would be unnecessary for the judge to perform an intensive control of the request given the existence of the liability regime, and the higher administrative costs and the additional time that this more intense control would require.

A second issue that we have seen is that a preliminary measure could cause a variety of nuisances that the liability regime could not repair adequately. We have noted that, possibly, the legal system should not care about all those, at least not through a liability regime for a variety of reasons, but their existence could be taken into account at the time the judge has to decide on the measure. Presumably it would be sufficient to verify that no such harms exist, which would require a superficial review of most requests, and, if they did, that their magnitude is not such that they make the measure non-optimal, which would possibly entail an intense review. Here we see that the intrusiveness of the judge's intervention could be also graduated.

A third issue that had to be taken into account was that the preliminary measure could cause an irreparable harm that the liability system would not adequately compensate. But we saw that if both parties could suffer an irreparable harm, then the desirability of the measure would depend more on the probability that the plaintiff wins at trial and the magnitude of "regular harms". If this is so, then the judge should merely check in the instant case that an irreparable harm is not being caused to avoid a reparable harm, which requires a fairly superficial review of the preliminary measure request.

A fourth issue that should be considered is the existence of third parties that could be harmed by the preliminary measure but that would fail to bring a claim to recover their damages. We saw that the legal system could establish other mechanisms to avoid this problem but not necessarily the judicial control of preliminary measures. To the extent that some form of judicial control was desirable, the judge would have to consider whether taking into account the harm

that the measure causes to third parties, the measure is optimal, which would require a high standard of review.

A fifth issue that could arise under a negligence regime is that the plaintiff could fail to choose the less prejudicial of two measures that are optimal since he will not be liable in any case. To avoid this type of issue, the judge would have to consider whether there exists another measure, different from that which has been put forward, which avoids the harms of the plaintiff but causes less harm to the defendant. Note that this does not require the judge to compare all measures that exist, but merely to verify that none better exists. Still, these comparisons would in the ultimate instance require the judge to perform an intense form of review.

Finally, the existence of judgment-proof plaintiffs could justify some judicial control to discard non-optimal measures. To perform this task, the judge would have to practice an intense degree of control over the measure to ensure that it is actually optimal. Now, given that plaintiffs are usually required to post a bond, the judicial control of the preliminary measure could play an important function in allowing optimal measures of judgment-proof plaintiffs that cannot post a bond. This again would require the judge to perform an intense review of the measure that is being requested.

8.3 A double-standard for preliminary measures for civil cases

The existing regulations of preliminary measures usually establish a single standard of judicial control of preliminary measures. We saw that under US law the standard seems to be more intense, because it requires the judge to balance the interests of the parties, than that under a typical civil law jurisdiction, which only requires the judge to verify that the plaintiff can win at trial (*fumus boni iuris*) and that there is a risk of a harm if the measure is not granted (*periculum in mora*). But in practice, it seems that in both systems judges exercise a similar and intense degree of judicial control, in part because most scholars in civil law jurisdictions have emphasized the use of this form of regulation of preliminary measures over the use of the liability regime (Leubsdorf 1978: 546–547). Not only that, but judges often have difficulties in justifying the application of different standards of review, since the standard is allegedly uniform for all cases.

Historically, however, the general standard seemed to be less stringent, both in Common Law and Civil Law countries. Leubsdorf (1978: 532) shows that in the XIX Century the plaintiff in the UK could obtain relief if there was "no reasonable doubt of his legal right". He also cites Kerr who said that according to the law, the plaintiff had to show that he had a "fair question to raise" and that the status quo should be preserved (Leubsdorf (1978: 536). In American Cyanamid Co. v. Ethicon Ltd. ([1975] A.C. 396 (H.L.)), the British House of Lords held that a plaintiff seeking relief need show only a "serious question for trial." The same can be shown for a Civil law jurisdiction for Spain. Manresa & Reus, the authors of a classical commentary of the Spanish Code of Procedure of the XIX Century, used to consider that the existence of a liability system allowed the judge to adopt a preliminary measure on a *prima facie* positive evaluation of the merits (Ramos Romeu 2006:

58). In fact, the authors' model form of a judicial decision on a preliminary measure was short and did not go into the details of the case (Ramos Romeu 2006: 59).

This general picture must not forget that many times procedural regulations exclude the judicial control of preliminary measures in some types of actions, such as those based on publicly registered rights, on the idea that the type of evidence that the plaintiff is required to put forward makes it very likely that he shall win at trial, or in actions regarding family interests, based on the fact that the interests at play, private and public, make it such that the measure is very likely to be optimal. But even in those cases, because of the general theory developed by most scholars, it is not infrequent that judges have qualms as to whether any type of control should be exercised at all, and when in doubt, they are likely to perform some control nonetheless.

From what we have seen, it is clear that the legislative regulation of the standard for preliminary measures can have an important effect on the effectiveness of those measures and the administrative costs of the procedural system. For instance, Leubsdorf (1978: 561–565) comments the effects of statutory modifications of preliminary relief standards. Therefore, legislators should pay greater care in choosing a standard of review and in making it clear what type of review is deemed desirable. This could put an end to the existing current situation, both in civil and common law countries, in which courts actually disregard the languages of statutes regarding the degree of judicial control, bond requirements, and the form of liability (see Note 1959: 339; Leubsdorf 1978: 526, 538). This situation results in a lack of legal certainty and of deep confusion (Silberman 1987: 279–280, 304–305; Mullenix 1987: 561–562). As an aside, scholars have usually criticized legislators and courts for failing to specify a clear general regime for preliminary relief. See for instance Leubsdorf (1978: 525–526). From what has been said, it seems that this type of criticism is usually unwarranted since the optimal combination of mechanisms to give plaintiffs correct incentives, and the optimal standard of judicial review, may vary from legal sector to legal sector and from types of cases to types of cases.

I shall here leave aside which particular preliminary measures should not be judicially controlled and the particular circumstances under which this should be so, but instead shall try to offer a standard for a general regulation of preliminary measures that takes into account the advantages of the existence of the liability system and each form of judicial control. The legal standard that is suggested, and which, to my knowledge, has not been proposed before, could read as follows:

> "1. The judge shall grant a preliminary measure if it finds that (1) the plaintiffs' claim is not unviable, (2) the risks derived from the delay in rendering a final decision are not inexistent and (3) the plaintiff is notoriously solvent or can show to be so. If the plaintiff is not solvent, the judge shall require the plaintiff to post a bond to issue the measure.
> 2. In cases in which the preliminary measure could cause an irreparable harm, or a harm that it would be difficult to repair in money, the judge shall issue the measure only if the harm that it shall cause is not greater than the harm that it

can avoid, taking into account the probability that the plaintiff's claim will be accepted and the types of harms that both parties can suffer."

As it is not difficult to see, this standard establishes a superficial degree of judicial control to begin with, given the existence of a liability regime and the fact that most of the issues that could arise will be avoided with a summary control of the request. But, if in the circumstances of the case there are problems that may require a higher standard of review, it allows the judge to perform an intense review of the request to determine that the preliminary measure is optimal.

Another important distinction that should be made, between the optimal standard of review in the first instance, and the optimal standard of review on appeal in preliminary injunction cases. Here we are dealing basically with the standard that should apply in the first instance, on the understanding that the standard of appellate review should be different. Silberman (1987: 285–291, 299–304) criticizes the application of the "Posner formula" in appellate review because it entails too much an intense review of the merits of the preliminary injunction. I am inclined to think also that the appellate standard of review should entail a lighter review of the merits. In fact, in Ramos Romeu (2006: 170–171) I show that appellate courts maintain 69% of the measures granted in the first instance and deny 74% of the measures that were denied in the first instance. Cunningham (1995) mentions similar data for the US in patent cases: 58% of the measures adopted are confirmed on appeal and 75% of denials are also confirmed.

9 Conclusion

To conclude, this paper has examined the main factors that legislators of preliminary measures should take into account to establish an effective regulation of this institution that responds to the concrete issues that it entails. It has used the general framework laid down by law and economics scholars to the particulars of preliminary request, an exercise that had not been performed before. It has also taken position on a variety of issues and, in broad terms, has criticized the conventional accounts of the optimal regulation of this institution, which call for a more intense judicial control of preliminary measures: here it has been argued that the filtering of preliminary measures should be left mainly to a liability system, with exceptions, and less to the control of judges. Whether the conclusions that have been reached are sound or not, can always be reevaluated in the light of the general theoretical structure that has been established, which should be helpful framing and orienting future debates on the regulation of this institution.

Acknowledgments I would like to thank professors Manuel-Jesús Cachón Cadenas, Pedro Ruiz Soto, Santiago Orriols García, Consuelo Ruiz de la Fuente, the participants of the 13th meeting of the Latin American and Caribbean Law and Economics Association (ALACDE) held in Barcelona June 15-16th, 2009, and an anonymous referee for their comments. This article has been written with a research grant of the Spanish Ministry of Education for the project "La Ejecución Procesal Civil: Aspectos Nacionales e Internacionales" (SEJ2005-08185/JURI) and draws on my doctoral dissertation.

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