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Relational Economic Loss: An Integrated Economic Justification for the Exclusionary Rule

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RELATIONAL ECONOMIC LOSS: AN INTEGRATED ECONOMIC JUSTIFICATION FOR THE EXCLUSIONARY RULE

Dr. Ronen Perry*

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I. INTRODUCTION

Many economic theorists of the law believe that the primary goal of the legal order is to maximize social welfare (which is, in fact, a modern iteration of "social utility"). In my view this perception is flawed, at least with regard to private law. It is important to emphasize at this early stage that my view of private law in general, and of the law of torts in particular, is a "pluralistic" one. I do not think that maximization of social welfare is the principal (not to say exclusive) purpose of tort law. Nevertheless, it is a legitimate concern of any branch of law, and cannot be ignored in the theoretical evaluation of legal norms. Subject to that caveat, this article will propose an integrated economic justification for a specific common law rule, which excludes liability in torts for relational economic loss (hereinafter "the exclusionary rule").

The term "relational economic loss," which is well known to Commonwealth jurists, may be alien to the American reader. The issue, however, is not. Relational economic loss may be defined as pure economic loss consequent upon a negligent infliction of harm to the person or property of a third party, or to an ownerless tangible resource. "Economic loss" is a negative change in the financial state of the victim that does not reflect a non-financial harm. It is called "consequential" when it results from a physical injury to the plaintiff's own person or property. It is "pure" in any other case.

1. I use the word "welfare" intentionally. It is more inclusive than "wealth" which is used by other theorists. See, e.g., WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW 16 (1987).


4. Consequential economic loss is compensable in all common law jurisdictions. See, e.g., Nat'l Steel Corp. v. Great Lakes Towing Co., 574 F.2d 339, 343 (6th Cir. 1978) ("When a defendant's negligence results in an interference with the use of plaintiff's..."
Pure economic loss can obviously stem from an intentional conduct. But here we are dealing with the more alluring problem of negligently caused financial loss.

At present it is widely accepted that the traditional search for a single legal theory applicable to all cases of pure economic loss ("the lumping approach") is an oversimplification of the problem. Different kinds of fact-situations raise different policy concerns and should be resolved accordingly. That is why a systematic solution to the problem of "pure economic loss" requires a reasonable categorization of the various situations in which it arises. The most popular taxonomy was offered by Bruce Feldthusen, a Canadian scholar, who classified cases of negligently caused pure economic loss into five distinct groups:

1) Negligent misrepresentation;
2) Negligent performance of a service;
3) Defective products or structures;
4) Public authority's failure to confer an economic benefit;
5) Relational economic loss.

This schematic taxonomy has been accepted by many Commonwealth jurists, although others are still devoted to the
traditional “lumping.” The need to distinguish five different groups is doubtful. Nevertheless, it is clear that cases of relational loss raise distinctive problems that justify their separation from other cases of negligently caused pure financial loss. This does not mean that relational losses are all alike. They all share certain features by definition. They are purely economic, they result from negligence, and they are “relational” in the sense that they are suffered due to the existence of some sort of beneficial relationship between the plaintiff and the immediate victim of the wrong. However, they may occur in various situations, which are not always similar from a theoretical point of view. These are a few archetypal examples:

1) Jill’s property is damaged. Jack, who relied on the intactness of that property without having any right—contractual or legal—in it, suffers economic loss. A good example is the Weller case, in which plaintiffs, cattle auctioneers, lost their source of income when cattle markets were closed due to a negligent viral infection of cattle in the area. The auctioneers did not have any right in the affected cattle, but their economic expectation was frustrated.

2) A high voltage cable (owned by the electric company) is accidentally cut. Production halts in many factories, with a resultant loss of profits to their owners.


7. Feldthusen, Recovery, supra note 5, at 133-34. The “lumping” approach was applied by the Australian High Court in Perre v. Apand Pty, Ltd., (1999) 164 A.L.R. 606 (Austl.). Naturally, the High Court was criticized for its methodology. See Bruce Feldthusen, Pure Economic Loss in the High Court of Australia: Reinventing the Square Wheel?, 8 Tort L. Rev. 33, 37-42 (2000) [hereinafter Feldthusen, Pure Economic Loss]. The Canadian Supreme Court has also used the lumping method. See CNR, 91 D.L.R. 4th at 358.


3) A workshop (or any other place of work) is damaged and closed for repair. Employees temporarily lose their income.\textsuperscript{11}

4) Jill has a contractual right to use the property of Jack. The property is damaged or lost. If a substitute is available for a higher price, the loss equals the additional outlay plus any transaction cost incurred by Jill.\textsuperscript{12} If no substitute is available Jill may lose profits.\textsuperscript{13}

5) A buyer of goods transported by sea bears the risk of damage to those goods from the moment they are handed over to the carrier. The ownership, on the other hand, is transferred only upon the transfer of the bill of lading to the buyer. If the goods are damaged after loading and before the transfer of ownership, the buyer suffers economic loss.\textsuperscript{14}


6) A navigable waterway is blocked. Merchant ships cannot reach their destination with an ensuing loss of profits, or can do so using an alternative route but at extra cost.  

7) Negligently caused water pollution damages public resources that have no owner to the detriment of thousands (commercial fishermen, seafood restaurants, shoreline hotels, and resorts, etc.).  

8) A person is injured. His employer has to bear the costs of seeking and training a substitute worker, and sometimes even pay a higher salary to the stand-in. Where a substitute is not available the employer's profits may be diminished.

554-56 (Can.) (holding that buyer without becoming a holder of bill of lading has a cause of action where goods were damaged en route); Triangle Steel & Supply Co. v. Korean United Lines, Inc., [1985] 63 B.C.L.R. 66, 66 (Can.) (holding shipper liable for negligently causing damage to buyer's goods despite buyer not owning the goods at time of damage); Schiffahrt und Kohlen G.m.b.H. v. Chelsea Mar., Ltd. (The Irene's Success), [1982] 1 All E.R. 218, 218 (Q.B. 1981) (Eng.) (same).  

15. E.g., Channel Star Excursions, Inc. v. S. Pac. Transp. Co., 77 F.3d 1135 (9th Cir. 1996) (holding that party could not recover for losses incurred due to a negligent blockage of a waterway); Barber Lines A/S v. M/V Donau Maru, 764 F.2d 50 (1st Cir. 1985) (same); Akron Corp. v. M/T Cantigny, 706 F.2d 151 (9th Cir. 1983) (same); Kingston Shipping Co. v. Roberts, 667 F.2d 34 (11th Cir. 1982) (same); Kinsman Transit Co. v. Buffalo, 388 F.2d 821, 821-22 (2nd Cir. 1968) (same); In re S.C. Loveland Co., 170 F. Supp. 786 (E.D. Pa. 1959) (same); Bethlehem Steel Corp. v. St. Lawrence Seaway Authority, [1977] 79 D.L.R.3d 522 (Can.) (same). But see Intercean Shipping Co. v. M/V Atlantic Splendor, [1983] 26 C.C.L.T. 189 (Can.) (holding that party negligently responsible for blocking dock is liable for losses regarding same); Cour d'appel de Rouen, December 17, 1987, D.M.F. 1988.488 (Fr.) (same); Cass. ch. civ., March 19, 1980, J.C.P. 1980.IV.216 (Fr.) (similar conclusion when the entrance to a harbor was blocked); Cass. ch. civ., December 4, 1981, Bull. Civ. 1981.1.9 (same); see also BGHZ 55, 153 (F.R.G.) (economic loss caused by obstruction of a waterway is recoverable only when plaintiff's ship is fully trapped thereby).  


17. Historically the employer's action was termed "actio per quod servitium amisit." It developed differently in various jurisdictions. See, e.g., Gareth H. J. Jones, Per
9) A person is killed. Her relatives (i.e., spouse, children, parents, etc.) lose both her services and financial support.\textsuperscript{18}

As will be seen below, these prototypic cases (and many others) do not necessarily raise the same questions from an economic point of view. Nevertheless, economic analysis may dictate a similar solution in most of them. In other words, the unifying “bright line” rule that is applied generally to relational economic loss cases (subject to a few exceptions) can be justified by a fairly complex economic analysis.

According to the classical economic view, tort law is an instrument for the minimization of the costs of accidents. This goal is pursued on three levels: efficient deterrence of potential injurers and victims; efficient allocation of losses after their occurrence; and minimization of administrative costs. Although these three objectives are derived from a single theoretical principle, they may justify contradictory normative conclusions. For example, a rule that guarantees efficient deterrence is sometimes different from the rule that allows for efficient loss allocation. In that case a value judgment is required. Many economic theorists assume that efficient deterrence is the primary concern of tort law. According to this view, loss allocation (together with other distributive concerns) should be considered only if an efficient deterrence analysis does not provide a conclusive answer. I do not think that such an assumption is necessary or justified. Deterrence and loss allocation are equally important. If rule A’s advantage over rule B in terms of deterrence is lower than rule B’s advantage in terms of loss allocation, B is a better rule. The same is true for minimization of administrative costs, which is sometimes treated as a residual consideration. One may say that if it may be justified to bar a claim due to its high administration costs, tort claims (which are indeed very expensive) should be abolished altogether. This, however, is an oversimplification of economic methodology; the benefits of

recognizing a right of action in terms of deterrence and loss allocation may overshadow the administrative cost. If and only if they do not – liability must be excluded.

Following a bird's eye view of the law governing relational economic loss in various western jurisdictions we shall analyze the relevant economic considerations under three headings, in keeping with the aforementioned trichotomy. In the last part we shall apply the normative conclusions of this analysis to a range of fact-situations in which the relational loss problem arises.

II. A COMPARATIVE OVERVIEW

A. Common Law Jurisdictions

Following the seminal cases of Cattle v. Stockton and Simpson v. Thomson English courts have consistently refused to allow compensation for relational economic loss, subject to several limited exceptions. At a certain point these two authorities and their progeny were broadened to exclude any liability for pure economic loss in the law of negligence. A true dedication to this methodology should

19. [1874-1880] All E.R. 220, 223 (1875) (Eng.) (“The question arises, can the plaintiff sue in his own name for the loss which he has sustained in consequence of the damage which the defendants have done to the property of [a third party], causing the plaintiff to lose money under his contract? We think he cannot.”).

20. [1877-78] 3 App. Cas. 279 (appeal taken from Scot.) (1877) (Eng.). Lord Penzance opined that:

The principle involved seems to me to be this – that where damage is done by a wrongdoer to a chattel not only the owner of that chattel, but all those who by contract with the owner have bound themselves to obligations which are rendered more onerous, or have secured to themselves advantages which are rendered less beneficial by the damage done to the chattel, have a right of action against the wrongdoer although they have no immediate or reversionary property in the chattel, and no possessory right by reason of any contract attaching to the chattel itself, such as by lien or hypothecation.

But if this be true as to injuries done to chattels, it would seem to be equally so as to injuries to the person...

I will ask your Lordships to reject this contention of the Respondents' counsel.

Id. at 289-89 (emphasis added).

21. Le Lievre v. Gould, [1893] 1 Q.B. 491 (Eng.) (holding that building surveyor owed no duty of care to mortgagees in issuing his progress certificates); Candler v. Crane Christmas & Co., [1951] 1 All E.R. 426, 439 (C.A.) (Eng.) (holding that the absence of a contractual or fiduciary relationship forecloses liability). The lumping stage is briefly mentioned in the following cases: Caltex, 136 C.L.R. at 585 (Austl.); CNR, 91 D.L.R.4th at 306-07 (Can.); see also Christopher Harvey, Economic Losses And Negligence—The Search for a Just Solution, 50 CAN. BAR REV. 580, 581-83 (1972)
have made any decision regarding pure economic loss in general relevant to the narrower issue examined here. Alas, this assumed linkage proved to be too pretentious.

The attitude towards relational economic loss remained unchanged despite revolutionary changes in the English law of torts during the twentieth century. The well-known dictum of Lord Atkin in *Donoghue v. Stevenson*, introducing the test of foreseeability as the cornerstone of negligence liability, was interpreted to apply only to cases of physical injury to the person or property of the plaintiff. Pure economic loss was excluded from its ambit. In *Heldey Byrne & Co. v. Heller & Partners, Ltd.*, a negligent misrepresentation case, the House of Lords expressed its objection to the traditional distinction between physical injury and pure economic loss, and its readiness (at least in principle) to allow compensation for the latter. However, this authority was later distinguished in relational loss cases as applying only to economic losses resulting from negligent misstatements.

*Anns v. Merton London Borough* posed another threat to the validity of the exclusionary rule. Lord Wilberforce's two-prong test for the existence of a notional duty of care seemed to permit

(Explaining the general rule excluding actions based on pure financial loss; Sheller, supra note 6, at 206-07 (providing overview on the development of the excluyatory rule).

22. [1932] All E.R. 1 (H.L.) (Eng.)

23. See, e.g., Konstantinidis, 2 All E.R. at 155-56 (Eng.) (stating that the *Donoghue* line of cases restricts the duty to one's neighbor "to avoid injuring him either in his person or in his property"); Weller & Co., 3 All E.R. at 563 (Eng.) (holding that plaintiff must show direct injury to their person or property to warrant relief).


25. See Konstantinidis, 2 All E.R. at 155 (Eng.) (holding that *Heldey Byrne* is inapplicable to cases of relational economic loss); Weller & Co., 3 All E.R. at 570 (Eng.) (observing that *Heldey Byrne* did not affect the common law principle that a duty of care which arises from a risk of direct injury to person or property is owed only to those whose person or property may foreseeably be injured by a failure to take care); Elliott (Trading as Arlington Books) v. Sir Robert McAlpine & Sons, Ltd., [1966] 2 Lloyd's List L. Rep. 482, 484 (Westminster County Ct.) (Eng.) (rejecting plaintiff's argument that *Heldey Byrne* eliminated the requirement of injury to the person or property); Electrochrome, Ltd. v. Welsh Plastics, Ltd., [1968] 2 All E.R. 205, 208-09 (Glamorgan Assizes) (Eng.) (quoting *Weller & Co.)*; Margarine Union GmbH., 1 Q.B. at 250-51 (Eng.) (same).


27. Id. at 498.

Through the trilogy of cases in this House [*Donoghue, Heldey Byrne, Home Office*] the position has now been reached that in order to establish that a duty of care arises in a particular situation, it is not necessary to bring the facts of that situation within those of previous situations in which a duty of care has been held to exist. Rather the question has to be approached in two stages. First one has to ask
unprecedented expansion of the boundaries of tort liability. Yet this expectation was disappointed. First, it was held that the court’s ruling, concerning pure economic loss ensuing from a negligent omission of a local authority and relying on irrelevant authorities as regards relational losses, was inapplicable to relational economic loss.28 Some added that the two-prong test was applicable only to new fact-situations, and not to well settled legal issues.29 Others said that the exclusionary rule (in its narrow sense) could survive even within the two-prong framework as it was based on legitimate policy considerations.30 In any case, the attempt to formulate a general test for the existence of a duty of care was eventually abandoned in Murphy v. Brentwood District Council.31

In Junior Books Ltd. v. Veitchi Co.,32 tried before Murphy, the House of Lords held a negligent flooring subcontractor liable directly to the owner of the building for economic loss it suffered due to the inadequacy of the floor and the need for its replacement, regardless of the lack of contractual privity between the two. Lord Roskill emphasized that any distinction between physical and economic losses was undesirable.33 However, once again, the House in its subsequent decisions chose to restrict its ruling to the specific narrowly defined facts of Junior Books. The law of relational economic loss was left untouched.34

In the 1980s, the House of Lords held conclusively that economic loss consequent upon an injury to the property of a third party was not actionable (The Mineral Transporter and The Aliakmon being the leading cases). In the same spirit, Parliament nullified anachronistic and exceptional rules of the common law, allowing compensation for economic loss consequent upon a bodily injury to another (the actio

whether, as between the alleged wrongdoer and the person who has suffered damage there is a sufficient relationship of proximity or neighbourhood such that, in the reasonable contemplation of the former, carelessness on his part may be likely to cause damage to the latter, in which case a prima facie duty of care arises. Secondly, if the question is answered affirmatively, it is necessary to consider whether there are any considerations which ought to negative, or to reduce or limit the scope of the duty or the class of person to whom it is owed or the damages to which a breach of it may give rise.

Id. at 751-52.
28. The Mineral Transporter, 2 All E.R. at 942 (Eng.).
29. The Aliakmon, 2 All E.R. at 153-54 (Eng.).
30. The Mineral Transporter, 2 All E.R. at 945 (Eng.); The Aliakmon, 2 All E.R. at 155-55 (Eng.).
31. [1990] 2 All E.R. 908 (H.L.) (Eng.).
33. Id. at 213-14.
34. See, e.g., The Mineral Transporter, 2 All E.R. at 945 (Eng.).
per quod servitium amisit and the actio per quod consortium amisit). The state of the law has not changed since.

In some common-law jurisdictions, the English approach to relational economic losses was adopted and implemented without much hesitation. Scotland and Ireland are good examples. In other jurisdictions, the courts boldly departed from the English authorities. Yet, in most jurisdictions the pendulum has reverted to its initial state, or at least has started to retreat. A complete survey of the legal development in these jurisdictions is unfeasible, so I shall point out only a few highlights.

In Rivtow Marine, Ltd. v. Washington Iron Works, a unique defective product case, the Supreme Court of Canada opined that Hedley Byrne stood for the proposition that “where liability is based on negligence the recovery is not limited to physical damage but extends also to economic loss.” In Kamloops v. Nielsen, the same court embraced the Wilberforce formula to deal with a fact-situation similar to that considered in Anns itself. The effect of these two decisions on the law of relational economic loss was yet to be explored.

In CNR v. Norsk, the Supreme Court addressed for the first time after the Rivtow-Kamloops revolution, the question of liability for economic loss consequent upon an injury to the property of a third person. By a 4:3 majority, it allowed the claim. The minority, headed by La Forest J., chose to separate relational economic loss from other categories of pure economic loss, and thus found both Rivtow and Kamloops irrelevant. The exclusionary rule in its initial narrow form, said La Forest J., is supported by legitimate policy considerations and should be relaxed only in exceptional cases.

38. [1973] 40 D.L.R. 3d 530 (Can.).
39. Id. at 546.
40. [1984] 10 D.L.R. 4th 641 (Can.).
41. Id. at 662-63.
42. [1992] 91 D.L.R.4th 289 (Can.).
43. Id.
44. Id. at 299-303, 316.
45. Id. at 308.
46. Id. at 345-53, 354-55 (discussing examples of policy concerns that legitimize the consideration of which party is “better the bearer”).
47. See id. at 356-57 (explaining that the court should adhere to the general rule in the absence of certain policy reasons).
McLachlin J., speaking for three members of the court, chose not to classify economic loss cases into different categories. She believed that the principle of proximity unified all cases where claims for economic loss had been allowed (including Rivtow and Kamloops), and that it could be used as a general principle for the resolution of such cases, together with foreseeability. Stevenson J. allowed CNR’s claim, relying on the “known plaintiff” test, which was rejected by all of his colleagues.

Following CNR, the law was in a state of flux. All that could be said was that the potential for liability for relational economic loss was somewhat higher than before. In D’Amato v. Badger, the Supreme Court denied a claim for economic loss consequent upon an injury to the person of a third party. The court said that “[w]hile the tests of La Forest and McLachlin JJ in CNR are different, they will usually achieve the same result,” and that the case at bar was not a case in which the plaintiff would succeed on one test but not on the other. The inevitable choice between the two was postponed.

One author said that this was a “total capitulation.” Thus, after a short period of relatively high potential for expansion, the pendulum has nearly returned to its baseline.

48. Id. at 358.

49. Id. at 367-371; see also id. at 378-79: “In the end I conclude that a test for recovery of economic loss...whether ‘contractual relational’ economic loss or otherwise—should be flexible enough to meet the complexities of commercial reality and to permit the recognition of new situations in which liability ought, in justice, to lie as such situations arise.”

50. See id. at 387, 391 (preferring to determine proximity by asking whether the defendant can “reasonably foresee that a specific individual, as distinct from a general class of persons, will suffer financial loss” as result of his conduct).


52. Id. at 137, 138, 139 (deciding that a company is not entitled to recovery of pure economic loss arising from the loss of a principal shareholder and employee).


54. See id. at 406-07.

55. Daniel Kalderimis, Contractual Economic Loss in New Zealand—“Who, Then, is my Neighbour” Really?, 29 VICTORIA U. WELLINGTON L. REV. 193, 209 (1999). “Although [McLachlin’s judgment was] phrased in the language of compromise, a closer analysis reveals a total capitulation.” Id.; see also Martel Bldg., Ltd. v. Canada, [2000] 2 S.C.R. 860, 878 (Can.) (“In Bow Valley,...McLachlin J....[affirmed] that recovery for contractual relational economic loss is presumptively excluded, subject to categorical exceptions.”); Feldthusen, Pure Economic Loss, supra note 7, at 41 n.42 ( “These decisions reduce the authority of, if not overrule, the judgment of McLachlin J. in [CNR].”).
The New Zealand Court of Appeal wholeheartedly embraced the Wilberforce formula as a principle of general application in the law of negligence, and has consistently adhered to it since. Within this framework the lower courts permitted recovery in relational loss cases. However, in Riddel v. Porteous, the Court of Appeal implied that policy considerations might annul the duty of care in most of these cases.

A far more liberal approach was adopted by the High Court of Australia. In Caltex Oil (Aust.) Pty. v. The Dredge “Willemstad”, the court unanimously allowed a claim for economic loss consequent upon an injury to the property of a third party. This case was apparently the most far-reaching challenge to the exclusionary rule in the British Commonwealth until CNR v. Norsk. However, the case had no ratio decidendi. Each of the five judges used a different method to justify his conclusion. Still, one factor seemed to outweigh all the others (and is in fact the determinative factor in the judgments of both Gibbs and Mason JJ.); the defendant’s knowledge or means of knowledge that the plaintiff individually, and not merely as a member of an unascertained class, would be likely to suffer economic loss as a consequence of his negligence.

In the following years the High Court decided—somewhat surprisingly—to resolve all cases of pure economic loss with a twofold test of foreseeability and proximity. This approach was also applied in cases of relational economic loss but was later abandoned under the influence of academic critique. In Perre v. Apand the court once again allowed a claim for pure economic loss consequent upon an injury to the property of another. Unfortunately, just like Caltex, the case lacks a ratio decidendi. Only three of the seven members of the panel adhered to the twofold test. Each of the other four used a

59. See id. at 29-35; see also Feldthusen, Pure Economic Loss, supra note 7, at 41 (“The New Zealand Court of Appeal has yet to rule conclusively, but seems at least implicitly to recognise relational claims as distinct.”).
60. 136 C.L.R. 529 (Austl).
61. Smillie, supra note 8, at 232-33.
65. See id. Callinan J. specifically spoke of foreseeability and proximity. Gummow J., with whom Gleeson C.J. concurred, spoke of “close relationship” but meant the same thing.
different methodology. Even so, two factors were emphasized in most of the judgments. All judges said, in one way or another, that the defendant knew or had reason to know that its negligence might cause damage to the plaintiffs as members of an ascertainable class.\(^66\) Most of them added that the plaintiffs could not protect themselves against the negligence of the defendant.\(^67\) To conclude, the law in Australia is now uncertain. But the prospects of liability for relational economic loss are relatively high.

Starting with Anthony v. Slaid,\(^68\) and subject to a few deviations, American courts developed a “bright line rule” very similar to the English exclusionary rule in its initial narrow form. The leading case was Robins Dry Dock v. Flint,\(^69\) in which the Supreme Court of the United States held that “a tort to the person or property of one man does not make the tortfeasor liable to another merely because the injured person was under a contract with that other, unknown to the doer of the wrong.”\(^70\) Despite its reference to a contractual relationship between the plaintiff and the immediate victim, and to the defendant’s unawareness of such relationship, this formulation was broadly interpreted to exclude any liability for relational economic loss, whether the relationship was contractual or non-contractual,\(^71\) known or unknown to the doer of the wrong.\(^72\) Further attempts to restrict the court’s ruling to lucrum cessans (lost profit) as opposed to damnum emergens (actual expenditure incurred),\(^73\) to negligence as opposed to other forms of action (e.g., nuisance),\(^74\) or to

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66. Id. at 1193, 1198-99, 1248, 1256-57, 1270.
68. 52 Mass. 290, 291 (1846).
70. 275 U.S. at 309.
73. E.g., Barber Lines, 764 F.2d at 51-52; In re Cleveland Tankers, 791 F. Supp. at 677.
74. Barber Lines, 764 F.2d at 56-57; Tetsbank, 752 F.2d at 1030-31; Dick Meyers
the law of admiralty as opposed to the common law were also unsuccessful.

Federal courts have generally accepted the broad interpretation of Robins Dry Dock, and applied it to the great majority of relational loss cases. Only a few narrow exceptions have been recognized. Most State courts embraced the “bright line rule,” but in some it was replaced by a more generous approach. The New Jersey Supreme Court, for example, held that a defendant owed a duty of care to take reasonable measures to avoid the risk of causing pure economic loss to particular plaintiffs or plaintiffs comprising an identifiable class with respect to whom defendant knew or had reason to know were likely to suffer such loss from its conduct. This authority was subsequently followed in Alaska. Note that the majority’s bright line rule was also introduced into the Second Restatement of the Law of Torts.

Last but not least in our bird’s eye view of common law jurisdictions is the legal system of Israel. The core of Israeli law of torts is the Civil Wrongs Ordinance of 1944, one of the most significant legislative remnants of the British Mandate for the Land of Israel. The ordinance consists of two general principles of liability

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Towing Serv., Inc. v. United States, 577 F.2d 1023, 1025 n.4 (5th Cir. 1978); Rickards v. Sun Oil Co., 41 A.2d 267, 269 (N.J. 1945).

75. See, e.g., Ballard Shipping, 32 F.3d at 627-28; In re Nautilus Motor Tanker Co., 900 F.Supp. 697, 703 (D. N.J. 1995).

76. See, e.g., Getty Ref. & Mktg. Co. v. M/T Fadi B, 766 F.2d 829, 832-33 (3rd Cir. 1985); Barber Lines, 764 F.2d at 51-52; Tetsbank, 752 F.2d at 1021-28; Hercules Carriers, Inc. v. Florida, 720 F.2d 1201, 1202 (11th Cir. 1983); Akron Corp. v. M/T Cantigny, 706 F.2d 151, 152-53 (5th Cir. 1983); Kingston Shipping Co. v. Roberts, 667 F.2d 34, 35 (11th Cir. 1982); Marine Navigation Sulphur Carriers v. Lone Star Indus., Inc., 638 F.2d 700, 702 (4th Cir. 1981); Cargill, Inc. v. Offshore Logistics, Inc., 615 F.2d 212, 213-14 (5th Cir. 1980); Louisville & Nashville R.R. Co. v. M/V Bayou Lacombe, 597 F.2d 469, 472-74 (5th Cir. 1979); Dick Meyers Towing Serv., 577 F.2d at 1024-25; Kaiser Aluminum & Chem. Corp. v. Marshland Dredging Co., 455 F.2d 957, 958 (5th Cir. 1972).


79. One is not liable to another for pecuniary harm not deriving from physical harm to the other, if that harm results from the actor’s negligently

(a) causing a third person not to perform a contract with the other, or
(b) interfering with the other’s performance of his contract or making the performance more expensive or burdensome, or
(c) interfering with the other’s acquiring a contractual relation with a third person.

RESTATEMENT (SECOND) OF TORTS: INTERFERENCE WITH CONTRACT OR PROSPECTIVE CONTRACTUAL RELATION § 766C.

80. To be accurate, the Israeli legal system is considered to be a mixed jurisdiction (with numerous continental features). But for historical reasons the Israeli general law of torts is based almost purely on common law rules and principles.
(the torts of negligence and breach of statutory duty) and a number of particular torts. Negligence is defined in sections 35-36. According to section 35 a person who performs an unreasonable act or omission towards another, to whom he owes a duty not to act likewise, thus causing him harm, commits a civil wrong. As stated in section 36, a duty of care is imposed only if a reasonable person ought to have foreseen the harmful consequences of the unreasonable conduct. The use of the words “ought to have foreseen” implies that actual foreseeability is not always enough. In the 1980s, the Supreme Court of Israel held that not every consequence that can be foreseen is also a consequence that should be foreseen. Basically, where harm is anticipated a duty of care arises unless special policy considerations justify a contradictory conclusion. Later the court replaced the two-prong Anns-like formula with a three-prong test of foreseeability, proximity and policy, inspired by the House of Lords' decision in Caparo Industrial Plc. v. Dickman. It is important to note that both methods exalt policy.

The question is whether a potential injurer owes a duty of care not only to those whose person or property may be injured by her negligent conduct, but also to other parties who may suffer pure economic loss consequent upon those physical injuries. The answer is rather ambiguous. On the one hand, the Israeli Supreme Court seems to muddle up various cases of pure economic loss. This may indicate (inconclusively) its preference for the lumping method. Furthermore, since the seminal case of Weinstein v. Kadima the Israeli Supreme Court has adopted a rather generous approach to the problem of pure economic loss. These two facts may be utilized by relational loss victims. On the other hand, the Supreme Court refused to allow compensation for relational loss on one or two occasions. Nonetheless, it restricted its rulings to the specific facts of each case, and said nothing of a general “bright line rule.”

83. [1990] 1 All E. R. 568, 573-74 (H.L.) (Eng.).
B. Continental and Scandinavian Jurisdictions

In continental jurisdictions, pure economic loss in general and relational loss in particular must be dealt with according to the general provisions of tort liability in the civil code. In spite of this methodological similarity, there is a significant attitudinal difference between Romanist and Germanic systems with regard to economic loss. Section 1382 of the French Code Civil states that: “Any conduct of a man which causes damage to another obliges him by whose fault it occurred to make reparation.”87 Section 1151 stipulates that liability is imposed only for the immediate and direct consequences of the wrong.88 Sections 1382 and 1151 do not distinguish between different types of loss; the general provisions are equally applied to each and every case.89

Some scholars say that within this framework French courts, just like their English counterparts, tend not to permit recovery for relational economic losses, subject to a few exceptions.90 The court usually concludes that the loss is not certain, or that it is not the immediate and direct result of the wrong.91 Others say that French courts generally allow recovery in fact-situations that are governed by the exclusionary rule in common law jurisdictions.92 For example, workers whose place of work was negligently damaged received compensation for loss of income;93 a bus company recovered for loss of profits due to a negligent obstruction of a highway;94 an employer was

87. C. CIV. § 1382.
88. Id. § 1151.
91. See, e.g., Cour d'appel de Colmar 2e ch., April 20, 1956, J.C.P. 1956, IV, 128 (Fr.); Cass. 2e civ., June 12, 1987, J.C.P. 1987, IV, 286 (Fr.).
93. T.G.I. Nanterre, October 22, 1975, Gaz.Pal. 1976, 1, 392 (Fr.).
compensated for economic loss consequent upon an injury to its employee. 95

Both views are somewhat misleading, although the second is more accurate. It would be fair to say that the prospects of liability for relational loss are higher in France than in England, but it is also impossible to say with certainty that French courts would permit recovery for relational losses in certain fact-situations (with maybe one exception). This statement is incompatible with the case-by-case methodology of French private law.

The German BGB consists of three general principles of liability. Section 823I states, “a person who, willfully or negligently, unlawfully injures the life, body, health, freedom, or property or other right of another is bound to compensate him for any damage arising therefrom.” 96 Pure economic interests are not explicitly protected by this clause. Furthermore, they are not perceived as “other rights,” given that this concept only applies to absolute rights, i.e., rights which can be interfered with by everyone and which can be asserted against everyone (such as patents, copyrights, trademarks, and the right to one's personality). 97 Finally, a few attempts were made to claim damages for relational losses on the theory that they were consequent upon an interference with the plaintiff’s own right of an established and operating business (Recht am eingerichteten und ausgeübten Gewerbebetrieb). They all failed. Although the right of an established and operating business is a well recognized “other right” for the purposes of section 823I, 98 it was held that the defendant’s conduct constitutes an infringement of that right only if it is directed against the business as such. 99 In the end the Bundesgerichtshof was of the opinion that the loss referred to by each of the aforementioned claimants did not ensue from a direct interference with his own business. 100

Section 823II states, “the same obligation is placed upon a person who infringes a statute intended for the protection of

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95. Cour d'appel de Colmar, April 20, 1955, JCP 1955, II, 8741, D. 1956, 723 (Fr.).
96. BGB § 823I.
98. RGZ 58, 24 (F.R.G.).
others.\textsuperscript{101} Technically speaking, this clause applies equally to all kinds of loss. That is why many relational loss victims based their claims upon the violation of a statutory norm (provided that their loss in fact resulted from such violation). However, these attempts were also unsuccessful. The courts usually concluded that the violated norm was not intended to protect the economic interests of the plaintiff and similar potential victims.\textsuperscript{102} Lastly, section 826, which allows compensation for any kind of loss, applies only to the willful infliction of loss in a manner contrary to public policy.\textsuperscript{103} It is therefore irrelevant in the current context.

A few words should be said about the unique treatment of relational economic losses in Sweden and in Finland. Section 2:1 of the Swedish Skadeståndslagen (Tort Liability Act) provides that “any person who, willfully or by negligence, causes loss of life, personal injury, or loss of or damage to property, shall be liable to pay compensation for such loss”.\textsuperscript{104} This formulation does not include pure economic loss. Section 2:4 permits recovery for economic loss if it was caused by a conduct that is punishable under criminal law.\textsuperscript{105} However, pure economic loss is defined as “economic damage that arises without any person having concurrently sustained loss of life, personal injury or loss of or damage to property.”\textsuperscript{106} Since relational losses are concurrent with physical harms they are non compensable.\textsuperscript{107}

Section 2:1 of the Finnish Vahingonkorvauslaki (Tort Liability Act) provides that “any person who deliberately or negligently causes injury or damage to another shall be liable for damages, unless otherwise follows from the provisions of this Act.”\textsuperscript{108} Section 5:1 adds that:

\begin{quote}
\textsuperscript{101} BGB § 823 I.
\textsuperscript{103} BGB § 826.
\textsuperscript{104} SkL Chap. 2, § 1.
\textsuperscript{105} Id. § 4.
\textsuperscript{106} Id. chap. 1, § 2.
\textsuperscript{107} Bill W. Dufwa, Responses: Sweden, in The Limits of Expanding Liability 189, 191-92, 193 (Jaap Spier ed., 1998); W.V. Horton Rogers, Comparative Report on Case 2, in The Limits of Expanding Liability 37, 40. The most important authority is NJA 1988, s. 62 (cited by both Dufwa and Rogers). See also the case studies in Pure Economic Loss in Europe, supra note 92, at 192 in conjunction with 204, 208 in conjunction with 219, 222 in conjunction with 238, 241 in conjunction with 253, 418 in conjunction with 431.
\textsuperscript{108} Vahingonkorvauslaki, Chap. 2, § 1.
\end{quote}
damages shall constitute compensation for personal injury and damage to property. Where the injury or damage has been caused by an act punishable by law or in the exercise of public authority, or in other cases, where there are especially weighty reasons for the same, damages shall also constitute compensation for economic loss that is not connected to personal injury or damage to property.\textsuperscript{109}

The second part of this clause allows compensation for economic loss. One may say that relational economic losses are nonetheless irrecoverable since they are “connected to personal injury or damage to property.” But it is important to note that unlike the Swedish SkL the Finnish Act does not define pure economic loss as independent of any physical injury. It may be said that the phrase “economic loss that is not connected to personal injury or damage to property” is synonymous with our own definition of pure (i.e., non consequential) economic loss. Even if that is so, relational losses will be recoverable only in exceptional cases (as stated in section 5:1).

III. EFFICIENT DETERRENCE

A. General Observations

One of the main functions of tort law—at least from an economic perspective—is to provide incentives for behavioral changes that may reduce the loss of social welfare caused by human interactions. Tort liability raises the price of potential injurers’ activities and thus encourages them to take further precautions or reduce their level of activity. In the very same manner, exclusion of liability encourages potential victims to take precautions or reduce their level of activity. These economic incentives for behavioral changes are called “deterrence.” They are “efficient” if they guarantee an economically optimal (i.e., welfare maximizing) conduct by potential injurers and victims alike.

The most fundamental presumption of economic theorists, known as the assumption of rationality, is that every person wishes to maximize her personal welfare. In other words, any personal decision is based on the personal assessment of private cost versus private utility.\textsuperscript{110} Therefore, if every act influenced its performer and her alone, liability rules would not be required. Rationality would guarantee efficiency. The problem is that A’s act may affect others as

\textsuperscript{109} Vahingonkorvauslaki, Chap. 5, § 1.

\textsuperscript{110} The assumption of rationality was partially challenged by Nobel Prize winner Professor Daniel Kahneman (with his late colleague Amos Tversky). See, e.g., Amos Tversky & Daniel Kahneman, Judgment under Uncertainty: Heuristics and Biases, in \textit{Judgment under Uncertainty: Heuristics and Biases} (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982).
well. The changes that A’s act may generate in the state of others are called “externalities.” Negative (or harmful) externalities are an inseparable part of the social cost of any activity. However, in a lawless world any personal decision is based on a rational personal calculation; negative externalities are disregarded. The result is that a person may perform a certain act although its social cost outweighs its benefit. Imposing tort liability on A guarantees an internalization of the negative externalities into her private calculation and results—at least in theory—in efficient behavior.

Economic theory thus assumes that liability rules do encourage behavioral changes and that the consequent changes are in fact efficient. These two assumptions may be challenged. The first assumption is allegedly flawed since many accidents are caused absentmindedly, without a preceding cost-benefit calculation. The lack of a conscious decision-making process reduces the potential impact of the threat of liability on human behavior. Furthermore, even when a conscious choice is made before the accident-generating act is performed it is impossible to isolate the effect of civil liability rules from other significant factors, such as potential criminal and administrative sanctions, the concern of self-injury, etc. The second assumption is purportedly unsound due to information problems. Potential injurers usually lack sufficient information about accident probabilities, about the magnitude of potential losses, and about the cost and effect of various precautions taken by potential victims. Potential victims can normally assess in advance their own potential loss, but lack information about accident probabilities and about the costs and effects of injurers’ precautions. Additionally, many potential injurers are covered by liability insurance. The fact that liability insurers typically use insufficient subcategories of risk-creating activities to determine individual premiums diminishes whatever deterrent effect liability rules might have had. Nevertheless, economic insights cannot be ignored. Even if the impact of liability rules on human behavior is not always clear and even if their application may sometimes produce a suboptimal result, the aspiration behind the idea of efficient deterrence is a legitimate one, and can be pursued cautiously among other normative goals. The following discussion offers a good example.


112. Englard, Philosophy, supra note 2, at 44.
B. Deterrence of Potential Injurers

1. Non-internalization of Wealth Transfers

In 1982 it was postulated for the first time that “many financial losses may not be losses at all in an economic sense; that is from the point of view of net social welfare.” By this, it is meant that the efficiency of deterrence depends on the internalization of the social cost of every inefficient act by the actor. In the assessment of social cost it is important not to include private losses that result from “wealth transfers.” These are offset by parallel gains and do not influence the net social cost of the originating activity. It seems that many relational economic losses correspond to resulting economic gains. Although such gains do not mitigate the private loss they must be taken into account in the evaluation of the externalized social cost of the activity. Internalization of relational economic losses irrespective of the corresponding gains may lead to over-deterrence. The exclusionary rule thus prevents an inefficient result.

This general notion may be clarified by a simple example. A railway runs between two neighboring towns, A and B. The railway company is considering the use of certain equipment that might reduce the risk of derailment of trains carrying dangerous materials. The equipment costs $5M and has a life span of ten years. It is known that the new equipment may prevent one accident per decade. It is further known that any accident will result in mass evacuation from the town in which it happens into the other for a single day, and that any evacuation will cost $1M. Under these assumptions it would be inefficient to install the new equipment. The cost ($5M) outweighs the benefit ($1M).

Now assume that A and B are identical and that each accommodates several craftsmen, merchants, and suppliers of...
services with normal volumes of trade. It is now crucial to distinguish two possible scenarios. In the first, businessmen in the receiving town can double their production for a day at no extra cost beyond what the normal production costs of businessmen in the evacuated town would have been.\textsuperscript{116} The result of any evacuation will be that businessmen from the evacuated town will make no sales for a day while businessmen from the other town will double their sales. One businessman’s loss becomes another’s source of gain.

If the private losses of the evacuated town’s businessmen exceed $4M, allowing them to sue the railway company will encourage the latter to install the new equipment. Its expected liability now exceeds $5M ($1M+$4M+ε). The private cost of installation ($5M) is now lower than the private benefit. However, this outcome is inefficient. The social cost of an accident is only $1M. It is economically wrong to spend $5M on its prevention.

In the second scenario, businessmen in the receiving town cannot expand their level of production at a cost similar to what the normal cost of businessmen in the evacuated town would have been, even for a day. In that case, an evacuation from town A will result in higher prices of products and services in town B (which now accommodates the residents of both A and B). Consequently, although the number of consumers remains unchanged sales will drop. In such a case there is an actual social loss, in addition to the direct and immediate costs of evacuation. This can be seen in the following figure.

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\textsuperscript{116} This implies flat marginal cost curves in both towns for temporary fluctuations in demand.
Figure 1: The social cost of the accident

The normal supply curve is $S_1$. The demand curve is $D$. The normal aggregate surplus is therefore $abc_1$. After the evacuation of town A, B’s businesses produce at higher marginal costs. The new supply curve ($S_2$) is thus located above $S_1$. The new aggregate surplus is $abc_2$. The social loss is represented by the non-Euclidean triangle $bc_1c_2$. The area $c_2bk$ represents a decrease in aggregate surplus due to the higher cost of production of $q_2$ products; while the area $c_1c_2k$ represents a decrease in aggregate surplus due to the fact that $q_1$--$q_2$ products are not produced at all.\(^{117}\)

The critical question turns out to be this: when can a producer expand its level of production without destabilizing the market equilibrium? The answer is fairly simple in theory but very complicated in practice. Suppose that N factories manufacture a product called “$\alpha$", that the demand for “$\alpha$" is cyclic, and that the size of each factory is optimal. A negligent cut of an electricity cable halts production in one of the factories. If the accident occurs at an off-peak time, the competitors can easily increase their production, utilizing their excess manufacturing potential. The extra production costs incurred by the competitors (which include manpower, raw material, electricity, machinery wear and tear, etc.) cannot be regarded as true social costs caused by the accident. But for the accident they would have been borne by the halted plant. If, on the

other hand, the accident occurs at peak, the costs of production may rise and the supply curve will shift upward.\textsuperscript{118}

The farther demand is from its peak, the smaller the halted plant's market share, and the shorter the interruption, the easier it is for the competitors to stand in for the unfortunate producer without destabilizing the market equilibrium. Since demand is only seldom at its peak we may conclude that in most cases a temporary disturbance to production in a single plant does not give rise to a social cost, or that the private losses of the halted plant greatly exceed such cost. The exclusionary rule will thus prevent internalization of wealth transfers. It is true that considerable social costs may occur once in a while. But identifying these rare cases and trying to evaluate the respective social costs (which are by no means equivalent to the private losses) is not worthwhile. The cost of gathering and processing the necessary information is significantly higher than the social cost that would consequently be internalized.\textsuperscript{119}

Furthermore, even if the brownout (or evacuation) happens at peak, and even if the market share of the halted plant is relatively high and the interruption is rather long, it is possible that no social cost will ensue. Consumers may sometimes have an inventory that can be utilized during the interruption and then renewed. In other cases (especially where the interruption affects the manufacturer of a durable product) they may prefer to postpone new acquisitions regardless of the unavailability of an inventory. In both cases the halted plant's profits are not lost but rescheduled. It is also possible that the halted plant or its competitors will use their own inventories to meet demand.\textsuperscript{120} In all of these cases the market equilibrium will not destabilize. The exclusionary rule suits every one.

\textsuperscript{118} Bishop, supra note 113, at 15.
\textsuperscript{119} Id. at 17.
\textsuperscript{120} It is possible that producers and consumers hold larger than optimal inventories due to the fear of negligent interruptions of production. This means that negligent interruptions cause true social costs (the cost of holding the additional inventory). However, I think that since non-negligent interruptions are usually more frequent than negligent ones, and since there are other commercial reasons for holding inventories, the impact of negligent interruptions on inventory strategies is not considerable. I will naturally revise some of my conclusions if this assumption is found to be inconsistent with empirical data.
The assumption that competitors will usually be able to produce substitutes for the products of the halted plant at a similar cost may lead to another conclusion. If all manufacturers of "α" are exposed to similar risks, in the long run none of them will suffer economic loss. Suppose that N=12 (there are 12 manufacturers of "α"), and that in an accident-free world each producer will make $10,000 a month ($120,000 a year) in profits. Now suppose that a negligent cut of an electricity cable occurs at the beginning of every month, and that each accident interrupts production for the whole month in a single plant. If all manufacturers are in fact exposed to similar risks each will cease to produce once a year. Every month a single plant will make no profit, and its competitors will make $10,000+$10,000/11= $10,909. The profit expectancy of each plant is therefore identical to its expectancy in an accident-free world: 11×$10,909+1×$0=$120,000 a year. Compensating the halted plant for its economic loss is in fact a subsidy to the "α" industry, which makes the establishment of similar plants more attractive, and results in a wasteful and unnecessary increase in production capacity.\textsuperscript{121}

This argument slightly weakens if businessmen are risk averse. For a risk-averse person a constant income stream of $X per month is a bit more valuable than a variable stream with an average of $X a month. The shift from a steady stream to a variable one reflects a true social loss, which can be measured by the price that the same person would pay to insure the constant stream. However, this value is normally small, since income variance is not very high and in any case not too disturbing for the reasonable person. In perfect (or nearly perfect) markets risk-averse businessmen may diversify their investments in a way that nullifies the impact of accidents on their personal stream of revenues. In the last example a risk-averse businessman may hold 8.33% of the participating stocks in each of the 12 firms. This will guarantee a constant stream of $10,000 a month.\textsuperscript{122}

Everything stated so far is valid in competitive markets only. If the halted plant is a monopoly, and it cannot utilize inventories during the interruption, its economic loss is a true social cost. In fact, its loss is only one of the two ingredients of the social harm (loss of consumer surplus being the other). It should be emphasized that although the fear of over-internalization—in its currently discussed form—may not exist in monopolistic markets, it exists in markets of monopolistic competition (where different competitors produce slightly different products).

\textsuperscript{121} Cf. Bishop, supra note 113, at 15-16 (explaining that costs increase only when accidents occur at peak times when factories are at full production capacity).
\textsuperscript{122} Id. at 7.
Before turning to the critical appraisal of the general theory we should add a few comments. First, allowing recovery for private losses that do not correspond to social costs not only over-deters potential injurers but also under-deters potential victims. Whenever potential injurers unduly reduce their level of activity or increase their level of care, potential victims unduly increase their level of activity or reduce their level of care. Second, the gap between private losses and the social cost grows together with the number of relational loss victims; and as will be seen below, this number can be rather large. Third, if we could revolutionize the law of unjust enrichment and use it to transfer the additional profits made by the halted plant's competitors to the injurer, we would also be able to allow recovery for the private economic loss without worrying about over-internalization. Deterrence would remain efficient and the pre-accident allocation of profits would be restored. However, this method is not only ground-breaking but also highly problematic from a theoretical standpoint. Restoration of the pre-accident allocation of profits is nevertheless possible without the mediation of the injurer. If each of the 12 manufacturers agrees to pay a premium of $833.33 a month for a full cover of business interruption loss, the aggregate sum ($10,000) can be used to compensate the halted plant. Each manufacturer will thereby have a steady stream of profits (with negligible variance).

The general proposition that the exclusionary rule is aimed at preventing internalization of wealth transfers has faced intense criticism. However, none of the possible criticisms justifies its total rejection. The first potential criticism is that competitors of interrupted business enterprises do not always make additional sales during the interruption. In these cases, the social cost is the upper limit of private economic losses. This may be easily proved. If the average production cost of a single unit of "α" is $c$, its market price is $p$ and its average utility to the consumer is $u$, and the interruption prevents its production, then the private economic loss equals $p - c$ while the social cost is $u - c$. Presumably $u \geq p$ (otherwise no one would buy the product), hence $u - c \geq p - c$. Social cost exceeds or equals private loss. The immediate response to this contention is

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123. Gilead, supra note 114, at 597-98.
124. Goldberg, supra note 114, at 34.
126. Cf. Shavell, supra note 114, at 135-36, 154-55 (explaining that social losses...
that in most cases substitutive sales are actually made, either by competitors or by the halted business itself (which can utilize inventories or make more sales after production resumes).  

A second criticism is that the halted plant's competitors can produce substitutes only at a higher cost. In that case, supply curve shifts up with a subsequent social loss. However, as I have tried to show, the assumption on which this contention is based is rarely true. Normally, competitors have unutilized or underutilized production capacities. If one of them is temporarily paralyzed in an off-peak time, the others may employ their unused capacity, the costs of production will not rise and no social loss will ensue. But even if the excess capacity of the competitors is insufficient to accommodate the additional demand in full, the costs of production will not rise significantly in most cases, and the social loss will thus be only a small fraction of the private economic loss. In any case no social loss will ensue if the halted plant or its competitors can utilize inventories.

A third potential criticism is that since most commercial activities take place in markets of monopolistic competition, the competitors' products are not identical to those of the halted plant. A given consumer may prefer the products of a certain manufacturer due to their superior quality or accessibility. If she cannot buy her favorite product, the gap between the utility she attached to that product and her utility in the substitute is a true social cost. Assume, for example, that there are two manufacturers of Cola flavored beverages, A and B. Each produces X cans per week. The average production cost of a single can is c and its price is p. An average consumer attaches a certain utility (u) to Cola-A, and another (v) to Cola-B. Consumers prefer Cola-A (u > v). Production in
plant A is interrupted for a week, and B manages to produce 2\(X\) cans at no extra cost above what the costs of A would have been. The social cost is \(X \times (u - v)\). This value may exceed A’s private economic loss. If, for instance, \(p = c + s\), \(v = c + 2s\), and \(u = c + 4s\) then \(X \times (u - v) = 2sX > X \times (p - c) = sX\). This, however, is highly unlikely. Usually (and in this respect the Cola case may be regarded as an exception), the superiority of a certain product over its closest substitute is much lower than its producer’s surplus. Social cost is once again a small fraction of the private economic loss. It should also be remembered that in many cases the halted plant can use its inventories to accommodate demand, and in other cases, consumers may simply postpone their acquisitions. In both cases no harm will be suffered by the interrupted producer or by society.

The fourth criticism would be that if negligent interruptions of production in a certain market are probabilistically anticipated, they will give rise to an inefficient increase in production capacity. Accordingly, the exclusionary rule, which eliminates the incentive to prevent such interruptions, results in a considerable social cost. Suppose that there are 10 identical producers of “\(\alpha\)” (\(m_1 \ldots m_{10}\)), and that in an accident-free world each of them sells \(q\) products for \(p\) dollars every month. Now assume that every month production is halted in one of the plants for the whole month (in sequence from \(m_1\) to \(m_{10}\) and so forth). In accordance with the general theory we may further assume that whenever one of the plants comes to a halt, its competitors can meet the additional demand. The expected production of each plant remains unchanged \(((0.1 \times 0) + 0.9 \times (q + q/9) = q)\). Nevertheless, according to critics the expansion of production by the competitors results in a systematic increase in the marginal production cost, followed by a price upsurge \((p_2 = p_1 + \epsilon)\), which in turn raises the expected profit of each plant. In order to prove this contention we shall assume that demand is absolutely inelastic, and that the individual plant’s marginal production cost increases in a linear manner, as seen in the following (qualitative) figure.\(^{133}\)

\(^{131}\) See Shavell, supra note 114, at 136-37.

\(^{132}\) I use this assumption to simplify calculations. I did not use probabilistic analysis so as to avoid the complexity of simultaneous interruptions to more than one producer.

\(^{133}\) Neither assumption influences the conclusion.
In an accident-free world each producer would have gained $E_1 = (p_1 - c) \times q_1 + 2$ in profit per month. But according to our assumption accidents do occur, and each producer manufactures $q_2 = q_1 + q_1/9$ products in a good month, and nothing in a bad month. Expected profit is therefore $E_2 = (0.1 \times 0) + (0.9 \times (p_2 - c) \times q_2 + 2) = 0.9 \times (p_2 - c) \times 1.11q_1 + 2$, that is $(p_2 - c) \times q_1 + 2$. It is clear that $p_2 > p_1 > c$, hence $E_2/E_1 = (p_2 - c)/(p_1 - c) > 1$. In other words: $E_2 > E_1$. For any given expected value of production, the greater its variance, the greater the expected profit. Higher expected profit induces investors to increase production capacity beyond its optimal level at the expense of other valuable uses. The occurrence of accidents leads to an inefficient allocation of resources.\(^{134}\)

There are several answers to this elaborate contention. First, it assumes that manufacturers cannot expand production temporarily at no extra cost above what the costs of the halted plant would have been. This assumption contradicts the one on which the general theory is based. After all, it seems more likely that an unutilized capacity does exist in most cases. And if the market equilibrium is not destabilized by a temporary interruption the occurrence of accidents does not influence the expected profit (as seen above).\(^{135}\) Second, the criticism ignores the possible utilization of inventories. Third, it is irrelevant in the great majority of cases, in which the probabilities of various kinds of accidents is unknown to potential

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\(^{134}\) See Rizzo, Comment, supra note 128, at 201-02.

victims. Fourth, even if we accept the critics' assumptions, it cannot justify imposition of liability for relational losses. If all producers are exposed to similar risks, then under any realistic assumption (regarding marginal production costs) expected profit will not decrease due to the existence of accidents. Allowing compensation for the private loss is in fact a subsidy to the “α” industry that may give rise to a wasteful increase in production capacity.\textsuperscript{137}

The fifth possible criticism is that even if relational losses do not usually correspond to social costs, it is occasionally justified—from an economic standpoint—to impose liability that exceeds the social cost of the injurious activity. For example, Jill maliciously obstructs access to her competitor's business in order to increase her market share. We may assume that the costs of production will rise and that sales will drop, with a resultant social loss (hereinafter S). Jill’s profits will naturally increase (the upsurge will be referred to as P). P is a transfer of utility from the obstructed business and from consumers to Jill.\textsuperscript{138} If the extent of tort liability was determined by the social cost caused by the defendant's conduct, an intentional obstruction of competitors (which is economically undesirable) would be worthwhile from the potential injurer's standpoint whenever her expected additional profit exceeded the expected social cost (P > S). Efficient deterrence will not be obtained unless the injurer is also obliged to return her additional profit.\textsuperscript{139} Incidentally, allowing the injurer to keep the extra profit is not only inefficient but also unjust and unfair.\textsuperscript{140} I agree that in cases of intentional interference with a competitor’s business, liability must exceed the social cost. But this is basically irrelevant here. We are not dealing with malicious conduct, but with the by-products of negligent behavior. Furthermore, the profit that offsets the loss in our case does not provide an incentive for the infliction of harm, since it is not acquired by the injurer herself.\textsuperscript{141}

The sixth criticism is that the general theory cannot justify the legal distinction between relational economic losses and

\textsuperscript{136} Bishop, Reply, supra note 135, at 209.
\textsuperscript{137} It is important to note that according to economic theory imposition of liability in negligence will in most cases result in a lower accident probability and not in the absolute prevention of accidents.
\textsuperscript{138} To understand why there is also a transfer of utility from consumers to Jill it may be useful to look back at figure 1. If S\textsubscript{1} is the pre-obstruction supply curve and S\textsubscript{2} is the post-obstruction supply curve, the transfer of utility from consumers to Jill is represented by the area p1p2c2c1.
\textsuperscript{139} Rizzo, Comment, supra note 128, at 200; Rizzo, Theory, supra note 117, at 290.
\textsuperscript{140} Schwartz, supra note 130, at 130.
\textsuperscript{141} See Bishop, Reply, supra note 135, at 207-08.
Suppose that production in a certain factory is interrupted by a direct injury to its property (machinery, buildings, etc.). Just as in the cable cases, the halted plant's competitors may be able to expand their production temporarily without destabilizing the market equilibrium. Similarly, it may be possible to utilize inventories. Nevertheless, the owner will receive compensation for lost profits. Professor Bishop was aware of this problem and offered a somewhat dubious solution. In his opinion, any industrial or business interruption results in a limited social cost. Sometimes the substitutes are produced at a slightly higher cost; sometimes they are not identical to those of the halted plant; and so on. Generally they are equivalent to some fraction of the private loss. So from an economic (efficient deterrence) perspective it is necessary to impose liability for some fraction of the private loss. This can be achieved if courts select only some victims for compensation. Physical injury can be used as a rough, even arbitrary, device to select those victims. The administrative cost of this mechanism is considerably lower than the administrative cost of a specific analysis of each and every relational loss. It does not enlarge the number of claims nor requires complex calculations. I admit that this explanation is rather odd. But in any case it must be remembered that the non-internalization of wealth transfers theory is not a mere attempt to explain existing law but rather a guideline for the critical appraisal of legal norms. Therefore, the fact that existing law is incompatible with the theory is immaterial. The theory should not be judged by its compatibility with existing norms. Existing norms must be appraised in light of the theory. It may well be that the law of consequential economic loss requires reevaluation.

The seventh criticism is that the theory is incompatible with the fact that where a lawyer draws up a will negligently, and the intended beneficiaries are thereby deprived of their inheritance, they can sue the lawyer for their economic loss. The private loss of the

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142. Gilead, supra note 114, at 604-05.
143. Likewise a person who is physically injured receives compensation for loss of earnings although his employer can hire a substitute worker from the ranks of the unemployed, and the latter’s income offsets the victim’s loss.
144. Bishop, supra note 113, at 12.
145. Id.
146. Id.
147. Id.; Feldthusen & Palmer, supra note 114, at 439, 445.
148. Cf. id. at 439.
frustrated beneficiaries is not a true social cost since it can be offset by the private gains of the legal heirs. A possible answer to this contention is that if a testator cannot rely on his lawyer he might lose confidence in testamentary law and choose to spend more of his wealth or transfer more of it before death. Since both alternatives are available at present it is clear that a testator values them less than he values a reliable will. If the intended beneficiaries' loss is irrecoverable people will be induced to choose inferior alternatives with a resultant social loss. Imposing liability on the negligent lawyer encourages professional prudence, strengthens the reliability of testamentary law, and prevents the loss of welfare. It is true that the private loss of the intended beneficiaries does not necessarily equal the social cost. But imposing liability for the private loss provides a satisfactory incentive for professional prudence that can prevent the social loss. At the same time, any attempt to evaluate the aggregate subjective values of each of the alternative uses of wealth would be impractical or at least highly expensive.

The eighth criticism is that the exclusionary rule prevents internalization of wealth transfers only within the law of negligence. It is ineffective where claims for relational economic loss are brought in nuisance. This contention is flawed on two levels. First, it is empirically incorrect. In many common law jurisdictions the exclusionary rule is equally applied within the law of public nuisance. I have already noted that the attempt to restrict Robins Dry Dock to the realm of negligence was generally unsuccessful. Second, even if the exclusionary rule were not applied in claims for nuisance we would not conclude that the theory was invalid but that the law was economically unsatisfactory.

The ninth and last criticism is that the general theory cannot justify exclusion of liability in all cases of relational economic loss. In certain fact-situations the relational loss will not be offset by corresponding gains even if we assume the existence of unutilized production capacities. The classical transferred loss cases, in which the private loss accurately reflects the social cost, make good

207 (H.L.) (Eng.); Ross v. Caunters, [1979] 3 W.L.R. 605 (Ch.) (Eng.).
150. See Rabin, supra note 8, at 1535-36 n.72 (stating that most of the third-party beneficiary cases in which recovery is allowed involve transfer payments rather than real resource losses).
152. Rizzo, Theory, supra note 117, at 291.
153. Gilead, supra note 114, at 606.
154. See supra note 74 and accompanying text. Canadian courts also tend to harmonize the law of public nuisance with the law of negligence in this respect. See Bethlehem Steel Corp. v. St. Lawrence Seaway Auth., [1977] 79 D.L.R.3d 522, 530 (Can.).
I agree. However, and this is rather important, the fear of internalizing wealth transfers is not the only possible economic justification for the exclusion of liability in relational loss cases. It is only one of the relevant considerations. Sometimes imposing liability for a true social cost is undesirable from an economic perspective, as will be seen below. If there is no economic justification for the application of the exclusionary rule to a certain fact-situation we may say that an exception is economically justified. If the law does not recognize such an exception perhaps the law is flawed (unless there is a legitimate non-economic justification for the denial of liability).

2. Cheapest Cost Avoider

We have seen that in many cases the relational loss is not a true social cost since it is counterbalanced by corresponding gains. Normally it would be inefficient to impose liability in these cases. However, in certain circumstances imposition of liability for relational losses that do not correspond to social costs is economically desirable. The explanation is linked to the notion of “the cheapest cost avoider.” Tort law provides incentives for behavioral changes that may reduce the loss of social welfare caused by human interactions. If the expected loss can be eliminated or reduced by a certain change in the behavior of the potential injurer or by a certain change in the behavior of the potential victim, and combining the two changes will not reduce the expected loss more than each of them separately, we must find out which of the two changes is less costly, i.e., who is the cheapest cost avoider, and liability rules should encourage the cheapest cost avoiders to make the necessary behavioral modifications. If the potential injurer is the cheapest cost avoider liability should be imposed; if the potential victim is the cheapest cost avoider liability should be excluded. Allowing compensation for private losses that are not true social costs is economically desirable whenever the potential victim is capable of preventing its own loss and is willing to do so, and the potential injurer is the cheapest avoider of that loss.\[156\]

Consider the following example. B is a contractor hired to perform excavations in an industrial area. If B performs its work without taking any precautions there is a 10% probability that an underground cable that supplies electricity to A (but is owned by the

\[155\] See Rizzo, Comment, supra note 128, at 204-05.

\[156\] See Donald Harris & Cento Veljanovski, Liability for Economic Loss in Tort, in THE LAW OF TORT: POLICIES AND TRENDS IN LIABILITY FOR DAMAGE TO PROPERTY AND ECONOMIC LOSS 45, 50 (Michael Furmston ed., 1986) (presenting a hypothetical where the injurer is the cheapest cost avoider); Bishop, supra note 113, at 9 (“Where the victim has possibilities for accident avoidance . . . there is an argument for imposing liability . . . on the tortfeasor if he has less costly avoidance opportunities.”).
electric company) will be cut. Fixing the cable will cost $100 (loss expectancy to the electric company is thus $10), and A will lose $700 in profits during its repair (loss expectancy is $70). We may assume that A’s competitors will be able to expand production easily during the repairs and that no social cost will ensue (apart from the cost of repair). Now suppose that A can prevent the damage to the cable by hiring a trained supervisor for $200. A can also prevent its own loss by installing a stand-by system for the duration of the excavations for $50. Finally, assume that B can prevent the accident for $30 (the cost of getting detailed maps of the power grid and giving specific instructions to the operator of the bulldozer). From an economic (aggregate wealth) perspective no precaution ought to be taken in order to prevent the accident from happening. The cheapest cost of prevention ($30) is higher than the expected social loss ($10). Unfortunately, tort law cannot achieve an optimal outcome in this case. If liability is not imposed, A will install the stand-by system, since the private cost of installation ($50) is lower than the expected private loss ($70). The social cost of the risk created by the contractor is therefore $50 + $10 (installing the stand-by system does not prevent the accident from happening). This option is not only inefficient, it is also worse than the prevention of the accident by B, as can be seen in the following table.

<table>
<thead>
<tr>
<th>Option</th>
<th>Social Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neither A nor B takes special precautions</td>
<td>10</td>
</tr>
<tr>
<td>2. B prevents the accident</td>
<td>30</td>
</tr>
<tr>
<td>3. A installs a stand-by system</td>
<td>10+50</td>
</tr>
<tr>
<td>4. A hires a supervisor</td>
<td>200</td>
</tr>
</tbody>
</table>

Tort law cannot achieve the best option. Non-prevention of the accident, which will be achieved by exclusion of liability, will most likely lead to the third best option. Tort law can only achieve the second best option, namely prevention of the accident by B (assuming that this will induce A not to install the stand-by system); and it may do so by making B liable for the entire loss caused by its activity (including A’s loss of profit). This analysis raises three questions. First, can the potential (relational) victim prevent his or her own loss? Second, will the potential victim choose to prevent such loss if it is irrecoverable in torts (given the assumption of rationality)? If the

157. If every person diversifies her investments optimally, this question will never be answered in the affirmative. A person who holds participating stocks in every firm that produces “α” will not support an expenditure that will protect one of the firms from a certain loss, if the occurrence of such loss is followed by higher profits for the
answer to one of these questions is negative, and the relational loss does not reflect a true social cost, exclusion of liability will still be the best solution.

The third question (which arises only if the first two are answered in the affirmative) is whether the cost of prevention by the potential injurer is lower than the cost of loss avoidance by the potential victim. Identifying the cheapest cost avoider is frequently a very difficult task due to severe information problems. Calabresi, who was aware of this problem, suggested a three-stage process for the identification of cheapest cost avoiders. Due to the radical nature of Calabresi’s theory some of his ideas are inapplicable within the traditional framework of tort law. But at least one of them is highly relevant and very helpful here. In trying to identify the cheapest cost avoider one must take into account the administrative costs (including information costs) linked with the potential measures that could be taken by each of the potential loss bearers. These costs form an inseparable part of the cost of prevention.

It seems to me that in most cases the potential injurer would be a cheaper avoider of the accident (regardless of the relational loss) than the prospective relational victim. The potential injurer is directly involved in the interaction that leads to the accident. He has full control over one of the risk creating activities. He knows in what way and to what extent his activity endangers people and property in the vicinity. Prevention by such a person is normally cheaper than prevention by a stranger. However, it is sometimes possible to prevent a relational loss without preventing the primary physical injury (hereinafter loss-specific prevention). As seen in the preceding example, a stand-by system may protect the plant in which it is installed from a loss of profits consequent upon an injury to an electricity cable without preventing the injury to the cable itself. I think that the social cost of loss-specific prevention by the prospective relational loss victim is generally lower than the cost of loss-specific prevention by the potential injurer. In this respect information costs are crucial. The special features of the relationship between the primary victim and the relational victim, and sometimes even its very existence, are unknown to potential injurers. The prospective relational victim probably knows better than anyone else what the nature of the risk is, in what circumstances it may materialize, what the extent of the damage will be, how it can be avoided, and at what cost. The remaining question is whether it

other firms (preventing one firm’s economic loss will not change her expected profit). See supra note 122 and accompanying text.


159. See Note, Negligent Interference With Contract: Knowledge as a Standard for
would be cheaper to make the potential injurer prevent the accident in its entirety or to let the prospective relational victim prevent only its specific loss (without preventing the primary physical damage). This question cannot have a general answer. Nevertheless, it is clear that if there are numerous potential victims the total cost of specific prevention of each and every potential loss is relatively high.

In any case, the foregoing discussion should not be overemphasized. First, in many cases the prospective relational victim cannot prevent its loss or can do so only at a fairly high cost (so it is not worthwhile from its own perspective). Second, if the potential injurer can prevent the accident for a fairly low cost, it is likely that this cost is lower than the expected physical injury. Imposing liability for the latter will thus provide a satisfactory incentive for the behavioral change that will prevent the accident in its entirety. This point will be discussed at length below. If, on the other hand, the potential injurer can prevent the accident at a rather high cost, is it likely that this cost is also higher than the cost of loss-specific prevention.

3. Asymmetric Treatment of Losses and Gains

The positive (beneficial) externalities of the injurers' activities are not limited to specific gains that indirectly result from the victims' losses. Individuals and firms may derive direct benefits from the harmful activity itself. For example, consumers of the product or service that is manufactured by a certain harmful activity usually profit from their consumption. The gap between such profit and the profit that would arise from an alternative use of consumers' resources is a positive externality. Asymmetric treatment of losses and gains is economically undesirable. A normative system that penalizes a producer for mishaps but does not reward it for the profits society gains from its activity may result in over deterrence and economic stagnation. However, the law of torts deals only with negative externalities and ignores the positive ones. Some say that the exclusionary rule reduces the extent of the consequent distortion. We do not remunerate the injurer for the positive externalities, but nor do we impose liability for all negative externalities. The following example may be helpful. Jill wishes to engage in a certain activity. Assume that this activity will result in one of two outcomes, as stated in the table below.


160. Professor Gilead calls these externalities “activity-related benefits” as opposed to “loss-related gains” which are discussed in a previous chapter. Gilead, supra note 114, at 593-95.

161. Harris & Veljanovski, supra note 156, at 53, 66.
Even if all relational losses were true social costs, the given activity would increase aggregate wealth \((0.9 \times (400 + 100) - 0.1 \times (50 + 950) = 350)\). But if Jill knew that in case of failure she would be liable for each and every loss (including relational losses) she would not choose to engage in that activity since the expected profit would be negative \((0.9 \times 100 - 0.1 \times 1000 = -10)\). Society would consequently lose. The exclusionary rule will induce Jill not to relinquish her plans.

This contention is somewhat problematic. It is true that tort law does not reward injurers for positive externalities. But the asymmetric treatment of losses and gains may result in over-deterrence even if we impose liability only for physical injuries.\(^{162}\) For example, consumer surplus in the prescription drug market may offset occasional physical injuries. I admit that the problem may be more acute if the exclusionary rule is revoked, but it exists even where liability is restricted to physical injuries. In any case, I think that this problem cannot be solved within the bilateral framework of tort litigation. Incentives for socially beneficial activities should be provided directly through governmental subsidies, tax breaks, and the like.

Nevertheless, allowing recovery for relational losses may raise a unique problem of asymmetry that can and should be dealt with within the law of torts. One cannot ignore the fact, that differences in timing could turn many relational victims into relational gainers. Suppose that A has a contractual right that depends on the availability of a certain object owned by C and that if this object is accidentally damaged the right becomes worthless and A no longer has to pay for it.\(^{163}\) Now assume that in case of an accident the gap between the minimal price for which an equivalent right can be bought (hereinafter the market value) and the contractual price of A’s right may be either positive or negative, and that the expected gap is 0 or at least negligible. If the accident takes place when the gap is positive, A suffers an economic loss; but if the accident occurs when the gap is negative, A gets a windfall (she can obtain a better

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Probability</th>
<th>Jill's Profit</th>
<th>Externalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. success</td>
<td>90%</td>
<td>100</td>
<td>-400 (beneficial)</td>
</tr>
<tr>
<td>2. failure</td>
<td>10%</td>
<td>0</td>
<td>-50 (property damage)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-950 (relational losses)</td>
</tr>
</tbody>
</table>

\(^{162}\) See Gilead, supra note 114, at 595, 597, 606 (observing that activity-related benefits may offset physical injuries that may result from the same activity).

\(^{163}\) The same conclusion will be reached if the right depends upon the physical state of a person.
bargain). In the latter case it is impossible to compel A to transfer her windfall to the injurer, so it would be unjust (in the distributive sense) and inefficient to impose liability for the relational loss in the former case. It is unjust because in the long run the class of right-owners to which A belongs does not suffer any loss. Some of its members lose, others win. The gains offset the losses. Allowing recovery for relational losses makes one class (injurers of certain objects) subsidize another (contractual relational victims). It is also inefficient because the expected magnitude of the potential injurer's liability will usually be higher than the expected cost of the accident. The asymmetric treatment of losses and gains may result in over deterrence.

Consider this well known example. In Robins Dry Dock & Repair Co. v. Flint the plaintiff (appellee) was the time-charterer of a vessel. The ship was negligently damaged by the defendant (appellant), and the plaintiff was consequently unable to use it, with an ensuing loss of profits. In that case the market value of the right of use was higher than the contractual price. But if the market value had dropped after the charter had been signed, injuring the vessel would have exempted the plaintiff from an onerous contract. When a time-charterer is exempted from an onerous contract the injurer does not get any reward for the charterer's windfall, although it stems from the accident. If asymmetric treatment of losses and gains is undesirable we cannot compensate charterers like Flint for their loss of profit. Exclusion of liability for the relational economic loss is justified.

It is important to note that this conclusion is true only if the expected gap between the market value and the contractual price is either nil or negligible; and this precondition is met only where the market value fluctuates without a systematic bias. The latter assumption is not true with regard to any contractual right at any

164. 275 U.S. 303 (1927).
166. See Goldberg, Another Look, supra note 69, at 262-63 (stating that an injurer should not be charged the "positive bonus value," given that she does not receive a reward for taking the "negative bonus value lease"); cf. The Mineral Transporter, 2 All E.R. at 941 (Eng.). As Lord Fraser pointed out:

In the, not uncommon, case where the damaged vessel is the subject of a chain of sub-charters and sub-sub-charters, made at different dates, some of the charters may be profitable to the charterer though the respective rates of profit may be different, and some charters may result in a loss to the charterer. Is a sub-charterer who is wholly or partly released from a loss making charter to be expected to contribute to the damages fund, in order to relieve the wrongdoer pro tanto?

Id.
time and in any place. The market value of a given right may rise or fall systematically at a certain time and in a certain place, and remain more or less stable at other times or places. But the probability of a significant systematic bias in Anglo-American jurisdictions is rather low.

So far we have assumed that there are identical or close substitutes for contractual rights. Since we are dealing with rights that are attached to tangible objects the validity of this assumption depends on the availability of identical or close substitutes for the relevant objects. If, on the other hand, the object is one of a kind (in light of its structure, size, location, or other characteristics) the right that is attached to it may also be unique. For example, if a certain river is spanned by a single bridge a contractual right to use the bridge has no identical or close substitutes. If the bridge is damaged its users cannot acquire a similar right, since there are no other bridges available in the area. This does not mean that the right owners cannot find alternative means to cross the river. They may use barges or even airplanes. These substitutes exist regardless of the availability of the bridge. But it seems that using the bridge for transportation is much cheaper and more convenient than any alternative. The available substitutes are neither identical nor close. This means that the expected gap between the cost of the substitute and the contractual price is always positive. In that case exclusion of liability cannot be justified by considerations of asymmetry.

4. Marginal Deterrence

Two features of the relational loss problem raise the question of marginal deterrence. First, exclusion of liability for relational economic losses does not normally eliminate the potential injurer’s incentive for prudent behavior. The primary victim’s right of action for the physical injury provides a certain incentive.¹⁶⁷ This special feature distinguishes relational loss cases from other cases of pure economic loss (where no physical injury is present). Sometimes the primary victim’s right guarantees efficient deterrence. For example, a contractor performs excavations in an industrial zone. There is a

¹⁶⁷. CNR, 91 D.L.R.4th at 301 (Can.) ("[T]he right of action of the property owner already puts pressure on the defendants to act with care. The deterrent effect of tort law, to the extent that it survives the advent of widespread insurance, is already present."); FELDTHUSEN, ECONOMIC NEGLIGENCE 3d ed., supra note 5, at 216; BERNSTEIN, supra note 3, at 203-04; Feldthusen, Economic Loss in the Supreme Court, supra note 5, at 377. In Bow Valley Husky (Bermuda) Ltd. v. Saint John Shipbuilding Ltd., [1997] 153 D.L.R.4th 385, 406-07, 413 (Can.), Judge McLachlin held that if the deterrent effect that is created by liability for the physical injury is weak, this may support liability for the relational loss as well. One must remember that even without any legal sanction people tend to act carefully out of fear of self-injury.
2% probability that an electricity cable will be damaged. Fixing the cable will cost $2,000 and the loss of profits to nearby businesses during the repair will amount to $20,000 (and we may assume that these are all social costs). The contractor can reduce the probability of this occurrence to 0.1% by taking certain precautions for $25. We shall assume that there are no further precautions available. Taking precautions will reduce the expected loss of the electric company by $2,000 \times (2\% - 0.1\%) = 38$, and is thus economically desirable ($38 > 25$). Even if only physical damages are recoverable, the contractor will be induced to take the necessary precautions. Doing so will save him $38 - 25 = 13$. The optimal level of care is achieved through liability for property damage. Allowing compensation for relational losses will not improve deterrence and will consume valuable resources due to the additional litigation.168

Some say that the marginal benefit of allowing recovery for relational losses in terms of deterrence is usually lower than the administrative costs involved.169 If all relational losses were true social costs, I would say that this argument was too far-reaching. After all, allowing recovery for relational losses is prima facie desirable where liability for physical injury provides an inadequate economic incentive. Suppose that in the preceding example taking precautions would reduce the probability of the accident from 2% to 1% (and not to 0.1%), and that all relational losses were true social costs. In that case taking precautions would be socially desirable ($22,000 \times (2\% - 1\%) = 220 > 25$), but liability for physical injury would not induce the contractor to do so (an expenditure of $25 would save him only $20). Similarly, if in the preceding example the contractor could take further precautions that would reduce the probability of an accident from 0.1% to 0 for $18, liability for physical injury would not induce him to do so (since $18 > 2,000 \times (0.1\% - 0)$), although these additional precautions are also desirable ($22,000 \times (0.1\% - 0) = 22 > 18$). It is hard to say that saving $22,000 \times (2\% - 0.1\%) = 418 for $25 justifies the administrative cost of a tort litigation while saving an additional $220 for $18 does not. In spite of all, it seems to me that the primary victim's right of action frequently provides an adequate incentive. In other cases, the additional administrative costs of additional liability are in fact higher than the ensuing benefit in terms of deterrence. This point is strengthened by the fact that many relational losses are not true social costs, and no extra effort should be made for their prevention anyway.

168. Harris & Veljanovski, supra note 156, at 52-53.
169. Smillie, supra note 8, at 239, 241 (“The negligent party will always be liable for the physical damage and any consequential economic loss, and it seems unlikely that any additional deterrent effect obtained from holding him liable to third parties for purely economic loss justifies the cost involved in shifting this loss.”); CNR, 91
Second, negligent infliction of a physical damage may give rise to numerous economic losses. A bodily injury may cause economic loss to the primary victim's relatives, customers, creditors, suppliers, employees, partners, etc. Each of these losses may become the source of additional economic losses for those related to the secondary relational victims, and so on and so forth. Physical damage to a factory may cause economic loss to suppliers, distributors, and consumers. If that factory produced an ingredient required by another manufacturer, the latter would also suffer economic loss. Workers at the damaged factory would most likely lose income. Owners of shops and restaurants where these workers customarily bought and dined may lose profits; and so on ad infinitum. We may assume that all relational losses are true social costs. Nevertheless, it is clear that as the number of victims entitled to compensation rises the marginal deterrent effect diminishes, either because no further precautions are available or because the total amount of the claims exceeds the upper limit of the injurer's liability (natural or legal).

This phenomenon was mentioned by Justice Higginbotham in Louisiana ex rel. Guste v. M/V Testbank:

> [it] is suggested that placing all the consequence of its error on the maritime industry will enhance its incentive for safety. While correct, as far as such analysis goes, such in terrorem benefits have an optimal level. Presumably, when the cost of an unsafe condition exceeds its utility there is an incentive to change. As the costs of an accident become increasing multiples of its utility, however, there is a point at which greater accident costs lose meaning, and the incentive curve flattens.

Justice Wisdom, who wrote the minority opinion, agreed that from a certain point onwards expanding liability does not improve the deterrent effect. But he believed that as long as we cannot identify the turning point it is better to compensate innocent victims under the false assumption that marginal deterrence is still significant than to exempt a negligent injurer from liability under

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D.L.R.4th at 353 (Can.).
170. Champion Wel Serv., 769 P.2d at 385.
171. Perhaps the phrase "ad infinitum" is an overstatement. After all, there is a limited number of potential claimants (approximately 6 billion).
173. 752 F.2d 1019.
174. Id. at 1029.
the false assumption that marginal deterrence is already negligible.\textsuperscript{175} This approach is inconsistent with economic theory. Any expansion of the class of victims entitled to compensation has a price in terms of administrative costs. Allowing recovery where the marginal benefit in terms of deterrence is smaller than the respective cost is economically erroneous. It should be emphasized that this consideration alone can justify only a limitation on the range of permissible claims and not a total exclusion of liability for relational losses. But it may strengthen any other consideration that supports the exclusionary rule.

C. Deterrence of Potential Victims

1. Prevention of Inefficient Expenditures

So far, we have focused on lost profits. However, in many cases the relational economic loss is in fact a positive outlay. Consider the following example. There are several manufacturers of "α." The production cost of a single unit of "α" at a given timing is $c$, its market price is $p$, and its utility to the consumer is $u$ (on average $u > p > c$). Suppose that a negligent cut of an electricity cable interrupts production in one of the factories at the aforementioned timing, and that its competitors can temporarily produce more than their normal output at an average cost of $c_1$ (per additional unit). Now suppose that the halted plant can take measures that will enable it to resume production instantaneously (e.g., activating a stand-by system), but that doing so will increase the average cost of production during the repairs to $c_2$.\textsuperscript{176} If $c_2 > c_1$, then taking the special measures is inefficient. The interrupted plant's extra cost is undeniably a true social cost,\textsuperscript{177} but it would be more efficient to let its competitors expand their production during the repairs. In certain cases a third option would be even better (as will be seen below).

At first glance, it seems that allowing recovery for relational losses might induce interrupted businesses to take inefficient measures in order to resume production, and that the exclusionary rule guarantees efficient behavior. However, reality is a bit more complicated. In fact, one should distinguish three possible cases (assuming that $c_2 > c_1$):

\begin{itemize}
\item[175] Id. at 1052.
\item[176] Cf. Caltex, 136 C.L.R. at 544 (Austl.) (explaining that an oil pipeline was damaged and the plaintiff, who had a contractual right to use the pipeline, used tankers instead throughout the repairs).
\item[177] If the use of the special equipment results in a normal sales rate, the increase in the average cost of production may cause either a diminution in consumer surplus (if the price is raised) or a decrease in producer surplus (if the interrupted business decides to absorb the extra cost itself).
\end{itemize}
1) If \( c_2 > p > c_1 \) then exclusion of liability for relational losses will indeed prevent the inefficient expenditure and achieve the optimal outcome. The interrupted plant will not resume production if its personal cost (\( c_2 \)) exceeds its personal benefit (\( p \)). Its competitors will expand production accordingly.

2) If \( c_2 > c_1 > p \), unless liability for relational losses is imposed, the interrupted plant will not make an effort to produce during the repairs. Since competitors have no motivation to stand in for the interrupted plant (\( c_1 > p \)) aggregate production will fall, and a true social loss\(^{178}\) will ensue. This does not necessarily mean that imposition of liability for relational economic loss will lead to the optimal outcome. On the one hand, if \( u > c_2 \) allowing recovery for the positive outlays (\( c_2 - c \)) will induce the interrupted plant to produce during the interruption and reduce the social cost of the accident. On the other hand, if \( u < c_2 \) allowing recovery for the additional outlay will induce the interrupted plant to produce at a socially undesirable cost. In both cases liability may induce potential injurers to be more careful (subject to the diminishing marginal deterrence principle), and this in turn will reduce the expected social loss. The main problem is that one can rarely estimate the product's utility.

3) If \( p > c_2 > c_1 \), the exclusionary rule cannot prevent the inefficient expenditure. The interrupted plant has an incentive to produce at a higher cost even if it does not get compensation for the extra outlay, since the benefit outweighs the total cost (\( p > c_2 \)). However, allowing recovery for the additional outlay strengthens the wrong incentive and should be avoided. On the other hand, as we have already seen, imposition of liability for loss of profits might save the inefficient expenditure that is intended to prevent that loss.

Alternatively, if \( c_2 < c_1 \) and \( c_2 < u \) (it does not matter if \( c_1 < u \) or not), taking the special measures is efficient, and the interrupted factory should be compensated for the extra cost.\(^{179}\) In other words, recovery should be permitted where production by the interrupted factory is preferable to a temporary expansion of production by the competitors, and the product's utility to the consumer is higher than the cost of its production during the repairs.

We must now extract some practical guidelines from the theoretical analysis. It seems to me that in a competitive market, in which there are several producers for each product, the average cost of production in an interrupted factory that uses emergency measures is higher than the average cost of production by its

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\(^{178}\) I.e., \((u - c) \times n\), where \( n \) is the number of products that are not produced due to the interruption.

\(^{179}\) Cf. Bishop, supra note 113, at 22-23; Feldthusen & Palmer, supra note 114, at 442.
competitors. In many cases \( c_1 = c \) (due to the existence of unutilized capacity, the possible use of inventories etc.), whereas \( c_2 > c \). Hence, \( c_2 > c_1 \). If the special measures that make continued production possible during interruptions of a certain kind are rather expensive it is most likely that \( c_2 > p > c_1 \), so no liability should be imposed for relational losses that result from such interruptions. If the special measures are fairly cheap, we may say that \( p > c_2 > c_1 \). In that case, exclusion of liability will not prevent the inefficient expenditure, but it is nevertheless justified since allowing recovery will subsidize an inefficient activity. Allowing recovery for lost profits, on the other hand, will induce the interrupted producer not to produce at an inefficient cost during the interruption. Yet, imposition of liability may result in other economically unwanted consequences (such as over-deterrence of potential injurers), which must be weighed against prevention of the relational victim's inefficient expenditure.

If unutilized capacity is not available for some reason and the special measures are fairly cheap, we may conclude either \( u > c_1 > c_2 \) or \( c_1 > u > c_2 \). In both cases allowing recovery for the extra cost will give the potential relational victim an appropriate incentive. However, it should be remembered that other considerations may support exclusion of liability.

Finally, if the special measures are rather expensive and unutilized capacity is not available, we should first check whether the competitors are still motivated to stand in for the interrupted producer (\( c_1 < p \)). If they are we may say \( c_2 > p > c_1 \) and the exclusionary rule should be applied. If they are not we must decide whether production by the interrupted plant is socially desirable (\( c_2 < u \)). This is usually a very difficult task. But the more expensive the special measures are the more likely \( c_2 > u \), and no liability should be imposed.

Given that unutilized capacity normally exists, we may infer that exclusion of liability for the additional outlays of the interrupted producer is usually justified. Since the administrative costs of case-specific analysis seem to exceed its benefit in terms of deterrence, we may conclude that if the interrupted producer decides to take special measures to produce during the interruption, the additional cost should be irrecoverable.

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180. If these measures are rather expensive they probably cost more than the normal profit of the manufacturer (\( c_2 - c > p - c \Rightarrow c_2 > p \)). Two options are thus relevant: \( c_2 > p > c_1 \) and \( c_2 > c_1 > p \). The latter seems to be incompatible with the assumption of sufficient unutilized capacity.

181. We may assume that if these measures are cheap their cost is smaller than the normal profit (\( c_2 < p \)).
2. Loss Mitigation

If all means of production were perfectly and instantly malleable and mobile there would be no economic justification to permit recovery for loss of profit consequent upon an injury to the person or property of a third party. This is because any prospective relational victim could use its means of production to perform alternative tasks when its regular activity was interrupted.\(^{182}\) It is true that in the real world means of production are not perfectly and instantly malleable and mobile. But if potential victims can immediately turn their capital to alternative and equally valuable uses, and thereby prevent the occurrence of their loss, they should be encouraged to do so. For example, when a towed ship is sunk the owners of the tugboat will not suffer economic loss if they use their resources to tug another ship.\(^{183}\) Similarly, when a factory is damaged the workers will not suffer economic loss if they find alternative employment.\(^{184}\) Allowing recovery for relational losses weakens the victim’s incentive to mitigate its loss after the accident.\(^{185}\) Furthermore, it induces potential victims not to invest in mobility and malleability of resources ex ante, although such investment is very often socially desirable.\(^{186}\) Finally, a loss of profit that could be mitigated in one of the aforementioned ways (ex post or ex ante) is not a social cost externalized by the injurer. Imposing liability will thus result in over-deterrence of potential injurers.\(^{187}\)

It may be said that the ability to move or transform means of production ex post, and the ability to improve mobility and malleability ex ante must be dealt with case by case within the concepts of “loss mitigation” and “contributory negligence” respectively.\(^{188}\) This is probably preferable to a general exclusion of liability for relational economic loss, since the latter eliminates potential injurers’ incentive to take extra care when necessary. However, as we have already seen, this may not be very acute as the deterrent effect is already present and lost profits may not be true social costs at all. At the same time a general exclusion of liability

\(^{182}\) Bishop, supra note 113, at 8; see also Note, supra note 159, at 821.

\(^{183}\) Bishop, supra note 113, at 23-24.

\(^{184}\) Id. at 18-19. However, it may be said that if the workers of the damaged factory find alternative employment they displace other workers (or potential workers). See Rizzo, Comment, supra note 128, at 205.

\(^{185}\) Goldberg, supra note 114, at 17.

\(^{186}\) Id. at 18-19.

\(^{187}\) Gilead, supra note 114, at 591-92.

\(^{188}\) Shavell, supra note 114, at 144-46.
provides an incentive for loss mitigation by victims and is always preferable in terms of administrative costs.\(^{189}\)

Consequently, I think that if in certain fact-situations there are classes of relational victims whose losses result from a disturbance to their commercial activities, and they can usually move or transform their unharmed means of production with ease, they should not be compensated for their lost profits. The benefit of a general exclusion of liability in terms of administrative costs outweighs its costs in terms of under-deterrence of potential injurers.

IV. LOSS SPREADING

A. Diminishing Marginal Utility of Wealth, Risk Aversion, and Loss Spreading

The fundamental assumption in this section is that the individual marginal utility of wealth is decreasing. The intuitive explanation for this assumption would be that any addition to a person's wealth is used to satisfy less important and less urgent needs.\(^{190}\) Figure 3 illustrates this phenomenon.

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189. Goldberg, supra note 114, at 17.
190. Shavell, supra note 114, at 186.
The private utility function does not have an accurate mathematical formulation. Shavell chose to demonstrate the diminishing marginal utility of wealth with an exponential function of this form: \( y = a(1 - e^{-x/b}) \) (\( x \) representing wealth and \( y \) representing utility). But this choice is somewhat misleading, since the suggested formulation incorporates the dubious assumption that there is an upper limit to the private utility of wealth (the asymptote \( y = a \)). A concave function with no horizontal asymptotes would give a more accurate description of the phenomenon. We shall use the logarithmic function \( y = a \times \log(x/b + 1) \).

Persons whose private utility functions are concave are risk-averse. The preferences of a risk-averse person depend not only on the expected private costs he may incur but also on their possible magnitude. Suppose, for example, that Jill has $10,000 and her utility function is: \( y = 10,000 \log(x/10,000 + 1) \). Now she has to choose between: (A) facing a 0.1 probability of an accident in which she will lose $1,000; (B) facing a 0.02 probability of an accident in which she will lose $5,000. The expected losses in the two cases are identical. Nevertheless, Jill will prefer the first option, as can be seen in the following table.

<table>
<thead>
<tr>
<th>Option</th>
<th>Loss Expectancy in Utility Units</th>
<th>( \Delta y )</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>( 0.1[10,000 \log (1 + 1) - 10,000 \log (0.9 + 1)] = 22.28 )</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>( 0.02[10,000 \log(1+1) - 10,000 \log (0.5 + 1)] = 24.99 )</td>
<td></td>
</tr>
</tbody>
</table>

The extent of risk-aversion depends not only on the probability and magnitude of the loss, but also on the shape of the individual utility function (the values of \( a \) and \( b \) in the logarithmic formulation), and on the total wealth of the individual. For example, if two persons have identical utility functions but one of them is wealthier than the other, the former is less risk-averse than the latter.

If people are risk-averse, the allocation of losses after their occurrence may by itself influence the aggregate welfare. Allowing A to sue B for her loss when A is more risk-averse than B increases the aggregate welfare. More important, transferring a certain economic burden from a risk-averse person to numerous persons ("spreading the loss") increases aggregate wealth, as will be seen hereinafter. "Loss spreading" promotes the ultimate economic objective, since it

191. Id. at 188-89.
192. "Loss spreading" is also referred to as "loss distribution" or "collectivization of losses." See, e.g., CNR, 91 D.L.R.4th at 372 (Can.).
minimizes the loss of welfare consequent upon risk aversion; and tort law is said to be able to facilitate loss spreading.\textsuperscript{193}

In many cases courts have used loss-spreading considerations to support exclusion of liability for relational economic loss. Each of these considerations will be discussed in detail below. At this stage it is important to address some of the general arguments against their application in tort cases. The first criticism was that the object of tort law is to fix rather than spread losses. In the words of Justice Stephen in \textit{Caltex v. Willemstad}:

\begin{quote}
The task of the courts remains that of loss fixing rather than loss spreading and if this is to be altered it is, in my view, a matter for direct legislative action rather than for the courts. It should be undertaken, if at all, openly and after adequate public inquiry and parliamentary debate and not worked towards covertly, in the course of judicial decision, by the adoption of policy factors which assume its desirability as a goal and operate to further its attainment.\textsuperscript{194}
\end{quote}

I think that this statement is too far-reaching. Tort law has never pretended to fix any loss. It “fixes” certain losses in certain cases and leaves others where they fall. The boundaries of tort liability are obviously controlled by legal concepts (i.e., duty of care or remoteness). But the role of policy factors within the conceptual framework is undeniable.\textsuperscript{195} These factors are the true determinants of the limits of liability. Accordingly, it is possible (and one may even say—essential) to take into consideration the idea of loss spreading among other legitimate policy factors. The merit of loss spreading is undisputed. Why should we ignore it then?

The second criticism was that denying liability on account of loss-spreading considerations would undermine the deterrent effect of tort law, and result in more accidents.\textsuperscript{196} According to this view

\begin{itemize}
\item \textsuperscript{193} Smillie, supra note 8, at 234-37.
\item \textsuperscript{194} \textit{Caltex} 136 C.L.R. at 580 (Austl.); see also Philip S. James, \textit{The Fallacies of \textit{Simpson v. Thomson}}, 34 MODERN L. REV. 149, 162 (1971) (“Of course the object of civil liability is not to spread the loss, but to fix it.”).
\item \textsuperscript{195} Policy factors are highly relevant in the determination of a notional duty of care, see, for example, Roger B. Godwin, \textit{Negligent Interference with Economic Expectancy: The Case for Recovery}, 16 STAN. L. REV. 664, 689 (1964) (“The real problem is whether a duty should exist . . . and this depends upon the relative weight of the relevant interests. . . .”); Harvey, supra note 21, at 597 (“A \textit{DA} decision on the duty of care issue in cases such as these ultimately rests on a policy decision based on competing social and economic factors.”). Policy considerations are also highly relevant in the determination of remoteness of damage. See \textit{Mainguard Packaging}, 1 N.Z.L.R. at 374 (stating that a damage is too remote if “there is some basis in law, whether policy or otherwise, which prevents that damage or some of it from being recovered”).
\item \textsuperscript{196} Bishop, supra note 113, at 2.
\end{itemize}
deterrence ex ante is more important than loss allocation ex post, given that there is no need to allocate a loss that was prevented. A possible answer to this contention is that in certain cases the benefits of denying liability in terms of loss spreading and administrative costs outweigh its cost in terms of deterrence. In the current context it may be said that the primary victim's right of action provides a good (albeit not always optimal) incentive for prudent behavior, and that the need for further deterretns is doubtful since many relational losses are not true social costs. Consequently, the deterrent effect of additional liability may be insignificant. At the same time, exclusion of liability may be very useful in terms of loss spreading.  

B. Primary Loss Spreading

Tort law can facilitate loss spreading primarily by imposing liability where the class of injurers is larger than the class of victims, and exclude (or limit) liability in the opposite case. One of the modern explanations of the exclusionary rule, at least when applied to certain fact-situations, is that since the number of relational victims is potentially very large, it is preferable to leave their losses where they fall, and refrain from saddling a single injurer with them all. Lord Denning, the Master of the Rolls, explicitly said so in SCM, Ltd. v. W.J. Whittall & Son, Ltd.:

[When] an electric cable is damaged and many factories may be stopped from working, can each of them claim for its loss of profit? I think not. It is not sensible to saddle losses on this scale on to one sole contractor . . . The risk should be borne by the whole community rather than on one pair of shoulders.

This line of reasoning was adopted in subsequent decisions of the English Court of Appeal, and also by many scholars around the world. The social benefit that may arise from exclusion of liability

197. Cf. CNR, 91 D.L.R. 4th at 348-49 (Can.); Smillie, supra note 8, at 239, 241.
198. 3 All E.R. at 250.
199. Spartan Steel & Alloys, Ltd., [1972] 3 All E.R. at 564 (C.A.) (Eng.) ("[I]n such a hazard as this, the risk of economic loss should be suffered by the whole community who suffer the losses - usually many but comparatively small claims - rather than on the one pair of shoulders, that is, on the contractor on whom the total of them, all added together, might be very heavy"); JAFFEY, supra note 8, at 27; Robert Hayes, The Duty of Care and Liability for Purely Economic Loss, 12 MELB. U. L. REV. 79, 114 (1979) ("[I]t is appropriate that the risk should be shared around."); Note, supra note 159, at 817 n.34 ("A single act easily can interfere with numerous contracts. Denial of recovery may effectively spread the loss over the contractors rather than concentrating it on the individual tort-feasor."); Ann O'Brien, Limited Recovery Rule as a Dam: Preventing a Flood of Litigation for Negligent Infliction of Pure Economic Loss, 31 ARIZ. L. REV. 959, 968 (1989) (opining that first-party insurance is more economically efficient than third-party insurance).
may be demonstrated by a simple (yet not unrealistic) example. D damages an electricity cable owned by EC. Consequently, 99 small businesses in the area are closed for a week. Assume that it costs $50 to repair the cable, and that each of the businesses has to spend $50 in order to keep on working during the interruption. Assume further that the private utility function of every victim is: \( y = 10,000 \log (x/10,000 + 1) \) and that each would have got $10,000 if the accident had not occurred.\(^{200}\) It can be seen in the table below that the loss of social welfare consequent upon risk aversion is lower when liability for relational losses is excluded.

<table>
<thead>
<tr>
<th>Option</th>
<th>Loss of Social Welfare in Utility Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability imposed</td>
<td>(</td>
</tr>
<tr>
<td>Liability excluded</td>
<td>( 100(10,000 \log (1 + 1) - 10,000 \log (0.995 + 1)) = 1087 )</td>
</tr>
</tbody>
</table>

We have already seen that a negligent infliction of physical damage may give rise to numerous economic losses. The importance of this phenomenon now gains added weight. As the number of victims entitled to compensation rises, the advantage of the exclusionary rule in terms of loss spreading increases. In sum, the exclusionary rule promotes the goal of loss spreading, and thus reduces the loss of social welfare consequent upon risk-aversion.

Critics have said that the need to spread the aggregate loss cannot explain the exclusion of liability in many cases where there was only a single relational victim.\(^{201}\) This criticism fails not only because there are barely few fact-situations in which there is only one potential victim, but mainly because primary loss spreading is not the only relevant consideration. Whenever the concern of numerous plaintiffs is absent, other factors may exist that strongly support exclusion of liability. Some may derive from the notion of risk-aversion and others may reflect other objectives of the law of torts. If there are none, the law must recognize an exception to the general rule.

A second criticism was that in cases of mass disaster the number of victims is also very large, and this fact is not used to justify an exclusion of liability.\(^{202}\) The answer is that in cases of mass disaster

\(^{200}\) Both assumptions are unrealistic but they simplify the calculations and their inaccuracy should not affect the conclusion.


\(^{202}\) James, supra note 194, at 162.
deterrence is the dominant consideration, since all injuries are true and significant social costs. A third criticism was that potential injurers can protect themselves using liability insurance, and this may guarantee loss spreading without depriving victims of legal redress. However, potential victims can also protect themselves using first-party insurance, and the exclusionary rule thus guarantees “double spreading”: first, by leaving the burden on the shoulders of numerous victims rather than on the shoulders of the sole injurer; and second, by encouraging every potential victim (who may bear only a fraction of the aggregate loss) to buy first-party insurance.

C. Secondary Loss Spreading

Victims and injurers can frequently spread the costs they bear. For example, a commercial entity can spread accidental costs by increasing the price of the product or service that it is selling. It can price the risk in advance and establish an accident reserve fund, or raise prices after the accident to cover the unplanned cost. The first method, establishing a reserve fund, requires decision-making under uncertainty. Allocating excessive sums to a reserve fund may harm the competitive position of the business; allocating insufficient sums may endanger the stability of the business in case of an unexpected accident. With the second method, reacting after the loss has occurred, the problem of uncertainty is much less acute, but the fact that the business is not prepared for unexpected events may lead to its total breakdown in case of an accident.

If A can spread losses more widely and more cheaply than B we may say that A is a better loss spreader than B; and relative loss-spreading abilities is an important factor in shaping a liability rule. If the typical injurer in a certain fact-situation is a better loss spreader than the typical victim, imposing liability will be supported by secondary loss-spreading considerations, and vice versa. But how can we determine who the better loss spreader is? Commercial entities are generally better loss-spreaders than individuals; among commercial entities the larger are usually better loss spreaders; and among equally large commercial entities the ones that operate in the less competitive market are usually better loss spreaders. The last guideline must be qualified though, since commercial entities that operate in the least competitive markets (i.e., monopolies) are very often subject to price regulation. We must now distinguish three possible cases:

204. Smillie, supra note 8, at 235; CNR, 91 D.L.R.4th at 352 (Can.).
205. L.L. Stevens, Negligent Acts Causing Pure Financial Loss: Policy Factors At
The victim is a better loss spreader than the injurer. For example, a company that lost profits due to a negligent injury to an electricity pole is probably a better loss spreader than the driver who damaged the pole; a company that lost a key employee in a car accident is a better loss spreader than the negligent driver. Some say that in cases of relational economic loss the victims are more often than not better loss spreaders than the injurer. First, many relational victims are commercial entities. Second, the potential victim can foresee and evaluate more easily the magnitude of its loss and the circumstances in which it may occur, although this advantage is only relevant in ex ante spreading methods. Third, the victim has to spread only his own loss. If relational losses were recoverable, the injurer would have to bear (or spread) the aggregate loss, and not merely a fraction of it. If the victim is in fact a better loss spreader than the injurer, loss spreading considerations undoubtedly support exclusion of liability. Exclusion guarantees both primary loss spreading and a more efficient secondary loss spreading.

The injurer is a better loss spreader than the victim. For example, a company whose negligence results in a wrongful death will usually be able to spread the dependants’ economic losses better than the dependants themselves. Allowing recovery in such cases is apparently supported by loss-spreading considerations. But this inference is inaccurate. When there are numerous relational victims, allowing recovery in order to guarantee efficient secondary loss spreading may lead to absurdity: the aggregate loss that was widely spread (with a potential for further dispersion), is concentrated on the shoulders of a single injurer, only to be distributed once again. A very expensive process proves practically futile. The costly process is justified only if the class that ultimately bears the loss is noticeably larger than the class that bore it in the first place, and this is highly unlikely.

Work, 23 U. TORONTO. L. J. 431, 457 (1973); Godwin, supra note 195, at 676-77.
206. Godwin, supra note 195, at 677-78.
207. See C.A. 1439/00, State of Israel v. Hom Ins. Co., 472 P.D. 346, 376 (Isr.) (“One must remember that the railway company is limited by statute in its ability to raise prices, so it cannot spread its loss.”).
208. Stevens, supra note 205, at 458.
209. Smillie, supra note 8, at 239, 241; CNR, 91 D.L.R.4th at 349 (Can.).
210. Some say that in cases of non-relational pure economic loss the injurer is usually a better loss-spreader. See Smillie, supra note 8, at 239; Rabin, supra note 8, at 1520-21.
211. PETER CANE, TORT LAW AND ECONOMIC INTERESTS 457 (2d ed. 1996).
212. If the class that ultimately bears the loss is not larger than the class that bore it in the first place but the two are somehow different, imposing liability may be consistent with non-economic distributive considerations.
3) It is impossible or impractical to determine who the better loss spreader is. In that case secondary loss-spread considerations are indifferent to the question of liability. Once again, exclusion of liability has two advantages: first, it saves the administrative costs of a futile loss shifting, and second, it enables primary loss spreading.

D. Liability Insurance, First Party Insurance and a Multitude of Claimants

The most common method of spreading losses is through insurance.\(^{213}\) Suppose that the utility function of every person is \(y = 10,000 \log(x/10,000 + 1)\) and that every person has $10,000. Now assume that each person faces a 10% risk of an accident in which she or he may lose $1,000, and that such accidents are unavoidable. If each person agrees to pay a sum that equals her or his expected loss ($100), the aggregate sum will suffice to compensate all victims of this sort of accidents. This is the principle of insurance. Insurance reduces the loss of welfare consequent upon risk-aversion, as can be seen in the following table.

<table>
<thead>
<tr>
<th>Option</th>
<th>Private Loss Expectancy in Utility Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) No insurance</td>
<td>(0.1</td>
</tr>
</tbody>
</table>
| 2) Maximal premium            | \(|\Delta y| = 10,000 \log(1 + 1) - 10,000 \log((10,000 - X)/10,000 + 1) = 22.28\)  
  \(\Rightarrow X = 102.34\) |
| 3) Minimal premium            | \(|\Delta y| = 10,000 \log(1 + 1) - 10,000 \log(0.99 + 1) = 21.77\) |
| 4) Possible market premium    | \(X = 102\)  
  \(\Rightarrow |\Delta y| = 10,000 \log(1 + 1) - 10,000 \log(0.9898 + 1) = 22.21\) |

\(^{213}\) See SHAVELL, supra note 114, at 186-261.
The private expected loss of a person without insurance is $100 and 22.28 utility units (option 1). This means that for full protection against the expected loss each person would agree to pay a certain sum that is valued at no more than 22.28 utility units, i.e., up to $102.34 (option 2). The insurance company will not normally agree to insure the individual for less than $100, which means a loss of 21.77 utility units for the insured (option 3). But since $100 does not include the insurance company’s administrative costs and profits, the actual premium will be set between $100 and $102.34. Within this range insurance will reduce the loss of welfare consequent upon risk-aversion (see, for example, option 4).

In most cases, accidental losses are spread through insurance irrespective of liability rules. Imposing liability frequently means that the loss will be spread through liability insurance, and exclusion of liability often means that the loss will be spread through first-party insurance. The issue turns on which of the two methods is more efficient. The conventional view is that first-party insurance is cheaper and more effective than liability insurance, at least as a means for spreading relational economic losses.

First, the cost of information that is required for the evaluation of the risk is usually higher in liability insurance. The unique characteristics of the relation between the plaintiff and the primary victim, and sometimes even its very existence, are unknown to the

214. In practice, insurance companies never estimate the individual risk of every person due to lack of information. Individuals with different risks are treated as members of a single category. Each member pays a premium that reflects the average risk in his group.

215. Some say that the existence of liability insurance diminishes the deterrent effect of tort liability considerably. Stevens, supra note 205, at 465. This would probably be a misstatement if premiums were set according to actual individual risks. The real problem is that risk-creating activities are categorized rather roughly. An individual that creates a significant risk may be grouped with an individual that creates a trivial risk. See Englard, Philosophy, supra note 2, at 44.

216. CNR, 91 D.L.R.4th at 350 (Can.); Barber Lines, 764 F.2d at 54; Louisiana, 752 F.2d at 1029; see also John G. Fleming, The Law of Torts 182 (8th ed. 1992); Fleming James, Jr., Limitations on Liability for Economic Loss Caused by Negligence: A Pragmatic Appraisal, 25 Vand. L. Rev. 43, 52-53 (1972) (detailing the advantages of first party insurance); Stevens, supra note 205, at 461-62; Comment, Interference with Business or Occupation—Commercial Fishermen Can Recover Profits Lost as a Result of Negligently Caused Oil Spill, 88 Harv. L. Rev. 444, 449 (1974) (“It is arguably more efficient for potential plaintiffs to obtain first-party insurance on their own limited interests than for potential defendants to obtain insurance in vast amounts for all possible types of economic loss.”); Note, supra note 159, at 817 n.34; Smillie, supra note 8, at 235, 241-42; Michael MacGrath, The Recovery of Pure Economic Loss in Negligence—An Emerging Dichotomy, 5 Oxford J. Legal Stud. 350, 375 (1985) (“First party insurance... tends to be more readily available at more reasonable rates because of the absence of the high cost of litigation or arbitration.”); O’Brien, supra note 199, at 968; Feldthusen & Palmer, supra note 114, at 437, 443-44.
potential injurer. The prospective relational victim knows better than any potential injurer what the nature of the personal risk is, in what circumstances it will materialize, and what the magnitude of the loss will be. Furthermore, first-party insurance covers certain and well-defined personal losses, whereas liability insurance covers the losses of third parties, whose number is usually unknown in advance. In other words, the uncertain number of potential victims makes assessment of the potential liability much more difficult.

Second, the costs of establishing the right to receive insurance payments are much higher in liability insurance schemes than in first-party insurance schemes. It is true that in both cases questions may arise with regard to the construction of the policy. But one cannot forget that in liability insurance expensive and tiresome litigation (or negotiation) precedes any payment. In first liability insurance the administrative costs of tort litigation and negotiation are saved.217

Third, as the number of potential victims becomes larger and more uncertain insurance companies may refuse to cover liability, demand an unreasonable premium, or set an upper limit for the cover. Even a large insurance company will not agree to insure potential injurers against potentially catastrophic liability, or to set a reasonable premium for an immeasurable risk. If the class of prospective relational victims is in fact indeterminate, imposing liability will not lead to effective loss spreading through insurance.

The exclusionary rule induces potential victims to insure themselves against prospective personal losses, and potential injurers not to insure themselves against liability. In that manner, it guarantees efficient loss spreading while preventing double insurance. Ambiguous liability formulas (such as “proximity”) frequently result in double insurance. A potential injurer, who cannot predict whether liability will be imposed, will buy liability insurance. A potential victim, who cannot predict whether liability will be imposed, will buy first-party insurance. The same risk will be insured twice. The exclusionary “bright line” rule prevents this from happening.218

Critics have said that very often first-party insurance against relational losses is unavailable or too expensive. This is especially likely with regard to lost-profits insurance, which raises severe

217. In the 1960s, research revealed that for every dollar invested in the tort system only forty-four cents were used to compensate victims, whereas eighty-two cents of every dollar invested in first-party insurance were actually used for compensation. James, supra note 216, at 52.

218. CNR, 91 D.L.R.4th at 352, 354 (Can.); Feldthusen, Economic Negligence 3d ed., supra note 5, at 220; James, supra note 216, at 54-55; Feldthusen, Pure Economic Loss, supra note 7, at 48-49.
problems of moral hazard. If so, the exclusionary rule does not provide an incentive for efficient loss spreading. With all due respect, I disagree. Most economic interests are insurable. If there are risks against which businesses do not insure themselves in practice, despite the long-lasting existence of the exclusionary rule, this probably means that such risks are not regarded as a serious social problem. If businessmen choose not to protect certain interests, which are not protected otherwise, through a relatively cheap and simple mechanism (i.e., first-party insurance), these interests are probably not important enough to be protected by the most complex and expensive means available (i.e., tort liability). Furthermore, if first-party insurance is not available at all for certain types of losses, clearly no insurer will agree to cover liability for such losses (due to the relative gravity of information problems). In such cases, imposing liability, just like exclusion of liability, will not facilitate loss spreading through insurance.

Other critics argue that denying liability on account of insurance considerations would undermine the deterrent effect of tort law, but this contention has already been negated above. A third criticism asserts that the advantages of first-party insurance are not limited to relational economic losses. First-party insurance is a better means for spreading consequential economic losses as well, and these are nevertheless recoverable. Some say that most of the arguments in favor of first-party insurance are also valid with regard to physical injuries. One may conclude that if cheap and efficient loss spreading through insurance is a determinative factor, we must relinquish tort liability altogether. If it is not, we cannot use it to justify the exclusionary rule. Regarding the physical-injuries analogy, the answer seems obvious: without liability for such injuries (which are undoubtedly true social costs) there will be no deterrence at all in circumstances where significant deterrence is undoubtedly needed. Insurance considerations are thus neither determinative nor dominant. And with regard to consequential economic loss: it is possible that the law is flawed or that other factors strongly support liability.

220. Stevens, supra note 205, at 462-63; Smillie, supra note 8, at 241.
221. James, supra note 216, at 53-54; CNR, 91 D.L.R.4th at 350 (Can.).
223. CNR, 91 D.L.R.4th at 378 (Can.).
226. I intend to discuss the consequential/reational economic loss dichotomy in a future article.
A fourth criticism proposes that courts are unfamiliar with the practices and theory of insurance, and are thus unqualified to use insurance considerations to justify their decisions.\(^{227}\) My answer is twofold. First, evaluating insurance considerations does not require special training or expertise. Second, even accepting the questionable assumption that judges are not qualified to apply insurance considerations, this does not mean that insurance considerations should not be applied. It means that jurists must get a more profound legal education.

The last criticism was that although some of the prospective relational victims are businessmen who can insure themselves quite easily, others are ordinary individuals who do not have similar opportunities. The exclusionary rule does not distinguish between the two types of potential victims.\(^{228}\) A good answer would be that despite the heterogeneity of the class of potential victims, first-party insurance is always preferable. If there are exceptional cases (in which potential victims cannot insure themselves for some reason) insurance considerations ought not to be used to justify the exclusion of liability.

At this point a few comments should be added. First, it seems to me that many victims may actually prefer first-party insurance over a right of action in torts (covered by appropriate liability insurance).\(^{229}\) A contractual claim against an insurer is not as expensive and tiresome as a tort action; compensation is relatively immediate; the extent of the payment does not normally depend on a judicial decision; the right to receive payments does not depend on fault; the extent of these payments is not reduced in cases of contributory negligence;\(^{230}\) and last but not least, an insurance company is generally more solvent than the average injurer, which makes full compensation more realistic. It is true that liability insurance may significantly improve the injurer's ability to pay. But as the number of potential victims becomes larger and more uncertain, liability insurance is less feasible, more costly, and frequently incomplete due to upper limits. This fact, which undermines the injurer's ability to compensate all victims, may lead to double insurance (if the exclusionary rule is revoked).

Second, if the number of potential claimants is truly very large the potential injurer's motivation to purchase liability insurance

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227. Stychin, supra note 6, at 339.
228. CANE, supra note 211, at 458.
229. See Stevens, supra note 205, at 462 (detailing a variety of advantages of loss insurance); Smillie, supra note 8, at 242 (noting that recovery in a tort action is slow and uncertain, and does not solve the problem of non-negligent infliction of loss).
230. Although contributory negligence may affect the premium that the same individual will be required to pay in the future.
weakens dramatically. If the premium is low relative to the extent of the potential injurer’s business activity, he may be inclined to insure himself in order to reduce the effect of mishaps on his business. If, on the other hand, the cost of liability insurance is sky high, the question of whether to purchase insurance or face liability without insurance becomes more problematic from the potential injurer’s perspective. Both options may gravely harm his business. At a certain point the potential injurer may therefore prefer not to insure himself in order to save money at present, hoping that the risk will not materialize. As the extent of potential liability grows, injurers’ motivation to insure themselves decreases. Suppose, for example, that Jill’s utility function is $y = 10,000 \log(x/10,000 + 1)$, and that she has $30,000. Suppose further that there is a 0.2 probability that her activity will cause a $100,000 loss to other people, all of which is legally recoverable. Jill cannot pay $100,000 since this sum exceeds her personal wealth. Without insurance her personal expected wealth is $0.8 \times 30,000 + 0.2 \times 0 = 24,000$ and her personal expected welfare is $0.8 \times 10,000 \log(3 + 1) = 4816.5$ utility units. The market price of liability insurance covering the aforementioned risk is at least $0.2 \times 100,000 = 20,000. Purchasing insurance would leave Jill with $10,000 and $10,000 \log(1 + 1) = 3010.3$ utility units. Clearly, Jill will not insure herself. Hence, imposing liability will not lead to efficient loss spreading through insurance.

Third, whenever the economic loss reflects a transfer of wealth from the relational victim to its competitors, insurance schemes may restore the status quo ante. As discussed above, assuming that all competitors are exposed to similar risks, the premiums paid by all of them will be used to cover the loss of the actual victims. Fourth, one must remember that first-party insurance does not necessarily end loss spreading. The insured can still spread the cost of insurance in various ways (as we have seen under the heading “secondary loss spreading”). This means that the exclusionary rule usually guarantees an efficient three-stage loss spreading: primary loss spreading, loss spreading through first-party insurance, and secondary loss spreading of the cost of insurance.

231. See Shavell, supra note 114, at 240 (showing how an injurer whose “assets are lower than the harm they may cause” can be in a better position without insurance); cf. Harris & Veljanovski, supra note 156, at 53 (noting that potential defendants may under insure if they believe they are judgment proof or to discourage litigation).
232. See also Bishop, supra note 113, at 10.
233. See e.g., Smillie, supra note 8, at 241-42 (using increased pricing to consumers as an example).
V. ADMINISTRATIVE COSTS

A. Litigation Costs and the Costs of Settlements

Liability based on fault is a very expensive mechanism for loss allocation. Tort litigation consumes a lot of time, money, and mental resources. The plaintiff in a negligence action has to prove fault, and establish the extent of his consequent loss; the defendant will probably try to substantiate a legal defense (such as contributory negligence); and both parties will try to refute each other's contentions. Each faces a very tiresome and costly task. For instance, she or he may need to hire a lawyer, conduct investigations, gather evidence, pay experts for professional opinions, pay witnesses, and/or be absent from work. The process also consumes valuable state resources, including use of a courtroom and the need to pay the court personnel.

One must remember, though, that in most cases the victim does not file suit at all or discontinues the proceedings before a judicial decision is made. Very often the two parties settle outside the court. In those cases the litigation cost (or at least a substantial part of it) is saved, but transaction costs are added. The aggregate administrative cost of tort law thus contains two ingredients: litigation costs and transaction (settlement) costs. Since most victims (over 90%) settle with their injurers, and since the costs of coming to a settlement are not negligible, the proportion of total administrative costs linked with settlement may be significant.

In 1967 a national commission in New Zealand found that 40% of the resources that got into the tort system covered administrative costs (and only the remainder was used to compensate victims). In 1978 the Pearson Commission found that in England administrative costs consumed 45% of the resources that were invested in the tort system. In the United States the rate was probably higher.

From an economic perspective imposing liability cannot be justified if the consequent administrative costs exceed the benefits in terms of deterrence and loss spreading. Consider the following example. There is a 0.05 probability that Jack's activity will cause a $1,000 damage to Jill. The expected cost of the accident is $1,000 \times 0.05 = $50. Suppose that Jack can reduce the probability of the

234. SHAVELL, supra note 114, at 262.
235. Id. at 263.
236. Smillie, supra note 8, at 234 n.11.
237. SHAVELL, supra note 114, at 265; Smillie, supra note 8, at 234; Feldthusen & Palmer, supra note 114, at 436; David Howarth, Economic Loss in England: The Search for Coherence, in CIVIL LIABILITY FOR PURE ECONOMIC LOSS 27, 47 (Efstathios K. Banakas ed., 1996).
accident to 0.04 by taking certain precautions that cost $8. The expected cost of the accident in that case is $0.04 \times 1,000 + 8 = 48. Seemingly, Jack should be encouraged to take these precautions. If he does not, and Jill is injured, we should impose liability. Now suppose that the average cost of tort litigation is $500, and that it is impossible to know whether Jack has actually taken the necessary precautions without litigation. If we impose liability the expected cost of the accident will be $0.04 \times (1,000 + 500) + 8 = 68 where precautions are taken, and $0.05 \times (1,000 + 500) = 75 where no precautions are taken. If we exclude liability in cases of this kind the expected cost of the accident will be only $50 (Jack will not take precautions). It is true that this is not the optimal outcome. But the optimum is unattainable. We have to settle with the second-best option.

Administrative costs may pose an especially serious problem if we choose to allow recovery for relational losses. First of all, it is very likely that the administrative cost associated with a single claim will exceed the benefits of allowing it in terms of deterrence and loss spreading. We must always keep in mind that the defendant is already liable for the primary physical injury; that the marginal deterrent effect of liability is diminishing; that in many cases relational losses are not true social costs, and should not be internalized by the tortfeasor; that in many other cases, relational losses are inefficient expenditures that the tort system must not induce victims to make; and that very often the relational victim is a better loss spreader than the injurer.

The fact that a single act may result in numerous relational losses intensifies the problem considerably. If relational losses are recoverable, the aggregate administrative cost may be quite sizeable. Judge Breyer apparently took this point into account in Barber Lines A/S v. M/V Donau Maru, saying that

That possibility—a large number of different plaintiffs each with somewhat different claims—in turn threatens to raise significantly the cost of even relatively simple tort actions... Yet the tort action is already a very expensive administrative device for compensating victims of accidents.

238. Barber Lines, 764 F.2d at 54 (citing Rizzo, Theory, supra note 117, at 293). Justice Breyer went on to observe that "these considerations... reflect a fear of creating victim compensation costs that, from an administrative point of view, are unnecessarily high." Id. at 55 (citation omitted); see also SHAVELL, supra note 114, at 138 ("[T]he routine award of economic losses could also raise administrative costs by adding to the volume of litigation, since the number of parties who could claim such losses is presumably large.").

239. Barber Lines, 764 F.2d at 54.
At the same time, the multiplicity of relational plaintiffs may widen the gap between the extent of the injurer’s liability (based on private losses) and the true social cost of the accident. The problem of over-deterrence may become much more severe. Furthermore, as the number of victims goes up it is more likely that loss spreading considerations will support exclusion of liability. All in all, the ratio between the aggregate administrative cost of relational loss claims and the aggregate benefit from allowing them seems to grow with the number of claimants.

Critics have said that we should not over-emphasize the importance of administrative costs since most claims are settled anyway. But this argument ignores the fact that the cost of settlement is not at all negligible. As previously discussed, administrative costs consume a substantial part of the resources invested in the tort system despite the tendency to settle. Another criticism was that the administrative costs argument can be used to justify almost any exclusion of liability. I disagree. Exclusion of liability is justified only if the administrative costs of a legal entitlement outweigh its benefits.

A third criticism was that it is possible to reduce administrative costs dramatically without an absolute denial of liability for relational economic losses, through procedural instruments such as consolidation of actions and class actions. These means may indeed constrain the number of claims. But they cannot guarantee a substantial reduction in the administrative costs. Each claimant still has to prove that the injurer owed her a duty of care, establish the extent of her individual loss, and show that the defendant’s conduct was the proximate cause of that loss. Each may be individually accused of contributory negligence and so on. Moreover, joined actions tend to attract the attention of the media. Class actions are widely publicized. Publicity makes more victims aware of the fact that their losses are the result of a negligent act, and may enlarge the class of plaintiffs (with a subsequent rise in the administrative costs). Last but not least, the aforementioned procedural instruments make tort litigation cheaper and less tiresome for the individual victim. Victims who would not otherwise file suit in order to save time, money, and effort, may join a “consortium of plaintiffs” if that option is available to them. This too may enlarge the class of plaintiffs.

240. Bishop, supra note 125, at 76.
241. Id.
242. Id.
B. Channeling Contracts

Even if the administrative costs of relational loss claims were lower than their benefit in terms of deterrence and loss spreading, exclusion of liability could apparently still be justified as a means to reduce litigation costs. It has been said that where an injury is caused to a certain person or to his property and the number of potential claimants is larger than one (including the primary victim himself), and where transaction costs are low, the law seeks to channel economic losses through the primary victim.243 “Channeling contracts” are contractual arrangements in which the potential primary victim agrees to indemnify the potential relational victims for their prospective relational losses. The law encourages channeling by denying recovery for relational losses and allowing recovery for economic losses that have been shifted to the primary victim. Exclusion of liability for relational losses induces potential relational victims to require channeling arrangements, and allowing recovery for economic losses that have been shifted to the primary victim enables the latter to comply. Consequently, the costs of litigating independent relational loss claims are saved.

According to this view we must define the social utility that ought to be maximized by the law of torts, more accurately as $U = E(v) - [E(l) + C]$, where $E(v)$ is the expected benefit of tort liability in terms of deterrence and loss-spreading, $E(l)$ is the expected litigation cost, and $C$ is the cost of channeling economic losses through the primary victim. We have already seen that exclusion of liability is justified where the litigation costs exceed the benefits of tort liability ($E(v) < E(l)$). Exclusion of liability is also justified where the costs of channeling are lower than the costs of litigating multiple tort actions ($C < E(l)$).244 Allowing recovery is justified only where the litigation cost is lower than the benefits of liability in terms of deterrence and loss spreading, and at the same time lower than the cost of channeling: ($E(v) > E(l)) \land (C > E(l))$.245 Some say that providing incentives for channeling arrangements is the only possible economic justification for the exclusionary rule.246 I naturally disagree. At this stage we are already familiar with various possible justifications for

244. In cases where $E(v) > E(l) > C$ or $E(l) > E(v) > C$ we must reimburse the primary victim for any economic loss that was shifted to him, in order to facilitate channeling arrangements. On the other hand, in cases where $E(l) > C > E(v)$ the relational loss should not be recoverable even if it was shifted to the primary victim since neither separate litigation nor channeling is economically justified. Professor Rizzo ignores this distinction.
245. Rizzo, Theory, supra note 117, at 283-84, 310.
246. Id. at 286-90.
the exclusion of liability. It is true that none is applicable to all relational loss cases, but none can be dispensed with that easily. My disagreement with the aforementioned “claim of exclusivity” does not deprive the channeling theory from its validity and legitimacy. It can be used, together with other legitimate arguments, to justify the exclusionary rule.

It was said that the channeling theory is consistent with existing law. In cases where the prior link between the relational victim and the primary victim is contractual, the cost of channeling (which is in fact the marginal transaction cost) is relatively low. As the contract becomes more complex and detailed the cost of channeling goes down. In these cases, relational economic losses are usually irrecoverable. In Byrd v. English, for example, a printing factory was temporarily halted due to a negligent cut of an electricity cable, causing its owner to suffer economic loss. The court ruled that if the electricity company had been required to compensate its customers for their losses it would have been reimbursed for the sums paid. But since the loss had been suffered by someone else, allowing recovery would have resulted in too much litigation. The claim thus had to be denied. At the same time, tort law allows contractual indemnifiers to recover for the sums paid in accordance with their contracts. In The Mergus, a ship was negligently damaged. According to the charter party the time-charterers did not have to pay hire “in the event of loss of time arising from collision”. Without this exemption clause the charterers would have to keep paying hire during the repairs, and their economic loss would be irrecoverable. The special off-hire clause in the charter party shifted the prospective relational loss to the primary victim. The court allowed the owners to recover for lost hire, and thereby upheld the channeling arrangement. On the other hand, in cases where the cost of channeling was relatively high, and the benefits of imposing liability were higher than the administrative costs, liability was in fact imposed. For example, the costs of channeling economic losses that result from marine pollutions are practically infinite, since the damaged resources have no owner with whom the prospective

247. See id. at 296-97.
248. 43 S.E. 419 (Ga. 1903).
249. Id. at 420.
250. Id. at 420-21.
251. [1947] 81 Lloyd’s List L.Rep. 91 (Eng.).
252. See, e.g., Robins Dry Dock & Repair Co. v. Flint, 275 U.S. 303, 309 (1927) (holding that a time-charterer is not entitled to compensation for economic loss consequent upon a negligent infliction of harm to the charterer ship).
relational victims could contract. Accordingly the law allows at least some of the victims to recover for their consequent economic losses.254

I think that the attempt to attribute a conclusive explanatory power to the channeling theory is not persuasive. First, it is based on a very narrow and probably biased selection of cases. Second, it analyzes some of these cases incorrectly. The cable-case (Byrd v. English) is actually a high channeling-cost case. Can one seriously expect the electricity company to include a channeling clause in the standard contract it has with its customers? The court's ruling in The Mergus was said to complement the exclusion of liability in cases where the time-charterer is required to pay hire during the unavailability of the vessel. This representation is somewhat misleading. It is true that in England a time-charterer is unable to sue for such loss,255 but several American courts have adopted a different view. In Venore Transp. Co. v. M/V Struma,256 tried in 1978, the court agreed to compensate a time-charterer of a negligently damaged ship for the hire it had to pay during the repairs. A similar decision was made in Amoco Transp. Co. v. S/S Mason Lykes.257

Nevertheless, the channeling theory is of great importance as a normative guideline. In that respect, its consistency with existing law is not a precondition for its validity and legitimacy.

Before turning to a critical appraisal of the theory, a certain point needs to be emphasized. Channeling contracts are not the aim but the means. If the existence of channeling clauses cannot reduce the administrative costs in certain types of cases, encouraging the two prospective victims to include such clauses in their contract is pointless and wasteful. If, for example, A agrees to maintain the property of B for a fixed sum, and that property is negligently damaged, A will suffer an economic loss. If, for example, A agrees to maintain the property of B for a fixed sum, and that property is negligently damaged, A will suffer an economic loss. In that case the channeling theory cannot justify exclusion of liability for the relational loss despite the low cost of channeling. The reason is quite simple. Channeling is desirable where it can reduce litigation costs. In our case there is only one possible tort action. If the loss is not channeled the suit will be brought by A, and if the loss is channeled the suit will be brought by B.258 Channeling would be the more costly option since

254. See Union Oil Co. v. Oppen, 501 F.2d 558, 568 (9th Cir. 1974) (allowing commercial fisherman to recover for lost profits consequent upon the diminution of aquatic life following an oil spill).
256. 583 F.2d 708 (4th Cir. 1978).
257. 768 F.2d 659 (5th Cir. 1985).
258. See Rizzo, Theory, supra note 117, at 309-10 (using two early American cases to illustrate this point).
it requires further negotiation between A and B, and does not reduce litigation.

The channeling theory has faced severe criticism, but none of the criticisms appear to undermine its validity as an additional guideline for deciding relational loss cases. The first criticism is that even when relational victims are contractually linked with the primary victim, the cost of channeling may be considerable. This is likely where the parties do not have equal bargaining powers (as in Byrd v. English and similar cases) or where the risk of negligent interference with the contract is so uncommon that the parties cannot foresee it during their negotiations. This contention is obviously correct, but it is not a true criticism. According to the channeling theory tort law is supposed to induce channeling where it is preferable to additional litigation. The fact that in certain cases channeling is more costly than litigation only means that in those cases the channeling theory cannot justify exclusion of liability. It definitely does not mean that the theory is inapplicable in other cases.

A second criticism is that the aggregate cost of channeling may be higher than the alternative (aggregate litigation cost) although the individual cost of channeling is lower than the individual litigation cost. This is so because the aggregate cost of channeling equals the multiplication of the individual cost of channeling by the number of relational economic interests, whereas the aggregate litigation cost equals the multiplication of the individual litigation cost by the number of actual relational victims (if all of them decide to sue), and because most relational economic interests are not negligently harmed. Once again, this is not a true criticism. The theory takes into account that not all economic interests are harmed. It does not compare an individual channeling cost with an individual litigation cost. It weighs the cost of channeling against the expected cost of litigation, given the uncertainty of harm.

259. CNR, 91 D.L.R.4th at 351, 374 (Can.); CANE, supra note 211, at 455; Bishop, Emerging Doctrine, supra note 125, at 75.

260. Bishop, Reply, supra note 135, at 209; Bishop, Emerging Doctrine, supra note 125, at 74.
The third criticism (directly linked with the second) was that since many victims settle their claims, the aggregate administrative cost may be lower than the aggregate channeling cost even if the latter is lower than the multiplication of the individual litigation cost by the number of actual relational victims. That is so because the average cost of settling a claim is usually much lower than the average cost of litigation. I agree. This contention calls for a refinement of the channeling theory. The correct comparison is of the individual cost of channeling with the expected individual administrative cost, which is calculated by weighting its two elements (litigation and settling). Subject to this modification the theory is still valid.

A fourth criticism is that since many economic interests are not wrongfully harmed, the expected loss of a potential victim may be lower than the cost of channeling. In these circumstances many potential victims will prefer to not protect themselves within the contract, despite the exclusionary rule, and the injurer will not have to bear their loss. If these losses are true social costs, the exclusionary rule will result in under-deterrence of potential injurers. The response is simple. Imposing liability may reduce the expected loss, but it will do so at a certain price (the cost of precautions) and may be inconsistent with the goal of loss spreading. This means that the benefit of recognizing liability (preventing the loss) will be normally lower than the expected loss itself. Consequently, if the expected private loss is lower than the cost of channeling it, the benefit of recognizing liability for such losses is clearly lower than the cost of channeling (E(v) < C). If the benefit of allowing recovery is higher than the administrative cost (C > E(v) > E(l)), the injurer will be held liable and the deterrent effect will not be harmed. If the benefit is lower than the administrative cost (C > E(l) > E(v) or E(l) > C > E(v)), liability will be excluded. In that case under-deterrence is economically justified.

The fifth criticism is that when the cost of channeling is low, potential relational victims may insist on channeling even if liability is imposed, in order to reduce their own expected litigation cost. The answer here is that the potential victim weighs the private litigation cost (E(l)) against the private cost of channeling (C.). The private litigation cost is just a small fraction of the administrative cost of a tort action (which includes the expenditures of the injurer.

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261. Cf. Bishop, Emerging Doctrine, supra note 125, at 76 (arguing that the class action suit is “the ultimate consolidating device”); Harris & Veljanovski, supra note 156, at 55 (explaining that the threat of litigation is necessary to deter potential wrongdoers).

262. Bishop, Emerging Doctrine, supra note 125, at 74.

263. Harris & Veljanovski, supra note 156, at 70 n.37.
and the operating cost of the system as well). Similarly, the cost of channeling is higher than the private marginal transaction cost. Suppose that \( E(v) > E(l) \); if relational losses were recoverable, then in cases where \( C_p > E(l_p) \) and \( C < E(l) \) the potential victim would choose to administer an independent claim in torts, although channeling would be socially preferable. Exclusion of liability will provide an incentive to channel.\(^{264}\)

A sixth possible criticism is that the primary victim’s obligation to indemnify relational victims for their losses may result in inefficient behavior by the latter. Consider the following example. A agrees to improve C’s house, and C agrees to indemnify A for any unexpected cost associated with the performance of the contract. B injures the house, and the cost of performance is increased. The channeling clause induces A to complete its work. But if the cost of completion after the accident is higher than C’s utility in the complete work, completion is inefficient and must be avoided. The counterargument to this criticism is that unlimited indemnity clauses are not realistic. C will not be compensated for unreasonable expenses, and will thus refuse to indemnify A for the cost of completion unless it is reasonable in the economic sense. The exclusionary rule, together with a reasonable channeling clause, will encourage A to complete its work only where the additional cost is lower than C’s utility, and to discontinue its work otherwise.\(^{265}\) Critics argue that a judicial evaluation of the economic reasonableness of indemnity clauses costs money,\(^{266}\) but I am not convinced that the respective cost is higher than the benefit of channeling.

The seventh criticism is that channeling theory cannot explain the changes in the law of pure economic loss during the twentieth century. In many types of cases, liability was first denied and later permitted (negligent misrepresentations being the prime example). In others, there is a difference of opinion among various common law jurisdictions (defective structures being a good example).\(^{267}\) Moreover, the theory cannot explain the exclusion of liability in cases where the primary victim and the relational victim were not contractually linked, and the channeling cost was rather high.\(^{268}\) These allegations

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264. In the opposite case where \( C_p < E(l_p) \) and \( C > E(l) \) the potential victim will prefer to channel, although administering an additional tort claim is socially preferable. To prevent this inefficient channeling we must not compensate the primary victim for the shifted loss.

265. See Rizzo, Theory, supra note 117, at 294-96 (using Cattle v. Stockton Waterworks, Co. to illustrate this principle).

266. Bishop, Emerging Doctrine, supra note 125, at 75.

267. Id. at 76.

268. See, e.g., Rickards v. Sun Oil Co., 41 A.2d 267 (N.J. 1945) (no recovery for relational economic loss despite the unfeasibility of channeling); see also Rabin, supra
are all true. That is why I do not think that channeling theory should be used as an explanation for existing law (a positive theory). This, however, does not mean that it cannot be used to justify exclusion of liability in certain types of cases. Instead of trying to show that the theory complies with the law we must make sure that the law complies with the theory.

An eighth possible criticism is that sometimes channeling does not reduce the administrative costs. If the primary victim refuses to indemnify the relational victim, or if a dispute arises with regard to the extent of the contractual indemnity or the construction of the channeling clause, the disagreement will probably lead to litigation or further negotiation. Consequently, instead of two tort actions we shall have one tort action and another claim in contracts. The answer to this contention is twofold. First, the probability of a contractual dispute of the aforementioned kind is fairly low. In any event, it is lower than the probability of an additional tort dispute if relational losses are recoverable. Second, the administrative cost of a contractual arrangement is undoubtedly lower than that of a right of action in torts.

The ninth criticism is that even when \( C < E(1) \) there are alternative ways, better than an explicit contractual channeling, to minimize the administrative costs. Courts can determine that the contract includes an implied (and reasonable) channeling arrangement. In that manner the administrative costs of tort claims will be reduced and the cost of channeling will also be saved.\(^{269}\) Alternatively, courts can allow the primary victim to claim damages for the relational losses as well, as a trustee of the relational victims.\(^{270}\) It seems to me that the first option is problematic since it burdens the primary victim with the loss of the relational victim without her or his consent and blatantly interferes with the freedom of contracts. The second option is problematic since it allows one person to recover for losses that she did not actually suffer and at the same time conditions the “right” of the true sufferer of the loss on the willingness of the other to fight his battle.

A tenth criticism is that channeling clauses can shift losses from one person to another, but they cannot change the nature of these losses and the special circumstances in which they occur. The substantive difficulties associated with liability for relational losses (like the fact that many of them are not true social costs, the fact that

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\(^{269}\) Harris & Veljanovski, supra note 156, at 70 n.38.

\(^{270}\) P.S. Atiyah, Negligence and Economic Loss, 83 L.Q. Rev. 248, 274-75 (1967).
exclusion of liability is preferable from a loss spreading standpoint, etc.) are not solved by channeling.\textsuperscript{271} This contention is undoubtedly true. But one must remember that the need to induce efficient channeling is only one of the possible justifications for exclusion of liability. Even where channeling costs are relatively high, relational losses should be irrecoverable if there are other legitimate considerations that support exclusion.\textsuperscript{272}

An eleventh possible criticism is that in cases where there are numerous potential relational victims, and the potential sum of relational losses is very large, channeling may overburden the primary victim and may result in its total breakdown (before any commencement of tort litigation). The answer to this argument is quite simple. It is highly unlikely that the potential primary victim will agree to bear (even temporarily) losses of such magnitude in addition to the physical injury. Such reluctance may appear to run counter to the legal endeavor to reduce administrative costs. But the problem is not as serious as it seems. We must keep in mind that from the economic standpoint many relational losses should not be recoverable whether shifted or not. And this is especially probable if we assume that there are numerous potential losses and that their total sum is very large. In other words, if the prospective primary victim is unwilling to indemnify relational victims due to their potentially large number it is very likely that other economic considerations will support exclusion of liability for the non-channeled losses, and thereby limit the administrative costs.

The twelfth and last possible criticism is that the channeling theory gives non-contractual economic expectations better protection than that given to contractual rights. The fact that the relational victim is contractually linked with the primary victim diminishes her prospects of recovery.\textsuperscript{273} However, one cannot criticize an economic theory using formal legal distinctions. Anyway, it seems that in most cases non-contractual relational economic losses will be irrecoverable for other legitimate reasons.

VI. Summary and Implementation

We are now well equipped to determine whether exclusion of liability for relational losses in various types of cases is economically justified. For liability to be imposed in favor of members of a certain

\textsuperscript{271} Feldhusen & Palmer, supra note 114, at 444-45; see also Comment, Foreseeability of Third-Party Economic Injuries—A Problem in Analysis, 20 U. Chi. L. Rev. 283, 289 (1953).

\textsuperscript{272} See, e.g., Barber Lines, 764 F.2d at 54-55.

\textsuperscript{273} See Rizzo, Theory, supra note 117, at 297 (demonstrating this point in his analysis of Weller & Co. v. Foot and Mouth Disease Research Inst.).
category of relational victims in a specific fact-situation, the following conditions must be met:

1) The loss suffered is a true social cost. This condition is subject to an exception with fairly narrow application (due to information problems). Allowing recovery for an economic loss that reflects a wealth transfer is justified if it is clear that the potential relational victim is capable and willing to prevent its own loss and the potential injurer can prevent such loss at a lower cost.

2) The loss does not result from an interference with a contractual right, whose market value fluctuates without a systematic bias.

3) The loss suffered is not an inefficient expenditure.

4) Victims of the assayed kind cannot normally find alternative uses for their factors of production in order to mitigate their loss.

5) The number of victims of the assayed kind in every occurrence of the particular type is limited and ascertainable. This requirement is supported by marginal deterrence, primary loss spreading, secondary loss spreading and insurance considerations.

6) The average loss of a single victim of the assayed kind is not particularly small and the administrative costs of the imposition of liability are not particularly high. This requirement is supposed to guarantee that the cost of imposing liability will not exceed its benefit given that the injurer is already liable for the physical injury and that in many cases the aggregate loss is widely spread.

7) Victims of the assayed kind cannot usually protect themselves through their contract with the primary victim.

If more than one category of potential victims within a single type of occurrences meets the aforementioned conditions we should further examine whether the cumulative number of potential plaintiffs in such categories is limited. If not, liability should not be imposed. After formulating the guidelines, we can turn back to the archetypal examples given in the introduction to find out whether exclusion of liability is economically justified in each of them.

Imposition of liability for economic loss suffered as a result of an injury to the property of a third person, with whom the plaintiff had no contract or other legal relationship, is usually undesirable. The idle auctioneers in Weller, the cattle infection case, is instructive here. First, their loss is obviously not a true social cost, since their inactivity probably resulted in an expansion of substitutive activities. Second, the number of potential victims in this category is very large. The range of possible victims includes, in addition to the auctioneers

274. Weller & Co., 3 All E.R. 557 (Eng.).
themselves, butchers, transporters, dairies, manufacturers of food for cattle, supermarkets, restaurants, etc. Third, the relational victims (especially the auctioneers) could find alternative uses for their factors of production.

Economic losses consequent upon a negligent interruption in the supply of a public utility should similarly be irrecoverable. Loss of profits is usually a mere transfer of wealth. Expenditures that are intended to prevent the loss of profits are either inefficient expenses or are too small to justify the administrative costs of tort liability. Any payment by the halted manufacturer to its employees during the interruption is a wealth transfer: the latter are getting paid without having to work. Lastly, the number of potential victims is very large indeed.

When a plant is damaged, its employees may suffer loss of income. If the plant is permanently shut the workers can and should look for alternative employment, and the social costs (associated with the search for new jobs) will normally be too low and speculative to justify liability. If, on the other hand, the plant is only temporarily closed, and the inability to work is a true social cost (which is quite doubtful, as will be seen below), its value equals the difference between the loss of wages and the value of compulsory leisure. Since it is very hard to evaluate leisure, it is practically impossible to assess the social cost. Moreover, the shorter the disruption, the larger the ratio between the value of the unexpected leisure and the lost wages and the larger this ratio is, the smaller the ratio is between the social loss and the lost wages. Since lost wages in cases of short disruptions are relatively small, the social costs are not only very speculative but also rather trivial. It is true that as the number of employees increases the aggregate social cost rises, but at the same time it becomes more widely spread. All in all, the benefit from imposing liability seems rather low whereas the cost of evaluating the true loss of each and every employee is relatively high. Furthermore, what seems at first glance to be a true social cost may in fact be a mere transfer of wealth. If the damaged plant’s competitors raise production, their workers will probably gain higher salaries and lose leisure, and these externalities may offset the loss of income and the additional leisure of the workers of the damaged plant. Lastly, in many cases employees can channel their prospective temporary loss of income through the owner of the plant. The feasibility of this option depends on the bargaining power of the employees or their union.

275. This is so because the marginal utility in compulsory leisure decreases while the marginal loss of utility associated with lost income increases. Waiving 5% of the monthly salary for a day off is usually much easier than waiving the entire salary for a month off.
A contractual user of property (e.g., time-charterer) might lose profits when that property is damaged and becomes inoperative. However, the loss of profits should be irrecoverable for two reasons. First, the market value of the right of use usually fluctuates without a systematic bias. It would thus be unjust and inefficient to allow recovery for lost profits when the market value is higher than the contractual price and at the same time let the user keep his windfall in the opposite case. Second, lost profits do not usually correspond to a true social cost. Recall the case of the frustrated time-charterer. It is very likely that owners and charterers of idle ships can use them to transport the goods that the time-charterer of the damaged ship can no longer carry. The profit is thereby shifted and not lost.

Now suppose that the contractual user of the damaged property decides to use an alternative asset. This may result in a true social cost either because the market price of using the alternative is higher than the market price of using the damaged property or due to transaction costs linked with the new contract. Where the cost of using an alternative is relatively high, it is very likely that the additional outlay is an inefficient expenditure and should thus be irrecoverable. This is typical of cases in which there are no identical or close substitutes to the damaged property. If, on the other hand, the additional expense is quite small, the benefit of allowing recovery would probably be lower than its administrative cost. But even if there are cases in which the additional outlay is neither an inefficient expenditure nor too small to justify recovery, liability should nevertheless be denied because the relational victim could protect himself against such loss through his contract with the primary victim. Finally, if (and only if) the contractual user can obtain an identical or close substitute for a higher price, the difference between the price of the substitute and the original contractual price would usually reflect unbiased fluctuations in the market value of the right of use. This fact by itself can justify exclusion of liability.

Cases of fully transferred property damage, where the risk is separated from the ownership, are rather unique. Suppose that the buyer of certain goods transported by sea bears the risk of damage to those goods from the moment they are handed over to the carrier, and that the ownership is transferred only upon the transfer of the bill of lading to the buyer. If the goods are damaged after loading and before the transfer of ownership, the buyer suffers economic loss.

276. For an excellent example of this type of case, see Caltex, 136 C.L.R. at 529 (Austl.) (defendant's dredge fractured a pipeline, owned by a third party, that connected third party's oil refinery with plaintiff's oil terminal, compelling plaintiff to use expensive alternative means to secure its supply of refined petroleum products).
This loss undoubtedly reflects a true social loss. Exclusion of liability may thus result in under-deterrence of potential injurers. Some say that since potential injurers are unaware of the contractual risk allocation in contracts of sales, they act as if ownership and risk are unified: they assume that damaging delivered goods may result in liability towards their owner. Consequently, exclusion of liability does not in fact result in under-deterrence. I respectfully disagree. If potential injurers are aware that risk may be separated from ownership, this may affect their conduct. Assume that a potential injurer can take precautions that cost $10 and thereby reduce the expected damage to transported goods by $12. Taking these precautions is economically desirable. Now assume that in 50% of the contracts of sales, risk is separated from ownership during transportation. This datum is readily available to potential injurers although they are unaware of the exact allocation of risks in specific contracts. Exclusion of liability for relational losses of buyers will reduce the expected liability of potential injurers from $12 to $6 and induce them not to take the necessary precautions.

It is true that channeling the relational loss would be very easy in cases of this type. The parties to a contract of sales may agree that if the goods are harmed by a wrongful act (as opposed to natural causes) during transportation, the seller will reimburse the buyer for any sum paid for the goods. However, this is exactly the case where channeling makes no difference. If the loss is channeled we have one potential plaintiff (the seller), and if the loss is not channeled we also have a single potential plaintiff (the buyer). Exclusion of liability will not reduce the number of claims. It will only change the identity of the claimant. Hence, the ability to channel cannot justify denial of recovery for the relational loss.

Users of highways or navigable waterways owned by the state may suffer economic loss when such property is damaged. But these losses should not be compensable. First, the number of potential victims is very large. Moreover, economic losses that are consequent upon an obstruction or other damage to highways or waterways are very often mere transfers of wealth. If B negligently obstructs the road leading to A's restaurant, some of A's clients will dine at C's bistro, some at D's bar, and others will buy groceries at E's supermarket and eat at home. The extra profit of C, D, and E offsets A's loss. It is true that some of the private economic losses that result from obstructions are true social costs. Waste of fuel and wearing out of motor vehicles (or vessels) make good examples. But the individual loss is usually very small. The benefit of allowing recovery for a very small loss in terms of deterrence is obviously lower than its

277. Smillie, supra note 8, at 247.
administrative cost. And if there are numerous losses of this type, each relatively trivial, loss spreading considerations heavily support denial of liability.

The resources of the sea are of great value and must be protected. Potential polluters should thus be deterred from causing pollution. If the marine environment were privately owned, its owners would be able to recover for pollution damages and the polluter would thereby internalize the social cost of its conduct. However, the marine environment has no owners. This means that to guarantee efficient deterrence we should find another way to sanction the polluter for the social cost of the pollution. According to one view, the lost profits of fishermen, oystermen, crabbers and their like correspond to the social cost of the pollution.\(^{278}\) Allowing them to recover thus guarantees efficient deterrence. With respect, I disagree. First, the private loss of profits does not reflect the harm done to the fisheries. The value of lost seafood is the capitalized rent that the owner of the fishery (if one existed) would receive from renting it to fishermen; it equals neither the expected revenues of the fishermen nor their expected profits.\(^{279}\) More important, the harm caused to the fisheries includes, in addition to the value of the lost catch, the restoration costs of the marine ecosystem which is a necessary “means of production” in the “manufacturing” of more seafood. Second, the social cost of marine pollution includes not only the value of lost fisheries, but also severe damage to navigable waters, diving sites and contiguous beaches.

These facts raise two questions. First, should fishermen be allowed to recover for their private losses not as surrogates for the non-existent owners of the marine environment but as sufferers of pure economic loss? The answer must be in the negative. The fishermen’s loss of profits is not a true social cost, since it can be offset by the extra profits of other fishermen (working in other areas) or suppliers of close substitutes (such as frozen or canned fish or other types of groceries). Furthermore, fishermen can frequently find alternative uses for their means of production, and thus mitigate their loss. Lastly, no rational distinction can be made between the interests of fishermen and the interests of other victims (such as fish restaurants, bait shops, tourist guides, hotels, and other businesses in the area), thus making the number of potential plaintiffs both large and indeterminate. The second question is how can we deter potential polluters? I think that this problem can be resolved by

\(^{278}\) Landes & Posner, supra note 1, at 252; see also Posner, Cases and Economic Analysis, supra note 114, at 467-68; Richard A. Posner, Epstein’s Tort Theory: A Critique, 8 J. LEGAL STUD. 457, 468 (1979).

\(^{279}\) Bishop & Sutton, supra note 125, at 359.
allowing the adjacent state(s) to sue the polluter as surrogate(s) for the non-existent owners. But since the concept of surrogate plaintiffs is alien to the traditional law of torts, the practicability of this solution depends on parliamentary intervention.

When a key worker is injured the employer might lose profits. If the worker is absent from work only temporarily, this loss is not a true social cost, since it may be offset by the additional profit of the competitors. If the worker is killed or permanently deprived of her ability to work, the employer must find and train a substitute. The expenses incurred are usually too low and speculative to justify the imposition of liability in light of the administrative costs. Any loss of profits during the search is not a true social cost. If the new worker gets a higher salary than the primary victim, the difference should not be recoverable, since at least in the short run salaries fluctuate without a systematic bias.

When a low-rank employee is injured the employer does not normally suffer a significant loss. If the worker is only temporarily absent from work, her colleagues may share her tasks. Alternatively, she may fill in the gaps after her return. If the injury is permanent the employer will once again have to look for a substitute. The costs of replacing a low-rank employee are naturally very low, and cannot justify tort litigation. It is very unlikely that the substitute will get a higher paycheck than the disabled worker. But even if she does, the difference should be irrecoverable. The reason has already been explained above.

When a person is injured her dependants might lose both economic support and services (with a clear economic value). I think that both heads of damage should be recoverable by the primary victim, and then be distributed by her among the dependants as the normal income and services would. When a person is killed the loss of earning capacity and the loss of capacity to render services are true social costs. Efficient deterrence would be achieved only if the injurer pays for these items. It is, of course, irrelevant - from an economic point of view - if the injurer pays to the deceased's estate, to her dependants or to any other person, as long as there is no double liability. However, the statutory choice of the primary victim's dependent relatives seems to lie on legitimate distributive grounds.

280. After doing everything possible to restore the marine environment, the state would be able to distribute the remains among the various relational victims.
281. Research revealed only one case in which this concept was used to justify recovery in tort, namely Pruitt v. Allied Chemical Corp., 523 F. Supp. 975, 980-81 (E.D. Va. 1981). McThenia & Ulrich, supra note 114, at 1523-24, refer to the surrogate plaintiff theory as "imaginative".
VII. Conclusion

An application of the integrated economic framework to various categories of potential victims shows that in most cases relational economic losses should not be recoverable. However, there are three legitimate (yet well defined) exceptions to this general rule: in cases of fully transferred property damage the bearer of the loss ought to have a right of action against the injurer; in cases of water pollution the state should have a right of action against the polluter; and in cases of fatal accidents the dependants of the primary victim may have a right of action against the tortfeasor.

In conclusion, an exclusionary rule, accompanied by a few narrowly defined exceptions, is supported by economic considerations. It is true that exclusion of liability will not always have the same economic justification, but all in all it seems that subject to one or two minor modifications the traditional approach of the common law is economically justified.