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CRISES AND TAX

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ABSTRACT

How can law best mitigate harm from crises like storms, epidemics, and financial meltdowns? This Article uses the law and economics framework of property rules and liability rules to analyze crisis responses across multiple areas of law, focusing particularly on the ways the Internal Revenue Service (IRS) battled the 2008–09 financial crisis.

Remarkably, the IRS's responses to that crisis cost more than Congress's higher-profile bank bailouts. Despite their costs, many of the IRS's responses were underinclusive, causing preventable layoffs and foreclosures. This Article explains these failures and demonstrates that the optimal response to crises is to shift from harsh property rules to compensatory liability rules, temporarily. Arranging such a shift in advance further mitigates harm when crises arrive.

This analysis also provides new insights for the broader literature on property rules and liability rules. For example, arranging in advance for temporary moves to liability rules during crises can avoid windfalls, allow speedier relief, and encourage flexible private contracts. These lessons have practical applications in areas as far afield as how constitutional law and patent law respond to epidemics.

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INTRODUCTION

In the famous 1908 torts case *Ploof v. Putnam*,¹ a “violent tempest” arose, causing Sylvester Ploof to moor his boat at a dock owned by Henry Putnam,² who expelled the boat, causing Ploof to shipwreck.³ Ploof successfully sued Putnam, and the case established that property owners cannot exclude trespassers seeking refuge during times of necessity.⁴ The similarly famous 1910 torts case *Vincent v. Lake Erie Transportation Co.*⁵ refined *Ploof*. In that case, a storm caused a boater to remain moored to a dock, seriously damaging it.⁶ The court required the boater to compensate the dock owner for this damage.⁷ These two cases are the foundation for tort law’s doctrine of necessity.⁸

Tax law should adopt the insights of *Ploof* and *Vincent* to minimize the damage to taxpayers, to tax revenues, and to the broader economy during financial crises. Both tort law and tax law have property rules and liability rules, which are “workhorse concepts that permeate every corner of the economic analysis of law.”⁹ Property rules give entitlement holders protection through coercive measures, while liability rules give entitlement holders only the right to compensation. For example, in normal times, dock owners are protected by property rules and are free to decide who may moor at their docks. But *Ploof* established that emergencies like storms turn off this property-rule protection, and *Vincent* held that liability-rule protection temporarily

1. *Ploof v. Putnam*, 71 A. 188 (Vt. 1908).

2. *Id.* at 188.

3. *Id.* at 188–89.

4. *Id.* at 189; see RESTATEMENT (SECOND) OF TORTS §§ 197(1), 263(1) (AM. LAW INST. 1965).

5. *Vincent v. Lake Erie Transp. Co.*, 124 N.W. 221 (Minn. 1910).

6. *Id.* at 221.

7. *Id.* at 222.

8. See RESTATEMENT (SECOND) OF TORTS § 197 cmt. g, cmt. j (AM. LAW INST. 1965) (citing *Ploof* and *Vincent*).

9. Lee Anne Fennell, *Adjusting Alienability*, 122 HARV. L. REV. 1403, 1405 (2009); see also Andrew Blair-Stanek, *Tax in the Cathedral: Property Rules, Liability Rules, and Tax*, 99 VA. L. REV. 1169, 1187–95 (2013) (demonstrating that tax law has both property and liability rules); cf. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972) (introducing the distinction between property rules and liability rules).

applies instead.¹⁰

Many tax requirements have property-rule protection; that is, the taxpayer must comply on pain of draconian tax increases regardless of the size of the violation.¹¹ Other requirements are protected by liability rules, where a taxpayer that fails the requirement owes the IRS compensatory taxes proportional to the violation.¹² Under either rule, the IRS holds the entitlement, like the dock owners in *Ploof* and *Vincent*.

Property rules in tax often make sense during times of financial calm, for a number of reasons, such as property rules' ability to deter taxpayers from violating tax law requirements and the potential mathematical complexity of implementing liability rules.¹³ But during financial crises, taxpayers may be unable to comply with some requirements due to cash shortages or other effects of the crisis. Draconian property rules can have disastrous consequences for taxpayers already in distress, leading to bankruptcies, layoffs, foreclosures, and financial contagion.¹⁴

During the 2008–09 financial crisis, public attention focused on Congress's and the Federal Reserve's nontax bailouts, like the Troubled Asset Relief Program (TARP).¹⁵ Meanwhile, the IRS fought a parallel, but less publicized, battle to ensure that tax property rules did not deepen the crisis.¹⁶ Astonishingly, the IRS's responses cost more than the much-reviled TARP.¹⁷

10. See Abraham Bell & Gideon Parchomovsky, *Pliability Rules*, 101 MICH. L. REV. 1, 5, 67 (2002) (introducing the concept of “pliability rules”).

11. Blair-Stanek, *supra* note 9, at 1187–92; cf. Henry E. Smith, *Ambiguous Quality Changes from Taxes and Legal Rules*, 67 U. CHI. L. REV. 647, 661 (2000) (noting that tax laws “can often have the effect of mandating features of a transaction or activity”).

12. Blair-Stanek, *supra* note 9, at 1192–95.

13. See *infra* Part III.C.2.

14. Cf. ROGER LOWENSTEIN, WHEN GENIUS FAILED 143–44 (2011) (discussing how unpredictable human-driven events like Russia's 1998 default on its debt can precipitate financial disasters); Kenneth Ayotte & David A. Skeel, Jr., *Bankruptcy or Bailouts?*, 35 J. CORP. L. 469, 490 (2010) (noting that “[e]conomic theories can explain the consequences of panic runs when they occur . . . [but] do not explain what triggers them in the first place”).

15. Troubled Asset Relief Program (TARP), Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, tit. I., 122 Stat. 3765, 3767.

16. For further discussion of the IRS's responses to the 2008–09 crisis, see *infra* Part II.

17. In fact, TARP has turned a profit for the government. See Paul Kiel & Dan Nguyen, *Bailout Tracker*, PROPUBLICA (Jan. 30, 2017), <https://web.archive.org/web/20170202174559/http://projects.propublica.org/bailout> [<https://perma.cc/T874-7JB9>] (showing profit of \$75.8 billion). Although it is impossible to determine the exact cost of the IRS responses to the financial crisis—because tax returns are confidential, see I.R.C. § 6103 (2012)—IRS' responses were enormously expensive. One of the IRS's bad responses cost the government approximately \$22

The IRS implicitly recognized the lesson from *Ploof* that property rules should not apply during emergencies because property rules can result in the financial equivalent of shipwrecks for taxpayers unable to comply. The IRS moved with admirable speed in 2008–09 to waive the property rules in tax law that risked worsening the crisis. Examples include requirements about mutual fund distributions,¹⁸ modifying mortgages in mortgage-backed bonds,¹⁹ and cash borrowed from foreign subsidiaries.²⁰

But *Ploof* is only half of the doctrine of necessity. *Vincent* is the other half, replacing the property rules with compensatory liability rules during the emergency. In tort law, having *Ploof* but not *Vincent* would create two fundamental problems. First, boaters would get unjust windfalls at dock owners' expense, and, second, boaters would have inefficient incentives to moor at docks even when not necessary.²¹

The IRS's best responses to the 2008–09 crisis incorporated both *Ploof*'s and *Vincent*'s principles, temporarily replacing property rules with liability rules.²² But some of the IRS's other responses adopted *Ploof* but not *Vincent*, meaning the IRS did not enforce property rules, and yet did not replace them with liability rules.²³ These badly crafted responses created predictable problems, specifically unjust windfalls for some taxpayers, and inefficient incentives for taxpayers to violate tax law requirements when it was not truly necessary. After the crisis passed and the IRS's actions finally received scrutiny, these badly crafted responses drew vehement criticism from the popular media, tax commentators, and Congress.²⁴

billion in lost taxes from Wells Fargo alone. See, e.g., *infra* Part II.B.3; *infra* note 237. The IRS's handout to General Motors cost approximately \$12 billion, which is more than the \$10 billion final cost of the company's TARP bailout. See, e.g., BILL CANIS & BAIRD WEBEL, CONG. RESEARCH SERV., THE ROLE OF TARP ASSISTANCE IN THE RESTRUCTURING OF GENERAL MOTORS 13 (2014); *infra* Part II.B.4.

18. See *infra* Part II.A.1. The IRS also waived a similar requirement applying to real estate investments trusts. *Infra* Part II.A.2.

19. See *infra* Part II.B.5.

20. See *infra* Part II.B.1–2.

21. See *infra* notes 98–102 and accompanying text.

22. See *infra* Part II.A.

23. See *infra* Part II.B. IRS nonenforcement is technically giving the taxpayer the entitlement, protected by a property rule. The literature calls this result "Rule 3." See Calabresi & Melamed, *supra* note 9, at 1116 (introducing "rule three" in tort context).

24. See, e.g., American Recovery & Reinvestment Act of 2009, Pub. L. No. 111-5, § 1261, 123 Stat. 115, 342–43 (criticizing and expressly repealing I.R.S. Notice 2008-83); Martin A. Sullivan & Lee A. Sheppard, *News Analysis: Repatriation Aid for the Financial Crisis?*, 122 TAX NOTES 7 (2009); Shamik Trivedi, *Media Renews Criticism of Treasury NOL Guidance*, 134 TAX NOTES 121

Future financial crises are inevitable.²⁵ The history of the U.S. economy is replete with financial crises, starting with the crash of 1792, which Secretary of the Treasury Alexander Hamilton quelled.²⁶ As two economists recently observed, “[c]rises cannot be abolished; like hurricanes, they can only be managed and mitigated.”²⁷

This Article details how the IRS can mitigate future financial crises by drawing on the rich history of the 2008–09 financial crisis and the property-rule and liability-rule frameworks. These lessons are timely given the many factors that currently threaten financial crises,²⁸ such as the eurozone’s possible breakup,²⁹ increasing capital flight from

(2012); Lawrence Zelenak, *Can Obama’s IRS Retroactively Revoke Massive Bank Giveaway?*, 122 TAX NOTES 889 (2009); Stephen J. Lubben, *For Treasury, a Hidden Cost for Helping G.M.*, N.Y. TIMES DEALBOOK (Nov. 16, 2010, 11:22 AM), http://dealbook.nytimes.com/2010/11/16/for-treasury-a-hidden-cost-for-helping-g-m/?_r=0 [<https://perma.cc/XVT6-6VU5>]; Randall Smith & Sharon Terlep, *GM Could Be Free of Taxes for Years*, WALL STREET J. (Nov. 3, 2010, 12:01 AM), <https://www.wsj.com/articles/SB10001424052748704462704575590642149103202> [<https://perma.cc/8GE3-LHS8>]; *GM’s Tax Shelter: Another \$16 Billion Not Available to Other Car Makers*, WALL STREET J. (July 31, 2009, 4:59 PM), <https://www.wsj.com/articles/SB10001424052970203609204574314180298525294> [<https://perma.cc/W9NY-P495>]; *Tax Gain Lifts A.I.G. Profit to \$19.8 Billion*, N.Y. TIMES (Feb. 23, 2012), <http://www.nytimes.com/2012/02/24/business/tax-gain-lifts-aig-profit-to-19-8-billion.html> [<https://perma.cc/36BR-G8XL>].

25. See, e.g., NOURIEL ROUBINI & STEPHEN MIHM, *CRISIS ECONOMICS* 4 (2011) (“[C]rises are the norm, not only in emerging but in advanced industrial economies. Crises . . . have always been with us, and with us they will always remain. . . . Crises will figure in our future.”). See generally Hyman P. Minsky, *The Financial Instability Hypothesis* (Levy Econ. Inst. of Bard Coll., Working Paper No. 74, 1992), <http://ssrn.com/abstract=161024> [<https://perma.cc/QRN9-F9JV>] (proposing hypothesis as to why crises are a recurring feature of capitalism).

26. See *Financial Crises: The Slumps That Shaped Modern Finance*, *ECONOMIST*, <http://www.economist.com/news/essays/21600451-finance-not-merely-prone-crises-it-shaped-them-five-historical-crises-show-how-aspects-today-s-fina> [<https://perma.cc/D7ED-898P>]; see also CHARLES W. CALOMIRIS & STEPHEN H. HABER, *FRAGILE BY DESIGN: THE POLITICAL ORIGINS OF BANKING CRISES AND SCARCE CREDIT* 5 (2014) (noting that the United States has had fourteen banking crises over the past 180 years); *id.* at 153–282 (detailing the United States’ history of crises).

27. ROUBINI & MIHM, *supra* note 25, at 275.

28. HENRY M. PAULSON, JR., *ON THE BRINK: INSIDE THE RACE TO STOP THE COLLAPSE OF THE GLOBAL FINANCIAL SYSTEM* 44–45 (2010) (noting that financial crises come regularly); *Collateral Damage: How Bank Funding May Be Squeezed in the Next Crisis*, *ECONOMIST* (Oct. 17, 2015), <https://www.economist.com/news/finance-and-economics/21674776-how-bank-funding-may-be-squeezed-next-crisis-collateral-damage> [<https://perma.cc/RO9W-FMN5>]; *We All Hang Together: The Crisis of 2023*, *ECONOMIST* (Oct. 3, 2015), <https://www.economist.com/news/special-report/21668720-crisis-2023-we-all-hang-together> [<https://perma.cc/S82B-7RT5>] (setting out a scenario for a serious financial crisis in 2023).

29. See, e.g., *The Euro Zone’s Boom Masks Problems That Will Return To Haunt It*, *ECONOMIST* (Dec. 2, 2017), <https://www.economist.com/news/finance-and-economics/21731822-mismatch-between-its-economic-and-political-institutions-persists-euro> [<https://perma.cc/A8M2-Y8Q8>]; *France’s Next Revolution: The Vote That Could Wreck the European Union*, *ECONOMIST* (Mar. 4, 2017), <https://www.economist.com/news/leaders/21717814-why-french-presidential>

China,³⁰ various asset bubbles,³¹ and populist politicians' threats of trade wars.³²

This Article contributes to the broader property-rule and liability-rule literature by identifying new ways to most effectively use liability rules to respond to crises. Because property rules and liability rules appear across all areas of law,³³ these insights inform fields as diverse as constitutional law, patent law, and bankruptcy law. For example, bankruptcy law can better prevent types of “bank runs” during financial crises by shifting temporarily to liability rules. In the same way, constitutional law can better handle quarantines of individuals potentially infected with quick-spreading epidemics like Ebola, severe acute respiratory syndrome (SARS),³⁴ and biological weapons. Likewise, patent law can better provide access to drugs that might fight such epidemics. Globalization increasingly lets epidemics travel widely and quickly, making good legal responses essential.³⁵

Part I discusses the distinction between property rules and liability rules, which Professors Guido Calabresi and Douglas Melamed introduced in a pioneering 1972 article.³⁶ This distinction has been

election-will-have-consequences-far-beyond-its-borders-vote [https://perma.cc/M9SE-RPCW] (“If [presidential candidate Marine Le Pen] pulls France out of the euro, it would trigger a financial crisis . . .”).

30. See, e.g., Carolyn Cui & Juliet Chung, *Kyle Bass Steps Up Attack on China's Currency*, WALL STREET J. (Feb. 11, 2016, 7:10 PM), <https://www.wsj.com/articles/kyle-bass-hedge-fund-estimates-chinas-foreign-reserves-below-critical-level-1455128104> [https://perma.cc/34MX-ZZGM] (recounting a prominent fund manager's prediction that China will have difficulty weathering a recent “torrent of capital outflows”).

31. See, e.g., MARTIN WOLF, *THE SHIFTS AND THE SHOCKS: WHAT WE'VE LEARNED AND HAVE STILL TO LEARN FROM THE FINANCIAL CRISIS* 113–90 (2014); Ryan Tracy, *Fed Eyes Margin Rules To Bolster Oversight*, WALL STREET J. (Jan. 10, 2016, 7:12 PM), <https://www.wsj.com/articles/fed-eyes-margin-rules-to-bolster-oversight-1452471174> [https://perma.cc/2YGY-P32E] (“[O]fficials fret about whether they have adequate tools to suppress dangerous asset bubbles that could lead to another financial crisis.”).

32. See, e.g., *America, China and the Risk of a Trade War*, ECONOMIST (Jan. 28, 2017), <https://www.economist.com/news/finance-and-economics/21715656-trade-tensions-will-mount-destructive-trade-war-can-still-be> [https://perma.cc/PBJ2-N9HH].

33. See Fennell, *supra* note 9, at 1404 (noting that law and economics scholars frequently address property rules and liability rules).

34. SARS caused 8096 cases and 774 deaths in thirty-seven countries over 2002 and 2003. See *Summary of Probable SARS Cases with Onset of Illness From 1 November 2002 to 31 July 2003*, WORLD HEALTH ORG., http://www.who.int/csr/sars/country/table2004_04_21/en/ [https://perma.cc/99E3-DR4Z].

35. See *Let Us Spray*, ECONOMIST (Jan. 28, 2016), <https://www.economist.com/news/leaders/21689542-dont-panic-kill-mosquitoes-let-us-spray> [https://perma.cc/TH82-3GVG] (“[G]lobalisation means that plagues can travel far, wide and terrifyingly fast.”).

36. See generally Calabresi & Melamed, *supra* note 9 (introducing the distinction between

applied to virtually every area of law, ranging from contracts and torts to constitutional law and intellectual property.³⁷ Tax law similarly features both property rules and liability rules.³⁸ Part I also discusses “pliability rules,” where a triggering event—such as a storm, epidemic, or financial crisis—causes a property rule to move, temporarily, to a liability rule.³⁹ Part I concludes by demonstrating how pliability rules are excellent responses to crises in multiple areas of law.⁴⁰

Part II surveys the IRS’s major responses to the 2008–09 financial crisis, which all embodied *Ploof’s* insight that crisis-worsening property rules should be waived during crises. Some of the IRS’s responses, which this article will refer to as the “good responses,” followed *Vincent* as well, and shifted temporarily to liability rules.⁴¹ Like tort law’s doctrine of necessity, these good responses were economically efficient and prevented inequitable enrichment of the affected taxpayers. Indeed, this approach worked even better in tax law than in tort law, since in tax law it minimized harm to third parties and to the overall economy.⁴² Meanwhile the IRS’s other responses, which this article will refer to as the “bad responses,” ignored *Vincent* and simply stopped enforcing property rules in many instances, creating windfalls and inefficient incentives for taxpayers.⁴³ The IRS knew that it was creating windfalls, and accordingly kept its relief so narrowly tailored that many taxpayers got no relief at all, resulting in avoidable foreclosures and layoffs.

property rules and liability rules). Calabresi became a U.S. circuit judge in 1994, but remains the Sterling Professor Emeritus and Professorial Lecturer in Law at Yale Law School. Melamed became a Professor of the Practice of Law at Stanford Law School in 2015, capping an illustrious career practicing law.

37. E.g., Richard Craswell, *Property Rules and Liability Rules in Unconscionability and Related Doctrines*, 60 U. CHI. L. REV. 1 (1993) (applying the property–liability rules distinction from Calabresi and Melamed to contract law); Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996) (applying the distinction to various areas); Eugene Kontorovich, *Liability Rules for Constitutional Rights: The Case of Mass Detentions*, 56 STAN. L. REV. 755 (2004) (applying the distinction to constitutional law); Anthony T. Kronman, *Specific Performance*, 45 U. CHI. L. REV. 351, 352 (1978) (applying the distinction to contract law); Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?*, 85 TEX. L. REV. 783 (2007) (applying the distinction to information ownership); Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655 (1994) (applying the distinction to intellectual property).

38. See *infra* Part I.B.

39. See Bell & Parchomovsky, *supra* note 10, at 5.

40. See *infra* Part I.C–D.

41. See *infra* Part II.A.

42. See *infra* Parts II.A.1.b, III.A.3.

43. See *infra* Part II.B.

Part III draws conclusions, relevant across many areas of law, about the best legal responses to crises. Most obviously, moving from crisis-worsening property rules to liability rules temporarily during crises minimizes harm. Some benefits, like preventing windfalls, stopping contagion, and enabling broader-based relief, apply even if policymakers craft the temporary liability rule on the fly in response to crises. But arranging the temporary liability rules in advance, before crises start, can bring even greater benefits, including speedier reaction,⁴⁴ prevention of moral hazard,⁴⁵ greater transparency,⁴⁶ more flexible private contracts,⁴⁷ better-designed triggers,⁴⁸ and proper legal authority.⁴⁹ Part III discusses how these benefits and insights can help to address crises across multiple areas of law, including bankruptcy law, patent law, and constitutional law.

I. PROPERTY RULES, LIABILITY RULES, AND PLIABILITY RULES

This Part begins with an overview of property rules and liability rules, those “workhorse concepts that permeate every corner of the economic analysis of law.”⁵⁰ The Part then discusses property rules and liability rules in tax law.⁵¹ It also considers pliability rules, a powerful extension of the property and liability rule concepts.⁵²

A. *Property Rules and Liability Rules*

Calabresi and Melamed’s seminal 1972 article, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*,⁵³ introduced the distinction between property rules and liability rules. Scholars have used these concepts to draw insights into areas as diverse as torts,⁵⁴ property,⁵⁵ contracts,⁵⁶ intellectual property,⁵⁷ constitutional

44. See *infra* Part III.B.1.

45. See *infra* Part III.B.2.

46. See *infra* Part III.B.3.

47. See *infra* Part III.B.4.

48. See *infra* Part III.B.5.

49. See *infra* Part III.B.6.

50. Fennell, *supra* note 9, at 1404–05.

51. See *infra* Part I.B.

52. See *infra* Parts I.C–I.D.

53. Calabresi & Melamed, *supra* note 9.

54. See, e.g., *id.* at 1089.

55. See, e.g., *id.*; Kaplow & Shavell, *supra* note 37, at 715.

56. See, e.g., Craswell, *supra* note 37, at 1.

57. See, e.g., Lemley & Weiser, *supra* note 37, at 783; Merges, *supra* note 37, at 2655.

law,⁵⁸ and tax law.⁵⁹

Property rules protect legal entitlements through deterrence.⁶⁰ Examples include injunctions, jail time, forcible expulsion, and disgorgement of profits.⁶¹ By contrast, liability rules protect legal entitlements by requiring monetary compensation for violating the entitlement.⁶²

For example, suppose that a factory's pollution harms neighboring residents. A property rule would impose a draconian penalty on the factory, such as enjoining further pollution, imprisoning the factory's managers, or ordering disgorgement of all the factory's profits.⁶³ By contrast, a liability rule protecting the residents' entitlement to clean air would require the factory to pay compensatory damages to the residents but would let the pollution continue.⁶⁴ Liability rules set a price that compensates residents such that the factory will pollute only when it is economically efficient; property rules, in contrast, set a penalty so high that the factory should never rationally incur it.

The term "property rule" is a misnomer. Property rules protect many entitlements that are not "property" at all. For example, property rules often protect individual liberties under the Constitution⁶⁵ and consumers' rights to rescind unconscionable contracts.⁶⁶ Individuals often have a property-rule right to force a factory to stop polluting, so as to protect their lungs.⁶⁷ For better or worse, Calabresi's and Melamed's seminal article coined the term "property rule," and it stuck. A name like "draconian rule" or "deterrence rule" would likely be more accurate than "property rule,"

58. See, e.g., Kontorovich, *supra* note 37, at 755.

59. See Blair-Stanek, *supra* note 9, at 1169.

60. Ian Ayres & Paul M. Goldbart, *Optimal Delegation and Decoupling in the Design of Liability Rules*, 100 MICH. L. REV. 1, 2 (2001) ("Property rules protect entitlements by trying to deter others from taking. Liability rules, on the other hand, protect entitlements not by deterring but by trying to compensate the victim of nonconsensual takings.").

61. See IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* 13 (2005).

62. *Id.*

63. See *id.* at 13.

64. See Calabresi & Melamed, *supra* note 9, at 1092, 1121; see, e.g., *Boomer v. Atl. Cement Co.*, 257 N.E.2d 870, 875 (N.Y. 1970) (awarding permanent damages to residents against a nearby cement factory).

65. Kontorovich, *supra* note 37, at 758, 771.

66. Craswell, *supra* note 37, at 18.

67. See, e.g., *Coal. for Clean Air v. VWR Int'l, LLC*, 922 F. Supp. 2d 1089, 1100 (E.D. Cal. 2013) (allowing plaintiffs alleging injury from breathing "less pure" air, but no property-related injury, to pursue an injunction against polluters).

but this Article will use the term “property rule” for consistency with the extensive literature.

Scholars have long debated the relative merits of property and liability rules.⁶⁸ Professors Louis Kaplow and Steven Shavell made the important observation that property rule and liability rule remedies are not two distinct categories, but rather lie along one continuum from zero damages to infinitely high damages.⁶⁹ Liability rules set the remedy to compensatory damages, while property-rule remedies set the remedy much higher up the continuum, at a level so high as to be draconian.⁷⁰ In other words, property rules and liability rules differ in the degree of severity, not in kind.

B. Tax Law’s Property and Liability Rules

Tax law uses both property rules and liability rules to protect the government’s entitlement to taxpayer compliance with numerous requirements.⁷¹ In other words, when a taxpayer violates a requirement set out in tax law, property rules and liability rules represent the two basic approaches for protecting the government’s entitlement to compliance with any given requirement.

For example, the taxpayer’s taxes can increase by an amount that compensates the government for the harm that violating the requirement caused, such as lost tax revenues.⁷² This is a liability-rule approach.⁷³ Second, the taxpayer can suffer a punitive, disproportionate increase in taxes, which is a property-rule approach.⁷⁴

Tax requirements for mutual funds illustrate this distinction. Mutual funds enable average investors to buy a diversified portfolio of

68. See, e.g., Ian Ayres & J.M. Balkin, *Legal Entitlements as Auctions: Property Rules, Liability Rules, and Beyond*, 106 YALE L.J. 703, 705–06 & n.9 (1996); James E. Krier & Stewart J. Schwab, *Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440, 450–51 (1995) (deeming it a “virtual doctrine” that “[w]hen transaction costs are low, use property rules; when transaction costs are high, use liability rules”); Stewart E. Sterk, *Property Rules, Liability Rules, and Uncertainty About Property Rights*, 106 MICH. L. REV. 1285, 1296–97 (2008) (building on the work of Thomas W. Merrill, *Trespass, Nuisance, and the Costs of Determining Property Rights*, 14 J. LEGAL STUD. 13 (1985)).

69. Kaplow & Shavell, *supra* note 37, at 756–57.

70. See *id.* at 756. Of course, property rules in favor of defendants are the same as zero damages; that is, the bottom of the continuum.

71. See Blair-Stanek, *supra* note 9, at 1187–95.

72. See *id.* at 1192–95.

73. See *id.*

74. See *id.* at 1187–92.

investments.⁷⁵ If a mutual fund meets certain requirements, it qualifies for incredibly favorable tax status that allows it to avoid paying corporate taxes.⁷⁶ Some mutual fund requirements are protected by property rules and others by liability rules.

One requirement protected by a property-rule remedy is that a mutual fund must distribute at least 90 percent of its income to its investors.⁷⁷ This 90 percent distribution requirement ensures that mutual funds are serving their designed purpose of investing on behalf of average investors, rather than hoarding cash. If a mutual fund distributes only 89 percent of its income, then suddenly all its income is subject to the full corporate tax.⁷⁸ This massive increase in taxes is totally out of proportion to the amount by which that fund has failed the 90 percent distribution requirement, yet it forces the mutual fund to disgorge all the benefits of its previously held favorable tax status.

As a practical matter, a mutual fund that lost its favorable tax status would collapse, and investors would rush to withdraw their funds.⁷⁹ It continues to be true that, as Chief Justice John Marshall observed two centuries ago in *McCulloch v. Maryland*,⁸⁰ “the power to tax involves the power to destroy.”⁸¹

Mutual funds also have requirements protected by liability-rule remedies. For example, a mutual fund must earn at least 90 percent of its income from interest, dividends, and gains from selling securities.⁸² This 90 percent income requirement ensures that mutual funds serve

75. See I.R.C. § 851(a)(1) (2012); Richard M. Hervey, *Taxation of Regulated Investment Companies and Their Shareholders*, U.S. Income Portfolios (BNA) No. 740-3d, VI.B.

76. Specifically, qualifying mutual funds can deduct all dividends paid out to shareholders, which entirely, or nearly entirely, relieves the mutual fund of paying corporate taxes. I.R.C. §§ 852(b)(1) & (b)(2)(D); Hervey, *supra* note 75, § VIII.A. The technical term for a mutual fund qualifying for the favorable tax status is “regulated investment company” (RIC).

77. I.R.C. § 852(a)(1). The specific requirement is paying out 90 percent of its ordinary income and 90 percent of its tax-exempt interest. *Id.* There is no distribution threshold with respect to net capital gain. *Id.*

78. See Treas. Reg. § 1.852-1(b) (1962).

79. LOIS YUROW, TIMOTHY W. LEVIN, W. JOHN MCGUIRE & JAMES M. STOREY, *MUTUAL FUND REGULATION AND COMPLIANCE HANDBOOK* ch. 30 intro., Westlaw (database updated Aug. 2017) (“It would create an insurmountable competitive disadvantage to the mutual fund vehicle if its investment income were taxed to the fund . . .”).

80. *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

81. *Id.* at 431.

82. I.R.C. § 851(b)(2). There are also several closely related types of acceptable income, including payments with respect to securities loans, foreign currency gains, and income from certain publicly traded partnerships. *Id.*

primarily as investment vehicles.⁸³ Suppose that a mutual fund has an unexpectedly stellar return from a nontraditional investment, so that only 89 percent of its income qualifies.⁸⁴ The mutual fund has clearly failed the 90 percent income requirement, yet it does not lose its favorable tax status. Instead, it must pay the government an excise tax of the 1 percent of its income by which it failed the 90 percent income requirement.⁸⁵ This remedy is proportional to the scope of the violation and fully compensates the government by turning over all income earned in violation of the requirement. The mutual fund retains its favorable tax status and does not face collapse on those grounds.⁸⁶

In sum, every requirement imposed by tax law is enforced either by a draconian property rule or by a compensatory liability rule. Property rules do have potential benefits in tax law, including deterring taxpayers from hard-to-detect violations and avoiding taxpayer gamesmanship.⁸⁷ But, as we shall see, property rules can bring ruin on taxpayers unable to comply due to financial crises swirling around them.⁸⁸

C. Pliability Rules

Pliability rules are a straightforward yet powerful extension of the property and liability rule concepts, introduced by Professors Abraham Bell and Gideon Parchomovsky.⁸⁹ A classic pliability rule begins as a property rule and toggles to a liability rule when a triggering event occurs.⁹⁰

Pliability rules appear across many areas of law; for example, in property law, the Takings Clause of the Fifth Amendment creates a pliability rule.⁹¹ Landowners generally have a property-rule right to exclude others. But if the land is needed for “public use,” which is the

83. H.R. REP. NO. 94-1192, at 10–11 (1976).

84. For example, the mutual fund might own substantial debt secured by real estate. If the debt defaulted, foreclosure might result in the mutual fund owning real estate. Neither rental income nor gains from selling property qualify towards the 90 percent requirement. *See* Hervey, *supra* note 75, § V.J.

85. *See* I.R.C. § 851(i)(2). To be precise, the additional tax is $((100\% - 89\%) - (1/9 \times 89\%))$. *Id.*

86. *See* YUROW ET AL., *supra* note 79, at ch. 30 introd.

87. *See, e.g.,* Blair-Stanek, *supra* note 9, at 1213–17.

88. *See infra* Part II.A.1.

89. *See generally* Bell & Parchomovsky, *supra* note 10 (introducing pliability rules).

90. *Id.* at 5, 65. The term “pliability” comes from adding the “p” from property to “liability.” *See id.* at 5.

91. U.S. CONST. amend. V.

triggering event, then the government can take the land in exchange for “just compensation,” a liability rule.⁹²

In corporate law, a shareholder’s entitlement to shares is protected by a liability rule.⁹³ Normally shareholders have a property-rule right in their shares and cannot be forced to sell their shares. But during mergers, an acquiring corporation can force some shareholders of the acquired corporation to sell their shares for a court-appraised price,⁹⁴ which is a liability rule.⁹⁵

The doctrine of necessity discussed earlier is a liability rule. In normal times, dock owners have property-rule protection for their docks.⁹⁶ A boater that moors without the dock owner’s permission faces severe remedies such as jail time, punitive damages, or forcible expulsion.⁹⁷ But necessity, such as a dangerous storm, triggers a shift to a liability rule. A boater seeking shelter is entitled to temporarily use the dock, per *Ploof*, but must compensate the dock owner for any resulting damages, per *Vincent*. This liability rule promotes both efficiency and equity.

Efficiency is served because the liability rule minimizes total damage from the storm.⁹⁸ Two types of damage are possible—harm to the dock and harm to the boat, which includes harm to individuals onboard. If the expected harm to the boat from not docking exceeds the expected harm to the dock, the boater will rationally dock. But if the expected harm to the dock from docking exceeds the expected harm from *not* docking, the boater will, rationally, not dock.

Equity is also well served, as neither boaters nor dock owners receive windfalls. The boater gets docking rights, but must pay compensation to make the dock owner whole. This compensation means that the doctrine of necessity is in no way a bailout for boaters.

Even if a policy serves both efficiency and equity, one must also

92. *Id.*; Bell & Parchomovsky, *supra* note 10, at 59–60.

93. Bell & Parchomovsky, *supra* note 10, at 32–34.

94. *See, e.g.*, DEL. CODE ANN. tit. 8, § 262 (2016) (describing appraisal rights).

95. Bell & Parchomovsky, *supra* note 10, at 32–34.

96. *Id.* at 51 n.180.

97. *See, e.g.*, CAL. PENAL CODE § 602(m), (o) (2016); *Hillhouse v. Creedon*, 169 S.W.3d 599, 602 (Mo. Ct. App. 2005) (providing for an injunction against a boat owner); RESTATEMENT (SECOND) OF TORTS § 77 (AM. LAW INST. 1965) (providing the general rule that “[a]n actor is privileged to use reasonable force, not intended or likely to cause death or serious bodily harm, to prevent or terminate another’s intrusion upon the actor’s land or chattels”).

98. *See* RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 225 (8th ed. 2011). When this Article refers to “efficiency,” it refers to Kaldor-Hicks efficiency, maximizing total social welfare of all involved parties.

consider whether the policy creates moral hazard, which refers to “any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly.”⁹⁹ For example, a homeowner with fire insurance may take less care to reduce the risk of fire, knowing that the insurance company will cover losses from any fire.¹⁰⁰ By contrast, with the doctrine of necessity, the boater decides how much risk to take by deciding whether to go sailing, and also bears the cost if things go badly, as the boater must compensate the dock owner under the liability rule established by *Vincent*. As a result, the doctrine of necessity does not create moral hazard.

One oft-mentioned benefit of property rules is that the parties can negotiate over the entitlement.¹⁰¹ In a theoretical world with zero transaction costs, perfect information, and no strategic bargaining, tort law could keep its property-rule protection for dock owners even during storms. As the storm raged, dock owners and boaters could negotiate the optimal solution to boat docking and price.

But this theoretical world obviously does not exist. During negotiations the boat would probably wreck, which is inefficient. Even if negotiations succeeded, the result would likely be extortionate docking fees, which is inequitable. Temporarily shifting to liability rules better serves both equity and efficiency.¹⁰² Academics vehemently debate the relative merits of property rules versus liability rules.¹⁰³ But there is consensus that tort law’s temporary switch to liability rules in times of necessity is desirable.¹⁰⁴ Liability rules make more sense than property rules when negotiation is unlikely to produce an efficient and equitable result.¹⁰⁵

99. PAUL KRUGMAN, *THE RETURN OF DEPRESSION ECONOMICS* 63 (2009); accord ROUBINI & MIHM, *supra* note 25, at 68; Joseph E. Stiglitz, *Risk, Incentives and Insurance: The Pure Theory of Moral Hazard*, 8 GENEVA PAPERS ON RISK & INS. 4, 6 (1983) (arguing that moral hazard is the result of three factors, specifically risk, imperfect information, and “insurance,” which covers a wide array of arrangements shifting risk from one party to another). See generally Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237 (1996).

100. KRUGMAN, *supra* note 99, at 62–63.

101. See Calabresi & Melamed, *supra* note 9, at 1106 (“Why cannot a society simply . . . let its transfer occur only through a voluntary negotiation? Why, in other words, cannot society limit itself to the property rule?”).

102. Richard A. Epstein, *A Clear View of the Cathedral: The Dominance of Property Rules*, 106 YALE L.J. 2091, 2092 (1997).

103. AYRES, *supra* note 61, at 183–200 (surveying the debate about property rules versus liability rules).

104. Epstein, *supra* note 102, at 2108 (arguing strongly for the superiority of property rules, but conceding that the doctrine of necessity’s temporary liability rules make sense).

105. Calabresi & Melamed, *supra* note 9, at 1106 (“Often the cost of establishing the value of

In general, switches from property rules to liability rules—that is, pliability rules—make the most sense under three conditions.¹⁰⁶ First and most importantly, pliability rules handle substantially changed circumstances,¹⁰⁷ and make excellent responses to storms, quick-spreading disease epidemics, and financial crises, all of which create massively altered circumstances. Second, pliability rules can best balance competing interests, including efficiency and fairness.¹⁰⁸ Third, pliability rules can serve a social goal, like efficiency, better than either a pure property rule or a pure liability rule could.¹⁰⁹ All three of these considerations often weigh in favor of using pliability rules as responses to storms, epidemics, and financial crises.

D. Pliability Rules: Fighting Epidemics and Financial Crises

Classic pliability rules, which temporarily move from property rules to liability rules, are ideal for fighting crises in tax law and other areas. Classic pliability rules have many advantages over the all-too-common approach of moving from property rules to temporary nonenforcement.¹¹⁰ The doctrine of necessity is one example, and Parts II and III of this Article illustrate in depth why classic pliability rules make sense in tax law. But pliability rules make sense for responding to crises in many other areas of law, and a brief application of pliability rules to constitutional law, bankruptcy law, and patent law shows the desirability of pliability rules for crises in general, as a preview for a more in-depth discussion related to tax law.

Constitutional law is the only area of law, other than tort law, where scholars have investigated the use of pliability rules for responding to crises.¹¹¹ Constitutional law should respond to fast-

an initial entitlement by negotiation is so great that even though a transfer of the entitlement would benefit all concerned, such a transfer will not occur.”).

106. Bell & Parchomovsky, *supra* note 10, at 66.

107. *Id.* at 67.

108. *Id.* at 67–68.

109. *Id.* at 68–69.

110. Bell and Parchomovsky term such moves from property rules to nonenforcement as “zero order pliability rule[s].” *Id.* at 6, 30–31. This Article will simply refer to such moves as moves to nonenforcement to keep the terminology simple. Furthermore, Bell and Parchomovsky would use the term “multiple stage pliability rule” to describe the pliability rules that this Article advocates—starting with a property rule, moving temporarily to a liability rule during a crisis, and then returning to the original property rule after the crisis. *Id.* at 59 (discussing multiple stage pliability rules). This Article will simply use the term “pliability rule” without the preceding words “multiple stage.”

111. *See, e.g.,* Kontorovich, *supra* note 37 (applying pliability rules to constitutional law’s

spreading epidemics like Ebola and SARS with a pliability rule.¹¹² Individuals are entitled to certain liberty interests¹¹³ that are generally protected by property rules, with injunctions and jail time for those who attempt to take away the entitlement.¹¹⁴ But this property rule makes little sense during an epidemic, because quarantining infected or likely infected individuals—that is, taking their liberty—prevents greater social harm. For that reason, courts allow involuntary quarantines, without any compensation to those quarantined.¹¹⁵ In doing so, courts faced with quarantines take the lesson of *Ploof*, and do not enforce property rules during crises, but they ignore the lesson of *Vincent*, to replace the property rule with a compensatory liability rule. Instead, constitutional law should use a pliability rule for fast-spreading epidemics, permitting quarantines but requiring compensation to those quarantined for their loss of liberty. Other countries have used this approach; for example, both Taiwan and Canada compensated individuals who were quarantined during the 2003 SARS outbreak.¹¹⁶

Just as constitutional law should respond with pliability rules for epidemic crises, bankruptcy law should respond to financial crises with pliability rules for the treatment of repurchase agreements, which are often called “repos” for short, and which are a type of financial contract

handling of national security emergencies).

112. *See generally id.* (proposing using pliability rules to protect constitutional rights in general, including in cases of mass detentions of people thought to be national security threats).

113. *See, e.g.*, U.S. CONST. amends. V, XIV § 1.

114. *See, e.g.*, MODEL PENAL CODE § 212.3 (AM. LAW INST. 1962) (describing the crime of false imprisonment).

115. Kontorovich, *supra* note 37, at 825 (“When an epidemic looms, the relevant individual rights receive no protection at all.”); *e.g.*, *Jacobson v. Massachusetts*, 197 U.S. 11, 25 (1905) (recognizing the “authority of a State to enact quarantine laws and ‘health laws of every description’”).

116. Colin Perkel, *SARS Patients Compensated*, HAMILTON OBSERVER (Ont., Can.), June 14, 2003, at D1 (reporting Ontario’s payment of up to six thousand dollars in compensation to quarantined persons); Richard Harris, *Quarantine Effectiveness Under Scrutiny*, ALL THINGS CONSIDERED (Oct. 14, 2003) (noting that Taiwan paid quarantined persons a total of \$17 million), <http://www.npr.org/programs/all-things-considered/2003/10/14/13063432/> [<https://perma.cc/JH22-A7C5>].

U.S. courts could arguably implement a temporary liability rule for quarantines, without any further legislative action, by interpreting 42 U.S.C. § 1983 (2012) as requiring compensation for those who are quarantined. Such judicial action would first require lifting the qualified immunity that currently applies to government officials ordering quarantines. *See Hickox v. Christie*, 205 F. Supp. 3d 579, 588–603 (D.N.J., 2016) (dismissing a nurse’s § 1983 claims for involuntary quarantine for want of violation of clearly established law).

that contributed to the 2008–09 financial crisis.¹¹⁷ Repos are a form of secured borrowing commonly used between financial institutions, using securities like mortgage-backed bonds as collateral.¹¹⁸ If the debtor goes bankrupt, bankruptcy law lets the creditor immediately seize and sell the collateral, without the debtor receiving the protections normally given by bankruptcy law.¹¹⁹ The creditor thus has property-rule protection. This rule may make sense during normal times.¹²⁰ But during financial crises, this property rule encourages and enables “banks runs” on the debtor, as illustrated by the key role the property rule played in the destruction of Lehman Brothers, which had borrowed heavily using repos.¹²¹ Worse, creditors sell the seized collateral—for example, mortgage-backed bonds—thus depressing the market for those securities further and worsening the crisis.¹²²

117. Edward R. Morrison, Mark J. Roe & Christopher S. Sontchi, *Rolling Back the Repo Safe Harbors*, 69 *BUS. LAW.* 1015, 1015 (2014); Steven L. Schwarcz, *Derivatives and Collateral: Balancing Remedies and Systemic Risk*, 2015 *U. ILL. L. REV.* 699, 716.

118. As described by the Third Circuit:

A standard repurchase agreement, commonly called a “repo,” consists of a two-part transaction. The first part is the transfer of specified securities by one party, the dealer, to another party, the purchaser, in exchange for cash. The second part consists of a contemporaneous agreement by the dealer to repurchase the securities at the original price, plus an agreed upon additional amount on a specified future date.

Bevill, Bresler & Schulman Asset Mgmt. Corp. v. Spencer S&L Ass’n, 878 F.2d 742, 743 (3d Cir. 1989). This additional amount added to the price is the interest on the loan, and the securities are the collateral for the loan. See *Granite Partners, L.P. v. Bear, Stearns & Co.*, 17 F. Supp. 2d 275, 301 (S.D.N.Y. 1998); accord *Nebraska Dept. of Revenue v. Loewenstein*, 513 U.S. 123, 125 (1994). Regarding the use of repos involving mortgage-backed securities as collateral, see Morrison et al., *supra* note 117, at 1015, 1017.

119. 11 U.S.C. § 559 (2012) (“[E]xercise of a contractual right of a repo participant or financial participant to cause the liquidation, termination, or acceleration of a repurchase agreement . . . shall not be stayed, avoided, or otherwise limited.”); see also *id.* § 362(b)(7), (o) (exempting repos from bankruptcy’s automatic stay); *id.* § 546(f) (“the trustee may not avoid a transfer made by or to (or for the benefit of) a repo participant”); *id.* § 548(d)(2)(C) (deeming that “a repo participant . . . that receives a margin payment . . . or settlement payment . . . in connection with a repurchase agreement, takes for value to the extent of such payment,” thus preventing repo counterparties from being attacked under the fraudulent conveyance provisions).

120. *Exploring Chapter 11 Reform: Corporate and Financial Institution Insolvencies; Treatment of Derivatives, Hearing Before the H. Subcomm. on Regulatory Reform, Commercial & Antitrust Law of the H. Comm. of the Judiciary*, 113th Cong. 4 (2014) (statement of Seth Grosshandler).

121. Morrison et al., *supra* note 117, at 1040–41; Schwarcz, *supra* note 117, at 716 (stating that bankruptcy law rules on repos “explain the run on Lehman Brothers” at least in part).

122. See Brian Begalle, Antoine Martin, James McAndrews & Susan McLaughlin, *The Risk of Fire Sales in the Tri-Party Repo Market* (2013), http://www.newyorkfed.org/research/staff_reports/sr616.html [<https://perma.cc/RMV4-4WWS>]; Gaetano Antinolfi et al., *Repos, Fire Sales, and Bankruptcy Policy* (Fed. Reserve Bank of Chi., Working Paper No. 2012-15, 2012), <http://ssrn.com/abstract=2189583> [<https://perma.cc/YN2T-X9R7>]; Sebastian Infante, *Repo*

Instead, during financial crises, the property-rule protection for repo creditors should be turned into a liability rule. Creditors should receive compensation based on the fair market value of the collateral,¹²³ plus a pro rata recovery from the debtor's estate in proportion to the loan amount not covered by the collateral's value.¹²⁴ This liability rule would preserve the property-rule protection for repo creditors during normal times, but it would allow for a move to liability-rule protection to prevent bank runs during financial crises.

Unlike constitutional law and bankruptcy law, patent law has already developed a rudimentary liability rule for responding to crises. Specifically, patent law has a liability rule that can handle crises like quick-spreading epidemics or bioterrorism that can be battled with patented drugs. Patent holders often receive property-rule protection in the form of an injunction against anyone infringing on their patent.¹²⁵ But this protection becomes a liability rule in the form of compensatory damages from infringers under certain circumstances, including when such a switch would serve "the public interest."¹²⁶ Permitting competitors to manufacture generic versions of patented drugs, with compensation due to the patent holder, fully mobilizes society's resources to combat the epidemic or the bioterrorism—an excellent result.¹²⁷ This Article will draw lessons from the IRS's responses to the 2008–09 financial crisis to propose concrete steps to further improve

Collateral Fire Sales: The Effects of Exemption from the Automatic Stay (Fed. Reserve Bd. Fin. & Econ. Discussion Series No. 2013-83, 2013), <http://www.federalreserve.gov/pubs/feds/2013/201383/201383pap.pdf> [<https://perma.cc/SHS5-P324>].

123. 11 U.S.C. § 506(a)(1) ("An allowed claim . . . is a secured claim to the extent of the value of such creditor's interest in the estate's interest in such property . . .").

124. *Id.* ("[U]nsecured claim to the extent that the value of such creditor's interest . . . is less than the amount of such allowed claim."); see 4 COLLIER ON BANKRUPTCY § 506.03 (16th ed. 2016). This liability rule is simply the default in bankruptcy law, once the special treatment for repos is turned off.

125. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (noting that an injunction will protect a patent under traditional principles of equity); *id.* at 395 (Roberts, C.J., concurring) ("From at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases.").

126. *Id.* at 391 (majority opinion). The Court also provided three other conditions, not generally relevant to epidemics and bioterrorism, that may move protection from an injunction to compensatory damages. *Id.*

127. See David B. Resnik & Kenneth A. De Ville, *Bioterrorism and Patent Rights: "Compulsory Licensure" and the Case of Cipro*, 2 AM. J. BIOETH. 29, 32 (2002). The compulsory licensing should include allowing imports of generic versions manufactured abroad, taking advantage of worldwide capacity. See 35 U.S.C. § 271(a) (2012) (providing that "import[ing] into the United States any patented invention" is patent infringement).

this liability rule in patent law.¹²⁸

II. THE IRS'S RESPONSES TO THE 2008–09 FINANCIAL CRISIS

This Part examines the IRS's major responses to the 2008–09 financial crisis.¹²⁹ First it considers the good responses, which moved temporarily from property rules to liability rules.¹³⁰ It goes into depth analyzing one of the IRS's good responses, involving mutual funds, to demonstrate how moving to liability rules during crises has benefits very similar to the doctrine of necessity.¹³¹ Indeed, in tax law such moves have even greater benefits, including minimizing harm to third parties and to the entire economy.¹³² This Part then considers the IRS's bad responses,¹³³ which moved from property rules to nonenforcement, thereby giving affected taxpayers windfalls and encouraging unnecessary violations.

A. *Good Responses: Temporary Moves from Property Rules to Liability Rules*

This Section discusses those instances when the IRS responded to

128. See *infra* Parts III.B.1, 4–6.

129. This Article does not discuss the IRS's responses to the 2008–09 financial crisis that merely clarified existing law or minimized procedural difficulties. *E.g.*, I.R.S. Notice 2008-27, 2008-1 C.B. 543 (minimizing procedural difficulties in resolving auction-rate securities difficulties); I.R.S. Notice 2008-41, 2008-1 C.B. 742 (same); I.R.S. Notice 2008-88, 2008-42 I.R.B. 933 (same); I.R.S. Notice 2008-55, 2008-27 I.R.B. 11 (clarifying classification as debt in specific instance); I.R.S. Notice 2008-78, 2008-41 I.R.B. 851 (clarifying that responding to an unforeseen crisis was not part of a “plan”); Rev. Proc. 2008-58, 2008-41 I.R.B. 856 (clarifying tax treatment of certain securities-litigation settlements); Rev. Proc. 2009-10, 2009-2 I.R.B. 267 (clarifying tax treatment of money market mutual fund sponsors' payments to shore up funds); Rev. Proc. 2009-42, 2009-40 I.R.B. 459 (clarifying classification of mutual fund investments in bailout-related vehicles). This Part also does not discuss IRS responses that were rendered irrelevant by Congress, such as the IRS's initial response to suspend the applicable high yield discount obligation (AHYDO) rules that deny or delay deductions on certain debt instruments. Rev. Proc. 2008-51, 2008-35 I.R.B. 562 (rendered irrelevant by Pub. L. No. 111-5 §1232(c)(1), 123 Stat. 115, 341 (Feb. 17, 2009) (currently codified at I.R.C. § 163(e)(5)(F)(iii), (i)(1) (2012))); *cf.* NEW YORK STATE BAR ASS'N, REPORT ON THE AHYDO RULES OF SECTIONS 163(E)(5) AND 163(I) at 5-6 (Mar. 10, 2017) [hereinafter AHYDO REPORT], <https://www.stradley.com/-/media/Files/Publications/2017/03/NYSBA-AHYDO.pdf> [<https://perma.cc/NDW4-F67C>] (providing background about AHYDO rules); *id.* at 7 (discussing Congress's enactment of I.R.C. § 163(e)(5)(F)(iii) & (i)(1)). This Part also does not discuss IRS actions during the 2008–09 financial crisis that apply permanently. *E.g.*, Rev. Proc. 2008-63, 2008-42 I.R.B. 946 (interpreting how I.R.C. § 1058 applies when the taxpayer's counterparty goes bankrupt).

130. See *infra* Part II.A.

131. See *infra* Part II.A.1.

132. See *infra* Part II.A.1.b.

133. See *infra* Part II.B.

the financial crisis by shifting from a property rule to a liability rule, temporarily. These responses employed the wisdom of both *Ploof* and *Vincent*, albeit without the IRS acknowledging that it was taking an approach perfected long ago in tort law. This Section begins with an in-depth analysis of the IRS's response to mutual fund distress.

1. *Mutual Funds*. Many date the start of the financial crisis to the freezing of three mutual funds, run by the bank BNP Paribas, that invested largely in subprime mortgage assets.¹³⁴ Another pivotal moment in the crisis came when the Reserve Primary mutual fund announced substantial losses, after which “the dominoes started falling.”¹³⁵ Happily, the IRS's ad hoc response to the tax problems faced by troubled mutual funds mirrored the doctrine of necessity.

Recall that tax law requires mutual funds to distribute to their investors at least 90 percent of their income each year,¹³⁶ and that this requirement is protected by a harsh property rule. In normal times, this 90 percent distribution requirement poses no problem. Many common investment strategies cause mutual funds to recognize income on their tax returns years before they actually receive cash.¹³⁷ For example, suppose that a mutual fund purchases a bond issued for \$900 that promises to repay \$1000 at the bond's maturity date. For each year before the bond's maturity date, the mutual fund must include a portion of that \$100 original issue discount as income, even though the mutual fund receives none of that \$100 in cash.¹³⁸ Mutual funds using these investment strategies can simply borrow cash to distribute to shareholders to meet the 90 percent threshold.¹³⁹

134. See, e.g., ALAN S. BLINDER, *AFTER THE MUSIC STOPPED: THE FINANCIAL CRISIS, THE RESPONSE, AND THE WORK AHEAD* 90 (2014); Gregory Zuckerman, James R. Hagerty & David Gauthier-Villars, *Impact of Mortgage Crisis Spreads*, WALL STREET J. (Aug. 10, 2007), <http://www.wsj.com/articles/SB118664884606092848> [<http://perma.cc/ZGB6-S29N>] (“The first jolt came from French bank BNP Paribas . . .”).

135. BLINDER, *supra* note 134, at 143.

136. I.R.C. § 852(a)(1) (2012).

137. Hervey, *supra* note 75, § VII.B (discussing “situations where [a mutual fund's] cash flow is less than taxable income”).

138. I.R.C. §§ 1272, 1273 (governing original issue discount); see BORIS I. BITTKER & LAWRENCE LOKKEN, *FEDERAL TAXATION OF INCOME, ESTATES, AND GIFTS* ¶ 53.3 (1999 & Supp. 2016) (providing a full overview of original issue discount); see also Hervey, *supra* note 75, § VII.B (noting that “original issue discount” can cause cash flow to be less than taxable income); *id.* (noting that “[g]ains from futures contracts or options that are marked-to-market under §1256” can also cause cash flow to be less than taxable income).

139. Hervey, *supra* note 75, § VII.B (noting that mutual funds “may have to sell assets or borrow money in order to satisfy the requirement”).

But the financial crisis created a cash crunch, making it extremely difficult for mutual funds using such strategies to borrow money.¹⁴⁰ As a result, many mutual funds faced the prospect of failing the 90 percent distribution requirement, which would have imperiled their existence.

The IRS came up with an ingenious response, temporarily turning this property rule into a liability rule. The IRS promulgated guidance¹⁴¹ providing that if mutual funds distributed newly minted mutual fund shares and a de minimis amount of cash,¹⁴² the newly minted shares would count towards the 90 percent threshold.¹⁴³ In effect, mutual funds were allowed to conjure up paper distributions as needed to avoid running afoul of the 90 percent distribution requirement. This liability rule came with an explicit end date.¹⁴⁴

The IRS thus created a temporary liability rule, because the newly minted mutual fund shares created taxable income for investors in such mutual funds.¹⁴⁵ The IRS received additional tax proportional to the amount by which a mutual fund fell below the 90 percent requirement, fully compensating the government.

The IRS's response kept any mutual fund from losing its favorable tax status during the financial crisis.¹⁴⁶ And because investors did not fear such devastating status losses, the IRS helped maintain investor confidence in mutual funds.¹⁴⁷

140. *All You Need Is Cash*, ECONOMIST (Nov. 20, 2008), <http://www.economist.com/node/12637043> [<https://perma.cc/U8DY-EL2Q>].

141. Rev. Proc. 2009-15, 2009-4 I.R.B. 356, *amplified and extended* by Rev. Proc. 2010-12, 2010-3 I.R.B. 302 (extending this relief until Dec. 31, 2011).

142. *Id.* § 3(4) (requiring that actual cash be only 10 percent of the distributions deemed as being paid).

143. *See id.* (relying on creative interpretations of I.R.C. § 305(b)(1) (2006) and Treas. Reg. §§ 1.305-2(a), 1.305-1(b)(2) (as amended in 1973)).

144. Rev. Proc. 2009-15, 2009-4 I.R.B. 356 § 3.3 (applying to distributions “declared with respect to a taxable year ending on or before December 31, 2009”). The IRS extended this relief with Rev. Proc. 2010-12, 2010-3 I.R.B. 302 (extending relief until Dec. 31, 2011).

145. I.R.C. § 61(a)(7) (including dividends in gross income); Treas. Reg. § 1.305-2(a) (as amended in 1973); Rev. Proc. 2009-15, 2009-4 I.R.B. 356 §§ 2.03–04. Although this liability rule lapsed at the end of 2011, the IRS in 2017 reintroduced this liability rule, making it permanent, albeit with requirement of paying at least 20 percent of the dividend in cash. Rev. Proc. 2017-45, 2017-35 I.R.B. 216; *see* Matthew R. Madara, *IRS Issues Guidance on Stock Distributions by REITs and RICs*, 156 TAX NOTES 921 (Aug. 21, 2017) (discussing the permanent ruling and how its temporary predecessors had helped during the financial crisis).

146. A search of the SEC's EDGAR database reveals no reports of any fund losing its tax status.

147. While the federal government provided guarantees for a single category of mutual funds—money market funds—it did *not* provide guarantees for other types of mutual funds, such as stock mutual funds or bond mutual funds. *See* Press Release, U.S. Dep't of the Treasury,

a. *Minimizing Total Harm to Mutual Funds and Government.* The doctrine of necessity minimizes total harm to boaters and dock owners from storms. In the same way, the IRS's actions minimized total harm from the financial crisis to the government, which is entitled to taxpayer compliance, and to mutual funds, many of which could not comply during the financial storm.

The harm to the government from a taxpayer violating a requirement is best understood as the erosion of the relevant tax base. The government relies on the existence of a corporate tax base on which to levy the corporate tax.¹⁴⁸ Absent the special favorable tax provisions applicable to mutual funds, they would be included in that base and properly taxed as corporations.¹⁴⁹ The tax requirements imposed on mutual funds, including the 90 percent distribution requirement, exist to safeguard the government's corporate tax base by ensuring that mutual funds do not act like corporations carrying on active businesses. Thus, when a mutual fund distributes less than the required 90 percent, the corporate tax base is eroded, harming tax revenue. The IRS's crisis response created a liability rule that compensated the government for the erosion to the corporate tax base resulting from mutual funds not meeting the distribution requirements.

The harm to a mutual fund from losing its favorable tax status would be immediate and severe—a “genuine disaster,” as one treatise puts it.¹⁵⁰ A mutual fund subject to full corporate taxation would become an uneconomical investment vehicle,¹⁵¹ and investors would rush to withdraw their money.¹⁵²

Just as the doctrine of necessity creates incentives for boaters to minimize the total damage caused by storms, the IRS's move created incentives for mutual funds to minimize the total damage caused by the financial crisis. To the extent that a mutual fund lacked readily

Treasury Announces Temporary Guarantee Program for Money Market Funds (Sept. 29, 2008), <http://www.treasury.gov/press-center/press-releases/Pages/hp1161.aspx> [<https://perma.cc/5GF2-98DD>].

148. MOLLY F. SHERLOCK & DONALD J. MARPLES, CONG. RESEARCH SERV., OVERVIEW OF THE FEDERAL TAX SYSTEM 9–11 (2014).

149. Compare I.R.C. § 851(a) (2012) (requiring that mutual funds receiving the favorable tax status be a “domestic corporation”), with *id.* § 11 (imposing corporate tax on corporations).

150. YUROW ET AL., *supra* note 79, at ch. 30 intro.

151. *Id.* (“It would create an insurmountable competitive disadvantage to the mutual fund vehicle if its investment income were taxed to the fund.”).

152. See John Morley & Quinn Curtis, *Taking Exit Rights Seriously: Why Governance and Fee Litigation Don't Work in Mutual Funds*, 120 YALE L.J. 84, 102–05 (2010) (providing an overview of exit from mutual funds, also called open-ended investment funds).

available cash to meet the 90 percent distribution requirement, the fund's investors had to pay additional tax to compensate the government for the shortfall.¹⁵³ Mutual funds had an incentive to use this mechanism only to the extent that they genuinely needed it, because its investors would not tolerate more taxation than absolutely necessary.

Recall that the doctrine of necessity does not create moral hazard, because boaters must pay compensation for any damage they cause by taking advantage of the ability to dock.¹⁵⁴ Similarly, the IRS's move did not create moral hazard, because a mutual fund's investors had to compensate the government to the extent that the mutual fund failed the 90 percent distribution requirement.

b. *Minimizing Financial Contagion.* Moving tax law's property rules to liability rules temporarily during financial crises can have even greater benefits than tort law's similar shifts in response to storms. In torts, the doctrine of necessity minimizes total harm to two parties, such as the dock owner and the boater. In tax, a move to liability rules during crises not only minimizes harm to the affected taxpayer and the government, but also minimizes harm to third parties and the economy as a whole. The interconnectedness of financial markets, financial institutions like banks and mutual funds, and the broader economy means that one institution's distress can spread to others, a phenomenon known as "financial contagion" by analogy to disease epidemics.¹⁵⁵

If the 90 percent distribution requirement had remained protected by a property rule during the 2008–09 financial crisis, mutual funds would have been forced to sell assets, either to scrounge up sufficient cash to make the required distribution, or to liquidate after losing the favorable tax status.¹⁵⁶ Selling troubled assets during a financial crisis increases supply and further depresses prices, and such "fire sales" clearly worsen crises by also harming third parties who hold similar

153. See *supra* note 143.

154. See *supra* note 99 and accompanying text.

155. OECD, FINANCIAL CONTAGION IN THE ERA OF GLOBALIZED BANKING 3 (2012), <https://www.oecd.org/eco/monetary/50556019.pdf> [<https://perma.cc/9LFT-VUFL>]; David K. Suska, *Reappraising Dodd-Frank's Living Will Regime*, 36 REV. BANKING & FIN. L. 779, 800 (2016).

156. For an explanation of the harms due to losing favorable tax status, see *supra* notes 150–51.

assets.¹⁵⁷ Such fire sales are a key mechanism for financial contagion.¹⁵⁸ The IRS's temporary liability rule prevented tax-driven fire sales and thus helped fight the crisis.

The temporary liability rule's benefits likely extended well beyond holders of distressed assets. For example, an individual who directly owned the same stocks as a mutual fund—stocks that did not fall as much in price as they might have if the mutual fund had been forced to liquidate those assets in a fire sale—might have felt wealthier and thus been more willing to buy roses at a local florist. The florist would thus have been less likely to lay off workers.¹⁵⁹

As another example, if a mutual fund had lost its favorable tax status because the IRS had maintained the property-rule regime, the mutual fund would likely have become insolvent, creating losses for any banks from which the mutual fund had borrowed.¹⁶⁰ Such losses would in turn make those banks more likely to default on their own obligations, and so on, spreading the contagion throughout the financial system.¹⁶¹

In short, shifting temporarily from property rules to liability rules not only resulted in the most efficient resolution between the taxpayer and the government, but also prevented contagion from spreading to third parties and the broader economy.

c. Preventing Windfalls. Recall that the doctrine of necessity is not only efficient, but also equitable, because it prevents the undue enrichment of dock owners and boaters alike.¹⁶² Tax law shifting to liability rules during crises produces this same benefit. Liability rules require the violating party to compensate the violated party. The boater must compensate the dock owner for storm damage, and the taxpayer must compensate the government for violating tax law requirements during financial crises. For example, shifting the mutual fund 90 percent distribution requirement to a liability rule required

157. See Morrison et al., *supra* note 117, at 1030–31 (discussing a growing body of evidence showing how fire sales of assets can be a vector of financial contagion). For further discussion of economists' work on the topic, see *supra* note 122.

158. Morrison et al., *supra* note 117, at 1030–31.

159. See Ayotte & Skeel, *supra* note 14, at 490 (discussing the myriad, complex ways financial contagion spreads to the real economy).

160. See 15 U.S.C. § 80a-18(f)(1) (2012) (allowing mutual funds to borrow from banks); YUROW ET AL., *supra* note 79, § 13:2 (discussing mutual funds' ability to take on embedded leverage, including through certain investment transactions).

161. See Morrison et al., *supra* note 117, at 1030 (calling this “old-school contagion”).

162. See *supra* Part I.C.

compensation to the government proportional to how far the taxpayer fell below the threshold.¹⁶³ In short, shifting a requirement from a property rule to a liability rule is in no way a bailout for the taxpayer.

d. *Infeasibility of Negotiation.* Another oft-mentioned justification for property rules is that parties can simply negotiate an alternative, optimal solution on their own.¹⁶⁴ In tax law, the IRS and a taxpayer can negotiate over the amount the taxpayer pays for violating a requirement.¹⁶⁵ But relying on the ability to negotiate around property rules during emergencies has obvious limitations. Consider, for instance, the implausibility of a dock owner and a boater negotiating a docking arrangement as a storm rages.¹⁶⁶ It is similarly implausible to expect the IRS and taxpayers to negotiate efficient and equitable solutions as a financial crisis rages.

Speedy responses are essential in fighting financial crises,¹⁶⁷ but the IRS moves slowly to negotiate settlements with taxpayers.¹⁶⁸ During a crisis, the IRS cannot feasibly negotiate with each and every taxpayer who violates a requirement—certainly not in time to avoid serious harm to the taxpayers themselves, third parties, and the broader economy. Sticking to the property rule and relying on IRS–taxpayer negotiation is implausible and would cause unnecessary harm. In short, relying on negotiation would be economically inefficient.

Even if the IRS could work with unprecedented speed and

163. For an explanation of the IRS's temporary liability rule, see *supra* notes 143–45 and accompanying text.

164. See Calabresi & Melamed, *supra* note 9, at 1106 (“Why cannot a society simply . . . let its transfer occur only through a voluntary negotiation? Why, in other words, cannot society limit itself to the property rule?”).

165. Many such mechanisms exist. See MICHAEL I. SALTZMAN & LESLIE BOOK, IRS PRACTICE AND PROCEDURE ¶ 9.01 (2d ed. 2016) (explaining that the IRS's appeals office “receives well over one hundred thousand cases each year. Appeals officers negotiate and settle 85 to 90 percent of the cases with taxpayers”); *id.* ¶¶ 9.07–.09; see, e.g., I.R.C. §§ 7121, 7122; cf. Shu-Yi Oei, *Getting More by Asking Less: Justifying and Reforming Tax Law's Offer-in-Compromise Procedure*, 160 U. PA. L. REV. 1071, 1074 (2012) (discussing the current state of taxpayer–IRS compromise); Shu-Yi Oei, *Who Wins When Uncle Sam Loses? Social Insurance and the Forgiveness of Tax Debts*, 46 U.C. DAVIS L. REV. 421, 425 (2012) (analyzing the wider effect of compromises and nonenforcement by the IRS).

166. See *supra* notes 101–05 and accompanying text.

167. PAULSON, *supra* note 28, at 244 (“[O]ur actions had to be decisive and overwhelming.”); *id.* at 362 (“A financial institution could go under immediately if it lost the confidence of creditors and clients.”); ROUBINI & MIHM, *supra* note 25, at 112–13.

168. See SALTZMAN & BOOK, *supra* note 165, ¶ 9.07 (giving overview of procedure).

negotiate sufficiently prompt settlements with all affected taxpayers during financial crises, the settlements would still vary widely based on any given taxpayer's luck and negotiating skill.¹⁶⁹ Similarly situated taxpayers would be treated differently, violating the tax law goal of horizontal equity.¹⁷⁰

In short, keeping property rules during financial crises and relying on IRS–taxpayer negotiations would be worse for both efficiency and equity than adopting a temporary liability rule.

2. *Real Estate Investment Trusts (REITs)*. Another good IRS response to the 2008–09 financial crisis involved real estate investment trusts (REITs). REITs enable average investors to buy into a professionally managed, diversified real estate portfolio.¹⁷¹ While mutual funds invest in stocks, bonds, and other securities, REITs invest in real estate assets. In 2016, the 224 REITs traded on U.S. stock markets had a total market capitalization of slightly over \$1 trillion.¹⁷² REITs own a wide variety of real estate assets ranging from warehouses and skyscrapers to mortgages and apartment buildings.¹⁷³ REITs, like mutual funds, receive very favorable tax treatment, provided that they meet certain requirements.

Just as mutual funds must distribute at least 90 percent of their income to investors to retain favorable tax status, so must REITs distribute at least 90 percent of their income to shareholders.¹⁷⁴ As with mutual funds, this requirement is protected by a property rule, meaning REITs stand to lose their favorable tax status if they fail this requirement. As with mutual funds, the financial crisis and its cash crunch left many REITs unable to meet this requirement.¹⁷⁵

169. See Blair-Stanek, *supra* note 9, at 1212–13 (“Different taxpayers will have different IRS employees handling their cases. Some IRS employees will be much better negotiators than others, capturing much different portions of the wide negotiating range between \$0 and status-loss.”).

170. See BITTKER & LOKKEN, *supra* note 138, ¶ 3.1.4 (discussing horizontal equity).

171. H.R. REP. NO. 86-2020, at 3–4 (1960).

172. *FTSE Nareit Real Estate Index Historical Market Capitalization, 1972, 2016*, NAREIT, <https://www.reit.com/investing/industry-data-research/us-reit-industry-equity-market-cap> [<https://perma.cc/5W6T-LYG2>].

173. Nat'l Ass'n of Real Estate Inv. Trusts, *Frequently Asked Questions About REITs*, NAREIT 2 (2011), <http://www.reit.com/portals/0/PDF/2011FAQ.pdf> [<https://perma.cc/3WBQ-EGHK>].

174. I.R.C. § 857(a)(1) (2012).

175. See D. Brock Griffiths, *Guidance May Help REITs Conserve Cash*, 36 REAL ESTATE TAX'N 93, 93 (2009); *id.* at 96; Letter of Steven Wechsler, Nat'l Ass'n of Real Estate Inv. Trusts, to Eric Solomon, Treasury Assistant Sec'y for Tax Policy (Oct. 31, 2008), *reprinted in* 2008 TAX NOTES TODAY 221–33.

The IRS responded by turning the property rule into a temporary liability rule by permitting REITs to create paper dividends that were taxable to shareholders but that counted towards the 90 percent distribution requirement.¹⁷⁶ As with mutual funds, the IRS's actions kept tax law from worsening the 2008–09 financial crisis for REITs, while the tax imposed on a REIT's shareholders on the paper dividends prevented abuse or windfalls.¹⁷⁷

3. *Variable Annuities.* Another good IRS response pertained to annuities, which are an important retirement tool that gives retirees periodic payments until death.¹⁷⁸ Variable-contract annuities are a type of annuity for which the amount of the periodic payment varies with the performance of underlying investment assets.¹⁷⁹ Variable-contract annuities receive favorable tax treatment, subject to the requirement that the investments be diversified into securities issued or guaranteed by many different issuers.¹⁸⁰ This diversification requirement is protected by a property rule, with failure resulting in severe tax consequences for the retiree, who must immediately include all income from the underlying assets on his or her tax return.¹⁸¹

During the financial crisis, the Treasury gave a temporary federal guarantee to many of the money market funds that were the underlying investment behind variable-contract annuities.¹⁸² The federal guarantee resulted in an unambiguous violation of the diversification requirement, because the money market funds were invested 100 percent in securities backed by the federal government.¹⁸³ The property-rule remedy would normally result, but the IRS—which is a part of the Treasury—issued administrative guidance temporarily

176. Rev. Proc. 2010-12, 2010-3 I.R.B. 302.

177. See Wechsler, *supra* note 175, at 5 (“This guidance would result in no revenue loss to the fisc.”).

178. *Variable Annuities: What You Should Know*, SEC (Apr. 18, 2011), <https://www.sec.gov/reportspubs/investor-publications/investorpubsvarantyhtm.html> [<https://perma.cc/PKD5-VAHS>] (“Variable annuities have become a part of the retirement and investment plans of many Americans.”). See generally *Vorris J. Blankenship, Retirement Tax Planning with Personally Purchased Annuities*, 113 TAX NOTES 459 (Oct. 30, 2006) (discussing the various types of annuities and their tax treatment).

179. BITTKER & LOKKEN, *supra* note 138, ¶ 12.3.3.

180. I.R.C. § 817(h) (2012); Treas. Reg. § 1.817-5 (as amended in 2008).

181. Treas. Reg. § 1.817-5(a)(1).

182. See I.R.S. Notice 2008-92, 2008-43 I.R.B. 1001 § 1 (providing background).

183. Treas. Reg. § 1.817-5(h)(1)(i) (as amended in 2005).

suspending it.¹⁸⁴ The Treasury also charged a premium for the guarantee,¹⁸⁵ which compensated the government. The Treasury and IRS thus temporarily moved the diversification requirement from a property rule to a compensatory liability rule.

4. *Municipal Bonds.* The final example of a good IRS response, shifting temporarily to liability rules, involved municipal government bonds. These bonds give holders the extraordinary tax benefit that the interest they pay is excluded from the bondholder's gross income.¹⁸⁶ This is an exception to the general rule that interest, such as interest earned on a bank savings account or a corporate bond, is taxable income.¹⁸⁷ Municipal bonds lose their tax exemption if they are guaranteed, directly or indirectly, in whole or in part, by the federal government.¹⁸⁸ Losing this tax exemption would be devastating to the government that issued the bonds and to bondholders, such that a leading commentator likened that consequence to "the death penalty."¹⁸⁹ In short, a property rule protects the requirement that municipal bonds cannot be federally guaranteed.

Money market funds can hold municipal bonds, and the investors in these funds receive the interest tax free.¹⁹⁰ But during the 2008–09 financial crisis, the Treasury temporarily guaranteed many tax-exempt money market funds, which would have triggered the property rule against any federal guarantees of a municipal bond, with devastating consequences.¹⁹¹ The IRS prevented this result by issuing administrative guidance suspending this property rule remedy.¹⁹² In its place, the Treasury charged a premium for the guarantee,¹⁹³ which compensated the government. Thus, the no-federal-guarantee rule was shifted, temporarily, from a property rule to a liability rule.

184. I.R.S. Notice 2008-92, 2008-43 I.R.B. 1001.

185. *Id.* § 2.01 ("Participating money market funds are required to make premium payments to participate in the Program.").

186. I.R.C. § 103 (2012).

187. *See* I.R.C. § 61(a)(4) (including interest in the general definition of gross income).

188. I.R.C. § 149(b).

189. BITTKER & LOKKEN, *supra* note 138, ¶ 15.1.2.

190. I.R.C. § 852(b)(5).

191. *See* I.R.C. § 149(b) (2006).

192. I.R.S. Notice 2008-81, 2008-41 I.R.B. 852.

193. *Id.* § 2.01 ("Participating money market funds are required to make premium payments to participate in the Program.").

B. Bad Responses: Temporary Moves to Nonenforcement for Property Rules.

This Section describes the IRS's five moves from property rules to total nonenforcement during the 2008–09 financial crisis. Given the speed with which the crisis unfolded, this simplistic approach was understandable. But these moves had serious drawbacks that imposed substantial costs on the economy, including unnecessary layoffs and home foreclosures.

1. *Short-Term Loans from Foreign Subsidiaries.* During the crisis, the IRS partially stopped enforcing rules restricting the ability of U.S. corporations to access cash belonging to their foreign subsidiaries. From the inception of the corporate tax until the passage of tax reform in late 2017,¹⁹⁴ U.S. corporations generally owed no U.S. tax on income that their foreign subsidiaries earned by operating in foreign countries, as long as the cash the foreign subsidiary earned abroad was not brought back to the U.S. parent corporation.¹⁹⁵ A foreign subsidiary might have repatriated cash back to the U.S. parent, thereby incurring U.S. taxes, by paying a straightforward dividend or by loaning the cash to the U.S. parent. Section 956 of the U.S. Internal Revenue Code (IRC) would impose full, immediate U.S. taxation on loans to a U.S. parent from its foreign subsidiaries.¹⁹⁶ Section 956 was a property rule

194. Pub. L. 115-97, 131 Stat. 2054 (2017).

195. BITTKER & LOKKEN, *supra* note 138, ¶ 65.1.4; S. REP. No. 87-1881 (1962), reprinted in 1962-3 C.B. 703, 784-85 (discussing this “tax deferral” and Congress’s enactment in 1962 of some limited exceptions to tax deferral, including what would be codified at I.R.C. § 956 (1964)). When the cash was repatriated, the U.S. corporation often received a credit for foreign income taxes paid. BITTKER & LOKKEN, *supra* note 138, ¶ 72.1; I.R.C. § 902 (2006). In late 2017, Congress passed the most fundamental changes ever to the U.S. tax rules governing foreign activities of U.S. corporations, imposing a one-time repatriation tax on foreign subsidiaries’ overseas earnings and then exempting taxation of money from foreign subsidiaries going forward. Pub. L. 115-97 § 14101 (codified at I.R.C. § 245A (2012)); *id.* § 14103 (codified at I.R.C. §§ 965, 78, 904, 907); see H.R. REP. No. 115-466 at 598–99 (discussing new I.R.C. § 245A (2012)); *id.* at 613, 618 (discussing one-time repatriation tax).

196. I.R.C. § 956(a) (2006), (c)(1)(C); *id.* § 951(a)(1)(B). The amount of the loan is measured only at the end of each of the foreign subsidiary’s quarters, although a series of loans that end before the quarter-end and restart after the quarter-end would likely be recharacterized as, in substance, a loan. Rev. Rul. 89-73, 1989-1 C.B. 258; *Jacobs Eng’g Grp., Inc. v. United States*, No. CV 96-2662, 1997 WL 314167, at *3 (C.D. Cal. Mar. 5, 1997), *aff’d*, 168 F.3d 499 (9th Cir. 1999) (unpublished table decision). Although § 956 was not amended by the 2017 tax reform legislation, Pub. L. 115-97, the substantial changes to the U.S. international tax rules in that legislation, see *supra* note 195, have rendered § 956 largely irrelevant or, if anything, a tool that taxpayers can use to reduce their tax bill. Andrew Velarde, *Bottom Line: 956 Doesn’t Have Much Impact After Reform*, 2018 WORLDWIDE TAX DAILY 12-6 (Jan. 18, 2018).

against such loans, since zero U.S. tax is due otherwise,¹⁹⁷ and the rule could cause an infinite jump in taxes for such a loan.¹⁹⁸ As the chief executive officer of one large company explained in 2008, these U.S. tax rules created an incentive against “repatriating even a penny of foreign profits.”¹⁹⁹ To avoid triggering this property rule, U.S. corporations had stored over \$1 trillion in cash in foreign subsidiaries by the height of the crisis in 2008.²⁰⁰

The most destructive aspect of the 2008–09 financial crisis was its severe cash crunch, which left many U.S. corporations unable to borrow from banks or financial markets to meet regular cash needs, like paying employee salaries.²⁰¹ A simple solution could have been to enable U.S. corporations to borrow temporarily from the \$1 trillion in cash held by their foreign subsidiaries. But § 956’s property rule impeded companies from using this solution.

197. If a foreign subsidiary’s earnings remained indefinitely offshore, never subject to U.S. tax, then the present value of the future taxes that would have had to be paid was close to zero. Moreover, the foreign subsidiary’s earnings might have largely escaped U.S. tax by a tax holiday, as with Internal Revenue Code § 965 (2006), or by a corporate “inversion,” whereby the parent corporation merges with a foreign corporation that is not subject to U.S. tax.

198. A 35 percent U.S. tax on a foreign subsidiary’s earnings is infinitely higher than a 0 percent U.S. tax on the same earnings.

199. James Tisch, Letter to the Editor, *The Taxation of Overseas Earnings Creates Incentives*, WALL STREET J., July 5, 2008, at A10. Section 956 influenced U.S. corporations’ behavior both in terms of cash taxes owed to the U.S. government and the financial accounting for taxes. See John R. Graham, Michelle Hanlon & Terry Shevlin, *Real Effects of Accounting Rules: Evidence from Multinational Firms’ Investment Location and Profit Repatriation Decisions*, 49 J. ACCT. RES. 137, 181 (2011) (surveying U.S. corporations’ tax executives, and finding that “the importance of the financial accounting tax expense deferral is not statistically different from the importance of cash tax deferral”). For financial accounting purposes, Accounting Principles Board Opinion No. 23 (APB 23) provided that U.S. taxes due on foreign subsidiary income were not included as an expense if the corporation stated that the earnings were “permanently reinvested,” meaning that U.S. tax would not have been due on those earnings for an indefinite period of time, which in turn means that they would not have been paid to the U.S. parent via dividend or a loan subject to § 956. SENATE PERMANENT SUBCOMM. ON INVESTIGATIONS, EXHIBITS TO HEARING ON OFFSHORE PROFIT SHIFTING AND THE U.S. TAX CODE 15–16 (2012) [hereinafter SENATE PSI REPORT], <http://www.hsgac.senate.gov/download/?id=7B9717AF-592F-48BE-815B-FD8D38A71663> [<https://perma.cc/JLL2-RUPN>]; see also FASB, *Accounting for Income Taxes, Special Areas* (ASC 740-30-25) (codifying APB 23). Section 956 arguably does have loopholes that companies exploited, but these tactics were legally dubious. SENATE PSI REPORT, *supra*, at 14–15, 24–27.

200. *Overseas Earnings of Russell 1000 Tops \$2 Trillion in 2013*, AUDIT ANALYTICS tbl. (Apr. 1, 2014), <http://www.auditanalytics.com/blog/overseas-earnings-of-russell-1000-tops-2-trillion-in-2013/> [<https://perma.cc/DQB9-TFX2>] (listing total foreign indefinitely reinvested earnings at \$1,098,470,000,000 as of 2008). The amount of cash held by foreign subsidiaries of U.S. companies only grew after 2008 and was estimated at \$2.6 trillion for 2015. Letter from Joint Committee on Taxation Staff to Reps. Kevin Brady & Richard Neal (Aug. 31, 2016), in 2016 TNT 190-22.

201. *All You Need is Cash*, *supra* note 140.

To allow U.S. parent companies to borrow from their foreign subsidiaries during the crisis, the IRS's response was temporary nonenforcement of § 956, but only for 179 days out of the year.²⁰² While this nonenforcement likely helped many corporations—and jobs—survive the financial crisis, it was rightly criticized as a windfall for many other corporations,²⁰³ because corporations could violate § 956 for up to 179 days per year regardless of whether they faced a cash crunch.²⁰⁴

Yet many distressed U.S. corporations could not meet their cash needs with loans lasting just 179 days out of the year.²⁰⁵ They needed cash for operating expenses, such as paying employees, throughout the whole year. But the IRS could not countenance extending its nonenforcement beyond 179 days, to avoid giving too great a windfall to corporations that did not need the relief.

A better alternative would have been a temporary shift to a liability rule that would have allowed U.S. corporations to borrow cash from their foreign subsidiaries while properly compensating the government. This compensation would have been equal to interest²⁰⁶ on the amount of tax the U.S. parent would have owed if § 956 applied in full. For example, suppose that during the 2008–09 financial crisis, a cash-strapped U.S. corporation borrowed \$100 million from its foreign

202. I.R.S. Notice 2008-91, 2008-43 I.R.B. 1001, *extended by* I.R.S. Notice 2009-10, 2009-5 I.R.B. 419, *extended by* I.R.S. Notice 2010-12, 2010-4 I.R.B. 326. Specifically, the loans could be for a maximum of 60 days at a time, with loans outstanding from a foreign subsidiary for less than 180 days total per year. *Id.* § 2. This guidance applied for the first two taxable years of a foreign corporation ending after October 3, 2008. *Id.* § 3.

203. *See, e.g.,* Lee A. Sheppard, *Subpart F and the Credit Meltdown*, 121 TAX NOTES 127, 127 (2008).

204. None of the IRS notices imposed a requirement that the taxpayer taking advantage of the requirement be facing cash shortages. *See supra* note 202.

205. *See* Stuart R. Lipeles & John D. McDonald, *The Treasury Relaxes Code Sec. 956 During Crisis*, 87 TAXES 5, 7 (2009); *id.* at 8 (“Notice 2008-91 . . . is, however, an incremental step that is not likely to make a dramatic impact. If the Treasury really wants to have a significant impact and help taxpayers that are having severe problems obtaining credit, it should . . . change the 60-/180-day thresholds to something significantly longer.”); *see also* Ron Dabrowski & Alexey Manasuev, *Liquidity, Certainty, and Rollover Loans: Notice 2008-91 and Relief From IRC Section 956*, 57 TAX NOTES INT’L 793, 799–800 (2010) (the notice’s 180-day time limit “may not allow taxpayers to fully benefit from the ‘liquidity relief’” intended by the notice).

206. The IRS already regularly calculates and publishes interest rates for use by taxpayers on underpayments of taxes, which is a similar situation. *See* I.R.C. § 6621(a)–(b) (2012). Professor Shu-Yi Oei has correctly noted that interest rates should be adjusted for riskiness and that governments cannot feasibly figure out each taxpayers’ riskiness and appropriate interest rate. *See* Shu-Yi Oei, *Taxing Bankrupts*, 55 B.C. L. REV. 375, 400 (2014). But this concern is minimal here because the taxpayer has a much larger pot of cash available for payment, specifically the cash being loaned by the foreign subsidiary.

subsidiary for one year, and that § 956 would normally result in tax of \$35 million.²⁰⁷ If the relevant interest rate was 10 percent,²⁰⁸ this proposed liability rule would have required the U.S. parent to pay \$3.5 million in additional taxes per year to compensate for violating § 956.

Switching temporarily to this liability rule during the financial crisis would have had three practical benefits. First, it would have prevented windfalls to corporations that did not need the relief. Second, because the compensation would have been proportional to the time the loan was outstanding, a parent corporation would have had an incentive to repay the loan from its subsidiary once the parent's cash crunch ended. Third, the compensation to the government would have made it palatable for policymakers to provide year-round relief throughout the crisis, rather than the 179-day relief that the IRS actually provided and that was insufficient for many companies.²⁰⁹

This liability rule would almost certainly have saved jobs had it been in place during the 2008–09 financial crisis, because it would have provided many hard-hit companies with sufficient access to cash. The layoffs during the 2008–09 financial crisis resulted in large part from nonfinancial businesses lacking cash.²¹⁰ A survey of chief financial officers of U.S. nonfinancial companies during the crisis found that those facing serious financial constraints planned substantial cuts in investment,²¹¹ which would reduce demand for investment in the short term and reduce productivity in the long term. Even more ominously, these cash-strapped companies also reported planning to slash their U.S. workforces by an average of 11 percent.²¹²

2. *Foreign Subsidiary Loans for Securities Dealers.* The previous Section discussed how the IRS did not enforce § 956 during the 2008–

207. This is calculated using the then-applicable 35 percent corporate tax rate applied to the loan amount. I.R.C. § 11. The U.S. parent's tax due might have been lowered by the credit for any foreign taxes paid. See *supra* note 195. Assume for simplicity that the subsidiary paid zero foreign taxes through sophisticated tax planning.

208. For a discussion of the IRS's ability to charge interest rates on underpayments of taxes, see *supra* note 206.

209. For a discussion of the insufficiency of the IRS's relief for many companies, see *supra* note 205.

210. Murillo Campello, John R. Graham & Campbell R. Harvey, *The Real Effects of Financial Constraints: Evidence from a Financial Crisis*, 97 J. FIN. ECON. 470, 477 (2010); *All You Need is Cash*, *supra* note 140; cf. PAULSON, *supra* note 28, at 227–28 (noting the connection between companies' lack of access to cash and job cuts).

211. Campello et al., *supra* note 210, at 478.

212. *Id.* fig.2. By comparison, otherwise comparable firms facing less dire financial constraints planned an average workforce reduction of just 3 percent. *Id.*

09 financial crisis, but limited this nonenforcement to 179 days per year. The IRS also made another, quite different shift to not enforcing § 956; this shift applied solely to securities dealers. The IRS allowed U.S. securities dealers to borrow cash from their foreign subsidiaries—with no time limit.²¹³

Section 956 has an exception that allows securities dealers to borrow money tax free from their foreign subsidiaries, provided that the collateral backing the loan is “readily marketable securities.”²¹⁴ This “readily marketable” requirement is protected by a property rule, so that using securities that are not readily marketable as collateral results in the full amount of the loan from the foreign subsidiary being taxable under § 956’s general rule of immediate full taxation of the loan amount.²¹⁵

During the financial crisis, the IRS shifted to nonenforcement of the “readily marketable” requirement.²¹⁶ U.S. securities dealers held piles of securities, like dubious mortgage-backed bonds, for which no ready market existed,²¹⁷ because market participants suspected the securities had little value or were even worthless. The IRS’s nonenforcement allowed securities dealers to use those securities as collateral to borrow cash from their foreign subsidiaries without any time limit.

Perversely, this slapdash move to nonenforcement created ambiguity and risk for the very U.S. securities dealers that the IRS hoped to benefit, because a related statutory provision limited the tax exclusion “to the extent the principal amount of the [cash borrowed]

213. Rev. Proc. 2008-26, 2008-21 I.R.B. 1014, *extended by* I.R.S. Notice 2009-10, 2009-5 I.R.B. 419, *extended by* I.R.S. Notice 2010-12, 2010-4 I.R.B. 326. The guidance theoretically applied to not only securities dealers, but also commodities dealers. But the guidance talks about secured borrowings involving securities, suggesting it applied overwhelmingly to securities dealers in practice.

214. I.R.C. § 956(c)(2)(J) (2006); *see* S. REP. No. 105-33, at 87–89 (1997). Congress passed this statute to enable cross-border lending between U.S. securities dealers and unrelated foreign parties, using the securities dealers’ foreign subsidiaries as middlemen to ease the nontax aspects of the transaction. *See* Philip Fried & Kevin J. Liss, *CFCs—Investment of Earnings in United States Property*, U.S. International Portfolios (BNA) No. 6260-1st, § VLD (1st ed. 2014). But the statute does not actually require that an unrelated foreign party be involved.

215. I.R.C. § 956(c)(1)(C) (defining “an obligation of a United States person,” which includes a loan obligation of the U.S. parent corporation, as “United States property”).

216. Rev. Proc. 2008-26, 2008-1 C.B. 1014 § 4; *see also supra* note 213.

217. Rev. Proc. 2008-26, 2008-21 I.R.B. 1014. (“For example, the Service will not challenge whether a mortgage-backed security . . . is ‘readily marketable’”; *cf.* Sullivan & Sheppard, *supra* note 24, at 14 (discussing Rev. Proc. 2008-26 and how it would be applied to “the toxic asset in question”).

does not exceed the fair market value” of the securities used as collateral.²¹⁸ But the “fair market value” of these securities was completely unclear because the securities were not “readily marketable.”²¹⁹ Years later, the IRS could potentially audit a securities dealer and argue that a security’s fair market value was substantially less than the cash borrowed from the foreign subsidiary using that security as collateral. The securities dealer would then owe tax on the difference.

The IRS did not stop enforcing this “fair market value” limitation, because doing so would have been equivalent to total nonenforcement of § 956 for securities dealers, allowing them to repatriate nearly unlimited cash, tax free.²²⁰ To avoid giving such a generous unlimited windfall, the IRS moved to nonenforcement of only the “readily marketable” requirement. This half-hearted muddle by the IRS left ambiguity and risk, which kept many securities dealers from benefitting from it.²²¹

A better solution would have been temporarily moving to the same liability rule proposed in the previous Section—letting all U.S. corporations, not just securities dealers, borrow as much money from their foreign subsidiaries as they wanted, but requiring the corporations to compensate the government in proportion to the amount and length of the loan.²²² That straightforward compensation formula would not have created severe legal uncertainty, unlike the IRS’s ad hoc nonenforcement of the “readily marketable” requirement.

3. *Bank Tax Attributes—A Windfall for Walls Fargo.* During the crisis, the IRS stopped enforcing some of the rules against corporations abusing “tax attributes.” When a corporation loses money or purchases assets that later fall in value, the result is a tax attribute that the corporation can use to shelter income in future years.²²³ The Supreme

218. I.R.C. § 956(c)(2)(J).

219. See *supra* note 217.

220. During the financial crisis, plenty of securities were available to purchase for a fraction of their face value. If the IRS had waived the fair market value limitation, a securities dealer could use just \$1 million in U.S. cash to purchase subprime mortgage bonds with a face value of \$100 million, and use them as collateral to repatriate \$100 million tax free from a foreign subsidiary.

221. Sullivan & Sheppard, *supra* note 24, at 14 (noting that Revenue Procedure 2008-26 would likely have limited effect, since “[s]ection 956(c)(2)(J) does say that the borrower cannot borrow more than the fair market value of the toxic asset in question”).

222. See *supra* notes 206–07 and accompanying text.

223. One type of tax attribute is the “net operating loss” (NOL), effectively representing a

Court explained that such tax attributes “were designed to permit a taxpayer to set off its lean years against its lush years.”²²⁴

Tax attributes can, however, create perverse incentives to engage in corporate acquisitions that would not happen without the tax attributes. A corporation with lots of income might try to shelter its own future income by acquiring a company with lots of tax attributes. Permitting such tax-motivated acquisitions would distort acquisition decisions and enable acquiring corporations to shelter their income from tax.²²⁵

Congress responded to this concern by enacting § 382 of the IRC.²²⁶ When one corporation acquires another,²²⁷ § 382 places strict limits on the use of tax attributes to shelter future income. Each year, the amount of tax attributes that can be used is set by a simple formula, multiplying the tax-exempt interest rate at the time of the acquisition²²⁸ by the value of all the acquired company’s stock—that is, its stock market capitalization—at the time of the acquisition.²²⁹ Therefore, the smaller the acquired company’s stock market capitalization, the less the acquirer may use acquired tax attributes to reduce its income.

During the 2008–09 financial crisis, this simple formula became a draconian property rule against acquiring troubled banks. Bank stocks plunged, which proportionally reduced § 382’s annual tax-attribute usage limit.²³⁰ Meanwhile banks’ tax attributes soared, as they lost ever

year’s negative taxable income. I.R.C. § 172. Another type of tax attribute is a “net unrealized built-in loss,” which basically means that the corporation paid more for its assets than they are now worth. *Id.* § 382(h)(3)(A)(i). The corporation can often deduct losses by recognizing them, such as by selling them or, if the corporation is a bank, by charging them off to reflect its inability to collect from the borrowers. *See* Treas. Reg. § 1.166-2(d) (as amended in 1993).

224. *United States v. Foster Lumber Co.*, 429 U.S. 32, 42 (1976) (quoting *Libson Shops, Inc. v. Koehler*, 353 U.S. 382, 386 (1957)).

225. AM. LAW INST., FEDERAL INCOME TAX PROJECT, SUBCHAPTER C 208-09 (1982).

226. I.R.C. § 382 (2012); *see* H.R. REP. No. 99-841, at 170–96 (1986) (Conf. Rep.).

227. Acquisition generally involves purchasing a majority of the acquiree’s stock. *See* I.R.C. § 382(g).

228. I.R.C. § 382(f). This is typically the prevailing rate for low-risk municipal bonds, the interest on which is exempt from any federal income tax. This rate is calculated and published every month by the IRS in the Internal Revenue Bulletin. *See generally* BORIS I. BITTKER & JAMES S. EUSTICE, FEDERAL INCOME TAXATION OF CORPORATIONS AND SHAREHOLDERS ¶ 14.44[1][b] (7th ed. 2014) (“The exempt rate was apparently chosen in an attempt to offset any overvaluation of the corporation because of anticipated tax benefit from the future use of the losses.”).

229. I.R.C. § 382(b), (e)(1); BITTKER & EUSTICE, *supra* note 228, ¶ 14.44[1][b].

230. The statutory language setting out the limitation formula, I.R.C. § 382(b)(1), looks to stock valuation, even if that valuation has plunged due to temporary factors. *See Berry Petroleum Co. v. Comm’r*, 104 T.C. 584, 637–40 (1995), *aff’d*, 142 F.3d 442 (9th Cir. 1998).

more money and the value of their loans and other assets plunged.

Consider a simple hypothetical with banks X and Y buffeted by the financial crisis. In late 2008, each bank had \$20 billion in tax attributes. Both expected to return to profitability with \$10 billion in profits per year in 2010 and 2011 for each bank. Standing alone, X and Y can each avoid paying any taxes in 2010 or 2011, using their own tax attributes, because \$10 billion of the tax attributes completely offset the \$10 billion in profits in 2010, and the remaining \$10 billion in tax attributes completely offset the \$10 billion in profits in 2011. But suppose that the financial crisis drove Y's stock market capitalization down to just \$1 billion in late 2008. At that time, the tax-exempt interest rate was around 5 percent.²³¹ If X acquired Y in late 2008, then the combined bank would have to pay tax on \$9.95 billion²³² in both 2010 and 2011. But without the acquisition neither would have paid any taxes in either year.

Section 382 thus became a draconian property rule against bank mergers, even when such mergers would increase financial stability, prevent bank runs, and be economically beneficial.²³³ The IRS correctly diagnosed this problem but promptly delivered the wrong cure—nonenforcement.²³⁴ The IRS issued guidance that § 382 would simply not apply to most tax attributes of acquired banks.²³⁵

In late 2008, the bank Wachovia had approximately \$74 billion in tax attributes.²³⁶ Just two days after the IRS guidance, the bank Wells Fargo announced that it would acquire Wachovia.²³⁷ One industry

231. Rev. Rul. 2008-53, 2008-49 I.R.B. 1231 tbl.3 (promulgating the long-term tax-exempt rate for ownership changes in December 2008 as 5.40 percent).

232. The 5 percent tax-exempt rate multiplied by the \$1 billion price of the target allows the merged bank to subtract only \$0.05 billion of the target's tax attributes—and all \$10 billion of acquirer's tax attributes—against their combined \$20 billion in income, leaving \$9.95 billion as taxable income.

233. Some commentators have reasonably argued that two banks merging often results in more stability primarily because it ensures too-big-to-fail status. *E.g.*, ROUBINI & MIHM, *supra* note 25, at 224. But the Wells Fargo–Wachovia merger has apparently resulted in cost savings and better customer coverage. *See* Matthias Rieker, *Wells Fargo's Results Show More Benefits of Wachovia Deal*, WALL STREET J. (Jan. 21, 2011), <http://www.wsj.com/articles/SB10001424052748704590704576091663157991174> [<https://perma.cc/3BMR-X7PM>].

234. *Cf.* Lawrence Zelenak, *Custom and the Rule of Law in the Administration of the Income Tax*, 62 DUKE L.J. 829, 831, 845–46 (2012) (observing that the IRS's nonenforcement of the tax attribute rules had some precedent in the IRS's nonenforcement in more mundane areas, like fringe benefits).

235. I.R.S. Notice 2008-83, 2008-42 I.R.B. 905 (Oct. 20, 2008).

236. *Let Uncle Sam Pay for Your Acquisition*, HOVDE INDUSTRY UPDATE, Jan. 2009, at 2.

237. Binyamin Appelbaum, *After Change in Tax Law, Wells Fargo Swoops In*, WASH. POST

analyst calculated that the IRS's nonenforcement saved Wells Fargo \$22.5 billion in taxes after the Wachovia acquisition.²³⁸ Other banks that acquired struggling banks also likely benefitted from this nonenforcement.²³⁹ This largess drew criticism not only from scholars and tax commentators,²⁴⁰ but also from a bipartisan congressional chorus.²⁴¹ Congress took the unusual step of repealing the IRS guidance, although Congress grandfathered in already-announced acquisitions like Wells Fargo and Wachovia.²⁴² Instead of nonenforcement, the IRS should have shifted temporarily to a liability rule that compensated the government by limiting tax attributes, but with the limit calculated using the target's market capitalization before the crisis started,²⁴³ rather than the normal rule of using the target's market capitalization at the time of the acquisition.²⁴⁴ The limit would remain the tax-exempt interest rate multiplied by the target's market capitalization,²⁴⁵ but the target's market capitalization would be measured as of before the crisis, rather than the time of the acquisition, by which time the target's stock would have plunged.²⁴⁶ This rule would still prevent garden-variety tax-motivated acquisitions, because a

(Oct. 4, 2008), <http://www.washingtonpost.com/wp-dyn/content/article/2008/10/03/AR2008100301042.html> [<https://perma.cc/KK9M-LLND>].

238. *Let Uncle Sam Pay for Your Acquisition*, *supra* note 236, at 3. This analysis reasonably assumed a 33 percent effective tax rate. *Id.*

239. *Id.*

240. *E.g.*, Lee A. Sheppard, *Technical Objections to the Bailout*, 121 TAX NOTES 20, 25 (2008) ("Even bank representatives were bowled over by the generosity of this notice."); Thomas R. May, *IRS Addresses Loss Limitations Amid Financial Crisis*, 121 TAX NOTES 277, 279–80 (2008); Zelenak, *supra* note 24.

241. May, *supra* note 240, at 280 (noting that Senator Charles Grassley (R-Iowa) criticized the Notice because it "likely will add billions of dollars to the deficit"); Chuck O'Toole, *Baucus Calls for Special Inspector General to Look into Notices*, 121 TAX NOTES 883 (2008) (quoting Senator Max Baucus (D-Mont.)). The treasury inspector general found no ethical improprieties, only questionable policy. Memorandum from Rich Delmar, Counsel to Inspector Gen., Dep't of the Treasury, to Eric M. Thorson, Inspector Gen., Dep't of the Treasury (Sept. 3, 2009), <http://www.treasury.gov/about/organizational-structure/ig/Documents/Inquiry%20Regarding%20IRS%20Notice%202008-83.pdf> [<https://perma.cc/Q4QM-99EQ>].

242. American Recovery & Reinvestment Act of 2009, Pub. L. No. 111-5, § 1261, 123 Stat. 115, 342.

243. Determining when a crisis starts is the subject of Part III.B.5 below.

244. I.R.C. § 382(e)(1) (2012) (providing the rule that the value of the target corporation is measured "immediately before the ownership change").

245. *Id.* § 382(b)(1) (setting out this formula).

246. Other compensatory liability rules are also possible that would keep § 382 from becoming a property rule against acquiring troubled companies during a crisis. For example, § 382's limit could be applied only to tax attributes that arose before the financial crisis; thus, the acquirer could use all tax attributes that arose once the financial crisis started.

company that was losing money—and thus generating tax attributes—before the crisis started would have had a correspondingly low precrisis stock price. But the fall in a company's stock price resulting from the crisis would not turn the § 382 limitation from a liability rule into a draconian property rule against all acquisitions.

This proposed liability rule would ensure that tax law does not prevent acquisitions that would help stop a financial crisis. This liability rule would also prevent windfalls by preventing acquiring corporations from sheltering their future income using tax attributes already reflected as losses that depressed the target corporation's stock price before the crisis started.

4. *Tax Attributes During Bailouts—A Windfall for General Motors.* The IRC section just discussed, § 382, is not limited to acquisitions of already-existing stock, like Wachovia's stock in the example above. Section 382 also applies to acquiring *new* stock issued in exchange for putting more money into a corporation with tax attributes.²⁴⁷

Consider a simple hypothetical where large investors are considering putting new capital either into company A or into company B. Suppose that B's business opportunities are more economically promising than A's business opportunities, meaning that investors and the economy would benefit more from investing in B. But suppose that B has no tax attributes, while A does have tax attributes, which would shelter A's future income and thus increase the after-tax return to those investing in A. These tax attributes might distort the investors' decisions towards choosing A.

Section 382 aims to prevent such distorted investment decisions. The same severe limitations on tax attributes discussed in the previous Section apply whenever a new shareholder acquires more than 50 percent of a corporation's stock, even if the acquired stock is newly issued.²⁴⁸ This requirement is a property rule, because if investors step over the 50 percent ownership line, the severe penalty of permanently limited tax attributes kicks in immediately, even if the acquisition is only 51 percent.

During the 2008–09 financial crisis, the federal government took

247. *See id.* § 382(g)(1).

248. The precise measurement of an ownership change is more complex and is detailed in § 382(g) of the Internal Revenue Code. *See generally* BITTKER & EUSTICE, *supra* note 228, at ¶ 14.43 (explaining this change-of-ownership trigger).

ownership stakes of more than 50 percent in several corporations, including the carmaker General Motors (GM), the insurer American International Group (AIG), and the bank Citigroup.²⁴⁹ All three had substantial tax attributes, and § 382's plain statutory language would have severely curtailed the use of their tax attributes. But the IRS shifted to total nonenforcement of § 382 for acquisitions by the federal government.²⁵⁰

This nonenforcement substantially increased the value of these companies' stock. For example, analysts' research reports estimated that the preservation of GM's tax attributes increased GM stock's value by \$12 billion.²⁵¹ At first glance, this nonenforcement appears to be a relatively innocuous accounting shift to improve the appearance of the TARP bailout.²⁵² The IRS gave up future tax revenue, garnering

249. See J. Mark Ramseyer & Eric B. Rasmusen, *Can the Treasury Exempt Its Own Companies from Tax? The \$45 Billion GM NOL Carryforward*, 1 CATO PAPERS ON PUB. POL'Y 1, 3–4 (2011) (describing the U.S. Treasury's acquisition of shares in GM after GM declared bankruptcy in June 2009).

250. I.R.S. Notice 2008-76, 2008-39 I.R.B. 768 (regarding federal government capital injections into Fannie Mae and Freddie Mac); I.R.S. Notice 2008-84, 2008-41 I.R.B. 855 (regarding government as equity investor, issued right after the AIG bailout); I.R.S. Notice 2008-100, 2008-44 I.R.B. 1081 (regarding government as equity investor via TARP), *amplified* by I.R.S. Notice 2009-14, 2009-7 I.R.B. 516, *amplified* by I.R.S. Notice 2009-38, 2009-18 I.R.B. 901, *amplified* by I.R.S. Notice 2010-2, 2010-2 I.R.B. 251 (specifically covering the government's sale of its GM stock into the public markets).

Congress ratified the IRS's nonenforcement, solely with respect to the *initial* loan to GM by TARP, by enacting I.R.C. § 382(n) (2012), with the American Recovery & Reinvestment Act, Pub. L. No. 111-5, § 1262(a), 123 Stat. 115, 343–44. But § 382(n)(2) expressly made subsection (n) *not* applicable to TARP's subsequent sale of GM stock to the public. As a result, the IRS had to step in with Notice 2010-2, 2010-2 I.R.B. 251 § III.E. See generally Ramseyer & Rasmusen, *supra* note 249, at 7–24 (explaining the IRS assistance in depth).

The IRS also moved to total nonenforcement of a related statutory provision, I.R.C. § 597(b)(3) (2006), which was implemented in Treas. Reg. §§ 1.597-2(a)(1), 1.597-1(b) (as amended in 2017). That statute bars double tax benefits to banks, which could otherwise exclude from gross income all government assistance that covered losses, while also deducting the losses. The IRS simply moved to nonenforcement of this provision with respect to TARP government assistance to banks. I.R.S. Notice 2008-101, 2008-44 I.R.B. 1082.

251. J.P. MORGAN CHASE & CO., GENERAL MOTORS: REBORN, HIGH OCTANE SAAR AND PRODUCT PLAY; INITIATIVE WITH OVERWEIGHT 10 (Dec. 28, 2010) (“Via a special regulation, GM's highly valuable US tax assets . . . were left intact. . . . we arrive at a PV for global economic tax assets ex[cluding] Europe of \$12.4B at 2011-end.”); *id.* at 17 (explaining valuation methodology and adding “We estimate GM will not be a US cash taxpayer until ~2017.”); *id.* at 85 tbl.31 (showing calculations); Ramseyer & Rasmusen, *supra* note 249, at 10 (discussing stock analysts' reports); Lubben, *supra* note 24 (describing the special tax treatment GM received); Smith & Terlep, *supra* note 24 (describing the practical effects on GM's business as a result of the IRS notices).

252. Even tax practitioners who supported this IRS guidance admitted as much. See, e.g., Trivedi, *supra* note 24, at 1211 (quoting Todd B. Reinstein of Pepper Hamilton LLP as saying

little public attention, and gave it back to the bailout recipients, letting politicians and government officials crow about TARP's relative success.²⁵³ In effect, money went from the government's "IRS pocket" into the government's "TARP pocket."

But a huge chunk of money leaving the IRS pocket wound up in other hands en route to the TARP pocket, because TARP owned only part of the stock of these bailout recipients. For example, TARP held only 61 percent of the shares of GM,²⁵⁴ so TARP only got 61 percent of the \$12 billion in benefits from the IRS's nonenforcement of § 382, which is approximately \$7 billion.²⁵⁵ The remaining 39 percent of the value from nonenforcement—approximately \$5 billion—went to shareholders other than the federal government.²⁵⁶

A proportional liability rule provides a better alternative to nonenforcement of § 382 during government bailouts. This liability rule could be an additional tax on any dividends flowing to shares that were not issued to the federal government in exchange for the bailout.²⁵⁷ This tax would apply until the value of the tax attributes is recouped.²⁵⁸ This liability rule would compensate the federal government for the tax benefits that flow to other shareholders, who would no longer get a windfall.

"the notices were 'a really great idea' that worked to prop up the value of those companies, making the government's divestiture in them all the more profitable. 'You're enhancing the value without putting the cash in'").

253. Ramseyer & Rasmusen, *supra* note 249, at 5.

254. BILL CANIS & BAIRD WEBEL, CONG. RESEARCH SERV., THE ROLE OF TARP ASSISTANCE IN THE RESTRUCTURING OF GENERAL MOTORS 10 (2014).

255. Ramseyer & Rasmusen, *supra* note 249, at 9 (observing that "\$7.32 billion (= 0.61 x \$12 billion) was a tax gift [from the Treasury] to itself").

256. *Id.*; Lubben, *supra* note 24.

257. In effect, this would create two classes of stock, stock that the federal government had owned and stock that it had not. The financial markets are well accustomed to trading and pricing multiple classes of stock.

258. The value of the tax attributes, which would determine when the additional tax would stop being charged, must already be calculated—and recalculated when applicable—by the corporation for financial accounting purposes, as the tax attributes show up as "deferred tax assets" on the balance sheet. *See, e.g.*, Citigroup, Inc., 2017 Annual Report 175, <https://www.sec.gov/Archives/edgar/data/831001/000083100117000038/c-12312016x10k.htm> [<https://perma.cc/LEV6-FQ8M>]; Citigroup, Inc., Form 8-K, Jan. 16, 2018, Exhibit 99.1, at 1, https://www.sec.gov/Archives/edgar/data/831001/000110465918002278/a18-3170_1ex99d1.htm [<https://perma.cc/KQ9A-WTUA>]; Michael Rapoport, *More Companies To Report Charges*, WALL STREET J., Jan. 17, 2018, at B2 (explaining why Citigroup, GM and other companies must revalue their deferred tax assets).

5. *Mortgage-Backed Bonds.* Mortgage-backed bonds played a central role in the 2008–09 financial crisis. In response, the IRS moved to partial nonenforcement of the tax rules governing mortgage-backed bonds, providing incomplete relief that led to unnecessary home foreclosures.

When a homebuyer takes out a mortgage, the mortgage is typically pooled together with thousands of other mortgages, which are then “securitized” into multiple bonds sold to investors.²⁵⁹ The majority of all residential mortgages are securitized,²⁶⁰ and as of the end of 2008 there were \$8.9 trillion in mortgage-backed bonds outstanding.²⁶¹

Most mortgage-backed bonds are structured to qualify as Real Estate Mortgage Investment Conduits (REMICs),²⁶² which are generally exempt from tax.²⁶³ In exchange for this favorable treatment, Congress imposed stringent requirements that effectively limit a

259. See Anna Gelpern & Adam J. Levitin, *Rewriting Frankenstein Contracts: Workout Prohibitions in Residential Mortgage-Backed Securities*, 82 S. CAL. L. REV. 1075, 1080–87 (2009); Adam J. Levitin & Tara Twomey, *Mortgage Servicing*, 28 YALE J. ON REG. 1, 11–22 (2011) (providing excellent overview of mortgage securitization). Often the single pool of bonds issues multiple “tranches” of bonds, with different priority claims to payment. Gelpern & Levitin, *supra*, at 1084–85.

260. ANDREAS FUSTER & JAMES VICKERY, FED. RES. BANK OF NY, SECURITIZATION AND THE FIXED-RATE MORTGAGE 45 fig.1.B (2014), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr594.pdf [<https://perma.cc/7Z3Q-EG7X>] (showing that over time in excess of 80 percent of non-jumbo mortgages are either securitized by the Government-Sponsored Enterprises (GSEs) or privately securitized); *id.* at 45 Fig. 1.A (showing that, except during 1999–2000 and 2007–08, over 50 percent of jumbo mortgages are either securitized by the GSEs or privately securitized); 2 INSIDE MORTG. FIN., 2007 MORTGAGE MARKET STATISTICAL ANNUAL 3 (2007) (showing that in 2006 67.7 percent of the total dollar amount of mortgages were securitized).

261. *The Bond Market*, FIN. INDUS. REGULATORY AGENCY, http://apps.finra.org/investor_information/smart/bonds/401000.asp [<https://perma.cc/ET83-2AVY>].

262. Marshall D. Feiring, *REMICs, Mortgage REITs, Mortgage Trusts and Other Real Estate Mortgage Securitization Vehicles*, U.S. Income Portfolios (BNA) No. 741-2d, § I.F (“REMICs are . . . the predominant form for issuing mortgage-backed securities.”); Levitin & Twomey, *supra* note 259, at 32 (noting “REMIC[s], [are] the typical form for PLS and some agency RMBS” and that grantor trusts are used for certain agency RMBS); Ingrid Szura, *Nice Try: Why Revenue Procedure 2009-45 Will Not Curb the Rising Number of CMBS Loan Defaults*, 37 MICH. REAL PROP. REV. 85, 86 (2010) (noting that commercial mortgage-backed bonds are generally REMICs). Some mortgage-backed bonds are issued not as REMICs but as grantor trusts, or “mortgage trusts,” but this arrangement allows much less flexibility, such as allowing only one class of debt without being subject to the punitive taxable mortgage pool (TMP) rules, I.R.C. § 7701(i) (2012), and much less tax certainty, *see* Feiring, *supra*, § III.E.3. The analysis in this Section applies in full to mortgage trusts, which were dealt with in nearly identical terms by the revenue procedures discussed below.

263. I.R.C. § 860A(a) (2012). The bondholders are, of course, still taxed on the interest they receive. I.R.C. §§ 860A(b), 860B, 61(a)(4). Having no tax on the REMIC but tax on the bondholders is the reason for the word “conduit” in “Real Estate Mortgage Investment Conduit.”

REMIC to holding a fixed pool of mortgages,²⁶⁴ and required that a REMIC have “no powers to vary the composition of its mortgage assets.”²⁶⁵ At least 99 percent of a REMIC’s assets must be mortgages it acquires within its first three months of existence.²⁶⁶ For example, if a REMIC starts up in January and then acquires a mortgage in May of the same year, that mortgage does not count towards the stringent 99 percent requirement.

Losing REMIC qualification would be catastrophic,²⁶⁷ as all income from the underlying assets would become subject to full corporate taxation, permanently.²⁶⁸ Thus, the requirement that 99 percent of a REMIC’s assets be mortgages it acquires within its first three months is protected by a property rule.

This property rule created severe problems when the housing bubble burst. Many borrowers were unable or unwilling to pay their mortgages. The natural solution was renegotiating the mortgages, with some combination of forgiving principal, lowering interest rates, and lengthening repayment times.²⁶⁹ Both the Bush and Obama administrations had initiatives pushing such renegotiations.²⁷⁰ Renegotiation could be a win-win for both homeowners and mortgage-bond investors, enabling homeowners to keep their homes and avoid expensive, value-destroying foreclosure proceedings.

But renegotiation of a mortgage is generally treated, for tax purposes, as if the original loan was replaced by a newly issued

264. I.R.C. § 860D(a)(4).

265. S. REP. NO. 99-313, at 791–92 (1986); I.R.C. § 860G(a)(3)(A) (limiting “qualified mortgage” largely to mortgages either transferred to the REMIC on its formation or within its first three months); *see also* Feiring, *supra* note 262, § IX.K.2 (noting that ever qualifying as a “qualified replacement mortgage” is “unlikely”).

266. I.R.C. § 860G(a)(3)(A); Treas. Reg. § 1.860D-1(b)(3) (as amended in 1992); Feiring, *supra* note 262, § IX.K.2 (observing that a REMIC may be able to qualify with less than 99 percent of its assets being qualified, but a REMIC tests the 99 percent limit “at one’s peril”). Assets closely related to the mortgages also count towards the 99 percent test. For example, a house received upon foreclosure of a REMIC’s mortgage counts, as does cash required to properly service the mortgage. I.R.C. § 860G(a)(5)–(8).

267. Levitin & Twomey, *supra* note 259, at 32–33 (“The economics of mortgage securitization only work if the RMBS have pass-through tax status; an additional level of taxation would add significant costs to securitization. Therefore, preservation of pass-through status is of paramount importance to investors and the trust.”).

268. Failure to qualify as a REMIC would generally cause the pool to be taxed as a TMP. I.R.C. § 7701(i); Feiring, *supra* note 262, §§ V.P, XI.A. There is a quite limited relief provision for REMIC failures, I.R.C. § 860D(b)(2)(B); *see* Feiring, *supra* note 262, § V.P., but there is no indication such as a private letter ruling that this relief provision has ever been applied.

269. *See* Gelpert & Levitin, *supra* note 259, at 1089.

270. BLINDER, *supra* note 134, at 327–38 (surveying the various initiatives).

mortgage with the new terms.²⁷¹ If a REMIC renegotiates more than 1 percent of its mortgages, it risks a catastrophic loss of tax qualification.²⁷² This is no unintended quirk of tax law. Renegotiating mortgages is a normal business activity for banks, which are subject to full corporate tax.²⁷³ In contrast, Congress expressly intended REMICs, which are generally exempt from tax, to be mere passive investment vehicles.²⁷⁴ Congress did not want REMICs to engage in bank-like business activity.²⁷⁵ This worry was reasonable, as clever lawyers have long tried to shoehorn bank-like activities into REMICs to avoid corporate tax.²⁷⁶

During the financial crisis, the IRS correctly recognized the serious problem caused by the property rule about REMICs modifying mortgages. But the IRS moved from the property rule to nonenforcement, which had three serious failings. First, nonenforcement gave windfalls to REMICs that were able to profit from renegotiating qualifying mortgages. Because REMICs are tax free, these profits escaped taxation. Commentators and IRS officials voiced concern that nonenforcement was letting REMICs engage in many bank-like activities, tax free.²⁷⁷

Second, and most importantly, the IRS's fear of giving windfalls caused the IRS to keep its nonenforcement way too narrow. Rather than moving to nonenforcement for all troubled mortgages, the IRS allowed modification for only a crazy patchwork of mortgages. For example, REMICs could freely renegotiate adjustable-rate mortgages

271. Treas. Reg. § 1.860G-2(b)(1)–(2) (as amended in 2013); *id.* § 1.1001-3(a), (e) (as amended in 2013). De minimis renegotiations are generally not, however, treated as an exchange. *Id.* § 1.1001-3(e).

272. A narrow exception is available if the renegotiation was “occasioned by default or a reasonably foreseeable default.” Treas. Reg. § 1.860G-2(b)(3)(i) (as amended in 2013). But this exception provided little help. Millions of borrowers would *likely* default unless their mortgage were renegotiated, but their default could not qualify as “reasonably foreseeable.” Rev. Proc. 2008-28, 2008-1 C.B. 1054 §§ 3.07, 5.04; Ctr. for Responsible Lending, Nat’l Consumer Law Ctr. & Nat’l Ass’n of Consumer Advocates, *Comments on Rev. Proc. 2008-28*, TAX NOTES TODAY, July 15, 2008, at 149–17.

273. Feiring, *supra* note 262, § VI.B.1.

274. *See supra* notes 264–65 and accompanying text.

275. Feiring, *supra* note 262, § VI.B.1.

276. *Id.* at ch. X (practice guides explaining how to subvert the existing REMIC rules to qualify corporations engaging in banking-type activities for REMICs’ tax-free treatment).

277. Lee A. Sheppard, *Tax Administrator Also Copes with Credit Meltdown*, 120 TAX NOTES 1132, 1134 (2008) (“The IRS has not made a technical statement about whether forming a workout factory would qualify for REMIC status A REMIC is supposed to be a static pool of mortgages, while a workout factory might look more like a business.”).

taken out between January 1, 2005, and July 31, 2007.²⁷⁸ This relief was not available for standard fixed-rate mortgages, or for mortgages taken out before 2005. As another example, REMICs could freely renegotiate mortgages modified through a specific government-sponsored modification program,²⁷⁹ but that program helped many fewer mortgages than expected.²⁸⁰ The most generalized nonenforcement that the IRS provided was allowing REMICs to freely renegotiate a mortgage with a “significant risk of foreclosure” if modifying that mortgage “substantially reduced [the] risk of foreclosure.”²⁸¹ This vaguely worded relief was hemmed in by severe restrictions.²⁸² In short, the IRS provided vastly underinclusive relief, which drew criticism from bankers and consumer advocates alike.²⁸³

Third, even if a mortgage arguably qualified for the IRS’s nonenforcement, a REMIC would often still hesitate to renegotiate it, because the devastating property-rule remedy still lurked in the background. Consider the IRS nonenforcement that allowed renegotiating mortgages with a “significant risk of foreclosure”²⁸⁴ that was “substantially reduced”²⁸⁵ by the renegotiation. These vague standards inherently involve judgments about probabilities and counterfactual situations. For example, a “significant” risk of foreclosure might mean a 5 percent risk, a 51 percent risk, a 75 percent risk, or some other number. Similarly, a “substantial” risk reduction might mean a 5 percent reduction, a 90 percent reduction, or some

278. Rev. Proc. 2008-47, 2008-31 I.R.B. 272 § 2.03, *amplifying* Rev. Proc. 2007-72, 2007-2 C.B. 1257.

279. Rev. Proc. 2009-23, 2009-17 I.R.B. 884 (dealing with Home Affordable Mortgage Program (HAMP)); *see also* I.R.S. Notice 2009-36, 2009-17 I.R.B. 883 (providing guidance on the tax treatment of government assistance being provided to REMICs by HAMP); Amy S. Elliott, *IRS Expands REMIC Penalty Relief to Latest Housing Program*, 123 TAX NOTES 279, 279 (2009) (noting several beneficial exceptions to protect REMICs from incurring an increased tax liability as a result of participating in HAMP).

280. BLINDER, *supra* note 134, at 335–36 (lamenting HAMP falling far short of its goals).

281. Rev. Proc. 2008-28, 2008-1 C.B. 1054 §§ 5.04 & 5.06 (applying to residential mortgages held by REMICs and mortgage trusts); Rev. Proc. 2009-45, 2009-40 I.R.B. 471 §§ 5.03, 5.04 (applying to commercial mortgages held by REMICs and mortgage trusts).

282. Rev. Proc. 2009-45, 2009-40 I.R.B. 471, § 5.02(1) (preventing modification of any mortgages in a REMIC where over 10 percent of loans were in default or “reasonably foreseeable” default as of three months after the REMIC’s formation); Rev. Proc. 2008-28, 2008-1 C.B. 1054 § 5.02(1) (imposing similar requirement).

283. *See, e.g.*, Letter from Stephen A. O’Connor, Mortg. Bankers Ass’n, and Anne C. Canfield, Consumer Mortg. Coal., to Internal Revenue Service, Regarding Internal Revenue Service Rev. Proc. 2008-28 (July 15, 2008).

284. Rev. Proc. 2008-28, 2008-1 C.B. 1054 § 5.04.

285. *Id.* § 5.06.

other number. This uncertainty left tax practitioners fretting, with one commenting that “it is *hoped* that the IRS would not second-guess the business judgment of a servicer or lender where the judgment of the servicer or lender is based on practical experience.”²⁸⁶ If the IRS did second-guess a REMIC, the result would be the devastating property rule. Many REMICs preferred not to run this risk and did not renegotiate troubled mortgages, letting them go to foreclosure instead.

Instead of nonenforcement, the IRS could have moved temporarily to a liability rule that allowed all mortgage modifications, without limit, and imposed corporate taxes on any gains the REMIC achieved from the modifications.²⁸⁷ This liability rule would be easy to implement because it taxes the REMIC just like a normal corporation on its mortgage modifications.

This liability rule would solve all three problems that arose from nonenforcement. First, no REMICs would have windfalls, since gains from modifications would be taxed at corporate rates, fully compensating the government for any erosion of the corporate tax base. If any REMIC engaged in the bank-like business of renegotiation for profit, the profits would be taxed at corporate rates just like banks. Second, all troubled mortgages could be renegotiated, not just those falling into the IRS’s underinclusive patchwork. The IRS could countenance such broad availability, as the liability rule prevents windfalls. Third, REMICs would no longer be scared away from modification by the combination of imprecise legal standards like “significant risk of foreclosure”²⁸⁸ and the devastating property rule that would apply if the IRS second-guessed the application of these standards.²⁸⁹

286. Feiring, *supra* note 262, § IX.K.4; *see also* Elliott, *supra* note 279, at 279 (quoting Richard Rydstrom, chair of the Coalition for Mortgage Industry Solutions, about the ambiguity of some of the standards in the guidance); *cf.* Steven Seidenberg, *The Pain Spreads: It's the Commercial Real Estate Market's Turn To Take a Hit from the Financial Crisis*, 96 A.B.A. J. 53, 56 (2010) (“Servicers, however, may be leery of relying on this guidance. . . . [A] servicer may not want to risk a REMIC’s tax status on the hope that a modification satisfies the somewhat vague criteria of the IRS revenue procedure.”).

287. The gain from a mortgage modification would be computed under standard tax principles as the fair market value of the modified mortgage, minus the REMIC’s adjusted basis in the mortgage. I.R.C. § 1001 (2012); *see also* Treas. Reg. § 1.860F-2(c) (as amended in 1993) (REMIC’s basis in mortgage is generally fair market value upon acquisition). This liability-rule approach of applying the top corporate tax rate to earnings that should not normally be earned by a REMIC has precedent. Any property income that a REMIC receives, including income from foreclosing on mortgages, is taxed at full corporate tax rates. I.R.C. §§ 860G(a)(8), (c).

288. *See supra* note 284 and accompanying text.

289. Even if a liability rule does involve some ambiguity, it creates little risk since the

Tax law was not the sole impediment to REMICs modifying troubled mortgages.²⁹⁰ REMIC governing documents often make modifications difficult.²⁹¹ But these documents do so precisely because their drafters feared losing REMIC tax status.²⁹² A survey of these documents found a majority had language directly tracking the tax law language about REMICs modifying mortgages.²⁹³

consequences of overlooking or misjudging the ambiguity is only a compensatory additional amount of tax. See Blair-Stanek, *supra* note 9, at 1199–1200.

290. Professor Adam Levitin and consumer law attorney Tara Twomey have identified other nontax roadblocks preventing REMICs that primarily hold mortgages on residences, as opposed to mortgages on commercial properties, from modifying troubled mortgages. See Levitin & Twomey, *supra* note 259, at 69–84. First, residential mortgage REMIC governance structures do not properly align the incentives of the servicers who run the REMICs with the interests of the REMIC bond holders. *Id.* at 69–80. For example, servicers can often make more money through activities like foreclosure that may not maximize recovery from bond holders. Second, bond holders with different priority claims on the mortgage pool will often have competing interests. *Id.* at 82. Levitin and Twomey propose REMICs holding residential mortgages fix these problems by adopting the governance structures commonly used by REMICs holding commercial mortgages, such as mortgages on office buildings and shopping malls. *Id.* at 85–90. These proposals have great merit.

But the superiority of commercial-mortgage REMIC governance demonstrates how the IRS's response to the crisis was a key roadblock to all mortgage modification. Both residential and commercial mortgages in REMICs faced distress as a result of the financial crisis. The IRS extended nonenforcement of mortgage-modification prohibitions to a patchwork of both residential and commercial mortgages. See, e.g., Rev. Proc. 2009-45, 2009-40 I.R.B. 471–73; cf. T.D. 9463, 2009-40 I.R.B. 442 (Sept. 15, 2009) (permanent regulations providing modest additional commercial-mortgage REMIC relief).

Yet the same three problems with the IRS's nonenforcement of residential-mortgage modification rules applied with full force to commercial-mortgage modification. It created windfalls for lucky REMICs. It was underinclusive. See, e.g., Rev. Proc. 2009-45, 2009-40 I.R.B. 471 § 5.02 (barring relief if more than 10 percent of the commercial loans had had problems within the three months after the REMIC was formed); *id.* § 5.01 (barring relief for commercial mortgages on apartment buildings with three or four units). And it involved ambiguous standards that left REMICs exposed to the devastating property rule remedy if they were misinterpreted. See *New REMIC Rules on Modifications*, MORTGAGE BANKING, Oct. 2009, at 124 (quoting Jan Sternin, senior vice president of commercial/multifamily at the Mortgage Bankers Association, as saying, “[i]t will take some time for the servicers to determine how much latitude they have to implement the new IRS rules”); Seidenberg, *supra* note 286, at 56 (“Servicers, however, may be leery of relying on this guidance . . . [A] servicer may not want to risk a REMIC's tax status on the hope that a modification satisfies the somewhat vague criteria of the IRS revenue procedure.”).

291. These documents are often called Pooling and Servicing Agreements (PSAs). See generally Gelpert & Levitin, *supra* note 259 (discussing these contracts).

292. Seidenberg, *supra* note 286, at 56 (“[M]any pooling and service agreements were drafted with language that tracks the old IRS stance on modifications, thus prohibiting servicers from making modifications.”).

293. Specifically, a majority allowed modification only upon default or “reasonably foreseeable” default. John P. Hunt, *What Do Subprime Securitization Contracts Actually Say About Loan Modification?*, 31 YALE J. REG. ONLINE 11, 15 (2013). This is the precise language

Effectively, the normal tax rules against a REMIC modifying its mortgages are baked into the governing documents of REMICs.²⁹⁴ Baking tax requirements protected by property rules into governing documents generally makes sense, because failing such requirements generally has draconian consequences. But one undesirable result is that the whole system loses flexibility in times of crisis. Even though the IRS moved to nonenforcement of these property-rule requirements for some mortgages, many REMIC governing documents prevented taking advantage of the IRS's action.²⁹⁵

This unfortunate situation suggests a surprising benefit from arranging, *before* the next financial crisis, liability rules to temporarily replace property rules during crises. Prearranging moves to liability rules empowers drafters of private legal documents to make it possible to take advantage of the liability rules. For example, if tax policymakers announce that during future financial crises, the property rule restricting REMIC mortgage modifications will temporarily be replaced by the liability rule, then the drafters of REMIC governing documents can add provisions allowing REMICs to actually use the liability rules during the next crisis. In this way, preannouncing removes private contractual obstacles to responding to crises.

III. LESSONS FOR TAX LAW AND THE LITERATURE ON PROPERTY RULES AND LIABILITY RULES

The previous Part examined the IRS's ad hoc responses to the 2008–09 financial crisis, all of which involved abandoning property rules that would have worsened the crisis. The bad responses shifted to nonenforcement, whereas the good responses shifted temporarily to liability rules, embodying the time-tested wisdom of both *Ploof* and *Vincent*.

This Part distills and organizes nine specific lessons from the previous Part's discussion. It starts by detailing the benefits of moving

in the narrow exception allowing mortgage modification discussed *supra* note 272, including Treas. Reg. § 1.860G-2(b)(3)(i) (as amended in 2013) (excepting “[c]hanges in the terms of the obligation occasioned by default or a reasonably foreseeable default”).

294. These governing documents are, in turn, themselves very difficult to modify. *See* Gelpert & Levitin, *supra* note 259, at 1087–1102.

295. *See* Szura, *supra* note 262, at 86 (“[T]he special servicer’s duties and obligations are defined by the existing PSA, which very likely does not reflect the flexibility of Rev. Proc. 2009-45 with respect to modifications and workouts. . . . Therefore, unless the existing PSAs are modified . . . special servicers are tied to the old PSA restrictions regarding modifications . . .”); *accord* Seidenberg, *supra* note 286, at 56.

to liability rules,²⁹⁶ and then discusses the considerable additional benefits of arranging these moves *before* the next crisis.²⁹⁷ Throughout, this Part demonstrates how these lessons can be used in various other areas of law to better respond to future financial crises, quick-spreading epidemics, and bioterrorism. The Part concludes by considering objections to prearranging temporary moves to liability rules.²⁹⁸

A. Benefits of Moving to Liability Rules in Any Crisis

Even if policymakers have not already prepared moves from property rules to liability rules before a crisis comes, it still makes sense to move to liability rules. This Section discusses the benefits.

1. *Preventing Windfalls and Unnecessary Violations.* Liability rules provide compensation for violations, which prevents windfalls and creates incentives to avoid unnecessary violations. For example, the doctrine of necessity requires that boaters compensate dock owners, preventing windfalls to boaters and discouraging boaters from unnecessarily staying docked during a storm.²⁹⁹ Similarly, the liability rule that the IRS arranged for mutual funds' 90 percent distribution requirement compensated the government for violations, keeping mutual funds from getting tax windfalls, and removed the incentive for unnecessary violations.³⁰⁰

By contrast, the IRS's bad responses, shifting to nonenforcement, created substantial windfalls. The IRS gave "tax gift[s]"³⁰¹ to Wells Fargo and to GM. REMICs lucky enough to hold mortgages that the IRS permitted to be modified could profit from the modifications, yet pay zero tax on these profits. And not enforcing the property rule against loans from foreign subsidiaries gave a windfall to U.S. corporations that were not cash starved, but which nonetheless took tax-free 179-day loans from their foreign subsidiaries. None of these tax windfalls would have occurred had the IRS shifted temporarily to liability rules instead of to nonenforcement.

This lesson applies in other areas of law. Consider constitutional

296. *See infra* Part III.A.

297. *See infra* Part III.B.

298. *See infra* Part III.C.

299. *See supra* notes 96–102 and accompanying text.

300. *See supra* Part II.A.1.C.

301. Ramseyer & Rasmusen, *supra* note 249, at 9.

law's current approach to quarantines—a move from property-rule protection for liberty interests to nonenforcement for a quarantined individual's liberty. The predictable result is unnecessary quarantines; for example, in 2014 an American nurse returned to the United States from treating Ebola patients in Africa and was quarantined for several days, despite her Ebola-negative blood test results.³⁰² If constitutional law adopted liability-rule protection for quarantined individuals, and required compensation, then governments would have a monetary incentive to avoid unnecessary quarantines where the costs imposed on the individual clearly exceed benefits to society.

2. *Making Broad, Clear Relaxation Palatable.* The windfalls and unnecessary violations created by moving to nonenforcement create pressure to keep nonenforcement remedies narrow and vaguely defined. But narrow or vaguely defined relief hampers crisis responses.

Consider the IRS's half-hearted shifts to nonenforcement of § 956's property rule against U.S. corporations borrowing cash from their foreign subsidiaries.³⁰³ Properly designed temporary relief from § 956 could have been an excellent solution to the cash shortage at the core of both the financial crisis and its spillover into the real economy. But the IRS feared giving windfalls that were too large, so its responses were too narrow³⁰⁴ and fraught with legal uncertainty.³⁰⁵ Similarly, the IRS's move to nonenforcement for the property rule against REMICs modifying mortgages similarly resulted in relief that was too narrow³⁰⁶ and plagued with uncertainty,³⁰⁷ all because the IRS reasonably feared that REMICs would reap tax-free windfalls on profits from modifying

302. *See Hickox v. Christie*, 205 F. Supp.3d 579, 585–88, 605 (D.N.J. Sept. 2, 2016) (relating facts around nurse Kaci Hickox's involuntary quarantine and rejecting Hickox's claims for monetary damages due to the New Jersey defendants' qualified immunity).

303. *See supra* Parts II.B.1, 2.

304. Narrowness manifested itself in the IRS allowing all U.S. corporations to borrow unlimited cash from foreign subsidiaries, but limiting this to only 179 days per year. *See supra* note 202. This narrow relief was insufficient for many businesses, which conserved cash by slashing investment and laying off employees. *See supra* notes 205, 211, 212 and accompanying text.

305. Uncertainty resulted from the IRS allowing securities dealers to borrow using securities that were not “readily marketable” as collateral, *see supra* note 216, but retaining the requirement that the loan amount not exceed the securities' fair market value, which was impossible to determine because no market existed. *See supra* note 221 and accompanying text.

306. *See supra* note 278.

307. For a discussion of vagueness in terms such as “significant risk of foreclosure,” *see supra* note 281–282 and accompanying text. For practitioner concerns over these vague terms, *see supra* note 286.

mortgages.³⁰⁸ But the IRS could have provided clear, broad relief without the possibility of windfalls by moving instead to a compensatory liability rule.

This lesson applies to other areas of law. Constitutional law currently views liberty interests as protectable only by property-rule remedies, although in crises like epidemics, courts typically move clumsily to nonenforcement.³⁰⁹ As a result, the law governing quarantines and other measures to handle crises is uncertain.³¹⁰ If constitutional law allowed temporary liability rules during crises, the law could become clearer and more certain.

3. *Minimizing Contagion.* Tort law's temporary move from property rules to liability rules during storms minimizes total damage to two parties, boaters and dock owners. By contrast, similar temporary moves to liability rules in other areas of law can have much broader benefits, preventing contagion that harms third parties.

For example, the IRS's response for mutual funds³¹¹ prevented fire sales of assets that would have harmed third parties holding such assets and that would have deepened the crisis and economic harm.³¹² The IRS's mutual fund response also likely prevented cascading insolvencies of financial institutions.³¹³

As another example, bankruptcy law moving to temporary liability rules for repos would prevent contagion through fire sales caused by creditors seizing and selling the securities used as collateral in repos by troubled debtors like Lehman Brothers.³¹⁴ Similarly, patent law's move to temporary liability rules for epidemic-fighting drug patents makes it easier for all manufacturers to rush generic versions to stop a disease's contagion from person to person.

B. Benefits of Prearranging These Moves Before the Next Crisis

The previous Section detailed the benefits of moving temporarily from property rules to liability rules during crises. Those benefits come

308. Feiring, *supra* note 262, § X (guide to potential abuses).

309. Kontorovich, *supra* note 37, at 780–86.

310. *Id.* at 803–05.

311. *See supra* Part II.A.1.

312. *See supra* notes 156–59 and accompanying text.

313. *See supra* notes 160–61 and accompanying text.

314. *See Morrison et al, supra* note 117, at 1030–31. Note that Morrison, Roe, and Sontchi do not argue for pliability rules, but argue—without using the term—for permanently moving to liability rules.

even when the liability rules are created on the fly to respond to the crisis. This Section details benefits, previously unrecognized in the literature, that policymakers can achieve through liability rules, by announcing both the liability rule and the trigger for temporarily moving to it *in advance* of any crisis.

1. *Speed.* Triggering liability rules quickly minimizes the harm from crises; when a boat is caught in a storm, the sooner the boat is allowed to use a dock, the less likely the boat is to shipwreck. Speed is similarly essential in responding to financial crises,³¹⁵ where the loss of confidence in a financial institution can cause its failure literally overnight.³¹⁶ But the IRS moves slowly in issuing new guidance.³¹⁷ For example, the guidance³¹⁸ shifting the 90 percent distribution requirement for mutual funds came in January 2009, several months into the financial crisis.³¹⁹ The only way to ensure a speedy IRS response is to prepare for the switch to a liability rule in advance.

This lesson applies to many other areas of law. Consider patent law. Society can best respond to a quick-spreading epidemic if a preexisting framework exists to permit all manufacturers to make patented drugs that would fight the epidemic, with compensation to patent holders. Such a framework does not currently exist. The U.S. government's response to the 2001 anthrax scare provides a warning. The antibiotic ciprofloxacin (Cipro) was considered by experts to be the best drug to treat anthrax, and Bayer AG held the patent.³²⁰ Bayer lacked capacity to provide Cipro for the entire U.S. population and refused to voluntarily license other manufacturers to meet the needs of the United States.³²¹ Prearranging procedures for speedy shifts to

315. See PAULSON, *supra* note 28, at 244 (recalling that, in order to stem the crisis, “our actions had to be decisive and overwhelming”).

316. See *id.* at 362 (noting that, in contrast to industrial companies, “[a] financial institution could go under immediately if it lost the confidence of creditors and clients”); ROUBINI & MIHM, *supra* note 25, at 112–13.

317. Sheppard, *supra* note 203, at 128 (observing that “we take paralysis in tax administration for granted”).

318. Rev. Proc. 2009-15, 2009-4 I.R.B. 356; see Part II.A.1.

319. In comparison, Lehman Brothers filed for bankruptcy on September 15, 2008.

320. Resnik & De Ville, *supra* note 127, at 29–30; see also T. Inglesby et al., *Anthrax as a Biological Weapon*, 281 J. AM. MED. ASS'N 1735, 1740–41 (1999) (reviewing evidence that shows Cipro is the best treatment for those exposed to anthrax).

321. Aaron S. Kesselheim & Jerry Avorn, *Biomedical Patents and the Public's Health: Is There a Role for Eminent Domain?*, 25 J. AM. MED. ASS'N 434, 434 (2006); Lody Petersen & Robert Pear, *Anthrax Fears Send Demand for Drug Far Beyond Output*, N.Y. TIMES, Oct. 16, 2001, at A1.

liability rules for patents that can fight epidemics or bioterrorism are clearly in society's best interests.

Bankruptcy law could also best respond to a financial crisis by having speedy prearranged shifts to liability rules for repo contracts. Repo creditors have a property-rule right to seize the securities used as collateral,³²² which incentivizes seizing collateral at the first sign that the debtor is having trouble.³²³ Lehman Brothers is a case in point. Lehman borrowed heavily using repo contracts, and the moment repo creditors lost confidence, it failed.³²⁴ Lehman's failure was effectively a bank run as repo creditors exercised their property-rule rights to seize the collateral.³²⁵ Stemming this outflow quickly is essential to stopping the bank run, and a speedy prearranged shift to liability rules facilitates this stop.

2. *Avoiding Moral Hazard.* This benefit is counterintuitive. This Article earlier explained why the doctrine of necessity does not create moral hazard for boaters,³²⁶ and why temporary shifts to liability rules in tax law do not create moral hazard for taxpayers.³²⁷ But preannouncing the shifts to liability rules can even reduce moral hazard if parties already assume that property rules will be moved to nonenforcement in a crisis.

For example, the IRS's moves to nonenforcement during the 2008–09 financial crisis gave windfalls to a number of taxpayers, like Wells Fargo.³²⁸ Taxpayers probably expect that the IRS will make similar moves to nonenforcement in the next crisis. Recall that moral hazard exists in “any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly.”³²⁹ Taxpayers expecting to benefit from nonenforcement will make decisions about how much risk to take prior to crises and expect the government to bear the cost through nonenforcement when things go badly and the crisis arrives. The current state of affairs thus creates

322. See *supra* note 119.

323. See *supra* notes 121–22.

324. 1 Report of Anton R. Valukas, Bankruptcy Examiner at 3, *In re Lehman Brothers Holdings Inc.*, No. 08-13555 (Bankr. S.D.N.Y. Mar. 11, 2010).

325. Gary Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425, 425, 433 (2012).

326. See *supra* notes 99–103 and accompanying text.

327. See *supra* Part II.A.1.

328. See *supra* Part II.B.

329. KRUGMAN, *supra* note 99, at 63.

moral hazard. Tax law can eliminate this moral hazard simply by prearranging the shifts to liability rules for future crises, thereby disabusing taxpayers from expecting nonenforcement.

Constitutional law offers a similar lesson. Courts move to nonenforcement of liberty entitlements for individuals quarantined during epidemics.³³⁰ Lawmakers routinely make decisions on scientific research and mosquito control that impact the risk of an epidemic, and likely spend suboptimal amounts of money.³³¹ This underspending can be explained, in part, by lawmaker knowledge that if an epidemic starts, the government need not compensate quarantined individuals. Constitutional law's nonenforcement of individual liberty during epidemics thus creates moral hazard, because lawmakers decide how much risk to take, while the quarantined individuals will bear much of the cost if things go badly and an epidemic emerges. But if epidemics caused liability-rule protection for quarantined individuals, requiring government compensation, then this moral hazard would disappear.

3. *Transparency in Liability-Rule Compensation.* Scholars have long recognized that liability rules may be seriously undercompensatory or overcompensatory, thus skewing incentives and inviting opportunistic behavior.³³² Liability rules created on the fly in response to a crisis are much more likely to undercompensate or overcompensate. Moreover, in the heat of a crisis, public attention tends to focus on splashier issues than the design of liability rules,³³³ making midcrisis correction unlikely. The best way to design liability rules that get incentives right is to announce in advance how they will be calculated, and to subject them to public scrutiny and revision.

4. *Encouraging Flexible Legal Arrangements.* Prearranged liability rules provide legal certainty.³³⁴ Knowing the circumstances

330. See *supra* note 115.

331. See, e.g., Emmarie Huetteman, *Five Things To Know About Congress's Fight over Zika*, N.Y. TIMES (Sept. 6, 2016), <https://www.nytimes.com/2016/09/07/us/politics/five-things-to-know-about-congresss-fight-over-zika.html> [<https://perma.cc/MAZ6-8C82>]; Kristina Peterson, *Congress Releases Funding To Aid Fight Against Ebola: Ends Delay by Lawmakers Seeking More Information on Administration's Strategy*, WALL STREET J. (Oct. 10, 2014), <https://www.wsj.com/articles/congress-releases-funding-to-aid-fight-against-ebola-1412959345> [<https://perma.cc/VYW5-U4UZ>].

332. See, e.g., AYRES, *supra* note 61, at 199; Kaplow & Shavell, *supra* note 37, at 730–32; Henry E. Smith, *Property and Property Rules*, 79 N.Y.U. L. REV. 1719, 1743 (2004).

333. See Ramseyer & Rasmusen, *supra* note 249, at 5.

334. Bell & Parchomovsky, *supra* note 10, at 27 (observing that liability rules provide

that trigger switching temporarily to a liability rule and knowing the content of that liability rule enable parties to plan ahead, including designing their contracts and other legal arrangements to respond most efficiently.³³⁵

Recall the problem seen with REMIC governing documents, which were drafted before the 2008–09 crisis under the assumption that the property rule against mortgage modifications would always apply in full.³³⁶ During the crisis, the IRS shifted to nonenforcement for some mortgage modifications, but their governing documents barred REMICs from taking advantage of even this limited nonenforcement.³³⁷ This inflexibility baked into the documents doubtless encouraged more home foreclosures.³³⁸

Prearranging pliability rules for crises would prevent such problems. A REMIC's governing document could arrange for the REMIC to take advantage of the liability rule. The document could also handle important questions such as who decides which mortgages to modify, using what criteria, and how any gains or losses from the modifications would be allocated between different bondholders in the REMIC.³³⁹

Prearranging pliability rules would allow private contracts to adapt across many areas of law. In patent law, pliability rules for patented drugs that fight epidemics would enable manufacturers to have supply contracts in place to rush drugs to stem the epidemic. If constitutional law adopted a pliability rule providing compensation for quarantined individuals during epidemics, then union-bargained contracts of employees most likely to be quarantined, such as healthcare workers and airline employees, could provide for matters such as allocating the compensation.³⁴⁰ If bankruptcy law had a

“certainty concerning future changes in the rules protecting their entitlements, and, therefore, a truer appreciation of the nature of protection they enjoy at present”).

335. *Id.*; *id.* at 78–79 (observing the substantial benefits of the “post-petition rules of bankruptcy [which] are relatively clear and can be planned for”); *id.* at 57 (noting that adverse possession, which is a type of pliability rule, “facilitate[s] trade and reduce[s] conflicts”).

336. *See supra* notes 292, 293.

337. *See supra* notes 292, 293, 295 and accompanying text.

338. *See supra* note 283.

339. *See* Levitin & Twomey, *supra* note 259, at 85–90 (discussing how governing documents for REMICs holding commercial mortgages, unlike governing documents for REMICs holding residential mortgages, handle many such matters). For a collection of sources about how even commercial-mortgage REMICs had problems taking advantage of the IRS's nonenforcement because their governing documents baked in the property rules, see *supra* note 290.

340. Recall that the SARS outbreak caused serious financial losses for airlines. *Painful Side-*

liability rule for repo borrowing, that would likely result in the industry-standardized repo contracts³⁴¹ accommodating temporary moves to a liability rule.

5. *Discretionary Versus Automatic Triggers.* A liability rule moves from a property rule to a liability rule when a trigger is met.³⁴² Triggers can be designed in advance to maximize effectiveness and to minimize the potential for abuse. Most importantly, triggers can be either discretionary or automatic. A discretionary trigger gives one or more officials the power to decide when the property rule moves to a liability rule. An automatic trigger moves to a liability rule when some objective criterion is met.

An automatic trigger responding to a financial crisis might involve market-related data reaching thresholds that have indicated financial crises in the past. For example, the trigger could be the average interest rate paid on moderate-risk corporate bonds exceeding the interest rate on ten-year U.S. Treasury bonds by more than 5.0 percent.³⁴³ Another trigger might involve the St. Louis Federal Reserve Bank's widely followed Financial Stress Index, which is based on statistical relationships between several market indicators.³⁴⁴ A crisis could be triggered automatically when this Financial Stress Index exceeds a high numerical threshold.³⁴⁵ Similarly, an automatic trigger responding to a quick-spreading epidemic might come into play when a prespecified number of people in the United States are diagnosed with the disease.

Effects, ECONOMIST (May 5, 2003), <http://www.economist.com/node/1747241> [<https://perma.cc/8PL9-2W2J>].

341. SEC. INDUS. & FIN. MKTS. ASS'N & INT'L CAPITAL MKT. ASS'N, GLOBAL MASTER REPURCHASE AGREEMENT ¶ 2(a), 10 (2011), <https://www.sifma.org/wp-content/uploads/2017/08/Global-Master-Repurchase-Agreement.pdf> [<https://perma.cc/6J4K-SKX3>].

342. To use Bell and Parchomovsky's terminology, liability rules that move from a generally applicable property rule to a liability rule are "classic" liability rules. Bell & Parchomovsky, *supra* note 10, at 31. This Article uses a slight variation, defining "classic" liability rules as those where the switch to a liability rule is temporary.

343. See *BofA Merrill Lynch US Corporate BBB Option-Adjusted Spread*, FED. RES. BANK ST. LOUIS, <https://fred.stlouisfed.org/series/BAMLC0A4CBBB> [<https://perma.cc/CQF2-YTG2>]. The New York State Bar Association has proposed that the IRS use precisely such an automatic trigger before it applies its explicit statutory authority to suspend certain deduction-denying and -delaying provisions. See AHYDO Report, *supra* note 129, at 9–10 (noting that "[i]n the last approximately twenty years, this condition would have been present only between September 2008 and May 2009").

344. *St. Louis Fed Financial Stress Index*, FED. RES. BANK ST. LOUIS, <https://fred.stlouisfed.org/series/STLFSI> [<https://perma.cc/J763-XJSF>].

345. For example, the threshold could be 1.0. By comparison, the index reached 5.455 on October 17, 2008, at the height of the financial crisis. *Id.*

A discretionary trigger would involve an official or body deciding when a crisis exists, based on some standard.³⁴⁶ The discretion for declaring a financial crisis might be given to the Treasury secretary, whose department includes not only the IRS, but also a number of other agencies that keep it highly attuned to the entire financial system.³⁴⁷ Indeed, Congress has given discretion to the Treasury secretary in several analogous situations.³⁴⁸ For epidemics, a discretionary trigger might be given to health officials such as the surgeon general.³⁴⁹

Automatic triggers and discretionary triggers each have their respective strengths and weaknesses. Discretionary triggers can be abused if the official unwisely triggers them (or refuses to trigger them) to serve ulterior motives.³⁵⁰ For example, the Treasury secretary may

346. This discretionary approach is taken in the doctrine of necessity, where the relevant official is a judge, who decides whether a necessity existed using a specific standard. *See generally* RESTATEMENT (SECOND) OF TORTS § 197 cmts. a–k (AM. LAW INST. 1965) (establishing various standards to determine whether the doctrine of necessity applies). The body making the decision could also be as broad as the entire electorate voting in a referendum. *E.g.*, Rachel D. Godsil, *Viewing the Cathedral from Behind the Color Line: Property Rules, Liability Rules, and Environmental Racism*, 53 EMORY L.J. 1807, 1875–78 (2004).

347. *See, e.g.*, PAULSON, *supra* note 28, at 49.

348. Congress has permanently granted the Treasury secretary statutory power to suspend certain tax rules disallowing certain bond interest deductions “if the Secretary determines that such application is appropriate in light of distressed conditions in the debt capital markets.” I.R.C. § 163(e)(5)(F)(iii) (2012). This discretion has been exercised once. I.R.S. Notice 2010-11, 2010-4 I.R.B. 326; *see also* AHYDO Report, *supra* note 129, at 7 & 9 (providing background on this exercise of discretion). Outside of tax law, the Treasury secretary has discretion to suspend certain bank regulations upon determining that doing so would “avoid or mitigate” “serious adverse effects on economic conditions or financial stability.” 12 U.S.C. § 1823(c)(4)(G)(i)(I), (II) (2012). The bank regulations that are thus waived involve the requirement that least-cost procedures be used to resolve insolvent banks. *Id.* § 1823(c)(4)(A). Before exercising this discretion, the secretary must consult with the president and get approval from both the Federal Reserve board and the Federal Deposit Insurance Corporation board. *Id.* § 1823(c)(4)(G)(i). During the 2008–09 financial crisis, the Treasury secretary exercised this discretion several times. The Treasury secretary used this power to set up the Temporary Liquidity Guarantee Program (TLGP) and to assist Citigroup. *2010 Annual Report: IV. Financial Statements and Notes*, FDIC, <https://www.fdic.gov/about/strategic/report/2010annualreport/chpt4-01.html> [<https://perma.cc/W3VV-58KG>].

349. *See, e.g.*, 42 U.S.C. § 264 (2012) (granting quarantine powers to “[t]he Surgeon General, with the approval of the Secretary” of Health and Human Services); N.J. REV. STAT. § 26:4–2(d)–(e) (2013) (granting quarantine powers to state and local health departments).

350. Bell & Parchomovsky, *supra* note 10, at 77 (“[T]he identity of the party exercising that discretion naturally affects the incentive effects of the pliability rule.”); *see, e.g.*, *Hickox v. Christie*, 205 F. Supp. 3d 579, 584 (D.N.J. 2016) (governor who was also a candidate for president arguably quarantined a nurse to further his presidential prospects); Letter from Ralph Nader and James Love, Consumer Project on Tech., to DHHS Secretary Tommy Thompson (Oct. 18, 2001), *reprinted in* CONSUMER PROJECT ON TECH., [hereinafter Letter to Tommy Thompson] <http://www.cptech.org/ip/health/cl/cipro/nadethom10182001.html> [<https://perma.cc/33GL-F7TL>]

have close connections to a financial institution that is the debtor in many repo contracts and would thus benefit from triggering the bankruptcy rules for repos to move to liability rules. Or the surgeon general may have sympathies for generic drug manufacturers. Automatic triggers avoid such abuse,³⁵¹ but also put the liability rule on autopilot that may fail to be triggered. The relative advantages of discretionary versus automatic triggers for liability rules are an area particularly ripe for further scholarship.

6. *Establishing Proper Legal Authority.* During a crisis, moving from a property rule to a liability rule may be good policy, but may not be possible if the relevant agency has no statutory authority to impose a compensatory liability rule. The IRS achieved its four good crisis responses—that is, temporary liability rules—discussed earlier³⁵² through very creative interpretation of the applicable provisions.³⁵³ But many crisis-worsening requirements may not be susceptible to such creative interpretations. Planning ahead for the temporary moves to liability rules ensures that the government can arrange proper legal authority.

In tax law, the IRS can arguably arrange such moves in advance by aggressively using closing agreements, which are written agreements between the IRS and a taxpayer specifying some aspect of the taxpayer's tax treatment.³⁵⁴ The IRS could promulgate a closing agreement that changes a particular property rule into a liability rule and announce that, during a future crisis, it will automatically enter into

(accusing DHHS Secretary Thompson of not using 28 U.S.C. § 1498 discretion to compulsorily license Cipro to fight anthrax for ideological reasons).

351. Richard Epstein, a leading proponent of property rules, notes that when law departs from the norm of property rules to liability rules, it hems in their use with extensive institutional safeguards to prevent mischief. Epstein, *supra* note 102, at 2111–20. This insight applies in full to triggering mechanisms that move to liability rules.

352. *See supra* Part II.A.

353. With mutual funds and REITs, the IRS built upon preexisting legal theories explored long before the crisis in handling particular taxpayer situations. *See, e.g.*, IRS Priv. Ltr. Rul. 200615024 (Jan. 10, 2006) (applying I.R.C. § 305(b) (2000) to count paper dividends as real dividends). For variable annuities and the guaranteed municipal bonds, the Treasury creatively used a longstanding statutory provision to charge the compensatory guarantee fee. 31 U.S.C. § 5302 (2006); *see* CONG. OVERSIGHT PANEL, 111TH CONG., GUARANTEES AND CONTINGENT PAYMENTS IN TARP AND RELATED PROGRAMS 24 (2009), <http://www.gpo.gov/fdsys/pkg/CPRT-111JPRT53348/pdf/CPRT-111JPRT53348.pdf> [<https://perma.cc/6EEE-AL3G>]. This creative legal interpretation was criticized on several grounds. *Id.* at 69–71.

354. I.R.C. § 7121 (2012) (grant of authority applicable to “any internal revenue tax for any taxable period”); Treas. Reg. § 301.7121-1(b)(2)–(3) (2017) (closing agreements may cover any past, current, or future tax issue); SALTZMAN & BOOK, *supra* note 165, ¶ 9.09.

that closing agreement with any taxpayer that requests it. Such use of closing agreements has precedent. The IRS has already used closing agreements to permanently turn several tax law requirements that the IRC protects with property rules into being protected by de facto liability rules.³⁵⁵ Congress is well aware of the IRS's longstanding aggressive use of closing agreements,³⁵⁶ which are, moreover, effectively immune from judicial challenge.³⁵⁷ Nonetheless, the IRS

355. Municipal bonds and pensions plans are the two areas where the IRS has permanently turned property-rule requirements into liability-rule requirements via the closing agreement power. Many of the requirements for a municipal bond to be tax exempt are protected by the property-rule remedy of losing tax exemption for the bond, which would be disastrous. BITTKER & LOKKEN, *supra* note 138, ¶ 15.1 (analogizing losing tax exempt status to the death penalty); Blair-Stanek, *supra* note 9, at 1183–84. Similarly, many of the requirements for a pension plan to be tax free are protected by the harsh property-rule remedy of taxing both the plan trust itself and the future retirees. Blair-Stanek, *supra* note 10, at 1184–85. But administrative guidance from the IRS has permanently changed almost all these requirements to liability-rule protection through closing-agreement programs. *See, e.g.*, Rev. Proc. 2013-12, 2013-4 I.R.B. 313 (retirement plan Audit Closing Agreement Program); Rev. Proc. 97-15 § 6, *modified by* Notice 2008-31, 2008-1 C.B. 592, *modified by* Notice 2001-60, 2001-2 C.B. 304. For example, if a pension plan violates a requirement protected by a property rule, IRS guidance allows the plan to keep its tax qualification by paying a compensatory amount proportional to the harm, calculated using a number of factors. Rev. Proc. 2013-12 §§ 14.01, 5.01(5). Basically, this guidance moves the statutory property-rule remedy to a liability rule. These moves are a well-settled part of the tax landscape. *See* JAMES A. CONIGLIO, STATE AND LOCAL GOVERNMENT DEBT FINANCING ¶ 6:21 (2d ed. 2014); PAMELA D. PERDUE, QUALIFIED PENSION AND PROFIT-SHARING PLANS ¶ 19.02 (2014). IRS employees work from standardized processes and standardized forms. *See, e.g.*, IRM § 7.11.8.2.3 (“Preparing the Draft Closing Agreement.”); IRM exhibit 7.2.1-1 (“Closing Agreement on Final Determination Covering Specific Matters.”).

The same broad closing-agreement authority could arrange for crisis-worsening property rules to temporarily become liability rules during financial crises. The IRS's guidance would provide a standardized closing agreement whereby the IRS agreed not to enforce the property rule during the crisis, in consideration for the taxpayer agreeing to pay a liability-rule amount of extra tax calculated according to the agreement. *Cf.* Rink v. Comm'r, 47 F.3d 168, 171 (6th Cir. 1995) (“A closing agreement is a contract, and generally is interpreted under ordinary contract principles.”). Once the crisis was declared, all affected taxpayers could submit the standardized agreement, to which the IRS would automatically agree.

356. Congressional reports favorably discuss the sources listed *supra* note 355 as part of existing tax law. *See, e.g.*, JOINT COMM. ON TAXATION, 113TH CONG., PRESENT LAW AND BACKGROUND RELATING TO TAX-FAVORED RETIREMENT SAVINGS 28–29 (Comm. Print, 2014).

357. The taxpayers who submitted these agreements would be bound. I.R.C. § 7121(b) (“[S]uch agreement shall be final and conclusive.”). Third parties, meanwhile, have no standing to challenge the treatment of taxpayers who submitted the agreements. *See* Ariz. Christian Sch. Tuition Org. v. Winn, 563 U.S. 125, 135–36 (2011). And any attempt to challenge the IRS's administrative guidance itself would be barred by the Tax Anti-Injunction Act and the Declaratory Judgment Act. 28 U.S.C. § 2201 (2012) (explicitly barring declaratory judgments on most Federal tax law issues); I.R.C. § 7421(a) (explicitly barring “suit[s] for the purpose of restraining the assessment or collection of any tax . . . in any court,” with limited exceptions); *see* Kristin E. Hickman, *A Problem of Remedy: Responding to Treasury's (Lack of) Compliance with*

could guarantee proper legal authority by getting statutory authorization from Congress for its temporary shifts to liability rules.

Patent law has a similar lack of legal authority in dealing with epidemics and bioterrorism. During the 2001 anthrax attacks, the nation lacked sufficient supplies of the patented antibiotic Cipro.³⁵⁸ The secretary of Health and Human Services claimed that he lacked the legal authority to move to liability rule protection for the patent.³⁵⁹ Thankfully the anthrax attacks stopped, but the episode provides a salutary warning on the importance of obtaining clear legal authority to move to liability rules during crises.

C. *Objections*

The previous two Sections analyzed the benefits of moving from property rules to liability rules during crises and of prearranging these moves. This Section considers two potential objections.

1. *Will Prearranged Moves Increases Crises' Likelihood?* This Article has demonstrated how prearranged liability rules can minimize the harm caused by crises. This Article has also discussed how liability rules do not increase moral hazard, because liability rules require compensation.³⁶⁰ Indeed, prearranging liability rules can even reduce moral hazard by keeping parties from expecting windfalls.³⁶¹ But one can reasonably ask whether prearranging liability rules can increase the likelihood of crises due to shifts in ex ante incentives. This possibility cannot be ruled out when dealing with complex social systems and is a promising subject for future research by legal scholars and economists.

Consider liability rules in patent law that respond to quick-spreading epidemics or bioterrorism. Prearranging moves to liability

Administrative Procedure Act Rulemaking Requirements, 76 GEO. WASH. L. REV. 1153, 1162–73 (2008).

358. Elisabeth Bumiller, *A Nation Challenged: The Response; Administration Won't Allow Generic Versions of Drug*, N.Y. TIMES (Oct. 18, 2001), <http://www.nytimes.com/2001/10/18/us/nation-challenged-response-administration-won-t-allow-generic-versions-drug.html> [https://perma.cc/RL48-3E4W].

359. *Id.* (“Tommy G. Thompson, the health and human services secretary, said . . . that violating the patent on Cipro, the drug most recommended for treatment of anthrax, was illegal. But Mr. Thompson got an immediate argument from patent lawyers as well as from Senator Charles E. Schumer.”); *cf.* Letter to Tommy Thompson, *supra* note 350 (arguing that 28 U.S.C. § 1498 provided sufficient legal authority).

360. *See supra* notes 99, 154 and accompanying text.

361. *See supra* Part III.B.2.

rules for patented drugs would help fight the epidemic, but would also prevent the patent holder from reaping large profits during the epidemic. Taking away such possible profits might dampen incentives for research and development into new drugs in the first place.³⁶²

A similar concern applies in tax law. Taking away one risk, that a crisis may result in inadvertently failing a devastating property rule, may make a taxpayer willing to take on more nontax risks. Cumulatively, many taxpayers taking greater nontax risks may increase the likelihood of a financial crisis.

Recall that the property rule of § 956 kept U.S. corporations from borrowing cash from their foreign subsidiaries.³⁶³ Suppose that shifting this property rule to a liability rule temporarily during crises had been prearranged.³⁶⁴ This prearranged shift might have led U.S. corporations to borrow more from short-term capital markets, secure in the knowledge that if a crisis caused such financing to dry up, then they still could borrow from their foreign subsidiaries—albeit with compensation paid to the government. Such incentives would have led to more business debt, and more business debt makes the economy more prone to crises.³⁶⁵ But this prearranged shift would have had countervailing effects that might have reduced the risk of financial crises by preventing borrower bank runs. During the 2008–09 financial crisis, many U.S. corporations with lines of credit at troubled banks rushed to borrow as much as possible, just in case the troubled bank failed, causing the line of credit to disappear.³⁶⁶ This borrowing rush drained troubled banks of badly needed cash, furthering the financial crisis.³⁶⁷ If U.S. corporations had known that, in a crisis, they could

362. Rexford E. Santerre & John A. Vernon, *Assessing Consumer Gains from a Drug Price Control Policy in the United States*, 73 S. ECON. J. 233, 234 (2006).

363. *See supra* Part II.B.1. Section 956 was made largely irrelevant by the tax reform legislation passed in late 2017. *See supra* notes 194–96.

364. *See supra* notes 206–07 and discussion in accompanying text.

365. JOINT COMM. ON TAXATION, 101ST CONG., FEDERAL INCOME TAX ASPECTS OF CORPORATE FINANCIAL STRUCTURES 63–70 (Comm. Print 1989); *accord* INT’L MONETARY FUND, DEBT BIAS AND OTHER DISTORTIONS: CRISIS-RELATED ISSUES IN TAX POLICY 4 (2009), <https://www.imf.org/external/np/pp/eng/2009/061209.pdf> [<https://perma.cc/7XWH-GH97>] (“tax distortions are likely to have contributed to the crisis by leading to levels of debt higher than would otherwise have been the case”).

366. Judit Montoriol-Garriga & Evan Sekeris, *A Question of Liquidity: The Great Banking Run of 2008?* 5–7 (Fed. Res. Bank of Bos., Working Paper QAU09-4, 2009), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.369.2175&rep=rep1&type=pdf> [<https://perma.cc/5VTE-NG8A>].

367. *Id.* This line-of-credit bank run has led banking regulators to propose that banks maintain more capital in reserve against lines of credit. *See* J.P. MORGAN, CORPORATE FINANCE

borrow from their own foreign subsidiaries, such borrower bank runs would have been less likely, reducing the risk of financial crisis.³⁶⁸ In sum, prearranging this shift to a liability rule might increase or decrease the likelihood of a future financial crisis; the net effect, if any, is unclear.

As another example, consider the liability rule proposed above for REMICs, letting them modify mortgages freely during crises, but imposing corporate tax on any profits from the modifications.³⁶⁹ A prearranged move to this rule would increase the likelihood that troubled mortgages will be modified,³⁷⁰ which might increase borrowers' likelihood of taking out risky mortgages, which, in turn, would increase the likelihood of financial crises. This risk is likely small, since the mid-2000s housing bubble inflated despite property-rule restrictions on REMICs modifying mortgages.³⁷¹ Moreover, the potential availability of mortgage modification would give REMIC creators an incentive to screen out those mortgage borrowers most likely to require modification. Such screening could reduce the risk of future crises. Again, it is unclear whether this prearranged move would increase or decrease the likelihood of a financial crisis. Modeling the impact of such moves on risk is a particularly promising area for future economic research.

2. *Why Not Permanently Move to Liability Rules?* One can reasonably ask why not just change all potentially crisis-worsening requirements to liability rules, permanently. For example, all patented drugs that might fight epidemics or bioterrorism could be subject to

WITH A SPRIG OF BASEL: BASEL III IMPLICATIONS FOR NON-BANKS 2–3 (2014), https://www.jpmorgan.com/cm/BlobServer/Corporate_Finance_with_a_Sprig_of_Basel:_Basel_III_Implications_for_Non-Banks.pdf?blobkey=id&blobwhere=1320693985173&blobheader=application/pdf&blobheadername1=Cache-Control&blobheadervalue1=private&blobcol=urldata&blobtable=MungoBlobs [https://perma.cc/YW94-KP7E].

368. SENATE PSI REPORT, *supra* note 199, exhibit 3b (citing an internal Hewlett-Packard Co. presentation stating that “[t]he company has . . . lines of credit meant to be used if the [commercial paper] market should become unavailable to HP. However, should the [commercial paper] market disappear generally, the demand for draws on lines of credit would overwhelm the banking system”).

369. *See supra* Part II.B.5.

370. For a discussion on how REMIC organizational documents could accommodate the possible liability rule, see *supra* note 339 and accompanying text.

371. Research suggests that mortgage borrowers were unduly optimistic and did not even consider the downside possibilities. Oren Bar-Gill, *The Law, Economics, and Psychology of Subprime Mortgage Contracts*, 94 CORNELL L. REV. 1073, 1120–21 (2009).

compulsory license, at all times. As another example, the mutual fund 90 percent distribution requirement could always be protected by a liability rule.

The response is simple. During normal times, property rules have some advantages over liability rules. Scholars have generated an extensive literature on the relative merits of property rules versus liability rules in different circumstances, across a wide variety of substantive areas.³⁷² When no crisis is raging, property rules may be superior for many reasons. If it is difficult to detect violations of a requirement, then protecting that requirement with a property rule may deter violations.³⁷³ Similarly, liability rules that apply at all times may invite opportunistic behavior.³⁷⁴ And calculating compensation due under a liability rule can be difficult or expensive.³⁷⁵ In many noncrisis situations, property rules have advantages over liability rules.

CONCLUSION

The IRS's responses to the 2008–09 financial crisis demonstrate that moving from property rules to liability rules temporarily can minimize harm from a crisis, prevent windfalls, and even protect third parties like workers and homeowners. This approach has benefits in areas like constitutional law, patent law, and bankruptcy law. Counterintuitively, moving to total nonenforcement, which would seem even more lenient than moving to a liability rule, actually provides less relief. The IRS's responses also reveal many previously unnoticed benefits of arranging shifts to liability rules *before* crises start, ranging from faster responses to more flexible private contracts. Policymakers should work now to prearrange shifts to liability rules to handle the inevitable future financial crises and epidemics.

372. See, e.g., Blair-Stanek, *supra* note 9, at 1176 nn.25–27.

373. *Id.* at 1200–10.

374. *Id.* at 1213–14 (noting the problems if liability-rule amounts are too low); Kaplow & Shavell, *supra* note 37, at 730–32 (discussing problems created by biased liability-rule amounts).

375. See Blair-Stanek, *supra* note 9, at 1214–16.