A Note on the Equivalence between Contractual and Tort Liability Rules (*)

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Abstract

The aim of this paper is to conciliate some conclusions of the economic theories of breach of contract and tort law. The main result is that the two efficient alternatives that tort law identifies (negligence rule and strict liability with a defense of contributory negligence) are mirrored by two efficient ways of defining contract damages. The first consists of forcing the debtor to pay expectation damages but limiting the level of the creditor's reliance (rule of damage mitigation). The second consists of obliging the debtor to pay expectation damages only when his breach of contract implies negligence, otherwise using restitution remedies (doctrines of impracticability and *force majeure*).

Resumen

El objetivo de este trabajo es conciliar las conclusiones de las teorías económicas del incumplimiento contractual y de la responsabilidad civil extracontractual. La conclusión principal es que, así como esta señala dos alternativas eficientes (responsabilidad subjetiva y responsabilidad objetiva con eximición por culpa del damnificado), existen también dos alternativas eficientes para definir las indemnizaciones por incumplimiento contractual. La primera consiste en obligar al deudor a pagar una indemnización que incluya el daño emergente y el lucro cesante del acreedor, pero limitar el nivel de gasto indemnizable (exclusión de las consecuencias evitables y mediatas). La segunda consiste en obligar al deudor a pagar una indemnización completa solo cuando su incumplimiento es culposo, pero eximirlo de responsabilidad cuando se lo considere libre de culpa (caso fortuito o fuerza mayor).

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1. Introduction

Legal thought, especially in countries with codified law, usually treats liability as a single phenomenon, be it originated either in breaches of contracts or in torts. The basic ideas behind this unified treatment are that in both cases one party (the debtor or the injurer) is not performing a certain legal duty, that such a breach is attributable to that party, and that it generates damages to the other party (the creditor or the victim).

The literature about economic analysis of law, on the contrary, tends to treat breaches of contract and torts as separate phenomena. The economic theory of torts focuses on the issue of the incentives that different liability rules generate over the precaution levels of the parties in accident prevention. Conversely, the economic theory of breach of contract focuses on the incentives that the parties have to perform their duties and to rely on their contractual promises.

The basic result of the economic theory of torts is related to the efficiency and equivalency of two different liability rules, called the negligence rule and the strict liability rule with a defense of contributory negligence. On the contrary, the basic result of the economic theory of contractual breach is related to the inefficiency and lack of equivalence of three different remedies for breach, called expectation damages, reliance damages and restitution damages.

The aim of this paper is to conciliate the conclusions of the economic theories of contractual breach and tort law. The two key elements in this presentation are the treatment of breach of contract as an uncertain phenomenon and the explicit inclusion of the concept of contractual breach due to impracticability or *force majeure*. This allows to elaborate a model that is formally very similar to the one used to analyze the economic effects of tort liability, and it generates the same results related to the efficiency and equivalence of two different rules for the allocation of liability in a context of contractual breach.

To develop our models, we use the simplest possible settings that display the results that we want to show. In all cases there are two risk-neutral economic agents and a single element of uncertainty, given by a probability function of the occurrence of an accident or a breach of contract. Those probability functions depend on exogenous factors and on a single endogenous factor, which is the level of precaution of one of the involved agents.

None of the elements used in this presentation is new to the economic analysis of legal rules, but its joint use is. The standard formal models that explain the behavior of the agents under different tort liability rules (in accident situations) and contractual liability rules (in situations of possible breach of contract) have their origin in Brown (1973), Landes and Posner (1981) and Shavell (1980). The idea of using a unified approach based on the concept of precaution is due to Cooter (1985). Finally, the link between the doctrine of impracticability and the analysis of contractual breach was first proposed by Sykes (1990). In his manual of economic analysis of law, Miceli (1997) reviews these papers and makes some remarks concerning the relationships among the concepts behind them, but he falls short of developing a unified model like the one that we present here. We also include three formal proofs that represent an improvement over the existing literature.

The organization of the paper is as follows. Section 2 presents the basic model of economic analysis of tort liability and derives a standard efficiency and equivalency result applied to the rules based on the injurer's negligence and on the injurer's strict liability with a defense of contributory negligence. Section 3 presents a model of contractual breach that is formally very similar to the one used in section 2, and it derives the inefficiency results associated to expectation, reliance and restitution damages. In section 4 we analyze a variation of the model and derive two allocation rules of contractual liability that generate efficient results, and are formally equivalent to the efficient tort liability rules studied in section 2. These are alternatively associated to the rules of damage mitigation, and to the doctrines of impracticability and *force majeure*. Finally, section 5 summarizes the conclusions of the whole paper.

2. Economic analysis of tort liability

A simple way of analyzing the economic effects of tort liability on the level of precaution of the economic agents in situations of accidents is to assume that there is a probability of occurrence of the accident (p), which is likely to generate a certain damage measured in money (V). That probability depends negatively on the precaution level of the eventual injurer (x), which can be measured in monetary terms as the cost that he bears when choosing that level of precaution. We will also assume that the amount of damage depends negatively of the precaution level of the victim (r), which can also be measured in monetary terms. Given these elements, the expected social cost of an accident (CS) can be written in this way:

$$CS = p(x) \cdot V(r) + x + r \qquad .$$

Under the assumptions that both "p(x)" and "V(r)" are continuous, convex and differentiable functions, the efficient levels of precaution of the injurer (X_e) and the victim (R_e) are the ones that fulfill the following first order conditions:

$$-\frac{\partial p}{\partial x}(X_e) \cdot V(R_e) = 1 \qquad \text{and} \qquad -p(X_e) \cdot \frac{\partial V}{\partial r}(R_e) = 1 \ ;$$

where, without loss of generality, “X_e” and “R_e” are assumed to be finite and positive.

Tort liability rules can implement the efficient levels of precaution in at least two different ways. One of them is establishing that the injurer must pay damages equal to “V” to the victim whenever there is an accident and his precaution level is less than “X_e”. The other one is establishing that the injurer must pay damages equal to “V” to the victim whenever there is an accident and the victim’s precaution level is greater than or equal to “R_e”. The first of those rules is associated to the legal concept of the “negligence rule”, under the assumption that the injurer’s negligence is defined as a situation where the injurer’s level of precaution is less than the efficient level. The second rule is associated to the legal concept of “strict liability with a defense of contributory negligence”, under the assumption that the victim’s negligence is defined as a situation where the victim’s level of precaution is less than the efficient level (Landes and Posner: 880-883).

The efficiency of these two alternative ways of attributing liability can be demonstrated by finding the equilibrium levels of “x” and “r” in both circumstances. These come from simultaneously minimizing the expected costs faced by the injurer (CI) and the victim (CV) when they choose their precaution levels. Those costs can be defined as:

$$CI = x + p(x) \cdot I \quad ; \qquad\qquad CV = p(x) \cdot [V(r) - I] + r \quad ;$$

and their sum is by definition equal to “CS”. The indemnification levels that the injurer must pay to the victim (I) differ if we use the negligence rule (I_N) or the strict liability rule with a defense of contributory negligence (I_S). These levels are alternatively equal to:

$$I_N = \begin{cases} V(r) & (\text{if} \quad x < X_e) \\ 0 & (\text{if} \quad x \geq X_e) \end{cases}$$

$$I_S = \begin{cases} 0 & (\text{if} \quad r < R_e) \\ V(r) & (\text{if} \quad r \geq R_e) \end{cases}$$

Given those definitions, we can now state the following two propositions.

<u>Proposition 1</u>*: In a game between an injurer and a victim whose decision variables are "x" and "r" and whose (negative) payoffs are "CI" and "CV" with "$I = I_N$", the unique Nash equilibrium is "X_e, R_e".*

<u>Proof</u>*:*

<u>Step 1</u>: First we prove that the victim will choose a level of precaution "r" smaller than or equal to R_e, but <u>never</u> greater than that value. This means that the minimum of CV corresponds to "$r \leq R_e$", *independently* of the value of x.

a) If $x < X_e$ then CV = r. Therefore, the optimum r is obviously "r = 0".
b) If $x \geq X_e$ then CV is:

$$CV = p(x) \cdot V(r) + r$$

This is maximized when

$$p(x) \cdot \frac{\partial V(r)}{\partial r} = -1$$

This condition can be thought of as a point in the level curve G(x, r) = -1, where

$$G(x, r) = p(x) \cdot \frac{\partial V(r)}{\partial r}$$

From the condition on the social optimum we know that the point (X_e, R_e) lies in the level curve G = -1. Starting from this point and moving towards the abscissa x, p(x) decreases. To stay in the level curve G = -1, $\partial V/\partial r$ (which is always negative) has to increase in absolute value. Due to the convexity of V(r) a growth in the derivative implies a decrease in the argument. Therefore the optimum level of "r" corresponds to $r \leq R_e$, as we wanted to show.

<u>Step 2</u>: We now prove that, since the injurer knows that the victim will always choose a level of precaution smaller than or equal to the optimum, the injurer will choose the optimum level of precaution. We do this by proving that CI, as function of x and assuming a fixed but arbitrary $r \leq R_e$, has a minimum at $x = X_e$.

The expected cost for the injurer is:

$$\mathrm{CI} = \begin{cases} \mathrm{x} + \mathrm{p(x)} \cdot V(r) & (\text{if} \quad \mathrm{x} < \mathrm{X_e}) \\ \mathrm{x} & (\text{if} \quad \mathrm{x} \geq \mathrm{X_e}) \end{cases}$$

a) For $x \geq X_e$ the minimum corresponds, obviously, to $x = X_e$.

b) For $x < X_e$, we have

$$\frac{\partial \mathrm{CI}}{\partial \mathrm{x}} = 1 + \frac{\partial \mathrm{p}}{\partial \mathrm{x}} \cdot \mathrm{V(r)}$$

Since we know that $r \leq R_e$, this means that $V(r) \geq V(R_e)$ and due to the convexity of p(x), its derivative, evaluated at x smaller than X_e is in absolute value greater than at X_e. Therefore, the product "$\partial p/\partial x \cdot V$" is more negative at (x, r) than at (X_e, R_e). We know from the equation for the social optimum that "$\partial CI/\partial x$" is equal to zero when evaluated at (X_e, R_e). What we just proved then implies that such derivative is negative, that is, CI, as a function of x, is a decreasing function for $x \leq X_e$. Therefore X_e is the optimum precaution level for the injurer, *independently* of the precaution level chosen by the victim.

<u>Step 3</u>: Finally we prove that, since the injurer will always choose the precaution level X_e and the victim knows this, the victim will also choose the level of precaution R_e. This is simply because, for $x = X_e$:

$$\mathrm{CV}(\mathrm{X_e}, \mathrm{r}) = \mathrm{CS}(\mathrm{X_e}, \mathrm{r}) - \mathrm{X_e}$$

Therefore, since we know that $CS(X_e, r)$ has the global minimum at $r = R_e$, so does CV. This finishes the proof.

<u>Proposition 2</u>: *In a game between an injurer and a victim whose decision variables are "x" and "r" and whose (negative) payoffs are "CI" and "CV" with "$I = I_S$", the unique Nash equilibrium is "X_e, R_e".*

<u>Proof</u>:

To prove this proposition, we simply have to follow exactly the same steps used to demonstrate proposition 1, replacing CI by CV, x by r, and, where appropriate, p(x) by V(r).

Another traditional result of the economic theory of tort liability is that a strict liability rule without a defense of contributory negligence leads to inefficient levels of precaution, and that such inefficiency mimics the one that arises when there is no liability at all (Landes and Posner: 872-873). Actually, under strict liability without a defense of contributory negligence, "I" is always equal to "V(r)", while under a rule of no liability it is always equal to zero. In the first case, the corresponding private costs of the injurer and the victim are:

$$CI = x + p(x) \cdot V(r) \qquad ; \qquad CV = r \qquad ;$$

and the Nash equilibrium implies that:

$$r = 0 \quad \Rightarrow \quad r < R_e \qquad ; \qquad -\frac{\partial p}{\partial x} \cdot V(0) = 1 \quad \Rightarrow \quad x > X_e \qquad .$$

In the second case the costs are:

$$CI = x \qquad ; \qquad CV = r + p(x) \cdot V(r) \qquad ;$$

and the Nash equilibrium implies that:

$$x = 0 \quad \Rightarrow \quad x < X_e \qquad ; \qquad -\frac{\partial V}{\partial r} \cdot p(0) = 1 \quad \Rightarrow \quad r > R_e \qquad .$$

3. Economic analysis of contractual breach

The model presented to analyze situations of tort liability for accidents can be slightly adapted to incorporate situations originated in a contractual relationship. Let us assume that two parties (a debtor and a creditor) contract on a good or service whose transaction generates a value equal to "V". Let us also assume that there is a certain probability of contractual performance (p), which depends positively on the precaution level of the debtor (x). On the other hand, "V" depends positively on the reliance investment level of the creditor (r). Both "V" and "p" are continuous, differentiable and concave functions. Assuming that "x" and "r" are both measured in monetary terms, the expected total surplus (ST) generated by a contract between the debtor and the creditor is:

$$ST = p(x) \cdot V(r) - x - r$$

The efficient values of the debtor's precaution (X_e) and the creditor's reliance investment (R_e) are the ones that maximize ST, that is, the ones that fulfill the following first order conditions:

$$\frac{\partial p}{\partial x}(X_e) \cdot V(R_e) = 1 \qquad ; \qquad p(X_e) \cdot \frac{\partial V(R_e)}{\partial r} = 1$$

The way in which "ST" is apportioned between the debtor and the creditor depends on two additional elements that must be added to the problem. These are the transaction price (P) and the eventual indemnification for breach of contract (I). Assuming that the price is paid when the contract is signed and that the expected surpluses that go to both the debtor (SD) and the creditor (SC) are positive (which is a necessary condition for them to enter into a contract), those surpluses can be written in the following way:

$$SD = P - x - [1 - p(x)] \cdot I \quad ;$$

$$SC = p(x) \cdot V(r) - P - r + [1 - p(x)] \cdot I \quad .$$

The damages included in the indemnification for breach of contract differ if we use different remedies for breach. The one that implies a smaller indemnification (I_{RE}) consists of the restitution of the amount paid by the creditor (which in this case is equal to "P"). If the indemnification includes reliance or negative damages (*damnus emergens*), it will add the reliance investment made by the creditor (I_{DE}). Finally, if it is based on the expectation measure and therefore it also includes positive damages (*lucrum cessans*), we must add a sum that meets the difference between the value of the unperformed transaction and its cost for the creditor (I_{LC}). This implies that:

$$I_{RE} = P \quad ; \quad I_{DE} = P + r \quad ; \quad I_{LC} = P + r + [V(r) - P - r] = V(r) \quad .$$

The classical result of the economic theory of contractual breach is that none of these remedies is capable to induce an efficient behavior of both the debtor and the creditor (Shavell: 478-483). Restitution, for example, implies that, when the debtor and the creditor maximize their expected surpluses, they choose "x" and "r" according to these rules:

$$\frac{\partial p}{\partial x}(x_{RE}) \cdot P = 1 \quad \Rightarrow \quad x_{RE} < X_e \quad ; \quad p(x_{RE}) \cdot \frac{\partial V}{\partial r}(r_{RE}) = 1 \quad \Rightarrow \quad r_{RE} < R_e \quad ;$$

where the first implication comes from the fact that "P" must necessarily be smaller than "V(r)". Conversely, an indemnification based on reliance damages will induce the following behavior by the creditor and the debtor:

$$\frac{\partial V}{\partial r} = 1 \quad \Rightarrow \quad r_{DE} > R_e \quad ; \quad -\frac{\partial p}{\partial x} \cdot [P + r_{DE}] = 1 \quad \Rightarrow \quad x_{DE} \neq X_e \quad ;$$

and when damages are based on the expectation measure, it will hold that:

$$\frac{\partial V}{\partial r} = 1 \quad \Rightarrow \quad r_{LC} = r_{DE} > R_e \quad ; \quad -\frac{\partial p}{\partial x} \cdot V(r_{LC}) = 1 \quad \Rightarrow \quad x_{LC} > X_e \quad .$$

The reasons why the indemnifications based on expectation damages and, alternatively, on restitution damages are inefficient can be paralleled to the reasons why tort liability rules based on strict liability without a defense of contributory negligence and, alternatively, on no liability are also inefficient. The inefficiency induced by obliging the debtor to pay full expectation damages in all situations of contractual breach is equivalent to the inefficiency of a tort liability rule based on strict liability without a defense of contributory negligence (Miceli: 75). The first of these rules generates creditor's overreliance; the second one, lack of victim's precaution. Similarly, the inefficiency induced by allowing the debtor to pay only restitution damages in all situations of contractual breach is equivalent to the inefficiency of a system with no tort liability. In both cases, the breaching party (debtor or injurer) has incentives to choose a lower level of precaution than the efficient one.

Another equivalence result between the two bodies of law has to do with the inefficiency of "limited liability rules", such as the rule that prescribes compensation of (negative) reliance damages but no compensation of positive damages. This rule can be associated to an accident situation where the indemnification is equal to a certain fraction "α" of the full damage (where "$0 < \alpha < 1$"). This implies that the expected costs of the injurer and the victim are equal to:

$CI = x + p(x) \cdot \alpha \cdot V(r)$; $CV = p(x) \cdot (1-\alpha) \cdot V(r) + r$;

and their minima are achieved when it holds that:

$$-\frac{\partial p}{\partial x} \cdot \alpha \cdot V(r) = 1 \quad ; \quad -p(x) \cdot (1-\alpha) \cdot \frac{\partial V}{\partial r} = 1 \quad \Rightarrow \quad x \neq X_e \quad ; \quad r \neq R_e \quad .$$

4. Damage mitigation, impracticability and *force majeure*

In order to induce an efficient behavior both for the debtor and the creditor, the economic analysis of contract law suggests a variation to the definition of expectation damages, which consists of limiting the maximum level of indemnifiable reliance to "R_e" (Miceli: 75). This variation can be associated to the rules of damage mitigation that prescribe that, in a situation of breach of contract, the avoidable consequences and the consequential damages originated in the breach should not be compensated. Under those rules, therefore, it holds that:

$$I = \begin{cases} V(r) & (\text{if} \quad r < R_e) \\ V(R_e) & (\text{if} \quad r \geq R_e) \end{cases}$$

The efficiency of a rule like this is stated in the following proposition.

<u>Proposition 3</u>*: In a game between a debtor and a creditor whose decision variables are "x" and "r" and whose (positive) payoffs are "SD" and "SC", the unique Nash equi-*

librium is "X_e, R_e", provided that "I = V(r)" when r < R_e and "I = V(R_e)" when r ≥ R_e.

Proof:

To prove this proposition we can follow a series of steps that mimic the ones used to prove proposition 1. We recreate here an abbreviated version of that proof, in order to stress the parallelism between both cases.

Step 1: First we prove that the debtor will always choose a level of precaution x smaller than or equal to the optimum X_e.

a) For r < R_e, SD is:

$$SD = P - x - [1 - p(x)] \cdot V(r)$$

This is maximized when the function F(x, r) equals 1, where F is

$$F(x,r) = \frac{\partial p}{\partial x}(x) \cdot V(r)$$

As in the proof of proposition 1, the point (X_e, R_e) lies on the level curve F = 1, and arguments identical to the ones found there about the concavity of p(x) show that the maximum corresponds to x ≤ X_e.

b) For r ≥ R_e, SD is

$$SD = P - x - [1 - p(x)] \cdot V(R_e)$$

This is maximized when

$$\frac{\partial SD}{\partial x} = -1 + \frac{\partial p}{\partial x}(x) \cdot V(R_e) = 0$$

and implies x = X_e (from the conditions for a social optimum). We have then proved that the debtor will choose a level of precaution smaller than or equal to the optimum.

Step 2: We now prove that the creditor, knowing that the debtor will choose a level of precaution smaller than or equal to the optimum, will choose the optimum level of reliance investment. Indeed, the creditor's surplus is

$$SC = \begin{cases} V(r) - P - r & \text{if } r < R_e \\ p(x) \cdot V(r) - P - r + [1 - p(x)] \cdot V(R_e) & \text{if } r \geq R_e \end{cases}$$

a) Consider first the region $r < R_e$, for which we will analyze the function "$V(r) - P - r$" for all r. The maximum of this function corresponds to "$V' = 1$". We know that "$p(X_e) \cdot V'(R_e) = 1$", and that "$p(X_e) \leq 1$". Increasing p until it equals 1 while changing r in order to keep the product equal to 1, we go continuously from the social optimum condition to the condition $V' = 1$. In this process V' has to decrease, which implies an increase in r. Therefore the condition $V' = 1$ is satisfied for $r > R_e$. Since V is concave, this means "$V' - 1 > 0$" for $r < R_e$, which in turn means that SC is always increasing in the region where $r < R_e$, as we wanted to show.

b) Consider now the region $r \geq R_e$. SC is maximized when

$$\frac{\partial SC}{\partial r} = p(x) \cdot \frac{\partial V}{\partial r}(r) - 1 = 0 \qquad \text{or} \qquad G(x, r) = p(x) \cdot \frac{\partial V}{\partial r}(r) = 1$$

Arguments similar to the ones used before about the level curves of G, that use the fact that $x \leq X_e$, show that SC is a decreasing function of r for $r \geq R_e$. Therefore, since we proved that SC is an increasing function of r for $r \leq R_e$ and a decreasing one for $r \geq R_e$, then the argument that maximizes SC is equal to R_e.

Step 3: Finally we prove that, given that the creditor will choose the optimum level of reliance investment, the debtor will also decide to choose the optimum level of precaution. This is because for "$I = V(R_e)$", SD is maximized when "$p'(x) \cdot V(R_e) = 1$", for which we know from the conditions of the social optimum that the solution is $x = X_e$. This finishes the proof.

The efficiency of a contractual liability rule based on the idea of damage mitigation comes from the same causes that make efficient a tort liability rule based on strict liability with a defense of contributory negligence. In both cases, the damaged party (victim or creditor) has incentives to behave efficiently because the law limits that level directly, while the breaching party (injurer or debtor) has incentives to behave efficiently because that behavior is precisely the one that optimizes his payoff function.

The above mentioned equivalence allows to find a second efficient rule to compensate damages for contractual breach that replicates the causes why the economic theory of tort liability finds the negligence rule efficient. This implies that the debtor has the obligation to indemnify the creditor according to the following rule:

$$I = \begin{cases} V(r) & (\text{if} \quad x < X_e) \\ P & (\text{if} \quad x \geq X_e) \end{cases}$$

which includes expectation damages only when the precaution level of the debtor is less than the efficient one. This rule is equivalent to a law that obliges the debtor to pay expectation damages only when his breach of contract is wrongful, which in this case implies that "$x < X_e$", and otherwise applies restitution (Sykes: 60-61). This idea can be associated to a situation of impracticability or *force majeure*.

The Argentine Civil Code defines this situation as the occurrence of a fact that "... could not be foreseen or that, although foreseen, could not be avoided" (article 514). The US Uniform Commercial Code applies a similar provision (section 2-615), which is described by the occurrence of the following six conditions:

1. A failure of an underlying condition of the contract must occur.
2. The failure must have been unforeseen at the time the contract was signed.
3. The risk of failure must not have been assumed either directly or indirectly by the parties seeking excuse.
4. Performance must be impracticable.
5. The seller must have made all reasonable attempts to assure himself that the source of supply will not fail.

6. The seller's own conduct must not have created the situation leading to the impracticability of performance.

Proposition 4 formally states the efficiency of a rule like the one expressed in the previous paragraphs.

<u>Proposition 4</u>: *In a game between a debtor and a creditor whose decision variables are "x" and "r" and whose (positive) payoffs are "SD" and "SC", the unique Nash equilibrium is "X_e, R_e", provided that "$I = V(r)$" when "$x < X_e$" and "$I = P$" when "$x \geq X_e$".*

<u>Proof</u>:

To prove this proposition, we simply have to follow exactly the same steps used to demonstrate proposition 3, replacing SD by SC, x by r, and, where appropriate, p(x) by V(r).

5. Conclusions

The main conclusions of this paper can be summarized as follows:

a) If the minimum levels of precaution that imply no negligence for the injurer and the victim in an accident situation are correctly defined, a negligence rule and a strict liability rule with a defense of contributory negligence are both able to induce an efficient behavior of the parties.

b) Similarly, if the minimum level of precaution that implies no negligence for the debtor and the maximum level of indemnifiable reliance investment for the creditor are correctly defined, there are at least two efficient liability rules that deal with a situation of contractual breach.

c) One of those rules resembles strict liability with a defense of contributory negligence, and consists of obliging the debtor to pay expectation damages in all cases of breach, but limiting the maximum level of indemnifiable reliance investment for the creditor (rule of damage mitigation).

d) The other alternative resembles the negligence rule used in tort law, and consists of obliging the debtor to pay expectation damages only when his breach is negligent, allowing him to pay restitution damages otherwise (that is, in case of impracticability of *force majeure*).

e) The inefficiency induced by obliging the debtor to pay full expectation damages in all situations of contractual breach is equivalent to the inefficiency of a tort liability rule based on strict liability without a defense of contributory negligence. The first of these rules generates creditor's overreliance; the second one, lack of victim's precaution.

f) The inefficiency induced by allowing the debtor to pay only restitution damages in all situations of contractual breach is equivalent to the inefficiency of a system with no tort liability. In both cases, the breaching party (debtor or injurer) has incentives to choose a lower level of precaution than the efficient one.

g) The inefficiency induced by allowing the debtor to pay only reliance damages in all situations of contractual breach is equivalent to the inefficiency of a limited tort liability rule. In both cases, the parties have incentives to choose different levels of precaution and reliance than the efficient ones.

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