

11-2011

Catastrophic Oil Spills and the Problem of Insurance

Kenneth S. Abraham

Follow this and additional works at: <https://scholarship.law.vanderbilt.edu/vlr>



Part of the [Insurance Law Commons](#)

Recommended Citation

Kenneth S. Abraham, Catastrophic Oil Spills and the Problem of Insurance, 64 *Vanderbilt Law Review* 1767 (2019)
Available at: <https://scholarship.law.vanderbilt.edu/vlr/vol64/iss6/2>

This Article is brought to you for free and open access by Scholarship@Vanderbilt Law. It has been accepted for inclusion in Vanderbilt Law Review by an authorized editor of Scholarship@Vanderbilt Law. For more information, please contact mark.j.williams@vanderbilt.edu.

Catastrophic Oil Spills and the Problem of Insurance

Kenneth S. Abraham

64 Vand. L. Rev. 1769 (2011)

The BP oil spill of 2010 focused considerable attention on the operating conduct of BP, on the potential liability of BP and other entities associated with the spill, and on the fund that BP established to provide compensation to victims of the spill. Much less attention has been paid, however, to the nature and scope of insurance covering losses caused by catastrophic environmental disasters such as oil spills. BP's establishment of the Gulf Coast Claims Facility, and the compensation that will be paid by that facility, will likely dampen awareness of the mismatches between the resulting losses and the insurance available to cover such losses. What might otherwise have been a very dramatic demonstration of the ways in which our insurance and liability systems fall short in such situations will probably be much more muted. Future spills, however, may not follow this pattern. Understanding the structure of insurance and liability that are and are not available when spills occur is therefore critical to developing satisfactory approaches to dealing with the consequences of spills. This Article identifies the matches, and mismatches, between the losses resulting from oil spills, the insurance available to the victims of spills, the liability of the parties responsible for losses caused by spills, and the insurance available to the parties who face such liability. The Article then attempts to make sense of the situation it has identified, considering three explanations for the mismatches: difficulties associated with proving the cause of pure economic loss, traditional challenges to the insurance of pollution loss and liability, and preexisting portfolio diversification by potential spill defendants that discourages the purchase of large amounts of insurance. Finally, the Article critically analyzes two proposals that have been made for remedying the insurance mismatches in this

field: the imposition of an ex ante drillers' tax on the amount of their potential liability in excess of their combined assets and liability insurance and the imposition of mandatory liability insurance requirements far in excess of the amounts of insurance that are currently available or purchased.

Catastrophic Oil Spills and the Problem of Insurance

*Kenneth S. Abraham**

INTRODUCTION.....	1770
I. THE MATCHES	1771
II. FOUR IMPORTANT MISMATCHES.....	1772
A. <i>First-Party Property Insurance</i>	1772
1. Homeowners Insurance	1773
2. Commercial Property Insurance.....	1773
B. <i>First-Party Business Interruption Insurance</i>	1774
C. <i>Insurance of Liability for Pollution-Related Damage and Loss</i>	1776
III. EXPLAINING THE MISMATCHES	1781
A. <i>Difficulties Associated with Proving the Cause of Pure Economic Loss</i>	1781
B. <i>The Pollution Insurance Predicament</i>	1784
1. Moral Hazard.....	1784
2. Juridical Risk.....	1785
3. Trigger of Coverage Uncertainties	1785
4. The High Cost of Pollution Cleanup	1786
C. <i>Liability for Catastrophic Loss and the Uses of Portfolio Diversification</i>	1787
IV. AN ANALYSIS OF TWO REFORM PROPOSALS	1788
A. <i>Prospective Excess Liability</i>	1789
B. <i>Mandatory Liability Insurance</i>	1790
CONCLUSION.....	1791

* David and Mary Harrison Distinguished Professor of Law, University of Virginia School of Law. It should be noted that I have provided legal advice to one of the entities that may face liability in connection with the BP oil spill.

INTRODUCTION

The BP oil spill of 2010 has focused considerable attention on the operating conduct of BP, on the potential liability of BP and other entities associated with the spill, and on the fund that BP established to provide compensation to victims of the spill.¹ Much less attention has been paid, however, to the nature and scope of insurance covering losses caused by catastrophic environmental disasters such as oil spills. The availability (and unavailability) of insurance covering such losses is worthy of separate consideration.

Some forms of civil liability precede the development of insurance. These forms of civil liability create a demand for insurance coverage, and a market offering this insurance arises. That was how employers' liability insurance developed before the adoption of workers' compensation, how products liability insurance came into being, and how insurance against environmental liability was first provided.² In contrast, other forms of liability are not adopted until the development of applicable insurance coverage. This happened in connection with a number of no-duty and immunity rules in negligence law. Courts did not expand liability for certain forms of injury arising from dangerous conditions on real property or from children's negligence, for example, until insurers offered coverage of such liability.³

Interestingly, catastrophic oil spills present a situation that does not comfortably fit either of these patterns. It turns out that first-party property insurance usually does not cover most forms of property damage caused by pollution. As to economic losses resulting from pollution, although one of the rationales for limiting the scope of tort liability for pure economic loss is that first-party insurance against these losses is available,⁴ first-party business interruption insurance tends not to cover many of the pure economic consequences of pollution. Similarly, the potential for the imposition of pollution liability has generated longstanding interest in insurance coverage against the losses resulting from pollution. Despite the demand for insurance coverage of pollution liability, however, such insurance is

1. Information about BP's compensation fund, the Gulf Coast Claims Facility, can be found at the facility's website, <http://www.gulfcoastclaimsfacility.com/>.

2. See generally KENNETH S. ABRAHAM, *THE LIABILITY CENTURY: INSURANCE AND TORT LAW FROM THE PROGRESSIVE ERA TO 9/11*, at 149–52 (2008).

3. *Id.* at 180–86.

4. See, e.g., Fleming James, Jr., *Limitations on Liability for Economic Loss Caused by Negligence: A Pragmatic Appraisal*, 25 VAND. L. REV. 43, 53 (1972).

not generally offered. Standard-form liability insurance policies certainly do not provide it.

In short, there is a mismatch between the losses resulting from oil spills, the insurance available to the victims of spills, the liability of the parties responsible for losses caused by spills, and the insurance available to the parties who face such liability. BP's establishment of the Gulf Coast Claims Facility and the compensation that BP will pay out through that facility are likely to dampen awareness of these mismatches. What might otherwise have been a very dramatic demonstration of the ways in which our insurance and liability systems fall short in such situations will probably be much more muted. Future spills, however, may not follow this pattern. Understanding the structure of insurance and liability that are and are not available when spills occur is therefore critical to developing satisfactory and stable approaches to dealing with the consequences of spills.

Parts I and II of this Article describe the scope of the insurance coverage matches and mismatches in question. Part III is an effort to make some sense out of the mismatches. Part IV briefly considers two suggestions that have been made for remedying the mismatches: the imposition of an *ex ante* drillers' tax on the amount of the drillers' potential liability in excess of their combined assets and liability insurance and the imposition of mandatory liability insurance requirements far in excess of the amounts of insurance that are currently available or purchased. These suggestions, however, rely on unsubstantiated assumptions, as demonstrated in Part IV.

I. THE MATCHES

I can make quick work of the losses and liabilities that are matched up with insurance. Although spills probably cause mainly minor short-term bodily injury and disease,⁵ health insurance covers the medical expenses associated with this injury and disease to the same extent as other injuries and diseases. Homeowners and commercial property insurance cover damage to property, but—as I will explain below—these forms of insurance are subject to exclusions that may limit or preclude coverage for damage caused by oil spills.

5. There also may be long-latency diseases resulting from exposure to oil or chemical dispersants that do not manifest themselves for considerable periods after exposure and are comparatively severe.

The same is true of economic loss covered by business interruption and contingent business interruption coverage.

On the liability insurance side, the typical spill defendants are likely to be insured against liability for bodily injury, property damage, and economic loss that is incurred “because of” bodily injury or property damage.⁶ The critical issue here, however, is the meaning of the basic coverage requirement that such loss be “because of” bodily injury or property damage. The application of this requirement to oil-spill liabilities renders coverage uncertain.

II. FOUR IMPORTANT MISMATCHES

I focus first on two major forms of loss that are not covered by first-party insurance: coverage of damage to residential and commercial property under property insurance policies and business interruption and contingent business interruption insurance for lost profits or revenue. Then, I discuss two important forms of liability for which coverage under liability insurance policies is uncertain: insurance of liability for “pure” economic loss and insurance of liability for damage to natural resources.

A. First-Party Property Insurance

I doubt that damage to private property, as distinguished from natural resources, comprises a significant proportion of the harm caused by the BP spill, although there undoubtedly has been some damage to land, boats, and docks. But pollution of property might be more extensive in the case of other spills, and the scope of coverage that would be available in that event is worth considering.

6. This insurance would also cover spill defendants' contribution and indemnity liabilities, respecting bodily injury and property damage, to co-venturers and other similar entities and to first-party insurers whose policyholders have causes of action against spill defendants. For example, the insurers of Transocean, the owner of the *Deepwater Horizon*, have sued the insurers of BP, the operator of the *Deepwater Horizon*, for a declaratory judgment that Transocean has no liability to BP as an additional insured under Transocean's policies. *See Ranger Ins. Ltd. v. BP PLC*, No. 10-2009 (S.D. Tex. June 8, 2010); *Certain Underwriters at Lloyd's London v. BP PLC*, No. 10-1823 (S.D. Tex. May 21, 2010).

1. Homeowners Insurance

Homeowners policies are issued to the owners of residential property to cover the “risk of direct physical loss to property.”⁷ Most pollution damage affecting homeowners, however, would not be covered by such policies. The standard-form homeowners policy, for example, excludes coverage of loss to covered property caused by “the discharge, dispersal, seepage, migration, release or escape of pollutants” unless the discharge, etc., is itself the result of one of a number of named perils or causes.⁸ The only named cause of loss that might result in pollution is “explosion.”⁹ But few spills are caused by explosions or by any of the other named “perils” that are exceptions to the exclusions in a homeowners policy, including the pollution exclusion.¹⁰

In any event, the issue is likely to be beside the point in many cases, because most residential property losses caused by oil spills probably involve more damage to land than to residences or personal property. And the standard homeowners policy expressly states that the property insured does not include “land.”¹¹ Thus, the policy covers neither the diminution in value of land damaged by pollution nor the cost of remedying that damage.

2. Commercial Property Insurance

Businesses typically purchase commercial property insurance policies that, like homeowners policies, cover the risk of direct physical loss to property. Like homeowners policies, many such policies exclude coverage of loss caused by pollution and do not include “land” within the category of covered property. Some policies provide add-on

7. KENNETH S. ABRAHAM, *INSURANCE LAW & REGULATION* 202 (5th ed. 2010) (setting out the standard-form homeowners policy, including the provision quoted in the text of the “Perils Insured Against” section of a sample homeowners policy, § I(A)(1)).

8. *Id.* at 203 (quoting § I (A)(2)(c)(6)(e)).

9. *Id.* at 204 (quoting § I(A)(3)). I think that the events that caused the BP spill might well be characterized as an “explosion,” although there may be room for disagreement. *See, e.g.,* *Graham v. Pub. Emps. Mut. Ins. Co.*, 656 P.2d 1077, 1081 (Wash. 1983) (holding that it was a question of fact under a first-party property insurance policy whether damage to property from mudflows resulting from the eruption of Mt. St. Helens was caused by “explosion”).

10. These named perils are: fire or lightning; windstorm or hail; riot or civil commotion; aircraft; vehicles; smoke; vandalism or malicious mischief; theft; falling objects; weight of ice; snow or sleet; accidental discharge or overflow of water or steam; sudden and accidental tearing apart, cracking, burning or bulging; freezing; sudden and accidental damage from artificially generated electric current; and volcanic eruption. ABRAHAM, *supra* note 7, at 204–05 (§§ I(A)(3)(1),(2),(4)–(16) of the Perils Insured Against).

11. *Id.* at 197 (quoting § I(B)(2)).

coverage of the cost of remedying pollution damage to covered property, but a comparatively low dollar sublimit often applies to such coverage, providing much less insurance than is provided for other forms of loss. For example, I have seen commercial property insurance policies that provide hundreds of millions of dollars of property insurance but only \$500,000 for pollution cleanup. The standard-form commercial property insurance policy promulgated by the Insurance Services Office ("ISO") provides a suggested typical sublimit of \$10,000 for coverage of the cost of pollution cleanup.¹² For businesses that suffer comparatively small amounts of pollution, this may be an adequate amount of insurance, but where there is any substantial amount of pollution, the cost of cleanup will likely far exceed this sum.¹³

B. First-Party Business Interruption Insurance

Along with or as a component of their commercial property insurance, it is typical for businesses to purchase business interruption ("BI"), or "time element," insurance. Although BI insurance is not thoroughly standardized, the terms of coverage of different policies are fairly similar. BI insurance covers lost profits resulting from damage to covered property caused by an insured peril.¹⁴ Thus, BI insurance does not cover pure economic loss but only economic loss that results from property damage to the insured's property when that damage is covered. If there has been no covered physical damage to the insured's property, then there is no covered property damage, and therefore there is no BI coverage. Further, like homeowners policies, most commercial property insurance policies specify that land is not insured property. When that is the case, profits that are lost because of damage to land are not insured because the profits are not lost as a result of covered damage to property.

12. See AM. INST. FOR CHARTERED PROP. CAS. UNDERWRITERS, THE CPCU HANDBOOK OF INSURANCE POLICIES 101 (8th ed. 2008) [hereinafter THE CPCU HANDBOOK OF INSURANCE POLICIES] (setting out § (A)(4)(d) containing this coverage limit).

13. Commercial property insurance policies also usually contain "sue and labor" clauses, subject to a separate, lower sublimit, that cover the insured's cost of preventing imminent loss that would be covered if it occurred. See ABRAHAM, *supra* note 7, at 240–41 (describing sue and labor coverage). If pollution was not an excluded cause of loss, these clauses might well cover the cost of removing boats from waters in danger of pollution, or even the costs of placing booms and other devices to prevent pollution from spreading. But because pollution is an excluded cause of loss, sue and labor clauses probably would not apply to the prevention of imminent damage from pollution.

14. See generally *id.* at 231 (describing business interruption insurance).

A second form of coverage, contingent business interruption ("CBI") insurance, does not require damage to the insured's property.¹⁵ Typically, however, CBI insurance requires that there be damage to the property of a third party such as a customer or supplier of the insured, that the insured's economic losses result from that third-party property damage, and that the third-party property damage be caused by a peril that is not excluded by the insured's policy.¹⁶ For this reason, if pollution is an excluded peril under the insured's commercial property insurance policy, then CBI insurance does not cover economic losses resulting from the pollution of the property of a customer or supplier. Thus, like BI insurance, CBI insurance does not provide coverage of totally pure economic losses.¹⁷ Obviously, this limitation will preclude coverage of many of the economic losses that businesses suffer as a result of oil spills.

Finally, BI and CBI policies sometimes cover loss resulting from loss of ingress to or egress from covered property because of order of civil authority.¹⁸ Some spills result in civil orders barring access to certain areas or waters. The extent to which these orders would trigger coverage, however, is uncertain. For example, fishermen might be understood to be prohibited from accessing their boats if a civil order closes access to the waters on which the boats are docked. Fishermen might also argue that the closing of fishing grounds (for example, in the Gulf of Mexico) constitutes denial of access to property of a supplier, but the success of this argument would depend on

15. *Id.* at 232. Sometimes business interruption and contingent business interruption insurance are provided simultaneously or in the same policy, by means of a coverage provision requiring damage to property of the insured or to other specified property.

16. *See, e.g., Duane Reade, Inc. v. St. Paul Fire & Marine Ins. Co.*, 279 F. Supp. 2d 235, 237 (S.D.N.Y. 2003) (quoting a policy provision requiring damage to property including but not limited to property of customers and property of customers of customers), *aff'd as modified*, 411 F.3d 384 (2d Cir. 2005); *Archer-Daniels-Midland Co. v. Phoenix Assurance Co. of N.Y.*, 936 F. Supp. 534, 540 (S.D. Ill. 1996) (quoting a policy provision requiring damage to property of a supplier).

17. It covers only economic loss resulting from damage to third-party property on which the insured's income is dependent. ABRAHAM, *supra* note 7, at 232.

18. *See, e.g., THE CPCU HANDBOOK OF INSURANCE POLICIES*, *supra* note 12, at 165, § 5(a) (setting out coverage for denial of access by civil authority). A limited form of CBI insurance is also available for event cancellation, usually on terms similar to more general CBI coverage. I have also seen a single reference to "loss of turnover" insurance from remote and short-term events, supposedly available under certain CBI coverage to such policyholders as hotels and resorts. *See Am. Bar Ass'n Teleconference: The Deepwater Oil Catastrophe – Where Are We Now: An Update on Litigation, Economics and Significant Insurance Issues* (Oct. 27, 2010). However, in more than thirty years of experience, I have never seen another reference to such coverage, and targeted research has been unable to identify anything further about whether, and if so to what extent, this form of coverage is available.

whether fish or the bodies of water in which they live constitute "property" under a CBI insurance policy.

Even under CBI insurance policies that do not automatically preclude coverage of loss resulting from pollution, marine life is not literally the property of commercial fishermen, and it is not the property of their suppliers. Policies requiring damage to property of the insured, a customer, or a supplier might therefore be interpreted to be inapplicable to the economic losses of commercial fishermen that result from denial of access to their fishing grounds. Businesses whose losses result, directly or indirectly, from the inability of commercial fishermen to fish would face the same obstacle.

To sum up, there is a minefield of both fairly firm and other possibly applicable limitations on BI and CBI coverage. The extent to which BI and CBI policies would cover businesses that suffer pure economic losses as a result of oil spills is therefore uncertain at best.

C. Insurance of Liability for Pollution-Related Damage and Loss

Standard-form business liability insurance policies exclude coverage of liability caused by pollution with exceptions not relevant here, but they virtually always also contain a blanket exclusion of liability for the cost of cleanup and the removal of pollutants.¹⁹ It seems likely, however, that the most probable spill defendants purchase customized insurance policies covering liability for pollution, including liability for cleanup costs.²⁰ Some such potential defendants, for example, are required by statute to show evidence of financial responsibility, and the principal means of doing so is through the purchase of liability insurance.²¹

The typical liability insurance policy insures against liability incurred "because of" bodily injury or property damage,²² and it is highly likely that potential spill defendants purchase customized pollution liability insurance containing a similar provision. Under such a provision, it is well settled that a policyholder who is held liable for causing damage to a plaintiff's property is covered not only for that

19. ABRAHAM, *supra* note 7, at 468 (setting out the terms of the pollution exclusion in § (2)(f)).

20. I use the phrase "cleanup costs" to refer both to costs that are literally for cleanup as well as "remediation" costs that involve mitigation of harm or removal of the cause of harm.

21. See, e.g., Oil Pollution Act of 1990, 33 U.S.C. § 2716 (a), (e) (2006) (requiring responsible parties to show evidence of financial responsibility sufficient to meet the maximum amount of liability to which a party could be subjected under the statute and providing that showing evidence of insurance is one method of satisfying this requirement).

22. See ABRAHAM, *supra* note 7, at 466, 482.

liability, but also for any liability that is imposed on the policyholder for the plaintiff's resulting economic losses.²³ Liability for the cost of cleaning up private property or government-owned property would therefore fall within the terms of such coverage.²⁴

On the other hand, most parties who are not likely to be, but nonetheless become, spill defendants do not and cannot be expected to have insurance against liability for pollution-related damage. Consider, for example, a plumbing contractor who negligently performs work at a tank farm that discharges pollutants which migrate into a nearby river or ocean. The plumbing contractor's general liability insurance policy is unlikely to cover its liability for property damage or cleanup, because (as noted above) standard-form policies exclude coverage of liability for pollution, including liability for cleanup costs.

In addition to liability for tangible property damage and cleanup costs, spill defendants whose policies do cover liability for pollution-related damage may face liability for "pure" economic loss and damage to natural resources. The scope of admiralty and common law liability for pure economic loss—that is, loss that does not result from bodily injury or property damage suffered by the plaintiff—is not entirely clear. The general rule is that there is no liability in negligence for pure economic loss, and that rule should carry over at least as strongly to the strict liability context.²⁵

But several landmark cases involving economic losses resulting from pollution have articulated exceptions to this rule and permitted

23. See, e.g., *Aetna Cas. & Sur. Co. v. Gen. Time Corp.*, 704 F.2d 80, 83–84 (2d Cir. 1983) (lost profits were covered consequential damages where the insured's defective electric motors damaged valves into which they were incorporated); *Dreis & Krump Mfg. Co. v. Phoenix Ins. Co.*, 548 F.2d 681, 687 (7th Cir. 1977) ("Both the Illinois courts and this circuit have adopted the view that, at least where property damage is defined as 'tangible' property damage, some actual injury to 'tangible' property must be alleged before consequential damages such as loss of use may be recovered."); *Liberty Mut. Ins. Co. v. Wheelwright Trucking Co.*, 851 So. 2d 466, 491 (Ala. 2002) (Alabama courts "have found coverage for financial losses stemming from the loss of use of tangible property that is related to an insured's product or work"); *Fitness Equip. v. Pa. Gen. Ins. Co.*, 493 So. 2d 1337, 1343 (Ala. 1986) (holding that an insurer must cover consequential damages, including loss of profits from a canceled contract, resulting from incorporation of insured's defective motors); *Thomas J. Lipton, Inc. v. Liberty Mut. Ins. Co.*, 314 N.E.2d 37, 37–39 (N.Y. 1974) (explaining that covered damages include each of the categories of consequential damages claimed against the insured, including "the value of [the claimant's] time in withdrawal, recall and destruction of contaminated products; costs incurred in notification of the trade and general public; loss of good will; and loss of profits").

24. See, e.g., *A.Y. McDonald Indus. v. Ins. Co. of N. Am.*, 475 N.W.2d 607, 624 (Iowa 1991) (holding that CERCLA cleanup costs are "damages because of . . . property damage" under CGL insurance policies).

25. DAN B. DOBBS, *THE LAW OF TORTS* § 452, at 1282 (2000).

recovery under limited circumstances.²⁶ The lesson of these cases is that commercial fishermen may have a cause of action for the economic losses they suffer as a result of ocean or river pollution. Businesses that are directly on shore such as marinas and bait shops may or may not have a cause of action. Commercial sellers of seafood who are dependent on fishermen probably do not have a cause of action. And other businesses that are indirectly affected certainly do not have a cause of action.

In addition to common law liability, the principal statutory source of liability for spills is the U.S. Oil Pollution Act of 1990 ("OPA").²⁷ The OPA imposes liability for damages resulting from the discharge of oil into or upon navigable waters or adjoining shorelines,²⁸ for (among other things) natural resource damages, and, if the following are "due to" injury to property or natural resources, for loss of profits or impairment of earning capacity, the cost of increased public services, and lost taxes and other fees suffered by the U.S., state, and local governments.²⁹

Notice that, with the exception of natural resource damages, all these are liabilities that tort law refers to as "pure" economic loss. But both the common law and admiralty rules impliedly, and the OPA

26. See, e.g., *Union Oil Co. v. Oppen*, 501 F.2d 558, 570 (9th Cir. 1974) (holding a driller liable for economic damage suffered by commercial fishermen as a result of an oil spill); *Pruitt v. Allied Chem. Corp.*, 523 F. Supp. 975, 980 (E.D. Va. 1981) (denying a defendant chemical corporation's motion to dismiss against plaintiffs who bought from and sold to direct users of the polluted Chesapeake Bay).

27. Oil Pollution Act of 1990, 33 U.S.C. § 2701 (2006).

28. 33 U.S.C. § 2702(a).

29. 33 U.S.C. § 2702(b). The OPA designates as a "responsible party" the lessee or permittee of an area where an offshore facility is located. Responsible parties are strictly liable under the OPA for "removal costs" and "damages." Removal costs consist of the cost of containing or removing oil or other hazardous substances from water and shorelines, and other costs of mitigating damage to wildlife and both public and private property. Damages include damages for injury to natural resources, loss of subsistence use of natural resources, injury to property and resulting economic loss suffered by the owner or lessee of the property, loss of profits or impairment of earning capacity due to injury to property or natural resources (apparently without regard to whether the claimant is the owner or lessee of the property whose injury results in the loss), the cost of increased public services, and lost taxes and other fees suffered by the U.S., state, and local governments resulting from injury to property. The limit of monetary liability under the OPA for offshore facilities other than deepwater ports is the total of all removal costs plus \$75 million, unless the "incident" giving rise to the discharge was proximately caused by gross negligence or willful misconduct or by the violation of applicable federal safety law. 33 U.S.C. § 2704 (c)(1). Thus, in the absence of gross negligence or willful misconduct, the responsible party is liable for a maximum of \$75 million in damages for injury to natural resources, property damage and associated economic loss, governmental loss of revenue, lost profits and earning capacity, the cost of increased public services, and loss of subsistence use. But even if the statutory ceiling applies, there is no limit on a responsible party's liability for removal costs.

expressly, require not only that the losses result from a spill, but also that they be “due to” injury to property or natural resources. The requirement demands that there be a nexus between injury to property or natural resources and “pure” economic losses. There is thus what John Goldberg has called a “second-layer” causation requirement for recovery, and the requirement exists under all three sources of liability.³⁰ In Goldberg’s view, there is no recovery for economic losses under the OPA unless there is a direct connection between injury to property or natural resources and such economic losses. His interpretation is that businesses which lose money merely because of a general economic downturn resulting from a spill or because parties with whom they do business have suffered economic loss resulting from property damage caused by a spill have no right to recover under the OPA. This is a plausible interpretation of the OPA, at the least.

It is not entirely certain whether satisfying the nexus requirement—that there be a connection between the injury to property or natural resources and the economic losses specified by the OPA—will be sufficient to satisfy the terms of liability insurance policies that cover liability imposed “because of . . . property damage.” Arguably, an economic loss that is “due to” injury to property resulting from a spill is a loss that occurs “because of” property damage, as required by liability insurance policies.³¹ I have been unable to discover any directly applicable case law on the issue. The reason, of course, is that liability for such loss has been so rarely imposed that there apparently have been no cases addressing whether insurance policies cover this form of liability. But, in analogous contexts, there is undoubtedly coverage, even if the party suffering physical damage is not the party who recovers from the policyholder for economic losses. For example, I have no doubt that monetary losses awarded to the survivors of a decedent pursuant to a wrongful death statute would qualify as damages “because of bodily injury” under a commercial general liability (“CGL”) insurance policy. Consequently, I am

30. JOHN C.P. GOLDBERG, LIABILITY FOR ECONOMIC LOSS IN CONNECTION WITH THE DEEPWATER HORIZON SPILL 17 (2010), *available at* <http://lawprofessors.typepad.com/files/goldberg-report-on-economic-loss-liability-11-22-10.pdf>.

31. Liability insurance policies typically define “property damage” to mean not only physical damage to tangible property, but also loss of use of tangible property that is not physically injured. However, few if any of the common law, admiralty, and OPA liabilities would seem to be imposed for loss of use of tangible property. Consequently, whether insurance claims for coverage of liability for pure economic loss would be “because of” loss of use of tangible property that is not physically injured does not seem relevant here.

reasonably confident that there would be coverage of OPA liability for lost profits "due to" damage to property.

Similarly, the OPA imposes liability for damages suffered by the United States, a state, or a political subdivision thereof for loss of taxes, royalties, rents, fees, or net profit shares "due to the injury, destruction, or loss of real property, personal property, or natural resources."³² With the exception of losses due to damage to natural resources, presumably this provision would be interpreted *in pari materia* with the provision governing private parties' pure economic losses, since the two provisions are worded nearly identically. The result would be that liability insurance policies would cover, or fail to cover, each of these items of damages to the same extent.

It is not entirely clear, however, whether damages awarded under the OPA for injury to natural resources or for economic loss "due to" injury or damage to natural resources would be considered damages "because of . . . property damage." That depends on whether natural resources are "property." For example, plants growing on public land such as seashores or wetlands are property because a governmental unit owns them. Rivers and oceans within at least the twelve-nautical-mile territorial limit probably are "property" because the government owns them as *parens patriae* or trustee for the public. Damages imposed for injury or damage to these resources would probably be considered damages "because of . . . property damage" under liability insurance policies. On the other hand, it is less clear whether birds, animals that inhabit public land, and marine life—especially outside the twelve-mile territorial limit—are "property" if no one owns them. If they are not property, then damages imposed for injury or damage to these natural resources are not "because of" property damage, and damages for economic loss "due to" injury or damage to these natural resources are not "because of" property damage.

Analogous issues might arise in connection with any liability that might be imposed for the cost of medical monitoring of those who are exposed to pollutants but have not yet suffered injury. As I noted, virtually all general liability insurance policies cover liability imposed "because of" bodily injury and property damage. Bodily injury tends to be defined as "bodily injury, sickness or disease . . . including death."³³ Further, the insurance applies only to bodily injury that occurs

32. 33 U.S.C. § 2702(b)(2)(D).

33. See ABRAHAM, *supra* note 7, at 466–67 (setting out this language in the Insuring Agreement, § 1(a)).

“during the policy period.” Consequently, there is a question of whether liability for medical monitoring costs is imposed “because of . . . bodily injury” when there has been no evidence that the parties seeking such costs have already suffered cellular or subcellular injury.

III. EXPLAINING THE MISMATCHES

One would think that, at least *prima facie*, there would be demand for the various forms of insurance that I noted in Part II are not available. It is therefore natural to look for explanations for the absence of such insurance. In this Part, I discuss three explanations: difficulties associated with proving the cause of pure economic losses; the traditional problems associated with insuring against pollution-related losses and liability; and the absence of a need for insurance of highly capitalized potential defendants.³⁴

A. Difficulties Associated with Proving the Cause of Pure Economic Loss

I showed in Part II that BI and CBI insurance policies limit coverage to losses resulting from damage to property of the insured or of a customer or a supplier, respectively. The reason, I think, is that insurers do not wish to and could not insure against losses resulting from general economic decline. Consequently, BI and CBI policies must find a way to insure some economic losses, but not all. The method they have arrived at only covers those economic losses that result from property damage to property owned by the insured (BI) or by a third party (CBI).

Proving the amount of economic losses that result from property damage is itself sometimes a considerable challenge. The very term that the insurance world applies to the valuation of such losses—“adjustment”—suggests that the process is not and cannot be entirely objective or mechanistic. One reason proof of causation in this context is sometimes difficult is because all proof of causation is counterfactual; it entails showing what would have happened if the putative cause had not materialized. In the case of economic losses, lost profits equal expected profits minus actual profits. Proving this requires proving what the insured’s profits would have been but for the cause of loss. Some businesses are new and have no profit history

34. A possible additional explanation that I have considered and largely rejected is that pollution produces correlated losses. Although this is true for oil spills, it is not true for most other pollution events, which tend to be sporadic and isolated even if of significant magnitude.

on which to base proof. Others have a history but kept inadequate records. And even for firms with a history and good records, estimating what future profits would have been is sometimes speculative, especially if there have been intervening factors (e.g., bad weather) that would have affected profits even if there had not been property damage.

A second reason why proving causation for purposes of BI and CBI coverage is sometimes difficult is because an insured event may cause both direct economic losses and general economic decline. For example, large-scale oil spills not only cause damage to the property of the insured and the property of customers and suppliers. They may also cause general economic downturns in the regions where they occur, as the BP spill did. Disaggregating (a) the profits or revenues lost because of property damage to the insured, a customer, or a supplier from (b) the losses resulting from the accompanying general economic downturn may be a significant challenge. BI and CBI policyholders in lower Manhattan encountered similar problems of proof after the events of September 11, 2001.³⁵ All these problems of proof are significant in themselves.

Nonetheless, the limitation of coverage to losses caused by property damage is in theory unduly narrow. However, in order to expand coverage but still avoid insuring against losses resulting from general economic decline, another approach would be required. If BI and CBI policies did not require a causal connection between property damage and economic losses, then the policies would have to identify and define an alternative set of natural and man-made events that would constitute covered causes of loss. Conceivably, a limited set of natural catastrophes that would trigger coverage, even apart from any connection between property damage and a particular policyholder's losses, could be identified; for example, the list could include hurricanes, floods, tornadoes, and snowstorms. The list would be underinclusive, but even this abbreviated list might press the limits of the insurability of economic losses. Hurricanes and floods, for example, sometimes cause very significant economic decline, and insurers' ability to insure against the losses resulting generally from such events—at least for premiums that policyholders would be willing to pay—is questionable.

35. See, e.g., *Duane Reade, Inc. v. St. Paul Fire & Marine Ins. Co.*, 279 F. Supp. 2d 235, 238-40 (S.D.N.Y. 2003) (noting that the insurance policy in question required due consideration both to the experience of a drug store that had been destroyed by the 9/11 attack on the World Trade Center and to the probable experience thereafter had no loss occurred), *aff'd as modified*, 411 F.3d 384 (2d Cir. 2005).

Even if this were feasible, however, it is difficult to imagine identifying and defining a suitably inclusive, corresponding set of man-made events whose occurrence would trigger coverage when those events caused economic losses. One hardly knows where to begin: oil spills, plane crashes, building collapses, and explosions? What else? This list does not even begin to exhaust the possible causes of general economic loss resulting from a single event. Moreover, the connection between the occurrence of one of the specified natural or man-made events that would trigger coverage and the loss of profits or revenues these events would cause would have to be susceptible to practical proof. But the problems associated with proving a causal connection between these events and the loss of profits or revenue suffered by policyholders would be exponentially greater than the problems involved in proving a causal connection between property damage and economic losses. Some sort of "proximate" cause test would be required, or businesses throughout the country would potentially be covered when a decline in economic conditions resulting from an event in one part of the country had an impact in another part of the country. The prospect of such coverage claims would pose a fact-finding nightmare. Instead, the requirement that loss be caused by damage to the property of the insured, a customer, or a supplier in effect adopts a bright-line proxy for proximate cause.

All this pertains to first-party insurance. On the liability insurance side, there is also a required connection between property damage and coverage. As I noted earlier, under virtually all relevant liability insurance policies, there is insurance of liability for damages imposed "because of" property damage. One explanation for this liability insurance requirement is partly analogous to the explanation for the corresponding first-party insurance requirement: in the absence of the requirement, the policy would have to identify another basis for triggering coverage, or the policy would insure all monetary liability that the policyholder ever incurred. Obviously, insurers do not wish to, nor could they, insure against all of an insured's monetary liabilities. Like first-party insurers, liability insurers therefore need a basis for limiting the scope of coverage of liability for economic loss, and requiring that such loss be the consequence of property damage provides that basis.

In addition, I think that the requirement that liability be incurred for damages "because of" property damage is keyed as nearly as possible to the scope of liability for pure economic loss that exists in modern tort law. As long as the liability for economic loss remains very limited, there is no need to relax the "because of" requirement in liability insurance. And as I have shown elsewhere, if liability

insurance policies did relax the "because of" requirement, it might well be that tort liability for pure economic loss would expand to take advantage of this newly available insurance.³⁶ Neither insurers nor policyholders who are potential defendants have any incentive to encourage that kind of development.

B. The Pollution Insurance Predicament

For several decades, insurers have been especially reluctant to insure against loss or liability resulting from pollution. As a consequence, all sorts of insurance policies contain exclusions from or limitations on coverage for pollution-related loss and liability.³⁷ We saw this in connection with all three forms of coverage discussed in Part II: first-party property insurance, BI and CBI coverage, and standard-form liability insurance. There are several reasons for insurers' concern about insuring against pollution and for the consequent limitations on coverage in both first-party and third-party insurance.

1. Moral Hazard

There may well be an excessive amount of moral hazard associated with insuring against gradually occurring pollution. While abrupt events that result in pollution are as likely to be accidental as other injury-causing occurrences, gradually occurring pollution may be different. Companies are more likely to detect and therefore control gradually occurring pollution while it takes place. Insuring against pollution, however, may diminish the insured's incentive to detect pollution while it is occurring or to take steps to mitigate damage once pollution is detected.

The solution to this problem would be to cover loss or liability resulting from abrupt but not gradual pollution. But, as I explain next, the insurance industry tried that solution several decades ago and (from its standpoint) failed.

36. See ABRAHAM, *supra* note 2, at 171-97 (noting that courts did not impose certain liabilities until homeowners policies contained insurance that would cover them).

37. For an account of the developments that led to the exclusion of pollution coverage from standard-form liability insurance policies, see *Am. States Ins. Co. v. Kolums*, 687 N.E.2d 72, 78-82 (Ill. 1997).

2. Juridical Risk

Forty years ago, insurers introduced a “qualified” pollution exclusion into general liability insurance policies. The exclusion precluded coverage unless the discharge of pollutants was “sudden and accidental.” Over the ensuing two decades, about half of the courts interpreting this exclusion ruled that the term “sudden” was ambiguous and could mean “unexpected.” Under the doctrine *contra proferentem*, which directs that ambiguous contract language be interpreted against its drafter,³⁸ these courts held that the exclusion did not preclude coverage of liability for gradual, unexpected pollution.³⁹ In effect, “sudden” could mean “gradual.”

The insurance industry regarded this interpretation as result-oriented and wholly inconsistent with the intended meaning of the exclusion. As a consequence, insurers inserted an “absolute” pollution exclusion in the standard-form CGL insurance policy. The memory of their experience with what insurers considered judicial misinterpretation of the “sudden and accidental” exception to the pollution exclusion has persisted. Insurers are wary of insuring against pollution-related loss or liability without placing very determinate limits on what they cover. And they are fearful that, if they did provide even limited pollution coverage, their experience with the qualified pollution exclusion would be repeated, and courts would misinterpret the limitations the insurers attempted to include in their coverage.⁴⁰

3. Trigger of Coverage Uncertainties

Because so much pollution is gradual, the time when it causes injury or damage is sometimes uncertain. Yet, all first-party insurance policies and occurrence-based liability insurance policies are “triggered,” or activated, by the occurrence of injury or damage during

38. See ABRAHAM, *supra* note 2, at 160–61 (noting that *contra proferentem* was a “major policyholder weapon” in pollution liability insurance litigation).

39. See ABRAHAM, *supra* note 7, at 574–75 (demonstrating that roughly half of the courts that have considered the issue have ruled that “‘sudden’ does not necessarily have a temporal component and . . . the exclusion . . . does not preclude coverage of liability for unintentional, gradual pollution”).

40. See Kenneth S. Abraham, *The Rise and Fall of Commercial Liability Insurance*, 87 VA. L. REV. 85, 97–98 (2001) (explaining insurance industry’s decision to absolutely bar coverage of pollution-related harm after some courts interpreted qualified protection expansively).

the policy period.⁴¹ Insuring against pollution-related loss or liability therefore risks generating factual and legal disputes about the policy year or years that are responsible for coverage. Excluding coverage of pollution-related loss or liability avoids this problem.

4. The High Cost of Pollution Cleanup

Even if pollution only contaminates soil, a small amount of pollution can cost a considerable sum to clean up. Moreover, once pollutants contact groundwater lying underground, the cost of cleanup can be a vast multiple of the value of the property where the pollution occurred. The cost of cleaning up pollution of surface waters such as rivers and oceans is also extraordinarily high.⁴² As a result, there is likely to be a much higher proportion of complete losses in first-party insurance, and of liability equal to the policy limits in liability insurance, if pollution is covered. Therefore, even when the risk of pollution is small, the insurers' exposure when covered pollution occurs will likely often equal the amount of coverage it has provided.

This helps explain the exclusion of coverage for damage to land in homeowners and commercial property insurance policies, as well as the presence in some commercial property insurance policies of low sublimits of insurance for the cost of pollution cleanup. It probably would make sense for homeowners insurance to provide a low sublimit of coverage for damage to land and for pollution cleanup. But doing so would complicate what is otherwise a simple statement of the amount of coverage and would face regulatory obstacles as well.

In a sense, the high cost of cleanup also helps to explain how potential spill defendants are able to obtain insurance against liability for cleanup costs. In contrast to ordinary policyholders, whose operations pose a series of different risks, the principal risk that potential spill defendants face is liability for cleanup costs. When this is the principal risk being underwritten, rather than a low-probability, high-magnitude risk that is just one risk in a large portfolio of risks that the policy covers, it is more feasible for an insurer to set a premium that accurately reflects the insurer's exposure.

41. For discussion of the difference between occurrence-based and claims-made liability insurance policies, see ABRAHAM, *supra* note 7, at 588.

42. See ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE AND POLICY 438 (6th ed. 2009) (noting that per-site cleanup costs average \$15 to \$30 million).

*C. Liability for Catastrophic Loss and the Uses of Portfolio
Diversification*

The risk of pollution-related harm is a prime example of a low-probability risk with catastrophic potential magnitude if it materializes. This is precisely the kind of risk that potential defendants should wish to insure. The absence of such insurance for small enterprises can be explained by the factors I have just discussed. But the largest enterprises are likely to cause the largest losses and incur the largest liabilities and therefore are likely to be most in need of insurance. Why don't very large enterprises, who have considerable assets at stake and the apparent buying power necessary to elicit a supply of coverage, have pollution insurance?

I earlier noted that some potential spill defendants probably do have insurance that covers them against some pollution liability. Interestingly, however, very large enterprises often do not need full insurance against their potential pollution liability. The very fact that BP was able to set up and self-fund a \$20 billion compensation fund to pay for the losses caused by the BP spill is some confirmation of this supposition.

In fact, it is not clear that enterprises of BP's size need to buy liability insurance at all in order to protect themselves against potential civil liability. The shareholders of such enterprises already are, or are capable of being, sufficiently diversified in their investments, so that the purchase of liability insurance by the enterprises in which shareholders have invested—another form of risk diversification—is not necessary for this purpose. In fact, my experience confirms this insight. Even the largest business enterprises are covered by less than a billion dollars worth of liability insurance, and sometimes considerably less, for their civil liabilities. They are in effect self-insured for the vast majority of their potential catastrophic liability.

The puzzle, therefore, is not so much why there are gaps in the comparatively small liability insurance programs covering these companies—for which I have just provided explanations—but rather, why they have liability insurance at all. Why do companies with \$50 billion or more in annual revenues routinely bother to make an annual purchase of roughly \$500 million of liability insurance, equal to no more than one percent of their annual revenues? The answer obviously is not that they need the insurance to protect themselves against liability. Rather, there are a number of other answers. First,

statutory or regulatory mandates sometimes require the purchase of liability insurance.⁴³ Second, having liability insurance smoothes out a company's balance sheet by moderating quarter-to-quarter variations in profitability as a result of variation in the company's civil liabilities.⁴⁴ Third, the failure to purchase liability insurance might become the subject of a shareholder derivative suit in the event that the company incurs significant liability, and it is easier to purchase the insurance than to explain to a lay jury why insurance was not, and need not have been, purchased.⁴⁵ Finally, a company's managers, who play an important role in deciding whether to purchase liability insurance and how much to purchase, often have a significant proportion of their assets invested in the company's stock or options and are not as diversified in their investments as shareholders. Managers therefore may have a greater interest in protecting their company-specific investments through the purchase of liability insurance.⁴⁶ In short, it turns out that liability insurance gaps and mismatches are probably beside the point with respect to many of the largest and most devastating oil spills.

IV. AN ANALYSIS OF TWO REFORM PROPOSALS

Two contributions to this Issue make proposals for reform that may have insurance implications. In this Part, I will briefly analyze these implications. The first proposal, by Viscusi and Zeckhauser, recommends creating a prospective liability scheme under which drillers should be taxed for uncapped, expected liabilities beyond the amount that they will be able to pay.⁴⁷ The second proposal, by Cohen and coauthors, recommends mandating the purchase of liability

43. See Oil Pollution Act of 1990, 33 U.S.C. § 2716 (2006) (requiring vessels using waters under U.S. jurisdiction to maintain evidence of financial responsibility to meet maximum amount of possible liability under the OPA).

44. See ABRAHAM, *supra* note 2, at 233–34 (noting that doing so could prevent the securities market from overreacting to a sudden liability charge).

45. *Id.* at 234 (citing Tom Baker & Sean Griffith, *The Missing Monitor in Corporate Governance: The Directors' and Officers' Liability Insurer*, 95 GEO. L.J. 1795, 1834 (2007)).

46. See TOM BAKER & SEAN GRIFFITH, ENSURING CORPORATE MISCONDUCT CONDUCT 73–74 (2011) (noting also that D&O insurance's ability to protect a company's financial statements from “shocks” of shareholder litigation, and a manager's reliance on strong financial statements for job security and compensation packages, provide incentives for abnormally high purchases of D&O insurance by managers).

47. W. Kip Viscusi & Richard J. Zeckhauser, *Deterring and Compensating Oil-Spill Catastrophes: The Need for Strict and Two-Tier Liability*, 64 VAND. L. REV. 1717, 1721–22 (2011).

insurance, apparently in amounts in excess of \$10 billion, as a condition of involvement in drilling activities.⁴⁸

A. Prospective Excess Liability

Prospective liability would be imposed by taxing drillers based on the amount of liability they might incur, apparently in excess of their assets plus their liability insurance. The proceeds of the tax would be placed in a compensation fund, which could then be used to pay liabilities that a driller itself could not pay.⁴⁹ Because Viscusi and Zeckhauser would limit liability to the single enterprise engaged in drilling, this proposal is unlikely to have any direct insurance implications. As I noted earlier, the very largest enterprises currently buy liability insurance that covers only a small percentage of their potential liability for catastrophic oil spills, but standard-form liability excludes coverage of liability for damage caused by pollution. Prospective liability would not directly affect this state of affairs.

In fact, the underlying purpose of the prospective liability proposal is not entirely clear. The tax the proposal contemplates would force the large enterprises who engage in drilling (the only enterprises who would face liability under the proposal) to internalize that additional increment of the potential costs their activities could cause that exceeds their liability insurance plus their net worth. Because the probability that this increment of losses would occur would be very low, however, if the tax were actuarially accurate, it probably would be comparatively small. It therefore seems unlikely that the threat of tax liability would have much impact on the decision to drill. For example, consider the impact on BP of a tax based on the probability that it would be responsible for damages caused by a spill in excess of its net worth of roughly \$100 billion. Since the probability that such losses would occur would be tiny, an actuarially accurate tax would be correspondingly small. Moreover, unless the tax were calibrated to each individual enterprise's past loss experience or based on a current assessment of the quality of each driller's equipment and conduct—an approach that would be extremely difficult for the government to undertake and that might in any event render it something other than a tax—the prospect of paying the tax would affect only the decision of

48. Mark A. Cohen et al., *Deepwater Drilling: Law, Policy, and Economics of Firm Organization and Safety*, 64 VAND. L. REV. 1853, 1898–900 (2011).

49. See Viscusi & Zeckhauser, *supra* note 47, at 1723 (arguing that such a taxation plan will decrease the chances of uncompensated loss, prevent drillers from taking excessive risks, and shift oversight responsibility away from government regulators and to drillers themselves).

whether to drill, not the degree of care with which drilling actually occurs.

Similarly, if prospective liability taxes were actuarially accurate, then for many years the assets of the compensation fund comprised of these taxes might well be grossly insufficient to provide compensation for losses caused by any spill that exceeded a driller's net worth plus insurance. If a catastrophically large spill occurred during the early years of the prospective liability system, then the ostensible guarantee of full compensation that the existence of the fund would offer to potential victims might therefore be redeemable only out of general revenue—a possibility that would be controversial in the current political and economic climate.

B. Mandatory Liability Insurance

A second proposal, by Cohen and his coauthors, would require that enterprises involved in drilling purchase liability insurance in amounts in excess of \$10 to \$20 billion.⁵⁰ The authors of this proposal are admirably candid in acknowledging that the insurance industry may not be able to supply this much coverage and that the intensified monitoring by the industry that the proposal contemplates may not occur.⁵¹

These are indeed the two problems with the proposal. First, as I noted earlier, even the largest enterprises involved in offshore drilling currently purchase only a small percentage of the amount of liability insurance that the proposal would require. It is by no means clear that such a vast increase in the amount of insurance demanded would be met by a corresponding supply. While it is true that the global capital markets are in the abstract amply supplied to provide this coverage, an increase of some two-thousand percent or more in the amount of liability insurance that insured enterprises must purchase would be unprecedented. The authors cite the insurance industry's warnings before the enactment and reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") that the industry could not supply pollution insurance as evidence that the industry sometimes raises "unfounded

50. Cohen et al., *supra* note 48, at 1901 (citing Press Release, Munich Re, Munich Re Develops New Insurance Solution for Oil Catastrophes (Sept. 12, 2010), *available at* http://www.munichre.com/en/media_relations/press_releases/2010/2010_09_12_press_release.aspx).

51. *Id.*

concerns.”⁵² This argument, however, actually seems to me to cut the other way. The insurance industry actually eliminated pollution insurance from its standard-form liability insurance policies after the enactment of CERCLA, and that coverage has never been restored.

Second, insurers have never been as rigorous in monitoring the conduct of their policyholders as many observers have supposed. Insurers selling liability insurance to corporate directors and officers, for example, do almost nothing to monitor the behavior of the corporations that they insure,⁵³ despite the apparent advantage that they could seemingly gain by doing so. Legally requiring a vast increase in the amount of insurance purchased by enterprises associated with offshore drilling, at least partially in order to enlist the risk management services of insurers, would place confidence in an insurance industry reaction that its past conduct does not warrant. The whole idea that there could be effective surrogate regulation through insurance to offset the deficiencies of direct, governmental regulation depends on assumptions about the future capacities and incentives of insurers that are as yet undemonstrated.

CONCLUSION

Catastrophic oil spills threaten to cause widespread loss. Yet neither first-party nor third-party insurance provides sufficient coverage of the losses or liabilities that result from such spills. While there are explanations for the gaps between these losses and liabilities and the insurance available to cover them, these explanations are likely to provide little consolation to those who find themselves uninsured. Prominent proposals responding in part to these gaps may have some advantages, but they rely on questionable assumptions about their impact on the behavior of drillers and insurers.

52. *Id.* at 1901 n.200.

53. See, e.g., BAKER & GRIFFITH, *supra* note 46, at 109 (discussing lack of conditioning sale of insurance on compliance with loss-prevention requirements in a systemic way, limited value placed by public corporations on nonbinding loss-prevention advice given by insurers, and absence of active management of defense costs by insurers).
