

Damages for Negligent Ratings

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Law and Economics

Law and economics, L&E for short, refers to a broad area of research concerning legal institutions and making use of concepts and methods from economics. Competition law, e.g., governs market activities. It hardly comes as a surprise that even purely legal expositions have always made use of terms such as markets, competition and market power familiar from economic theory. But as a recognized research area of its own, L&E was born much later. Ronald Coase and Guido Calabresi are considered as founding fathers of the field. Coase (1960) famous paper entitled “The problem of social cost” is a pioneering contribution to the economic analysis of contract law. Calabresi (1961) “Some thoughts on risk distribution and the law of torts” is an equally pioneering economic analysis of tort law.

Contract law governs transactions among individual parties. In fact, modern market exchange would be unthinkable in the absence of contract law. Tort law concerns interaction among parties plagued by what economists call external effects. Therefore, contract and tort law, both deal with a subject that is as intrinsically of economic nature as competition law. In contrast to competition

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law, however, there still exists a vast legal literature on contract and tort law that does not borrow any notions and concepts from economic theory. Yet, following Coase and Calabresi, an increasing number of contributions to contract and tort law qualify as L&E today.

There is, of course, no sharp dividing line between the different approaches. In Germany, contributions of legal scholars referring to notions such as efficiency and welfare may qualify as L&E even if reference to these notions from economics may remain rather vague. In the United States, authors probably have to make more serious use of economic methods to be recognized as L&E scholars. Germany seems to lag behind. In fact, most German legal scholars are exposed to L&E for their first time (if at all) at that stage of their career where they might be heading for a LL.M-degree from a U.S. university, which means after having studied law in the more traditional way for years and passed the state exams at home without any reference to economics.

At the other end, your work may also qualify as L&E if you happen to be an economist applying his own methods to the study of legal institutions. The economic analysis of law in the strict sense is a subfield of L&E.

In the following, I provide an economic analysis of a topical problem from tort law. Rating agencies are blamed for having contributed to recent financial crises by assigning overly optimistic ratings to firms and financial assets. Lenders of money, allegedly being misled by such ratings, have suffered harm. Should rating agencies be required to pay compensation and, if yes, what amount?

Economists are mainly concerned with the right amount of effort spent by the rating agencies while rating institutions and assets. No doubt, damages regimes in place affect incentives. Agencies that anticipate higher damages claims will spend more effort as compared to those who do not face such claims. Nonetheless, investment requirements should remain "reasonable". From the economic

perspective, "reasonable" may mean investments at the level that maximizes expected welfare. The present paper investigates damages rules that would provide efficient incentives for investments and compares them with those that are currently enforced by courts.

Compensation and Incentives

Let me quote from the basic norms of German tort law as laid down in the Civil Code (BGB, official translation):

"A person who [...] negligently [...] injures [...] the property of another person [...] is liable to make compensation to the other party for the damage arising from this." (§ 823 BGB) and "A person who, in a manner contrary to public policy, intentionally inflicts damage on another person is liable to the other person to make compensation for the damage." (§ 826 BGB)

Let me refer to "a person" as injurer and to "another person" as victim. For the above provisions to become relevant, the victim must have suffered harm, the injurer must have taken an action that has caused the harm and that must constitute the breach of a legal duty as laid down above.

The provisions explicitly require that the victim should be compensated. Punitive damages as known from the U.S., however, are not supported by German tort law. The victim should, after having received compensation, be equally well but not better off as compared to the hypothetical situation where the injurer had met his duty. I will refer to this requirement as the compensation goal of tort law.

If compensation would mean pure redistribution, economists had no normative criterion to offer. Yet, ex-post compensation if anticipated affects ex-ante precaution incentives of the injurer. Precautions, in turn, affect expected welfare. In this sense, ex-post redistribution affects ex-ante incentives. As a normative

reference point, precaution investments are called efficient if they maximize the expected welfare. The missing link between the compensation goal of tort law and efficient precaution incentives consists of the due care level. In fact, the injurer's expected payoff is equal to expected welfare minus the victim's expected payoff. Suppose courts would follow the economists' advice to interpret due care at the level of efficient precaution investments. Then the injurer would have the incentive to meet such duty for the following reason.

By deviating, the expected welfare would be lower but, due to the compensation goal, the victim's expected payoff including compensation would not be lower. As a consequence, the expected payoff of the injurer would decrease with any deviation from an efficient duty. Put differently, the injurer has efficient precaution incentives indeed provided that the compensation goal is achieved relative to a (legal) duty that is efficient.

In the following, I confront these ideas and concepts from tort L&E with the case of a rating agency as the injurer and market participants as the victims of the agency's negligent behavior.

Duties of Rating Agencies

As it turned out, a rating agency was intentionally negligent in a manner contrary to public policy while assigning an unjustified positive rating to a given financial asset. Ratings concern likely performance of the asset at future dates. Predicting the performance for sure remains beyond reach. Therefore if, in spite of a positive ranking, the asset fails ex post, no negligent behavior of the agency need be involved. Predictions may fail even if based on careful investigations.

But, in my example, courts have discovered hard evidence that the agency's rating activity was grossly negligent indeed. Instead of a careful investigation, it had assigned ratings just by tossing coins.

In a second step, courts must then find out whether the agency's negligence has caused any harm to the victim at all. If it has then, as a final step, courts must specify the quantum of damages that compensates the victim for the harm caused by the agency's breach of its legal duty.

Harm is defined as the difference of the victim's hypothetical wealth position under non-negligent behavior and its wealth position under the actually negligent behavior of the rating agency. Quantifying damages is an intrinsically difficult task as it includes specifying the purely hypothetical wealth position of the victim if the agency had met its duty which, actually, it has not. The hypothetical wealth position may remain uncertain even from the ex-post perspective when courts are called in.

To illustrate the issues at stake, let me introduce a simple model. Real cases are more intricate than even sophisticated models as lawyers keep repeating again and again. Some legal scholars are even convinced that, exactly for this reason, there is absolutely no need to understand models, let alone to learn thinking in them. Such an attitude is not helpful for interdisciplinary research.

Economists concede that models are simpler than reality. Yet, models are more complex and possibly closer to reality than what would remain seriously tractable without formal model. Quite likely, effects uncovered in a suitable model by formal analysis remain present and, hence, relevant for the real case as well.

A Simple Model

Think of a market for a financial asset to which a rating agency has assigned the rating $r = A$ out of the two possible ratings A and B . Rating A indicates a high value $i = H$ for buyers. Based on this positive rating, a quantity of q_A units of the asset has actually been traded at a price p_A per unit.

Ex post, however, the value turned out to be low instead (i.e. $i = L$) such that,

from hindsight, rating $r = B$ would have been more appropriate. Buyers complain and the court, in fact, detects that the agency has not spent any effort at all while issuing the positive rate A but just had intentionally tossed a coin, contrary to public policy indeed.

Hence, in a second step, courts have to quantify the harm that was caused by such a grossly negligent action of the rating agency. According to general principles of tort law, to quantify damages, courts should compare the actual with the hypothetical wealth position of the victims.

Insights from microeconomic theory are used to reconstruct the situation at the time when trade decisions, based on the actual rating, were taken. At that time, the true state i of the world was still uncertain. The duty of the rating agency consisted of reducing uncertainty. But remember, eliminating uncertainty entirely at tolerable costs was beyond reach.

Parties knew, by assumption, that the true but unknown state must either be high ($i = H$) or low ($i = L$). At known state i from $\{L, H\}$, the asset's market would be governed by a demand function $p = F_i(q)$ and a supply function $p = G_i(q)$. Think of a downwards sloping (inverse) demand and an upwards sloping (inverse) supply curve to be interpreted as marginal utility of the buyers and marginal cost of the sellers, well in line with microeconomic theory.

In the absence of ratings, parties would consider both states to be equally likely. A serious (non-negligent) rating, however, would allow updating beliefs as follows. At positive rating A , the high state $i = H$ is expected to occur with a probability $x^* > 1/2$. At negative rating B , the low state $i = L$ is expected to occur with, for simplicity, the same probability $x^* > 1/2$. Since ratings cannot entirely eliminate uncertainty the "incorrect" rating will still be assigned with probability $1 - x^* < 1/2$ even if the agency has met its duty.

Imagine for a second, market participants were aware of the fact that ratings

are resulting from tossing a coin. Then, of course, ratings would not affect the conditions of trade at all. But markets rely on the rating being carried out with due care x^* and, hence, the market outcome q_r and p_r will depend on the actual rating r . For simplicity, let me assume that the market is competitive, which means that the market outcome corresponds to the intersection of the appropriate demand and supply curves.

If parties are risk-neutral and the rating is A then the appropriate demand function is

$$f_A(q) = x^* \cdot F_H(q) + (1 - x^*) \cdot F_L(q)$$

whereas it is

$$f_B(q) = x^* \cdot F_L(q) + (1 - x^*) \cdot F_H(q)$$

if the rating B had been produced at due effort. The appropriate supply functions $g_r(q)$ are contingent on the rating r in a fully symmetric way. In any case, at rating r from $\{A, B\}$, the market outcome (q_r, p_r) satisfies $p_r = f_r(q_r) = g_r(q_r)$ as the market is assumed to be competitive.

Ex post when courts are called in, the true state $i = L$ has become observable. Based on the true and, at that stage, known demand and supply functions $F_L(q)$ and $G_L(q)$, the social surplus $S_L(q)$ as a function of the traded quantity q amounts to the area between demand and supply function up to q . Social surplus is defined as the sum of consumers' and producers' surplus

$$S_L(q) = CS_L(q, p) + PS_L(q, p).$$

Recall, consumers' and producers' surplus depend on the traded quantity q as well as the price p at which the asset is exchanged. For further details, if needed, the reader should consult any microeconomic textbook.

With such machinery at hand, the harm caused by the agency's negligence can easily be determined as follows. The actual wealth positions amount to $S_L(q_A)$ (social), $CS_L(q_A, p_A)$ (buyers of the assets) and $PS_L(q_A, p_A)$ (sellers of the assets).

The corresponding hypothetical wealth positions remain uncertain. In fact, even at due care, the positive rating $r = A$ would have been assigned with positive probability $1 - x^*$ to the asset. In this event, the same market outcome (q_A, p_A) would have resulted as under the actual tossing of a coin such that no harm was caused by the agency's negligence.

With probability x^* , however, the more realistic rating $r = B$ would have emerged, leading to market outcome (q_B, p_B) as derived above. Hence, the social harm caused by the negligence of the agency in this event amounts to

$$\Delta S_L = S_L(q_B) - S_L(q_A).$$

Since market distortions have been ruled out, the social loss ΔS_L cannot be negative. In fact, unless the rating affects only the price but not the quantity, the social harm will be strictly positive, i.e. $\Delta S_L > 0$ unless $q_A = q_B$.

Let me assume that buyers actually suffer harm, i.e.

$$\Delta CS_L = CS_L(q_B, p_B) - CS_L(q_A, p_A) > 0$$

is assumed to hold.

As far as capital markets are concerned, it is sometimes claimed that only one side of the market can suffer harm. This claim is certainly true, if the rating does

not affect the quantity traded. If, however, the quantity (not just the price) is strictly contingent on the rating, the game no longer remains zero sum and, as a consequence, both sides may lose.

Yet, for illustration, let me assume that the sellers of the asset have actually gained from the optimistic rating A , i.e.

$$\Delta PS_L = PS_L(q_B, p_B) - PS_L(q_A, p_A) < 0$$

such that sellers would enjoy enrichment simply due the agency's mere tossing a coin. I cannot imagine that courts would classify this as unjust enrichment and, for that reason, I am definitely ruling out that the sellers would owe any compensation to the agency just for being lucky in tossing a coin.

Buyers, in contrast, suffer harm that is caused with probability x^* by the agency's negligence. Since hypothetical harm remains uncertain, I propose to award the expected harm

$$x^* \cdot \Delta CS_L + (1 - x^*) \cdot 0 = x^* \cdot \Delta CS_L$$

as damages to the buyers of the asset. From the ex-ante perspective at least, buyers would be equally well off as if the agency had met its duty. In this sense, the compensation goal would be met by my proposal.

To be sure, if the agency must compensate the buyers but the agency is denied compensation for the sellers' enrichment then the agency would owe damages in excess of social harm. At an efficient negligence standard, however, this would not distort the agency's incentives to meet its duty. In fact, the incentives would even be stronger to assign ratings with due care if winners can keep windfall gains for free.

My approach seems well in line with basic tenets of tort law as widely propagated

by textbooks on obligation law. Yet, as soon as uncertainty is involved, courts – in full agreement with the legal profession – quickly abandon such basic principles and, as a substitute, rather take resort to ad-hoc solutions. The lack of data usually serves as justification of such practice.

I admit, of course, that eliciting the demand and supply curves may be a difficult task in real cases. But, instead of trying hard enough, abandoning established principles right away does not seem satisfactory either.

In the next section, I report on some proposals from the legal side and examine their effects in terms of efficiency. My model allows to visualize these effects.

Legal Aftermath

German tort law as laid down in the civil code is a lame duck if the misbehavior of rating agencies is at stake. § 823 does not apply in the case of pure economic losses. But losses of that type are exactly the ones that are caused by negligent rating activities.

Some proponents of L&E think of pure economic losses as purely redistributive. While some parties may suffer harm, others enjoy enrichment such that, on balance, no social harm is caused at all. My model has shown that this view can hardly ever be correct. Financial crises, as we all know, come with severe real effects. A recession is a negative-sum, not a zero-sum game. As a consequence, if negligent rating has contributed to the downturn of the economy, social harm cannot be zero.

§ 826 BGB, in contrast, includes compensation of pure economic losses. Yet it requires intention of the injurer. In the strict sense, intention refers to a condition of the brain while taking a decision and, as such, can hardly ever be observed by courts. In legal practice, it proves difficult to receive compensation for pure economic losses because courts maintain high standards if proving intention is at

stake. In contrast to tort law, under contract law, pure economic losses are recoverable. Therefore, if legal scholars feel of unease with conclusions from tort law, they may try to rule rating agency cases under contract law instead. But, sophisticated as their arguments may be, it remains difficult to argue why a (pseudo-) contractual relationship between the rating agency and the buyers of the rated asset should ever exist.

Given that general obligation law is not well suited to deal with negligent rating agencies, it might be appropriate to think of new laws that have a sharper focus. The EU, in fact, has enacted the Credit Rating Agency Regulation (VO 1060/2009) that spells out the duties of such agencies in greater detail. An explicit damages rule, however, is not part of that regulation. Currently, the commission proposes to extend the existing regulation to include civil liability explicitly.

Wagner (2013) proposes to lower the standard of due care (as compared with § 826 BGB, e.g.) below which rating agencies will be held liable even for pure economic losses but to put a legal ceiling on damages awards.

In my model, the effects of Wagner's proposal could easily be investigated. Suppose the due care standard is such that rating agencies have the incentive to keep it then the resulting outcome can only be efficient if the standard would be specified at the efficient level of precaution. If, however, the due care standard remains high enough such that it is not worth for agencies to meet it then the agency operates in a range where its expected payoff is the same as under strict liability. Under strict liability, however, precaution incentives would be insufficient provided that the legally imposed ceiling on damages binds and is lower than social harm. Only if the ceiling binds but is still higher than social harm, precaution incentives would become efficient. Such a situation would arise if the ceiling were equivalent to the sellers' enrichment being subtracted in part or in

total from the buyers' harm. To ensure ceilings in that range would require a lot of fine-tuning by courts.

In any case, Wagner's proposal would remain difficult to implement. Courts would still have to estimate the victim's harm in order to find out whether the ceiling is binding or not. The issue of causality would also have to be addressed. Economic analysis rather suggests to include pure economic losses and to stick otherwise to the basic tenets of tort law. Negligence thresholds should be based on efficiency considerations and in a way predictable by rating agencies. A legal ceiling on liability could then be dispensed with as rating agencies always have the option to avoid damages claims by meeting (predictable) standards. For the same reason, there is also no need to compensate rating agencies for enrichment that may possibly have been caused by their negligent behavior.

Conclusion

This paper presents a short and rather incomplete economic analysis of a currently topical case from tort law. I have tried to convince the reader that economic methods are useful and worth being applied to questions concerning legal institutions. To be sure, the interaction between legal and economic scholars remains rather demanding. Even after having spent much time and effort on discussions with colleagues from the other department, I find it difficult to bridge the gap between the two disciplines. Lawyers think in cases, economists in models. Research topics, however, are overlapping and both sides would benefit from a more serious interdisciplinary discourse.

During the next two winter terms, I am planning to offer a module in the bachelor program on the economic analysis of law again. In class, I distribute a script to the participants. I am also planning to write a book on tort and contract law based on methods from applied game theory. If you have missed the class,

hopefully, you can read the book in some not so distant future.

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