

# PROTECTING FUTURE CLAIMANTS IN MASS TORT BANKRUPTCIES

*Yair Listokin and Kenneth Ayotte\**

## I. INTRODUCTION

The problem of “future claimants”<sup>1</sup> plagues the resolution of mass tort bankruptcies.<sup>2</sup> Mass tort injuries, such as those caused by asbestos exposure, can entail long and variable lag times between the exposure to a harmful product and the resultant harm.<sup>3</sup> As a result, some claimants may be unaware of their injury at the time of a company’s bankruptcy reorganization.<sup>4</sup> Moreover, the total number and magnitude of future claims is subject to great uncertainty.<sup>5</sup> Any resolution of mass tort claims in bankruptcy (or via the legislative creation of a mass tort trust fund)<sup>6</sup> must ensure a “fair distribution” for these ill-defined future claimants—an exceedingly difficult task.<sup>7</sup>

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<sup>1</sup> Future claimants include all persons who are (or will be) injured as a result of contact with a harmful product produced by a bankrupt company, but have not yet filed claims against the company for personal injuries or property damage. See *In re Johns-Manville Corp.*, 36 B.R. 743, 744–45 (Bankr. S.D.N.Y. 1984); see also NAT’L BANKR. REV. COMM’N, *BANKRUPTCY: THE NEXT TWENTY YEARS: NATIONAL BANKRUPTCY REVIEW COMMISSION FINAL REPORT* 316 (1997) [hereinafter *NBRC REPORT*] (offering a proposed statutory definition of future claims).

<sup>2</sup> See Thomas A. Smith, *A Capital Markets Approach to Mass Tort Bankruptcy*, 104 *YALE L.J.* 367, 369 (1994) (describing how fairness to future claimants complicates the treatment of asbestos liability in both bankruptcy and class action negotiations).

<sup>3</sup> See, e.g., Alan Resnick, *Bankruptcy as a Vehicle for Resolving Enterprise—Threatening Mass Tort Liability*, 148 *U. PA. L. REV.* 2045, 2045 (2000) (describing the “long latency period between person’s use or exposure to a harmful product and the first manifestation of harm”).

<sup>4</sup> See, e.g., *In re Johns-Manville Corp.*, 36 B.R. at 743, 745.

<sup>5</sup> See, e.g., Mark J. Roe, *Bankruptcy and Mass Tort*, 84 *COLUM. L. REV.* 846, 847 (1984) (describing the epidemiological uncertainties).

<sup>6</sup> See, e.g., *Fairness in Asbestos Injury Resolution Act of 2003*, S. 1125, 108th Cong. (2003) [hereinafter *FAIR Act*].

<sup>7</sup> In the asbestos context, fair treatment for future claimants of mass tort bankruptcy trust funds is mandated by statute. See 11 U.S.C. § 524(g)(2)(B)(ii)(V) (2000) (requiring that a trust fund “provide reasonable assurance the trust will value and be in a financial position to pay present claims and future demands that involve similar claims in substantially the same manner”).

The asbestos-related bankruptcy of the Johns-Manville Corporation (“Manville”) exemplifies the difficulties of protecting future claimants. Manville’s Chapter 11 reorganization plan included a trust fund designated to compensate future claimants.<sup>8</sup> The trust fund was rapidly depleted, however, when the number of claimants and size of claims greatly exceeded expectations.<sup>9</sup> As a result, late-arriving claimants received far less compensation than early claimants, which is an inequitable outcome.<sup>10</sup> Fear of such shrunken payments may be one factor that rouses exposed, but unharmed, individuals to seek damages immediately, thereby protecting themselves from an unwelcome future: that they will ultimately develop the injury only to be denied compensation because all available funds have been depleted.<sup>11</sup>

Mass tort bankruptcies involving future claimants are increasingly prevalent.<sup>12</sup> Asbestos liability alone has been implicated in the bankruptcy declarations of at least sixty corporations.<sup>13</sup> The pending legislative trust fund for resolving asbestos claims shares many characteristics with these bankruptcies and must also confront the problem of future claimants.<sup>14</sup> In addition to asbestos, there are numerous potential applications in which considerations of future claimants are important. Given the tidal wave of litigation surrounding tobacco firms and the long lag time between cigarette smoking and illness, it is quite likely that future claimants will be a major

<sup>8</sup> *In re Johns-Manville Corp.*, 68 B.R. 618, 621 (Bankr. S.D.N.Y. 1986).

<sup>9</sup> *In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. 710, 752–62 (Bankr. E. & S.D.N.Y. 1991), vacated on other grounds, 982 F.2d 721 (2d Cir. 1992), modified, 993 F.2d 7 (2d Cir. 1993) [hereinafter *Asbestos Litig.*].

<sup>10</sup> MANVILLE PERSONAL INJURY SETTLEMENT TRUST, HISTORY, available at [www.mantrust.org/history.htm](http://www.mantrust.org/history.htm) (last visited May 12, 2004).

<sup>11</sup> See generally Richard A. Nagareda, *Autonomy, Peace, and Put Options in the Mass Tort Class Action*, 115 HARV. L. REV. 749, 766; Peter H. Schuck, *The Worst Should Go First: Deferral Registries in Asbestos Litigation*, 15 HARV. J. L. & PUB. POL’Y 541, 550 (1992).

<sup>12</sup> As explained by Resnick, mass torts involving thousands of victims make individualized trials prohibitively expensive. Resnick, *supra* note 3, at 2045. The class action “solution” to this problem has been complicated by the difficulty of creating binding classes including future claimants as a result of the *Amchem v. Windsor* decision. 521 U.S. 591 (1997). The obvious alternative to class-action settlements is bankruptcy negotiations, which enable companies to discharge their claims. For examples, see *Owens-Illinois, Inc. v. Rapid Am. Corp. (In re Celotex Corp.)*, 124 F.3d 619, 622 (4th Cir. 1997), *In re Keene Corp.*, 208 B.R. 112 (Bankr. S.D.N.Y. 1997), and *In re Eagle-Picher Indus.*, 197 B.R. 260 (Bankr. S.D. Ohio 1996). Although this Article focuses on bankruptcy and bankruptcy-related trust funds, many of our recommendations would potentially assuage some of the doubts regarding class action settlements involving future claimants that were expressed by the Supreme Court in *Amchem*. For a description of these concerns, see Alex Raskolnikov, Note, *Is There a Future for Future Claimants After Amchem Products, Inc. v. Windsor?*, 107 YALE L.J. 2545 (1998).

<sup>13</sup> Joseph Treaster, *Insurer Adds Two Billion to Asbestos Reserve*, N.Y. TIMES, Jan. 15, 2003, at C1.

<sup>14</sup> See, e.g., *Solving the Asbestos Litigation Crisis: S. 1125, the Fairness in Asbestos Injury Resolution Act of 2003 Before the United States Senate Committee on the Judiciary*, 108th Cong. (2003), at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2180](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2180) [hereinafter *Hearings on Asbestos Litigation*] (testimony of Professor Eric D. Green, applying the lessons learned in mass tort bankruptcies to the asbestos trust fund legislation).

issue should large tobacco firms be forced into bankruptcy or class-action settlement negotiations. The Catholic Archdiocese of Boston may also be a candidate for a bankruptcy trust, given the number of molestation-related claims against it and the possibility of many claimants failing to come forward immediately.<sup>15</sup>

This Article makes the assumption that an early bankruptcy filing or the prompt creation by legislation of a mass tort trust fund<sup>16</sup> will be efficient and socially advantageous in most mass tort contexts, in spite of the problems created by future claimants.<sup>17</sup> Early bankruptcy filings can protect future claimants, enhance firm value, and reduce legal costs. When a firm facing large future tort liabilities delays a filing, it must compensate present

<sup>15</sup> See Stephen Kurkjian & Walter Robinson, *The Cardinal Resigns/Finances Deposition May Wait if Chapter 11 Filing Is Put Off*, BOSTON GLOBE, Dec. 14, 2002, at A1.

<sup>16</sup> While this Article will generally focus upon mass tort bankruptcies, the similarities of the FAIR Act, *supra* note 6, to mass tort bankruptcies ensure that the arguments developed here apply directly to the proposed legislative trust fund for asbestos. For example, the FAIR Act states that its purpose is “to create a fair and efficient system to resolve claims of victims for bodily injury caused by asbestos exposure, and for other purposes.” See S. 1125 pmb1. This statement echoes the rationales put forth for mass tort bankruptcy. See, e.g., *infra* articles cited in note 17.

<sup>17</sup> For articles advocating the use of Chapter 11 as an efficient means of accommodating mass tort cases, see S. ELIZABETH GIBSON, MASS TORT LIMITED FUND CLASS ACTIONS & BANKRUPTCY NEGOTIATIONS 199 (Federal Judicial Center 2000), at [http://www.fjc.gov/public/pdf.nsf/lookup/Mass-Tort.pdf/\\$file/MassTort.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/Mass-Tort.pdf/$file/MassTort.pdf) (suggesting that “because bankruptcy reorganizations provide an inherently fairer method of resolving mass tort claims [than class action settlements] . . . policy makers focus on ways to make bankruptcy more efficient”); Stuart M. Bernstein, *Mass Torts and Bankruptcy*, LITIGATION, Fall 1997, at 5; Barbara J. Houser, *Chapter 11 as a Mass Tort Solution*, 31 LOY. L.A. L. REV. 451 (1998); John C. Coffee, Jr., *Class Wars: The Dilemma of the Mass Tort Class Action*, 95 COLUM. L. REV. 1343, 1457–61 (1995) (arguing that bankruptcy gives better procedural protections to mass tort victims); Ralph R. Mabey & Peter A. Zisser, *Improving Treatment of Future Claims: The Unfinished Business Left by the Manville Amendments*, 69 AM. BANKR. L.J. 487 (1995) (advocating the use of Chapter 11, but suggesting that a more comprehensive framework for mass tort bankruptcies be developed); Resnick, *supra* note 3; Roe, *supra* note 5; Smith, *supra* note 2, at 433 (although Smith does not entirely endorse bankruptcy as an efficient mass tort process); Bob Van Voris, *Bankruptcy in Lieu of Settlements?*, NAT’L L.J., July 28, 1997, at A1, A21 (arguing that bankruptcy offers better protection of future claimants than settlements because bankruptcy arrangements are subject to greater scrutiny). See also *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2186](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2186) (testimony of Jennifer Biggs, describing the billions of dollars in efficiencies that will be achieved by the creation of an asbestos trust fund). But see Joseph F. Rice & Nancy Worth Davis, *The Future of Mass Tort Claims: Comparison of Settlement Class Action to Bankruptcy Treatment of Mass Tort Claims*, 50 S.C. L. REV. 405, 410 (1999) (preferring the use of class action settlements with respect to bankruptcy because bankruptcy involves long delays). Moreover, this Article shares another feature in common with all of these articles: it examines mass tort bankruptcy from an “ex-post” perspective; that is, it takes the mass tort as a given and does not analyze the impact of mass tort bankruptcy procedures on incentives to take precautions. For articles that analyze this element of mass torts procedures, see David Rosenberg, *Individual Justice and Collectivizing Risk-Based Claims in Mass-Exposure Cases*, 71 N.Y.U. L. REV. 210 (1996) (suggesting that deterrence motives may justify “collectivizing” mass exposure cases); and Rohan Pitchford, *How Liable Should a Lender Be?: The Case of Judgment-Proof Firms and Environmental Risk*, 85 AM. ECON. REV. 1171 (1995) (explaining how higher liability for lenders within bankruptcy may lead to greater incentives for firms to risk mass tort injuries).

claimants in full. This procedure ensures that future claimants will be relatively under-compensated if the firm becomes insolvent at a later date. In addition, it may be very difficult for a firm to obtain capital for new investments. For example, a firm's long-term prospects may become uncertain due to its tort liabilities,<sup>18</sup> raising the possibility that it will decline potentially profitable investment opportunities. This inefficiency may reduce the value of the assets available to compensate tort claimants and other creditors.

Mass tort bankruptcies have yet to "solve" the problem of future claimants, however. Two aspects of the future claimants' problem are particularly vexing. First, future claimants are not adequately represented in bankruptcy negotiations. Representatives for present claimants and other creditors aggressively pursue their clients' interest. These representatives can be monitored by their clients. In addition, the representatives' compensation and future job prospects may depend on their success in the negotiations. Future claimants' identities, by contrast, are unknown. They do not choose, monitor, or compensate their representatives. Instead, these functions are performed by the bankruptcy court, which appoints and pays a future claimants' representative. In light of these disparities, it is hardly surprising that the funds available for future claimants are frequently inadequate (as in the *Manville* example). If future claimants' interests are to be adequately protected in mass tort bankruptcies, the representation problem must be addressed.

However, a second complexity ensures that effective representation of future claimants does not solve the "fair distribution" problem. Uncertainty in the number and size of future claims makes any compensation scheme for tort claimants subject to massive inequities if future claims differ from expectations.<sup>19</sup> Moreover, delayed payment to early tort claimants is no solution. Currently injured present claimants may have pressing liquidity needs (such as medical expenses) that demand immediate compensation.<sup>20</sup> An effective mass tort bankruptcy procedure must effectively account for this uncertainty and allocate the risk fairly between present claimants, future claimants, and other creditors.

Two incisive articles suggest improvements to current methods of dealing with these issues. Professors Mark Roe and Thomas Smith both develop creative proposals (described in more detail below) to improve the procedures for estimating future claims when awarding payments to present

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<sup>18</sup> See NBRC REPORT, *supra* note 1, at 315.

<sup>19</sup> One commentator has described uncertainty as the core problem of mass tort litigation. See Peter H. Schuck, *Mass Torts: An Institutional Evolutionist Perspective*, 80 CORNELL L. REV. 941, 948-50 (1995).

<sup>20</sup> See, e.g., Official Comm. of Equity Sec. Holders v. Mabey, 832 F.2d 299 (4th Cir. 1987) (discussing the emergency treatment needs of present claimants injured by the Dalkon Shield); Smith, *supra* note 2, at 387.

claimants or other creditors.<sup>21</sup> These improved estimation procedures mitigate the defects in future claimants' representation. Indeed, these methods aim to equalize payments between present and future claimants and seek to avoid a recurrence of the *Manville* bankruptcy, wherein future claimants were woefully under-compensated. Either method would constitute a considerable advance over the current *ad hoc* procedures, reducing or eliminating some of the biases that currently favor present claimants.<sup>22</sup>

Nevertheless, the Roe and Smith proposals share some critical flaws with current practice. While they attempt to mitigate the damage to future claimants from inadequate representation, they fail to ameliorate the fundamental representation problem. In the Roe and Smith proposals, incentives for the representatives of future claimants are feeble—they will remain ineffective advocates as compared to the representatives of other claimants. Instead of addressing this flaw directly, the Roe and Smith proposals attempt to mitigate its consequences. While these solutions may reduce the potential for inequitable payments to future claimants, they can never eliminate the inequities entirely. Moreover, the Roe and Smith proposals both require relatively elaborate innovations to current bankruptcy practice. These procedures are subject to manipulation that would harm future claimants' interests if they are ineffectively represented.

Mass tort bankruptcy negotiations allocate risk as well as value. Because the size of future claims is uncertain and the pool of funds set aside for claimants is necessarily limited, the value available per creditor is also uncertain. In general, financial theory indicates that riskier assets should yield higher returns. Thus, the compensation of the group of creditors bearing the future claims risk should yield a higher average return, reflecting the uncertainty in returns. Current bankruptcy practice, the pending asbestos trust fund and the Roe and Smith proposals all allocate this risk poorly and unfairly. At present, the risk is borne primarily by future claimants. Under current practice, each future claimant's per capita compensation is lower if aggregate future claims are higher. Because future claimants are likely to be risk-averse (like most other creditors),<sup>23</sup> they need to be compensated for bearing this risk. And yet they are not compensated. For example, in the *Manville* bankruptcy, future claimants were offered no premium over pre-

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<sup>21</sup> Roe improves the estimation procedures by delaying some payments to present claimants through a procedure analogous to a variable annuity wherein claimants get their payments over a period of time rather than instantaneously. The delay allows payments to be more accurately awarded after some of the uncertainty in the size of future claims has been resolved. See Roe, *supra* note 5, at 870–73. Smith, by contrast, employs the information processing capabilities of the capital markets to generate more accurate estimations. Smith, *supra* note 2. For more detailed descriptions of both papers, see Parts I.B. and II.B.

<sup>22</sup> In the *Manville* bankruptcy, the size of the trust fund was determined through bargaining between representatives of present claimants, future claimants, and other creditors. See KEVIN DELANEY, STRATEGIC BANKRUPTCY 71–81 (1992).

<sup>23</sup> Roe, *supra* note 5, at 877; Smith, *supra* note 2, at 380.

sent claimants, in spite of the fact that future claimants' payments were subject to much greater risk.<sup>24</sup> This state of affairs is reprised in the Fairness in Asbestos Injury Resolution Act of 2003 ("FAIR") which inequitably "shifts risks and uncertainties" to future claimants.<sup>25</sup>

Similarly, the Roe and Smith proposals attempt to ensure that present claimants and future claimants receive the same compensation *on average*.<sup>26</sup> For example, if the amount of compensation to future claimants will be either 10 or 20, each with a 50% probability (an average of 15), then the Roe and Smith proposals would insist that present claimants be awarded 15. Assuming all claimants are risk-averse, this compensation structure is unfair to future claimants. Risk-averse individuals would prefer the certain payment of 15 (awarded to present claimants) over the risky payment with an average value of 15 (awarded to future claimants). Moreover, future claimants can not diversify this risk because they do not know that they will be harmed. Thus, the Roe and Smith proposals maintain some of the biases favoring present claimants that they seek to avoid. Given the high levels of epidemiological uncertainty and severe nature of mass tort injuries, it is likely that claimants are particularly risk-averse in this context, which suggests that this bias in favor of present claimants is an important one.

Proper treatment of the risk aversion of claimants has additional implications for mass tort bankruptcies. Even if future claimants in the *Manville* bankruptcy had been awarded a premium for bearing the future claims risk, the *Manville* settlement would still have produced an inefficient allocation of risk. If future claimants are more risk-averse than other creditors, then they should be allocated the least amount of risk possible. Here too, the *Manville* bankruptcy settlement (as well as all others) is defective. In addition to poorly estimating the number of future claimants and failing to compensate future claimants for bearing excess risk, the *Manville* settlement had the highest-cost risk bearers (the future claimants) bearing the most risk. Had the future claims risk been allocated to other creditors, the risk-bearing premium necessary to assure fair treatment for all creditors would have been considerably smaller. Instead, the risk was inefficiently borne by the future claimants, rather than other creditors (who are more plausibly risk-neutral with respect to the number of claimants, due to their ability to diversify more effectively).

In Part II, we examine the effectiveness of future claimants' representation. We first discuss and evaluate the outcome of the *Johns-Manville*

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<sup>24</sup> See *In re Johns-Manville Corp.*, 68 B.R. 618, 628 (Bankr. S.D.N.Y. 1986) (asserting that the *Manville* trust compensated present and future claimants in full, but failing to note that future claimants' compensation was subject to more risk and therefore occasionally entitled to greater than full compensation).

<sup>25</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2189](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2189) (testimony of Dr. Mark A. Peterson).

<sup>26</sup> For further discussion of the Roe and Smith proposals, see discussion *infra* Part II.B.

bankruptcy, explaining how inadequate representation for future claimants, at least in part, led to inequitable results. We then present overviews of the proposed reforms suggested by Professors Roe and Smith. We assert that the relatively weak incentives driving the representatives of future claimants; incentives that characterize the “state of the art,” will predispose bankruptcy settlements against future claimants. To remedy these defects, we recommend a “percentage-fee” compensation structure for future claimants’ representatives. The representatives, to be chosen by the court, will receive a percentage of the claims received by future claimants. Greater payment for future claimants will imply greater compensation for their representatives. Rather than hoping for selfless advocacy on the part of future claimants’ representatives, this policy will ensure that the representatives self-interestedly pursue the goals of future claimants, much like the advocacy afforded other creditors.

Part III focuses on the distribution of risk between present and future claimants. We note that future claimants’ compensation has generally been subject to considerably greater risk than compensation for present claimants without a corresponding increase in average return; a “tradition” continued in the FAIR Act, which similarly allocates risk to future claimants. This situation violates one of bankruptcy’s fundamental goals: the “fair distribution principle.” In response, we recommend that some compensation to present claimants be postponed to facilitate some degree of risk sharing between present and future claimants. In addition, we suggest that future claimants receive a risk premium relative to present claimants. Future claimants should, on average, receive a *greater* award than present claimants in order to “compensate” them for bearing the risk that future claims will be unexpectedly high. The size of this premium should be guided by the certainty equivalence concept prevalent in economics. Certainty equivalence refers to the additional average payment required by an individual to accept a given amount of risk. By paying future claimants the certainty equivalent amount of that awarded to present claimants, this procedure ensures that potential claimants, trapped behind a veil of ignorance, would not prefer to be either present or future claimants, unlike the status quo favoring present claimants. We also discuss how this certainty equivalence premium should depend upon important variables in mass tort bankruptcies, such as the size of the damage and the level of epidemiological uncertainty.

An example is illustrative. A risk-averse potential claimant would prefer a certain award of 15 (as a present claimant) to a fifty-fifty chance of receiving 10 or 20 (as a future claimant). However, potential claimants may be indifferent between receiving a certain award of 14 as opposed to receiving either 10 or 20 with equal probability.<sup>27</sup> Thus, the certainty equivalence

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<sup>27</sup> If claimants had a utility function of  $y = (x)^{.975}$ , where  $y$  represents utility and  $x$  represents a dollar amount, for example, then claimants would be indifferent between a guaranteed payment of 14 or a

approach suggests that present claimants should receive the certain award of 14 while future claimants get 10 or 20 with equal probability. This approach assures that present and future claimants are treated equally. Although future claimants receive the greater average award (since  $.5 * 10 + .5 * 20 > 14$ ), the higher average award merely compensates future claimants for "holding" a riskier claim.

Part IV proposes additional reforms for the treatment of future claimants with respect to other creditors, such as contract creditors. We recommend that future claimants, due to their inherent overexposure to the risk in the number of future claims and their inability to diversify, bear as little of this future claims risk as possible, a direct contrast to current practice. If regular insurance is not available or is prohibitively expensive (a likely scenario),<sup>28</sup> the future claims risk should be borne, where possible, by non-tort creditors rather than future claimants. To facilitate the discussion, we develop the notion of "risk priority," which is distinct from the standard notion of priority utilized in bankruptcy. While ordinary priority specifies the distribution of *value* to creditors, we focus on the distribution of *risk*, holding the value of distributions constant. We recommend that future claimants receive risk priority with respect to other claimants. In essence, this implies that contract creditors will "insure" the future claimants. This can be accomplished while maintaining the distribution of value specified by current bankruptcy priorities. If future claims prove to be high, contract creditors will receive a small distribution while total payments to tort claimants are large. If future claims are small, contract creditors will receive a larger payoff. Because contract creditors are more plausibly risk neutral with respect to the risk in future claims, this structure allocates risk more efficiently.

Unlike other reform proposals, most of our recommendations do not require substantial changes to existing practice or the development of new financial instruments. We present judges, legislators, trustees, and other policymakers with recommendations that can be implemented with relatively few statutory or institutional changes.

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fifty-fifty chance of obtaining 10 or 20. The certainty equivalent of a fifty-fifty chance of 10 or 20 depends upon the degree of risk aversion of the claimant. If the claimant were even more risk-averse than the claimant used in this hypothetical, then a number less than 14 would be the certainty equivalent of the fifty-fifty chance of 10 or 20.

<sup>28</sup> If insurance markets are complete, then many of the results presented here are of diminished importance. It is extremely unlikely, however, that insurance markets are perfect and complete. For a discussion of this issue, see *infra* Part III.B.5.

## II. FUTURE CLAIMANTS' REPRESENTATION AND MASS TORT BANKRUPTCIES

Bankruptcy courts have frequently appointed legal representatives to represent classes of future claimants in mass tort cases.<sup>29</sup> These representatives, along with other requirements for reorganizations described in the Bankruptcy Code, such as the requirement that the reorganization plan satisfy the “best interest of the creditors” test,<sup>30</sup> theoretically protect the interests of future claimants.<sup>31</sup> As this section discusses, however, these arrangements are frequently inadequate.

Before explaining why future claimants are inadequately represented, the goals of bankruptcy with respect to future claimants must be defined. Scholars emphasize the norm of “fair distribution.”<sup>32</sup> Fair distribution, as the name implies, means that similarly situated claimants should receive similar payouts.<sup>33</sup> In the context of mass tort bankruptcies, fair distribution applies most directly to present and future claimants. Present and future tort claimants are similarly situated, after adjusting for discounting.<sup>34</sup> In the case of asbestos, for example, present and future claimants will commonly suffer the same injury as a result of the same type of exposure. Fairness requires that similar claimants receive similar payments. So does the Bankruptcy Code, which awards the same priority levels to all tort claimants and implies that tort claimants share pro rata with other claimants in the assets of the bankrupt firm.<sup>35</sup> The *Manville* bankruptcy court noted this explicitly, stating that the distinction between present and future claimants was merely “nominal.”<sup>36</sup>

Fair distributions can be facilitated by insisting that payments to present claimants be delayed until the size of future claims is determined. This strategy would ensure that present claimants are not overpaid if future claims prove to be larger than expected. As noted in the introduction, how-

<sup>29</sup> Resnick, *supra* note 3, at 2063. For an example, see *In re Johns-Manville Corp.*, 36 B.R. at 757–59 (holding that future claimants should be appointed a legal guardian).

<sup>30</sup> See 11 U.S.C. § 1129(a)(7)(A) (2000) (establishing that no reorganization plan can obtain court approval unless each class of creditors either has approved a reorganization plan or receives at least as much under the reorganization plan as the class would have received in liquidation).

<sup>31</sup> Resnick, *supra* note 3, at 2064.

<sup>32</sup> See Roe, *supra* note 5, at 853; Smith, *supra* note 2, at 378–80 (pursuing a definition of fair distribution).

<sup>33</sup> See Smith, *supra* note 2, at 372.

<sup>34</sup> For simplicity, we will generally assume that the discount rate is zero. In practice, all our results should be adjusted appropriately for discounting.

<sup>35</sup> See DOUGLAS BAIRD, *THE ELEMENTS OF BANKRUPTCY* 74, 83 (3d ed. 2001) (explaining that “if two classes contain claims or interests of identical priority . . . a plan cannot provide less to one class on a pro rata basis unless that class consents” and further explaining that “a tort creditor occupies the same position [in bankruptcy] as a contract creditor”). See also 11 U.S.C. § 524(g)(2)(B)(ii)(V) (2000) (requiring that a trust fund “provide reasonable assurance the trust will value, and be in a financial position to pay, present claims and future demands that involve similar claims in substantially the same manner”).

<sup>36</sup> *In re Johns-Manville Corp.*, 68 B.R. 618, 628 (Bankr. S.D.N.Y. 1986).

ever, this outcome is undesirable because it denies funds to present claimants at a time when they may have severe demands for money, particularly to pay pressing medical expenses.<sup>37</sup> Thus, bankruptcy courts and policy-makers must weigh the costs of achieving a fair distribution with many other goals. The next section examines how these questions were treated in the bankruptcy of the Johns-Manville Corporation.

### A. Future Claimants' Representation and the Manville Bankruptcy

1. *A Brief Overview of the Manville Bankruptcy.*—The Johns-Manville Corporation filed for bankruptcy on August 26, 1982.<sup>38</sup> The case has attracted considerable attention because Manville was solvent at the time of filing but filed for bankruptcy because it faced overwhelming future tort liabilities stemming from its production of asbestos.<sup>39</sup> Considerable litigation ensued over the legitimacy and "good faith" of Manville's declaration of bankruptcy,<sup>40</sup> particularly because the status of future tort claims within bankruptcy law was undefined at that time.<sup>41</sup> The *Manville* decision helped resolve many of these issues. Manville's bankruptcy declaration while facing future insolvency from massive tort obligations was determined to be in "good faith."<sup>42</sup> Moreover, future tort claims were treated and discharged within the *Manville* bankruptcy reorganization. Indeed, the bankruptcy judge presiding over the reorganization asserted that the difference in legal rights between present and future claimants was minimal.<sup>43</sup>

The *Manville* bankruptcy court appointed an independent legal representative to protect the interests of future claimants (hereinafter referred to as the "FCR," for future claimants' representative).<sup>44</sup> The court recognized that future claimants' interests would otherwise be neglected, as all other

<sup>37</sup> See, e.g., *Official Comm. of Equity Sec. Holders v. Mabey*, 832 F.2d 299 (4th Cir. 1987) (discussing the emergency treatment needs of present claimants injured by the Dalkon Shield).

<sup>38</sup> *In re Johns-Manville Corp.*, 36 B.R. 727, 729 (Bankr. S.D.N.Y. 1984).

<sup>39</sup> See, e.g., *id.* at 730; Delaney, *supra* note 22, at 70–81.

<sup>40</sup> See *In re Johns-Manville*, 36 B.R. at 729.

<sup>41</sup> For discussions, see Anne Hardiman, *Toxic Torts and Chapter 11 Reorganization: The Problem of Future Claims*, 38 VAND. L. REV. 1359 (1985); Frank R. Kennedy, *Creative Bankruptcy? Use and Abuse of the Bankruptcy Law—Reflection on Some Recent Cases*, 71 IOWA L. REV. 199 (1985); Steven Parent, Comment, *Judicial Creativity in Dealing with Mass Torts in Bankruptcy*, 13 GEO. MASON L. REV. 381 (1990).

<sup>42</sup> See *In re Johns-Manville*, 36 B.R. at 737.

<sup>43</sup> See *In re Johns-Manville Corp.*, 68 B.R. 618, 628 (Bankr. S.D.N.Y. 1986).

<sup>44</sup> While the Bankruptcy Code does not explicitly authorize the appointment of a future claimants' representative, the Court viewed the appointment of an FCR as a necessary condition for an equitable solution. See *In re Johns-Manville*, 36 B.R. at 757–59. Subsequently, Congress expressly authorized the use of a legal representative in the creation of asbestos-related mass tort bankruptcy trust funds. See 11 U.S.C. § 524(g)(4)(B)(i) (2000).

representatives' interests conflicted with those of future claimants.<sup>45</sup> For example, the court dismissed the notion that representatives of Manville's shareholders would protect the interests of future claimants, stating that they offered a "skewed and less than robust advocacy" of future claimants' interests.<sup>46</sup>

The Manville Chapter 11 reorganization created a trust for all pending and potential asbestos claims.<sup>47</sup> This trust was (supposedly) amply funded with approximately \$5 billion in assets contributed by Manville and its insurance companies.<sup>48</sup> The fund's assets were a combination of cash, payments from future Manville profits, and up to 80% of Manville's common stock.<sup>49</sup> This fund was intended to compensate in full all claimants, present and future.<sup>50</sup> Indeed, the supervising bankruptcy court believed that the reorganization plan treated present and future claimants equally, stating that "a distinction between 'present' and 'future' victims is, at best, nominal. The Trust does not make this nominal distinction and is designed to satisfy the claims of all victims, whenever their disease manifests."<sup>51</sup>

In spite of these laudable intentions, future events proved the distinction between present and future claimants to be anything but nominal. The number of claims on the trust fund greatly exceeded expectations.<sup>52</sup> Because present claimants were paid 100% of their claims, the fund was rapidly depleted.<sup>53</sup> By 1990, less than two years after the trust commenced operation, the trust fund required reorganization after becoming subject to a class action lawsuit by potential claimants concerned about the depletion of the trust.<sup>54</sup> The settlement that resolved this suit in 1995 specified that late-arriving tort claimants were to receive only 10% of their claims' nominal value.<sup>55</sup> It is difficult to conceive of a more "unfair" distribution of payments between present and future claimants.

Future claimants also fared poorly compared to other Manville creditors. Manville's unsecured creditors, who shared priority with future

<sup>45</sup> See *In re Johns-Manville*, 36 B.R. at 749 n.3 (discussing how future claimants' interests would not be protected by the representatives of equity or current claimants).

<sup>46</sup> *Id.*

<sup>47</sup> Indeed, the trust enabled the discharge of all obligations to asbestos claimants. See *Asbestos Litig.*, at 733 (stating that "the legal obligations of both Johns-Manville and Manville to those injured by their asbestos-containing products were assumed by the Trust").

<sup>48</sup> *Id.* at 752-53.

<sup>49</sup> *In re Johns-Manville Corp.*, 68 B.R. 618, 621 (Bankr. S.D.N.Y. 1986).

<sup>50</sup> *Id.* at 628.

<sup>51</sup> *Id.*

<sup>52</sup> See *Asbestos Litig.*, at 752-62.

<sup>53</sup> MANVILLE PERSONAL INJURY SETTLEMENT TRUST, HISTORY, available at <http://www.mantrust.org/history.htm> (last visited July 13, 2004) [hereinafter MANVILLE SETTLEMENT HISTORY].

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

claimants, received 100% of the value of their claims—a far greater percentage than that received by the future claimants.<sup>56</sup> Moreover, Manville equityholders also obtained some value from the reorganization plan. Because future claimants had a higher priority than Manville shareholders, a reorganization plan that satisfied the absolute priority rule would have required that future claimants be paid in full before Manville equityholders received any distributions. Instead, shareholders received a distribution while some future claimants recouped only 10% of their claims—a stark departure from the norm of priority. Clearly, the *Manville* reorganization failed dismally in its attempt to assure a fair distribution for future claimants.

2. *Lessons from the Manville Bankruptcy.*—What caused this inequality in distribution between future claimants and other creditors? The inequities are particularly striking when future claimants are compared to present claimants. Present claimants and future claimants suffered similar injuries. *Manville's* reorganization plan supposedly treated them equivalently. And yet future claimants recouped a much smaller proportion of their claim than present claimants.

The simplest answer to this puzzle is that future claimants were the victims of extraordinarily bad luck. Had future claims equaled “expectations,” the *Manville* trust would have been adequate to satisfy all claims in full.<sup>57</sup> Instead, the number and size of future claimants greatly exceeded expectations. Through the beginning of 1996, for example, the *Manville* trust received approximately three times as many claims as expected.<sup>58</sup> Because future claims so greatly exceeded expectations, the fund was rapidly depleted and future claimants, the last to “eat” from the *Manville* “trough,” suffered accordingly. Future claimants were thus unlucky. Each future claimant had to share a fixed-size trust fund with an unexpectedly large number of claimants, meaning that the amount of recovery per claimant was unexpectedly low.

While the “victims of bad luck” explanation has the appeal of simplicity, it is at best only partially correct. True, the size of future claims exceeded expectations, but the imprecision of estimates on future claims suggests that this possibility should have been realized. For example, in 1984 estimates of total asbestos liability ranged from \$8 billion to \$87 billion.<sup>59</sup> Thus, future claimants went unprotected from an obvious danger and bore all the risk of unexpectedly high claims, while present claimants and other creditors were compensated in full. Although future claimants bore all of the “downside risk,” there is no indication that they would have re-

<sup>56</sup> *In re Johns-Manville Corp.*, 68 B.R. 618, 633–34 (Bankr. S.D.N.Y. 1986).

<sup>57</sup> This was clearly the view taken by the *Manville* bankruptcy judge. *See id.* at 628 (expecting minimal differences between present and future claimants' compensation).

<sup>58</sup> MANVILLE SETTLEMENT HISTORY, *supra* note 53.

<sup>59</sup> Roe, *supra* note 5, at 872 n.73 (citations omitted).

ceived disproportionate benefits if future claims fell short of expectations.<sup>60</sup> For example, in the mass tort bankruptcy of the A.H. Robins Corporation (stemming from liabilities associated with the Dalkon Shield intrauterine device), excess funds were shared equally between present and future claimants when future claims fell short of expectations.<sup>61</sup> Thus, future claimants of A.H. Robins and Manville bore downside risk but did not enjoy the corresponding upside; the future claimants were gambling but they could only lose.<sup>62</sup> This outcome suggests a systematic bias against future claimants that cannot be attributed to bad luck.

On the other hand, subsequent mass tort bankruptcies have done a better job of estimating future claims—which suggests that an unexpectedly large number of future claims in the *Manville* bankruptcy was at least partially to blame. For example, the *A.H. Robins* bankruptcy provided a trust fund for future claimants that did not prove to be under-funded.<sup>63</sup> Nevertheless, even the *A.H. Robins* bankruptcy outcome penalized future claimants in some respects. As noted above, the *A.H. Robins* bankruptcy suffered from an unfair risk distribution to future claimants; future claimants would have suffered financially if claims had proved higher than expected, yet they did not benefit financially when the number of claimants turned out to be less than expected.<sup>64</sup> In addition, a bar date for tort claims could have left future claimants “who exhibited no symptoms prior to the bar date but who later manifested Dalkon-Shield related injuries . . . with no means of recovery . . . because of their failure to file timely proofs of claim.”<sup>65</sup> These features suggest that the favorable outcome of the *A.H. Robins* bankruptcy was at least partially related to an unexpectedly low number of future

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<sup>60</sup> While the *Manville* bankruptcy settlement allowed future claimants to receive small awards when future claims exceeded expectations, there is no indication that future claimants would have been allowed to receive more than present claimants if future claims had fallen short of expectations. See, e.g., *In re Johns-Manville*, 68 B.R. at 628 (overlooking the possibility that future claimants should receive more than 100% of their claims in some states of the world if they are to receive the same average compensation as present claimants).

<sup>61</sup> See *In re A.H. Robins Co.*, 86 F.3d 364, 367 (3d Cir. 1996) (specifying an equal sharing of the funds remaining in the Dalkon Shield Trust).

<sup>62</sup> This type of risk allocation is unfair to future claimants, whether they are risk-neutral or risk-averse. In Part III, we discuss distributions that may be fair to risk-neutral future claimants but are unfair to risk-averse claimants.

<sup>63</sup> See GIBSON, *supra* note 17, at 199 (discussing the A.H. Robins' trust fund's performance); see also Georgene M. Vairo, *Georgine, the Dalkon Shield Claimants Trust, and the Rhetoric of Mass Tort Claims Resolution*, 31 LOY. L.A. L. REV. 79, 154 (1997). Note, however, that this success was attained because many claimants chose to accept a relatively small sum rather than litigate for the full value of their tort claims. See GIBSON, *supra* note 17, at 199–200. This observation suggests that the settlement may not have been as beneficial for future claimants as it appeared.

<sup>64</sup> For a discussion of the risk allocation to future claimants in the *A.H. Robins* bankruptcy, see Parts II and III.

<sup>65</sup> GIBSON, *supra* note 17, at 215.

claims,<sup>66</sup> and that bankruptcy practice has not yet solved the problem of future claimants.

This conclusion is bolstered by the outlines of the FAIR Act, Congress's attempt to resolve the asbestos litigation crisis.<sup>67</sup> Whatever the FAIR Act's merits, it establishes a fixed fund for payments to claimants, a fixed payment per claimant, and discharges all future liabilities. If future claims exceed expectations, future claimants will suffer as the fund becomes depleted,<sup>68</sup> but the fixed payment per injury ensures that future claimants receive no compensation for bearing this risk.

3. *Incentives for Future Claimants' Representatives in the Manville Bankruptcy.*—Some observers have suggested that inadequate representation doomed *Manville's* future claimants.<sup>69</sup> They note that the FCR acted as a “shuttle diplomat” mediating between the various parties, rather than a zealous advocate for his nominal clients.<sup>70</sup> For example, present claimants suspected the FCR of unduly favoring equity—a surprising concern in light of the FCR's duties on behalf of future claimants.<sup>71</sup>

It is unlikely that the *Manville* FCR was not functioning in good faith. Instead, the FCR's peculiar role in the reorganization negotiations highlights some of the weaknesses of FCRs in general as protectors of future claimants' interests. Several factors undermine the FCR's ability to match the advocacy of other representatives in bankruptcy negotiations. The FCR's clients are unidentified and unknown. As such, future claimants cannot monitor the FCR's performance in the negotiations.<sup>72</sup> Other parties in interest to a bankruptcy reorganization (such as present claimants or unsecured debtholders), by contrast, may be actively involved in the negotiations and insist on certain features in any reorganization plan.<sup>73</sup> These pressures tilt the negotiations in favor of the more actively involved parties.

<sup>66</sup> In addition, Dalkon-Shield-related injuries may not have had a latency period as long as those caused by asbestos, making estimation of future claims an easier process.

<sup>67</sup> FAIR Act, *supra* note 6.

<sup>68</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2180](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2180) (testimony of Dr. Mark A. Peterson, describing the possibility that future claims will exceed expectations, leaving the trust fund depleted for late arriving claimants).

<sup>69</sup> See Smith, *supra* note 2, at 390–91.

<sup>70</sup> *Id.* at 390.

<sup>71</sup> See *In re Johns-Manville Corp.*, 66 B.R. 517, 529 (Bankr. S.D.N.Y. 1986); Smith, *supra* note 2, at 390.

<sup>72</sup> See Smith, *supra* note 2, at 390.

<sup>73</sup> In bankruptcy, the United States Trustee appoints committees to represent the various classes of creditors. See 11 U.S.C. § 1102(b)(1) (2000) (noting who shall serve on the committees). These committees often retain professionals (who must receive court approval) to represent their interests in the negotiations. See Resnick, *supra* note 3, at 2062. The committees can actively monitor their appointed representatives and insist that these representatives demand certain features from any settlement plan.

When negotiations become difficult, it is easier for the FCR, with no direct monitoring and accountability, to “bend” in order to clinch a deal.

The FCR’s motivation also differs from that of other representatives. Creditors’ committees, for example, may be represented by large law firms with a vested interest in obtaining a favorable settlement. These law firms command hefty fees and know that future opportunities depend upon their success in negotiations. As a result, they have a strong financial incentive to pursue their clients’ interests. Present claimants’ representatives also typically have a strong financial interest in a favorable settlement for their clients. For example, in the *Manville* case, the Bankruptcy Court noted that members of the present claimants’ committee received a percentage of the total receipt of present claimants through contingency fee arrangements.<sup>74</sup> The FCR, by contrast, has little or no financial interest in the success of future claimants’ claims. For example, one prominent FCR expressly noted that he was “unbiased and not motivated by a contingent fee arrangement or duty to maximize shareholder value.”<sup>75</sup> The future claimants’ representative also claimed that he aimed “not only to provide for . . . asbestos claimants, but to provide employment and livelihood for current and future workers and value for shareholders.”<sup>76</sup> While these characteristics make FCRs admirable mediators in bankruptcy, the contrast in incentives between FCRs and the representatives of other present claimants and creditors ensures that future claimants are represented less aggressively in bankruptcy negotiations.

While the FCR’s advocacy on behalf of future claimants may be comparatively weak, the need for effective representation in the area is keen. In a relevant article, Professor Thomas Smith describes two primary factors that exacerbate ineffective representation to result in small recoveries for future claimants.<sup>77</sup> First, Smith claims that the “vividness effect” plays an important role in reducing the funds set aside for future claimants.<sup>78</sup> The vividness effect arises because visible, concrete information receives greater-than-warranted emphasis in decision making, as compared to more abstract information.<sup>79</sup> In the *Manville* bankruptcy, for example, negotiators observed present claimants suffering from asbestosis. While the existence of future claimants was a statistical certainty, the identity of these claimants was unknown. However, any payments reserved for future claimants de-

<sup>74</sup> See *In re Johns-Manville Corp.*, 36 B.R. 743, 749 n.3 (Bankr. S.D.N.Y. 1984).

<sup>75</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2180](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2180) (testimony of Professor Eric Green).

<sup>76</sup> *Id.*

<sup>77</sup> See Smith, *supra* note 2, at 382–90.

<sup>78</sup> *Id.* at 383.

<sup>79</sup> Smith cites several studies on the “vividness effect.” *Id.* at 383 n.60. These studies include Richard E. Nisbett & Eugene Borgida, *Attribution and the Psychology of Prediction*, 32 J. PERSONALITY & SOC. PSYCHOL. 932 (1975); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

tracted, in part, from the funds available for needy present claimants. Similarly, the FAIR Act hearings included several references by Senators to present claimants from Libby, Montana.<sup>80</sup> These vivid examples were powerful enough to induce the Chairman of the Senate Judiciary Committee, Senator Orrin Hatch, to specifically address the compensation for these present claimants.<sup>81</sup> If the FAIR Act trust fund is not increased, the compensation for present claimants from Libby must come from the pockets of future claimants. The vividness effect thus helped induce FAIR Act negotiators to overcompensate the vivid present claimants relative to the ill-defined future claimants.

Second, Smith observes that future claims in the *Manville* bankruptcy were not merely abstract, but also highly uncertain.<sup>82</sup> Moreover, the epidemiological methodology for estimating the size of future claims in the *Manville* case was both exceedingly complex and subject to considerable debate amongst representatives for the various creditors and claimants committees.<sup>83</sup> There was not one obviously “correct” methodology. Instead, there was a dispute about the appropriate methodology, with legal representatives advocating the selection of the estimate that was most favorable to their cause. Thus, epidemiology alone cannot determine the estimate of future claims. Instead, the representatives of the creditors and claimants negotiate about which epidemiological estimate to employ, attempting to convince the bankruptcy judge that “their” estimate is the correct one.<sup>84</sup> Recall that

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<sup>80</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2181](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2181) (testimony of Senator Patty Murray); see also *id.* at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2183](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2183) (testimony of Senator Max Baucus).

<sup>81</sup> *Id.* at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2189](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2189) (testimony of Orrin Hatch). See also Ted Monoson, *Senate Vows Not to Forget Libby*, BILLINGS GAZETTE, June 5, 2003, available at <http://www.montanaforum.com/rednews/2003/06/05/build/libby/senators-forget.php?nnn=2>.

<sup>82</sup> See Smith, *supra* note 2, at 384.

<sup>83</sup> *Id.* The size of future claims will be a random variable. Random variables, such as the value of a rolled die, are subject to uncertainty. The size of future claims, however, is subject to a degree of uncertainty that is even greater than that of a rolled die. With a rolled die, for example, the distribution of the random variable is defined. Thus, the statistician can quantify the minimum (1), maximum (6), and expected values (3.5). The statistician can even quantify the degree of uncertainty in the rolled die random variable by calculating the variance. By contrast, the epidemiological uncertainties involved in estimating the size of future claims ensure that no such quantification of the distribution of future claims is possible. The minimum, maximum, and mean value of future claims are all subject to uncertainty themselves, as is the variance. Thus, the size of future claims is not merely uncertain. In addition, there is uncertainty about the degree of uncertainty in future claims (i.e., there is no agreed-upon method of estimating the variance). While it is difficult to classify the distribution of many “real-world” random variables, the problem is particularly acute with future claims, which are frequently relatively unique occurrences. For example, the ultimate distribution of asbestosis may yield little insight for estimating the distribution of injuries as a result of intrauterine device implants.

<sup>84</sup> 11 U.S.C. § 502(c)(1) (2000) authorizes a bankruptcy judge to produce an estimate of contingent claims, such as the value of future tort claims.

epidemiological estimates of total asbestos damage in 1984 differed by a factor of ten.<sup>85</sup> Similarly, in 2001, eight forecasts of the number of future claims on the *Manville* Trust varied by a factor of four.<sup>86</sup> Thus, effective representation interacts with epidemiology in predicting the size of future claims, and consequently, the size of the fund necessary to compensate future claimants.

Together, the “vividness effect” and the uncertainty in the size of future claims amplify the impact of ineffective representation for future claimants. The vividness effect predisposes settlement plans in favor of present claimants. The epidemiological uncertainties associated with estimating the size of future claims ensure that effective representation is critical, as advocacy plays a critical role in determining the “expected” size of future claims.

In light of this discussion, the disparate outcomes of the *Manville* bankruptcy (eerily echoed in the negotiations leading to the FAIR Act) become less surprising. Weak incentives, the vividness effect, and epidemiological uncertainties help undermine the ability of FCRs to protect the interests of future claimants. The combined effect of these factors, along with total future claims that were on the high end of early estimates, prevented future claimants from recouping more than a small percentage of their claims. The *Manville* saga illustrates how any “solution” to the problem of future claimants must overcome future claimants’ representation problems foremost.<sup>87</sup>

### B. Overcoming the Representation Problem: The Roe and Smith Proposals

FCRs are currently widely used to protect the interests of future claimants. Indeed, Congress has mandated the use of FCRs in the formation of asbestos related mass tort bankruptcy trusts.<sup>88</sup> Similarly, the National Bankruptcy Review Commission (“NBRC”), a congressionally established institution, recommended that the Bankruptcy Code be amended to explicitly authorize court-appointed representatives for future claimants whenever necessary.<sup>89</sup> The NBRC stated that the appointment of a future claimants’ representative was “an absolute necessity and a fundamental prerequisite to

<sup>85</sup> See *Roe*, *supra* note 5, at 872 n.73 (internal citations omitted).

<sup>86</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2189](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2189) (testimony of Dr. Mark Peterson).

<sup>87</sup> Deficiencies in the representation of future claimants would be inconsequential if judges could ensure that future claimants are fairly treated. However, impartial judges with limited resources and no direct stake in the negotiations are unlikely candidates to perfectly protect future claimants.

<sup>88</sup> See 11 U.S.C. § 524(g)(4)(B)(i) (2000).

<sup>89</sup> NBRC REPORT, *supra* note 1, at 316; see also THE NATIONAL BANKRUPTCY CONFERENCE, REFORMING THE BANKRUPTCY CODE: THE NATIONAL BANKRUPTCY CONFERENCE’S CODE REVIEW PROJECT FINAL REPORT 37–38 (1997) (recommending statutory changes, authorizing bankruptcy courts to appoint legal representatives for future claimants).

the discharge of mass future claims."<sup>90</sup> Reflecting these views, some scholars have gone further, suggesting that the bankruptcy court be required to appoint an FCR in every bankruptcy case involving future mass tort liability.<sup>91</sup> The NBRC recommended that FCRs receive broad powers, stating that

the bankruptcy code should provide that a mass future claims representative shall have the exclusive power to file a claim or claims on behalf of the class of mass future claims (and determine whether or not to file a claim), to cast votes on behalf of the holders of mass future claims.<sup>92</sup>

The widespread, standardized use of FCRs appears reasonable, as they offer some protection of future claimants' interest. Nevertheless, the *Manville* bankruptcy's outcome provides a sobering reminder that FCRs are imperfect advocates for future claimants' interests. Their ability and incentive to protect future claimants are inadequate relative to the other parties in bankruptcy negotiations. Any solution to the "fair distribution problem" must overcome these inadequacies, either by mitigating their consequences or by eliminating their causes.

Professors Mark Roe and Thomas Smith each propose improvements to current practice.<sup>93</sup> Both proposals aim at mitigation rather than elimination of future claimants' representation problems. That is, both proposals seek to minimize the consequences of FCRs' imperfect incentives rather than attempting to improve or restructure them.

*1. Roe's Variable Annuity Approach.*—Professor Roe's proposal alters the conventional practice regarding the timing of compensation to present claimants. Standard tort practice specifies that injured parties receive damages in one lump sum.<sup>94</sup> Once a claim is established, the tortfeasor pays the entire award to the victim. With respect to mass tort bankruptcies involving uncertain future claims, however, Roe argues for periodic rather than lump sum awards.<sup>95</sup> Roe analogizes his proposal for periodic payments

<sup>90</sup> NBRC REPORT, *supra* note 1, at 332.

<sup>91</sup> See Resnick, *supra* note 3, at 2078; NBRC REPORT, *supra* note 1, at 332. But see Jeffrey Davis, *Cramming down Future Claims in Bankruptcy: Fairness, Bankruptcy Policy, Due Process, and the Lessons of the Piper Reorganization*, 70 AM. BANKR. L.J. 329 (1995) (suggesting that the appointment of future claimants' representatives will be unnecessarily expensive in some contexts).

<sup>92</sup> NBRC REPORT, *supra* note 1, at 316–17.

<sup>93</sup> See Roe, *supra* note 5; Smith, *supra* note 2. The Roe and Smith proposals also have important consequences for the distribution of risk between present claimants, future claimants, and other creditors. These aspects of the proposals will be discussed in detail below in Part III.B.3 and III.B.4.

<sup>94</sup> In the *Manville* case, for example, claimants were compensated in full from the trust fund as their claims became established in a "First-In, First-Out" fashion. MANVILLE SETTLEMENT HISTORY, *supra* note 53. See generally Samuel A. Rea, *Lump-Sum Versus Periodic Damage Awards*, 10 J. LEGAL STUD. 131 (1981) (comparing the costs and benefits of lump-sum damage awards with respect to periodic damage payments).

<sup>95</sup> See Roe, *supra* note 5, at 870–74.

to a variable annuity. The size of the annual payments to tort victims will depend upon the funds available for payment and the expected and actual number of claimants. As time passes, the value of the annual payment will be adjusted. If the value of the assets in the fund rises or the number of future claimants proves smaller than expected, then the value of the annual payments to claimants will rise. If the assets fall in value or future claims prove unexpectedly numerous, by contrast, then the annual sum should fall.

Roe's proposal mitigates the effects of imperfect representation for future claimants. If psychological and institutional factors bias estimates of future claims downward, the Roe approach ensures that the consequences of decisions taken on the basis of these estimates will be smaller. Should the estimates of future claims developed during the bankruptcy process prove unreasonably low, the variable annuity approach ensures that an excessive amount of funds would not be awarded at an early stage, leaving little, if any, funds remaining for future claimants. Instead, funds are disbursed gradually, leaving more in reserve to protect against unexpectedly high future claims. This approach partially protects future claimants from the consequences of ineffective representation.

While Roe's proposal mitigates the consequences of the representation problem, it does not offer a comprehensive solution.<sup>96</sup> Under Roe's proposal, all of the aforementioned deficiencies associated with the representation of future claimants remain the same. Thus, it is quite likely that the size of the annuity received by present claimants will be greater than the annuity received by late arriving claimants—a reprise of the problem that the proposal is designed to prevent (albeit on a smaller scale). In addition, a longer delay in the distribution of awards to present claimants necessarily makes liquidity less available to those present claimants who benefit most from immediate compensation for their injury. Furthermore, the annuity's effectiveness depends critically on the ability to accurately adjust annuity payments to account for new information about the size of future claims. These readjustment decisions, however, will offer numerous opportunities for present claimants to exploit their representational advantages. Finally, it will be considerably more expensive to operate a variable annuity fund and remain in contact with all claimants than to simply award lump sum payments. If the trust fund must engage in litigation each time the size of the annual payment is readjusted, for example, then the potential benefits of the annuity approach may be dwarfed by its costs. These factors may explain why the variable annuity approach, first proposed in 1984, has yet to be implemented.

2. *Smith's Capital Markets Approach.*—Professor Thomas Smith's "capital markets approach" also attempts to mitigate the damage caused by

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<sup>96</sup> See the critique of Roe's proposal in Smith, *supra* note 2, at 392–93.

ineffective representation of future claimants.<sup>97</sup> Rather than requiring trustees to estimate the size of future claims (as in the variable annuity approach), Smith allows the “capital markets” to conduct the estimation procedure. Because the capital markets are presumably not subject to the biases that plague bankruptcy reorganizations, Smith asserts that the capital markets approach will protect future claimants, even if they are ineffectively represented.

Smith’s capital markets approach begins with the creation of a new financial instrument.<sup>98</sup> The financial instrument, backed by some of the assets of the insolvent firm, matures in a distant period (after all future claims have been realized).<sup>99</sup> Each tort claimant receives one share of the instrument for each dollar in claims.<sup>100</sup> Thus, the instrument has a variable number of shares, with the ultimate number of shares equaling the aggregate dollar value of claims. When the instrument matures, each shareholder will share value pro rata with the other shareholders in the fund.<sup>101</sup>

For example, suppose that an insolvent firm declares bankruptcy because it faces massive present and future tort liabilities.<sup>102</sup> Assume, for simplicity, that the bankrupt firm has no contract creditors. In this case, the entire value of the firm ultimately will be paid to tort claimants. Suppose further that the size of future tort claims will be resolved within ten years. The firm’s assets, worth \$1 billion, become the backing for a financial instrument (hereinafter the “tort instrument”) that yields nothing until it matures in ten years, at which point the instrument disburses its entire value to its shareholders in a pro rata fashion.<sup>103</sup> If the claims of present claimants are worth \$500 million, then present claimants will be issued 500 million shares in the tort instrument. As future claimants realize their claims, more shares will be issued. Suppose that in year five, \$400 million in claims are realized, in year six, \$600 million claims are realized, while in all other years no claims are established. Four-hundred million shares in the tort instrument would thus be issued in year five and a further 600 million in year six. At the time of maturity, a total of 1.5 billion shares (500 million + 400 million + 600 million) would have been issued. When the fund disburses its assets, each shareholder will thus receive \$0.667 per share since 1.5 billion shares have been issued while the fund has \$1 billion in assets ( $\$0.667 \text{ per share} = \$1 \text{ billion} / 1.5 \text{ billion shares}$ ).<sup>104</sup> Note that each tort claimant’s

<sup>97</sup> *Id.* at 394–401.

<sup>98</sup> *Id.* at 395–96.

<sup>99</sup> *Id.* at 396.

<sup>100</sup> *Id.* at 397.

<sup>101</sup> *Id.*

<sup>102</sup> This example follows those in Smith. *Id.* at 394–401.

<sup>103</sup> For simplicity, we will assume that the discount and interest rates are zero. Thus, all figures are in present (as well as future) values.

<sup>104</sup> Recall that the interest rate is zero.

shares have the same value at maturity—early claimants’ shares do not have extra value.

Smith’s capital markets approach ameliorates the fair distribution problem by withholding disbursements until the value of aggregate claims is known with certainty. As mentioned earlier, however, early claimants may have demands for money that do not allow them to wait for late arriving compensation. Smith proposes to solve this problem by allowing the shares in the tort instrument to be sold. Early claimants could sell their shares on the capital markets, allowing them to obtain needed funds before the tort instrument matures. Smith believes that the market price of these shares would be a fair one. Market participants would have a strong financial incentive not to underestimate the size of future claims because underestimation would induce the market participants to overpay for the shares. Thus, the capital markets approach minimizes the impact of ineffective representation on future claimants by ensuring that the capital markets, rather than bankruptcy negotiators, allocate compensation between present and future payments.

The capital markets approach requires the creation of a “somewhat exotic” new financial instrument as well as markets that trade the instrument.<sup>105</sup> As a result, Smith’s creative and insightful approach raises a number of concerns. For example, Smith notes that trading in trust shares would probably be limited to institutions.<sup>106</sup> It is quite possible that individual tort claimants may only be able to sell their shares at a substantial discount in a thinly traded market that is dominated by a few large institutional buyers.<sup>107</sup> Thus, the capital markets approach is at best only a partial solution to the fair distribution problem—it will only apply to very large scale mass tort bankruptcies as it is extremely unlikely that a market will develop for smaller tort instruments.<sup>108</sup> If the capital markets approach is tried but a market fails to develop, then early claimants will be faced with the unpalatable choice of waiting until the bond matures or selling the bond at a “fire-sale” price in a thin market. To avoid this outcome, bankruptcy negotiators and trustees will be required to determine whether or not the capital markets approach should be tried in a given case. Because the capital markets ap-

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<sup>105</sup> Smith, *supra* note 2, at 406.

<sup>106</sup> *Id.*

<sup>107</sup> While Smith compares trading in tort instruments to trading in cotton futures, the analogy is imperfect. *Id.* Commodities markets, like cotton, involve a large number of producers and consumers. See, e.g., *Bolin Farms v. Am. Cotton Shippers Ass’n*, 370 F. Supp. 1353 (W.D. La. 1974) (describing a dispute in cotton futures markets between a large number of farmers and producers from the early 1970s). As a result, these futures markets are far more liquid than the market for tort instruments is likely to be.

<sup>108</sup> An institution trading a given instrument must pay a fixed cost to acquire some familiarity with that instrument. If a market is very small, it is unlikely that an institution will be willing to bear the fixed cost to enter the market. Without familiarity with the instrument, an institution is likely to purchase the instrument only if it appears spectacularly cheap.

proach does not improve the incentives of FCRs, this leaves open the possibility that well-represented present claimants will be able to influence the choice of compensation plan and/or tort instrument in their favor. Finally, Smith's approach may be dramatically unfair to future claimants from a risk-bearing perspective, as discussed below in Part III.B.2.

Both Roe and Smith offer attractive proposals that represent substantial improvements over current methods for solving the fair distribution problem. Neither proposal, however, attempts directly to improve the quality of representation for future claimants. Instead, they strive to minimize the consequences of inadequate representation. Because the Roe and Smith proposals require institutional innovations that will inevitably entail some negotiation, it is quite possible that the failure of their proposals to address the representation problem directly may undermine the proposals' ultimate effectiveness. Without effective representation for future claimants, present claimants and other creditors will have ample opportunity to gain an advantage over future claimants in the negotiations that will inevitably precede the variable annuity or capital markets approaches.

### *C. Solving the Representation Problem*

*1. The Percentage-Fee Compensation Setup.*—FCRs are widely recognized as essential protectors of the rights of future claimants in bankruptcy negotiations. Indeed, the National Bankruptcy Review Commission suggests that due process for future claimants may be violated if their claims are discharged in bankruptcy without the appointment of a FCR.<sup>109</sup> As the previous sections demonstrated, however, FCRs are imperfect advocates for the rights of future claimants. Moreover, as we have seen, even elaborate attempts to minimize the future claimants' representation problem are at best incomplete. Given the amount of confidence placed in the FCR by policymakers, a better mechanism for the protection of future claimants is essential. A truly comprehensive solution must address the representation problem directly; it must ensure that the FCR behaves as if she were being monitored and compensated by future claimants. Since future claimants are unknown, this seems like an unattainable goal. A simple change in the compensation structure of FCRs, however, would directly align the goals of the FCR and the future claimants, protecting future claimants from many of the dangers identified above.

To ensure that future claimants are equitably represented in bankruptcy, we recommend that FCRs receive a percentage of the funds received by future claimants. The outlines of our recommendation are simple: Suppose, for example, that all claimants defined as "future claimants" of a firm within mass tort bankruptcy receive \$1 billion over a twenty-year period and that the percentage fee determined by the bankruptcy court is 1%. This

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<sup>109</sup> See NBRC REPORT, *supra* note 1, at 331–32.

would imply that the FCR would receive \$10 million (\$1 billion \* .01) in fees over the twenty-year period.<sup>110</sup> Because FCRs will share directly in the funds that are ultimately received by future claimants, they will have a strong incentive to maximize the payments received by future claimants—a better outcome for future claimants will result in greater compensation for their representatives.<sup>111</sup> In our example, if future claimants ultimately receive \$1.5 billion rather than \$1 billion, then the FCR receives \$15 million rather than \$10 million, a substantial increase. Alternatively, if future claimants obtain \$500 million, the FCR receives “only” \$5 million. Thus, the FCR will self-interestedly seek to maximize the funds received by future claimants. At present, by contrast, the FCR receives an hourly fee or some other non-incentivizing compensation.<sup>112</sup> As a result, the FCR has no direct financial stake in the outcome for future claimants. Given the biases against future claimants that characterize many mass tort bankruptcies, this state of affairs leads to unfair distributions to future claimants.

## 2. *Advantages of the Percentage-Fee Compensation Scheme.*—

Awarding the FCR a percentage of the future claimants’ receipts will ameliorate the two major representational deficiencies identified above. First, the FCR will be less susceptible to the vividness effect. Recall that the vividness effect leads individuals to overemphasize immediate, concrete needs as compared to abstract needs far in the future. When the FCR is awarded an hourly fee, she will be as susceptible to the psychological biases of the vividness effect as any other individual. As a result, she may agree to reorganization plans that unduly favor concrete, present claimants relative to unknown future claimants. An FCR receiving a percentage of the future claimants’ receipts will be less prone to the vividness effect, however. If the FCR succumbs to the vividness effect, she suffers a financial loss. As a result, the FCR will be vigilant about the vividness effect and will tend to emphasize statistical data to a greater degree than other bankruptcy negotiation participants. Furthermore, she will exert a corrective influence on other parties to the negotiations, such as the judge who must approve the settlement, thereby ensuring that the vividness effect does not dominate the

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<sup>110</sup> Again, assume for simplicity that the discount and interest rates are zero.

<sup>111</sup> In this section, we will assume that future claimants’ interests are defined entirely by the “more is better” principle (i.e., that future claimants care only about the average amount of funds they will receive). While the “more is better” principle would presumably be a feature of the future claimants’ goals, it is unlikely to be future claimants’ sole interest. For example, future claimants might prefer slightly smaller average payments if the payments were less risky. Similarly, future claimants might prefer smaller average payments if the payments were distributed more equitably. These issues will be discussed in detail in Part III.

<sup>112</sup> See Smith, *supra* note 2, at 385 (noting that FCRs “are not compensated by a percentage of the debtor’s assets that they secure for their clients”); *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2180](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2180) (testimony of Professor Eric Green, noting that an FCR is not motivated by a “contingent fee arrangement or duty to maximize shareholder value”).

reorganization plan. Second, an FCR compensated based upon a percentage fee will help ensure that the choice of epidemiological estimation procedures is not overly influenced by the present claimants. Because the choice of epidemiological estimation procedures is so crucial to the reorganization plan, the FCR's ability to advocate estimates that are more favorable to future claimants will be an important part of her role.

A percentage stake for FCRs also reduces the pernicious effects of future claimants' monitoring deficiencies. Future claimants will remain unable to express their wishes directly to their representatives. If the FCR "internalizes" the future claimants' goals because she shares their payoff, however, there is less need for the future claimants to monitor their representative. Under this approach, the future claimants' interests will be protected because their representative shares the same interests. Furthermore, the harmful effects of future claimants' inability to compensate their representatives directly will also be mitigated. Generally, direct compensation of representatives is important because it enables individuals to control their representatives' behavior.<sup>113</sup> Obviously, unknown future claimants cannot utilize this control lever. However, because the "equity-holding" FCR shares the future claimants' interests in obtaining awards, future claimants will have less need for the control that is associated with direct compensation.<sup>114</sup>

An FCR with a financial interest in securing funds for future claimants might also bring benefits to trust funds created by a legislature, such as the fund constituted under the FAIR Act.<sup>115</sup> At present, future claimants are at a disadvantage in legislative bargaining over the parameters of a trust fund. While companies and present claimants both lobby to ensure that they are treated more equitably, future claimants' interests are protected by individuals with no direct financial stake in the outcome of the legislation.<sup>116</sup> A percentage-compensated FCR would help level the playing field for future claimants.

3. *Implementing the Percentage-Fee Compensation Scheme.*—The preceding section suggests that a percentage-fee compensation scheme for FCRs has many advantages over other compensation structures. This section addresses several issues regarding the implementation of the percentage-fee scheme.

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<sup>113</sup> In general, creditors' committees may retain counsel who are entitled to compensation from the bankruptcy estate. Because the creditors' committees make the hiring and firing decisions, however, they can achieve greater control than future claimants, who can not directly retain their counsel.

<sup>114</sup> In order to insure that FCRs' incentives remain well aligned with future claimants, FCRs should not be allowed to take action that would reduce their incentives, such as selling their fees for a lump sum to a third party.

<sup>115</sup> FAIR Act, *supra* note 6.

<sup>116</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2180](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2180) (testimony of Dr. Green, regarding the interests of future claimants, but claiming no financial interest in the outcome of the legislation).

First, a lack of statutory authority should not hinder the adoption of the percentage-fee scheme. At present, the Bankruptcy Code makes no mention of the appointment of FCRs,<sup>117</sup> and bankruptcy courts derive their authority to appoint FCRs from their equitable powers.<sup>118</sup> Since percentage-fee compensation for FCRs will lead to more equitable outcomes for future claimants (as described above), bankruptcy courts should be willing to compensate FCRs with a percentage of future claimants' receipts. Furthermore, potential statutory innovations do not preclude the use of percentage fees. For example, a percentage fee falls within the broad terminology used in the National Bankruptcy Review Commission's proposed statute authorizing the appointment of an FCR and describing the FCR's compensation as an administrative expense.<sup>119</sup> Under Bankruptcy Code § 507(a)(1), this means that the FCR's fees receive priority over the claims of other unsecured creditors and are effectively shared by all unsecured creditors. The percentage-fee approach, however, may necessitate large fees for FCRs.<sup>120</sup> Unsecured contract creditors and others may understandably object to this aspect of the percentage-fee approach, claiming that it constitutes a handout to lawyers. The high fees, however, simply reflect the high stakes for future claimants and their desperate need for effective representation. Future claimants' interests need protection and the percentage-fee approach offers the best method of ensuring adequate representation. The fair distribution problem in mass tort bankruptcies cannot be solved cheaply and thus the cost should be shared amongst all the creditors.

Even if bankruptcy courts prove unwilling to impose the cost of compensating an FCR based on a percentage-fee system on all creditors, this method of compensation should remain a viable option. Just as shareholders in a publicly traded company are willing to issue stock options to provide incentives for executives, so too should future claimants be willing to share a percentage of their own compensation with an FCR if such an approach will help future claimants gain a larger slice of the total "pie." Indeed, future claimants' desire to motivate their agents may be even greater than ordinary shareholders because future claimants have no other means of monitoring their agents. This suggests that a percentage-fee system of compensation should be chosen in almost all cases, even if some or all of the fees must be paid directly by the future claimants themselves.<sup>121</sup>

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<sup>117</sup> 11 U.S.C. § 524(g)(4)(B)(i) (2000) constitutes an exception. It relates exclusively to asbestos, however.

<sup>118</sup> See *In re Johns-Manville Co.*, 36 B.R. 743, 758 (Bankr. S.D.N.Y. 1984).

<sup>119</sup> See NBRC REPORT, *supra* note 1, at 316 (stating that the FCR's "fees and expenses" constitute administrative expenses but providing no restrictions on the structure of the fees).

<sup>120</sup> The fees will not always be large. Competition between law firms may bring the fees down to a reasonable level.

<sup>121</sup> Even if the future claimants must pay some of the percentage themselves, some of the FCR's fees should still be counted as administrative expenses. For example, the court may order that the compensation paid directly by future claimants should be reduced by the amount that the court would have

The FCR should be chosen by the bankruptcy judge.<sup>122</sup> Because percentage-fee compensation may lead to lucrative rewards for FCRs, there may be competition among potential FCRs for the appointment. The bankruptcy judge should choose the FCR on the basis of two criteria. First, the FCR should have the skills necessary to obtain a large settlement for the future claimants.<sup>123</sup> Obviously, the judge should choose the FCR most likely to garner a large fund to compensate the future claimants. Second, the judge must consider the potential FCR's proposed fee. In doing so, it is important to recognize that the future claimants' interests (as well as the interests of other claimants) are affected by the size of the FCR's fee. The FCR's fee is subtracted from the funds available for all unsecured creditors (or alternatively, directly from the funds available for future claimants). As a result, future claimants and other creditors benefit if the FCR takes a relatively small percentage. Thus, the judge must consider both the FCR's ability as well as her fee when appointing the FCR.

### III. THE FAIR DISTRIBUTION PROBLEM AND RISK AVERSION BY FUTURE CLAIMANTS

Up to this point, we have focused our attention on the future claimants' representation problem. We noted that ill-defined future claimants, unable to choose, monitor, or compensate their representatives, suffer from a disadvantage in bankruptcy with respect to contract creditors and present claimants. This disadvantage is partially independent of the considerable uncertainty that surrounds the size of future claims: even if the size of future claims were certain, future claimants would be at a disadvantage because of inadequate representation. The uncertainty in the number of future claimants exacerbates the representation problem because it allows more scope for other claimants to take advantage of future claimants. In addition, the uncertainty in future claims introduces a second prong to the "fair distribution problem" for future claimants—the allocation of risk. Mass tort bankruptcy negotiations involving future claims do not simply allocate funds to present claimants, future claimants, and other creditors; they also apportion, either implicitly or explicitly, the risk in the size of future claims to these disparate groups. Because individuals are generally risk-averse, these risk allocations play an important role in the fair distribution problem.<sup>124</sup> Truly fair outcomes for future claimants cannot simply assure future

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had to pay an FCR compensated on an hourly basis.

<sup>122</sup> Judges and trustees currently choose the FCR. For a discussion of the appointment process, see Resnick, *supra* note 3, at 2078–79. For the statutory rules governing administration of the bankruptcy estate, see 11 U.S.C. §§ 321–331 (2000).

<sup>123</sup> Some of the factors to be considered when determining a potential FCR's ability include the size of previous settlements obtained for future claimants, the potential FCR's mass tort bankruptcy experience, and the size of settlements obtained in non-bankruptcy-related tort settlements.

<sup>124</sup> Risk aversion will be discussed in detail in Part III.A.1.

claimants the same average award payments as present claimants.<sup>125</sup> A fair distribution must also share the risk in the size of future claims evenly, or fairly compensate those who bear the risk in the size of future claims. The uncertainty in the number of future claimants introduces an important wrinkle to mass tort bankruptcies that does not exist in other bankruptcies.

Not surprisingly, future claimants have “come up short” in the allocation of the risk in future claims.<sup>126</sup> Moreover, while the representation problem has been studied extensively, the risk distribution problem has not been analyzed sufficiently. In this Part, we examine the risk allocation dimensions of the fair distribution problem.

### A. Risk Aversion, Certainty Equivalence and the Definition of Fair Treatment for Future Claimants

1. *Risk Aversion.*—Economists generally believe that individuals experience diminishing marginal utility of money.<sup>127</sup> That is, a dollar will bring more satisfaction to an individual when she is poor than when she is wealthy. For example, an additional \$20 to a poor person may allow them to purchase a new (and badly needed) pair of shoes. If the same person were very wealthy, however, the additional \$20 might be devoted to purchasing a tenth pair of shoes. Because the first pair of shoes is more important to the individual than the tenth pair, \$20 bring greater satisfaction if the individual’s wealth is smaller—implying that the “marginal utility” of money is decreasing.

The principle of risk aversion is closely related to diminishing marginal utility of wealth.<sup>128</sup> Because individuals experience diminishing marginal utility of wealth, people generally dislike gambles. The loss of a sum causes more distress than the gain of the same sum would increase happiness.<sup>129</sup> Most people, for example, would prefer \$100,000 for certain as op-

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<sup>125</sup> Identical *average* payments to present and future claimants would be fair if future claimants were risk-neutral (an unlikely assumption). Nevertheless, many mass tort bankruptcies fail to meet even this watered-down criterion. As discussed *supra* note 62, future claimants tend to bear downside risk but no upside risk. Thus, even their average award will be smaller than present claimants (in addition to being subject to greater risk). Part III focuses on the inequities that come from unfair risk allocation to risk-averse claimants and assumes that the inequitable average distribution to future claimants has been solved by the Smith or Roe proposals or by the percentage-fee approach.

<sup>126</sup> For expositional simplicity, Part III will focus on the allocation of risk between present and future claimants. Part IV will discuss risk allocation between present claimants, future claimants, and other creditors.

<sup>127</sup> See ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 46–47 (3d ed. 2000) (discussing diminishing marginal utility and risk aversion).

<sup>128</sup> *Id.*

<sup>129</sup> Introspection supports the notion that individuals are risk-averse. Most individuals, for example, would not wish to put their house or wealth on the line in a double-or-nothing bet. The loss of the individual’s only house (from losing the bet) would cause more distress than the joy that would result from winning the bet and having double the wealth or houses.

posed to a 50% chance of receiving no dollars and a 50% chance of obtaining \$200,000. Although the “gamble” has the same expected value as the certain sum (because  $.5 * \$200,000 + .5 * \$0 = \$100,000$ ), the first \$100,000 is worth more than the second \$100,000 (because of diminishing marginal utility). As a result, the individual who prefers the guaranteed \$100,000 to the 50% chance of \$200,000 is deemed risk-averse. The notion of risk aversion helps explain many types of behavior, such as the purchase of insurance.

Tort claimants (present and future) are presumably risk-averse, like most other individuals.<sup>130</sup> Indeed, there is reason to believe that tort claimants may be particularly risk-averse.<sup>131</sup> Tort claimants have often been severely injured and may have very low wealth levels, because their savings are depleted on medical expenditures or are devoted to replacing the income lost when an injured individual is unable to work.<sup>132</sup> Under most common principles of risk aversion,<sup>133</sup> low wealth individuals will be more risk-averse than individuals with average wealth levels.<sup>134</sup> This means that a relatively poor individual will exhibit greater “dislike” for the \$100,000 gamble described above than would a wealthy individual.

2. *Certainty Equivalence.*—The fact that individuals dislike risk leads naturally to the concept of “certainty equivalence.” As described above, the fifty-fifty chance of \$200,000 or zero is worth less to risk-averse individuals than a guaranteed \$100,000, even though the two scenarios have the same expected value. Certainty equivalence, which equals the value that an individual would place on any given gamble, helps quantify an indi-

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<sup>130</sup> See Roe, *supra* note 5, at 877; Smith, *supra* note 2, at 396.

<sup>131</sup> See Roe, *supra* note 5, at 877–78 (discussing why the norm of accurate compensation in bankruptcy is particularly important for future claimants because they have unique attitudes towards risk).

<sup>132</sup> Assuming that all individuals begin with identical levels of wealth, tort claimants will have less wealth because they have been injured and the insolvent firm is not able to compensate them completely. In reality, many tort claimants (such as people exposed to asbestos or cigarette smokers) may begin with lower levels of wealth than average, suggesting that they may be even more risk-averse.

<sup>133</sup> Economists generally use utility functions, or “specifications,” to represent individual preferences. A utility function represents the amount of utility caused by a given amount of money (or some other good). A utility function for a risk-averse individual will be concave. This means that the additional utility caused by an additional dollar goes down as the individual’s wealth goes up.

<sup>134</sup> For example, this will be true if individuals have preferences that exhibit constant relative risk aversion (CRRA), a very common and intuitive utility specification. Note, however, that this will not be true of all utility functions for risk-averse individuals. Individuals with constant absolute risk aversion (CARA) preferences will exhibit the same “amount of dislike” for fair gambles regardless of their wealth levels. See ANDREU MAS-COLELL ET AL., *MICROECONOMIC THEORY* 190–94 (1995) (discussing various types of utility functions). See generally ANGUS DEATON, *UNDERSTANDING CONSUMPTION* (1992) (presenting a wide ranging discussion of marginal utility and risk aversion in the context of consumption decisions). But see Mathew Rabin, *Risk Aversion and Expected-Utility Theory: A Calibration Theorem*, 68 *ECONOMETRICA* 1281 (2000) (questioning the applicability of observed “small-scale” levels of risk aversion for ascertaining all individual’s levels of aversion to large risks).

vidual's dislike for the gamble.<sup>135</sup> For example, if an individual would be willing to pay a maximum of \$80,000 for the fifty-fifty chance of \$200,000 or zero, then the gamble has a certainty equivalence of \$80,000. Put another way, this means that the individual would be indifferent between a guaranteed sum of \$80,000 and a fifty-fifty chance of \$200,000 or zero. For risk-averse individuals, the "certainty equivalent amount" of a gamble will always be less than its expected value. Thus, the certainty equivalent sum in our example must be less than \$100,000. If an individual is exceedingly risk-averse, her certainty equivalent amount for a given gamble will be less than that of an individual who is less risk-averse. For example, an exceedingly risk-averse person may have a certainty equivalent amount of \$40,000 for the fifty-fifty chance of \$200,000 or zero. Even though the expected value of the gamble (\$100,000) is much greater than \$40,000, the individual's intense aversion to risk means that he is indifferent between the gamble with an expected value of \$100,000 and a guaranteed \$40,000. A less risk-averse individual would have a higher certainty equivalent amount. For example, a risk-neutral individual, who is untroubled by risk, would be willing to pay \$100,000 for the fifty-fifty chance of \$200,000 or zero. The certainty equivalent amount for the risk-neutral individual is the same as the expected value.

As described above, tort claimants reasonably may be supposed to have high levels of risk aversion because of the depletion of wealth that is caused by their injuries. This means that they have high certainty equivalent discounts relative to the expected value of a gamble. Thus, the fifty-fifty chance of \$200,000 or zero may only have a certainty equivalent value of \$40,000 to extremely risk-averse tort claimants even though this figure is far smaller than the \$100,000 expected value. Furthermore, the certainty equivalent discount may rise as the size of the gamble increases. Thus, a tort claimant may be willing to pay \$9 for a fifty-fifty chance at \$20 or zero. The certainty-equivalence of \$9 is 90% of the gamble's \$10 expected value. When the values of the gamble (and thus the gamble's risk level) are multiplied, however, there will be a greater divergence between the tort claimant's certainty equivalent valuation of a gamble and the gamble's expected value. Thus, the certainty equivalent of the fifty-fifty chance of \$200,000 may only be \$40,000, just 40% of the gamble's \$100,000 expected value.

3. *Diversification and Future Claimants.*—Future claimants' risk aversion in a mass tort bankruptcy is exacerbated by their inability to diversify their exposure to the risky claim on the bankruptcy trust.<sup>136</sup> In general, risk-averse individuals may diversify with investments or insurance. For

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<sup>135</sup> For discussions of certainty equivalence, see PAUL MILGROM & JOHN ROBERTS, *ECONOMICS, ORGANIZATION & MANAGEMENT* 210 (1992). For a discussion of certainty equivalence in a legal context, see Keith Hylton, *Punitive Damages and the Economic Theory of Penalties*, 87 *GEO. L.J.* 421, 458 (1998) (evaluating the relevance of certainty equivalence to punitive damage award calculations).

<sup>136</sup> For a longer discussion of the ability of future claimants to diversify, see Part IV.A.1.

example, a risk-averse farmer who is greatly exposed to fluctuations in the price of her crop may agree to futures contracts that specify in advance the price that she will receive. This will reduce the risk for the farmer. If the price of her crop is lower than expected, she will be protected by the higher price in the future contracts. If the price is higher than expected, however, the farmer will not benefit from the price rise. Overall, the farmer who sells futures contracts will be less exposed to the risks of price fluctuations than the farmer who does not. The futures contracts allow the farmer to diversify some of the risk in the price of her product by offloading the risk to an individual who is more willing to accept the risk that the price of the farm product will rise or decline. Similarly, an individual may not wish to bear all the risk of bad health. As a result, he will purchase health insurance so that the insurer will bear some of the risk of bad health. The insurance allows the individual to “diversify-away” some of the risks of bad health.

Present claimants need not worry about diversification of the risk in their compensation because they receive their awards immediately. Future claimants, by contrast, are unable to diversify their exposure to the risks that result from their exposures to a harmful product and the related possibility that their damage awards will be small because the total size of future claims proves to be higher than expected.<sup>137</sup> Unharmed future claimants may be only dimly aware (or not aware at all) of the risks of their exposure. As a result, it is implausible that they would undertake sophisticated diversification measures. In addition, if the size of the claimants’ injuries are negatively correlated with the size of their compensation, then diversification becomes even more important.<sup>138</sup> Individuals will have some automatic diversification measures from tort risks, such as health or life insurance. In many cases, however, these will not be sufficient to eliminate the risks of tort injury. Many individuals are underinsured or even uninsured.<sup>139</sup> For example, a large proportion of individuals purchase little or no life insurance.<sup>140</sup> These factors suggest that future claimants’ relative inability to diversify may thus play an important role in the analysis of risk allocation that follows.

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<sup>137</sup> For a full discussion of the negative correlation between the size of future claimants’ injuries and the size of their compensation (and the resulting lack of diversification), see Part IV.A.1.

<sup>138</sup> For related analysis, see the discussion in Part IV.A.

<sup>139</sup> See MetLife Group Life, *Benefit Solutions for Business: A Perspective on Group Life Insurance 2*, available at <http://www.metlife.com/WPSAssets/14778534621022699283V1FA%20Perspective%20on%20Group%20Life.pdf> (last visited July 14, 2003).

<sup>140</sup> *Id.*

*B. Allocation of Risk in Mass Tort Bankruptcies: Current Practice and Theory*

*1. Defining "Fair" Risk Allocations.*—All bankruptcies involve some allocation of risk because of the inherently uncertain nature of a firm's future cash flows.<sup>141</sup> For example, some creditors receive equity in a reorganized company while others receive debt claims. Because debt has higher priority in bankruptcy, it is a less risky security than equity, and this risk allocation may treat otherwise identical creditors in disparate fashions. However, these disparate risk allocations are not problematic for two reasons. First, the absolute priority rule protects creditors.<sup>142</sup> Because equity is riskier than debt, markets generally price equity securities at a discount for a given expected return.<sup>143</sup> Since the absolute priority rule ensures that similarly situated creditors should receive similar values, the exact method of risk allocation is immaterial so long as the values of the different securities received by different creditors, as determined in the market for such securities, respect absolute priority. Second, the ability to buy and sell the securities issued by the reorganized firm in an efficient, liquid capital market render the individual risk preferences of creditors irrelevant with respect to the determination of the values of these claims. If a particularly risk-averse creditor receives riskier equity rather than safer debt, he can easily sell his claim for cash if he chooses. Even if markets are illiquid, the risk allocations are the result of a negotiation process.<sup>144</sup> As a result, the risk allocations presumably reflect preferences towards risk. If one class of creditors is more risk-tolerant than another, or is restricted from holding securities of a particular type, it is likely that this class will receive securities that match its preferences as a result of the bankruptcy negotiation.

Similar to the inherent risk in future cash flows from a firm's operations, risk of future claims is an unavoidable element of mass tort bankruptcies. Future claims risk presents a uniquely problematic issue for bankruptcy, however. Because of inherent epidemiological uncertainties, it may be very difficult for courts and creditors to properly "price" the risk in future claims. Even if such risk were easily priced in the marketplace, the individual risk preferences of the future claimants should still be relevant information to the court. Because the identity and severity of these future claims is unknown at the time the reorganization plan is confirmed, future

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<sup>141</sup> See Roe, *supra* note 5, at 876–79.

<sup>142</sup> The principles of the absolute priority rule are embodied in 11 U.S.C. §§ 1122–1129 (2000). The absolute priority rule requires that a senior class be paid in full before a junior class obtains any value in a reorganization plan. See BAIRD, *supra* note 35, at 62–78 (1992) (discussing the absolute priority rule).

<sup>143</sup> See BURTON G. MALKIEL, *A RANDOM WALK DOWN WALL STREET* (5th ed. 1990), reprinted in *FOUNDATIONS OF CORPORATE LAW* 29–32 (Roberta Romano ed., 1993).

<sup>144</sup> Even in the event of a "cram down" bankruptcy, the distribution is supposed to satisfy absolute priority.

claimants do not receive tradeable claims on the trust, as an ordinary creditor would receive in bankruptcy. In effect, each future claimant in a mass tort bankruptcy holds an extremely risky claim she cannot sell. As a result, future claimants may not receive the risk allocation that is most efficient if the FCR does not represent their preferences appropriately.

Bankruptcy courts thus need a normative goal for evaluating the allocation of risk that results from mass tort bankruptcies. Using hypothetical choice analysis, Professor Smith offers an excellent starting point for this procedure.<sup>145</sup> Smith assumes that behind a veil of ignorance, “prospective tort creditors would not agree to an allocational [sic] scheme that paid present claimants more than future claimants; rather, they would select a scheme that treated present and future equally.”<sup>146</sup> We modify Smith’s conclusion. While completely equal treatment is a worthy goal, it is essentially unattainable when future claims are risky. Instead, we propose that individuals would choose a framework whereby tort creditors would be indifferent between becoming a present or future claimant. Because claimants are risk-averse and perfect equality across claimants is difficult to attain, we suggest that the risk/return parameters of present and future claimants’ bankruptcy outcomes should make prospective claimants indifferent between becoming present or future claimants.<sup>147</sup>

The simplest way to eliminate the uncertainty in the size of future claims is to delay compensation to present claimants and wait until the uncertainty is resolved. If the size of future claims were known with certainty, perfectly equal compensation could be awarded to present and future claimants. While appealingly simple, this procedure fails to satisfy the indiffer-

<sup>145</sup> See Smith, *supra* note 2, at 378–82. Hypothetical choice analysis posits the following hypothetical: suppose that all parties to bankruptcy negotiation were behind a veil of ignorance such that none of the parties were aware of their actual place in the reorganization plan, e.g., no party knows whether it will be a present claimant or future claimant. Hypothetical choice analysis asks what outcome would be chosen by the parties in this state—when opinions are unbiased by personal circumstances. For discussions of hypothetical choice analysis, see JOHN RAWLS, *A THEORY OF JUSTICE* 11–17 (1971); THOMAS H. JACKSON, *THE LOGIC AND LIMITS OF BANKRUPTCY LAW* 7–19 (1986) (applying hypothetical choice analysis to bankruptcy law); Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 *YALE L.J.* 353, 357–60 (1988) (summarizing hypothetical choice analysis in a products liability framework). *But see* Smith, *supra* note 2, at 379 n.52 (explaining why hypothetical bargain analysis does not apply seamlessly to bankruptcy law); Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 *STAN. L. REV.* 311 (1993) (asserting that bankruptcy does not solve an intractable and inefficient “common-pool” problem, and thereby implying, but not stating explicitly, that there is no contracting failure requiring the use of hypothetical bargain analysis to bankruptcy).

<sup>146</sup> Smith, *supra* note 2, at 380.

<sup>147</sup> This analysis focuses on tradeoffs between present and future claimants. It does not consider the preferences of individuals who were exposed to the harmful product but never become injured. Because our analysis ensures that future claimants are treated as well as present claimants, however, it removes the rationale for as-yet-unharmed individuals to seek damages. If they wait and develop injury, they are adequately protected as future claimants, while if they remain uninjured then they are not entitled to damages.

ence criterion. Although present and future claimants receive equal payments, present claimants must wait for many periods before receiving any compensation. During these periods, present claimants may have desperate needs for funds to compensate them for medical needs or lost earnings that result from their injuries.<sup>148</sup> Future claimants, by contrast, receive compensation as their injuries manifest themselves. As a result, the “wait and see” approach fails the indifference criterion; prospective claimants would prefer to become future claimants rather than present claimants.<sup>149</sup>

We will now evaluate the risk allocation strategies of the cases and proposals discussed in Part II with respect to the “indifference criterion” developed here.

2. *Risk Allocations in Past Bankruptcies and the FAIR Act.*—As examined in Part II, the *Johns-Manville* bankruptcy did not provide a “fair” distribution to future claimants—present claimants received much greater compensation than future claimants. Much of this discrepancy stemmed from the inaccurate estimation of the number of future claimants. As described above, these inaccuracies were not simply the result of bad luck but also of systematic biases against future claimants.

Suppose, however, that these biases were eliminated and that the estimates chosen in the *Manville* bankruptcy reorganization were appropriate. Even under this scenario, present and future claimants could not be assured equivalent outcomes. An estimate, even if well chosen, is still an estimate. Because present and future claimants both received compensation from the *Manville* personal injury settlement and the size of the fund was fixed,<sup>150</sup> the average return on any claimant’s liquidated claim was subject to the risk in future claims.<sup>151</sup> The average return can be calculated by dividing the size of the fund by the size of total claims. Because future claims are subject to uncertainty, the average return was also subject to uncertainty. The risk in

<sup>148</sup> Complete capital markets could facilitate the “wait and see” approach. If present claimants could sell their prospective tort claims for a fair price to “move forward” their compensation, then the “wait and see” approach would not suffer from these defects. Indeed, if the capital markets were complete, then this strategy would be identical to Smith’s capital markets approach described above in Part II.B.2. Smith’s tort instruments serve to facilitate the development of capital markets for the wait and see approach. As described below in Part III.B.3, however, Smith’s capital markets approach also fails the indifference criterion.

<sup>149</sup> A related way to understand this concept is to assume that present claimants’ discount rates exceed the interest rates that claimants would earn with funds set aside for them under the “wait and see” approach. As a result, they would strongly prefer not to wait but rather to receive their compensation immediately.

<sup>150</sup> See *In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. 710, 752–53 (Bankr. E. & S.D.N.Y. 1991) (specifying the assets of the Manville trust fund and implicitly limiting the trust fund to the assets specified).

<sup>151</sup> The average return refers to the percentage of any liquidated claim that was recouped. Thus, if every individual’s claim was worth \$10,000 and they all received \$6,000, the average return would be 60%.

the average return had to be allocated amongst the present and future claimants.

The *Manville* bankruptcy allocated the risk to the future claimants. The *Manville* trust chose a "first-in-first-out" payment plan.<sup>152</sup> That is, the claimants were compensated as their claims were presented to the trust. Moreover, claimants received 100% of their claims as specified in the reorganization plan. Thus, present claimants received the full value of their claims with no risk, while payments to future claimants were subject to a great deal of risk. Because payments were awarded in full, if future claims exceeded expectations (a real possibility even if the estimates were methodologically sound), then the last arriving claimants would receive nothing. If future claims equaled expectations, however, both present and future claimants would have received the full value of their claims.

Even if the bankruptcy court had chosen the right estimation procedures, the norm of claimant-status indifference developed above suggests that the *Manville* bankruptcy did not achieve a fair distribution. Prospective claimants would have preferred the status of present claimants for two reasons. First, the present claimants' awards were not subject to risk while the future claimants' award amounts were very risky. Because prospective claimants are risk-averse, the risk in the future claimants' awards would make the position of the early claimants more attractive, even if future claimants frequently received the same award as present claimants. Second, the bankruptcy settlement did not specify the procedures for allocating excess funds in the event that future claims proved lower than expected. It seems unlikely, however, that future claimants would have received more than 100% return on their claims. If future claimants could not have received more than 100%, then the settlement trust was biased against them: it allowed for recovery of less than 100%, but not more.<sup>153</sup> This settlement structure implies that future claimants would receive less than 100% of their claims on average while present claimants would always receive 100%.

Other bankruptcy settlements have also failed to follow the indifference norm. Instead they have apparently attempted to ensure that present and future claimants receive the same average claim. For example, the fund resulting from the asbestos-related bankruptcy of UNR Industries<sup>154</sup> was inadequate to compensate all claimants fully. Knowing this, the claimants' fund trustees did not fully compensate present claimants, choosing instead to award present claimants a lump-sum percentage of their claims. The

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<sup>152</sup> MANVILLE SETTLEMENT HISTORY, *supra* note 53.

<sup>153</sup> While this approach may seem understandable (why should tort claimants receive more than 100% of their claims?), it fails to recognize that tort claimants must be compensated for bearing risk. Implementing the risk priority approach, described in Part IV.D, will prevent an overestimation of claims from creating excessive awards to future claimants.

<sup>154</sup> See UNARCO Bloomington Factory Workers v. UNR Indus., Inc., 124 B.R. 268, 272 (N.D. Ill. 1990).

award percentages were apparently chosen to equilibrate awards for all claimants. Thus, if total claims were expected to be five times as high as the funds available in the trust, then present claimants received 20% of their claims.<sup>155</sup>

While an improvement over the *Manville* procedure, the UNR procedure failed to satisfy the indifference criterion. Risk-averse prospective claimants would prefer a certain payment amounting to 20% of their claims (as received by the present claimants) as opposed to a risky payment with an expected value of 20% (as received by future claimants).

The risk allocation specified by the asbestos trust fund created by the FAIR Act is eerily reminiscent of the risk allocation in previous mass tort bankruptcies. All claimants are due to receive the same fixed claim for a given injury.<sup>156</sup> Should asbestos claims equal expectations, the fund will be sufficient to pay present and future claimants equally.<sup>157</sup> If claims exceed expectations and the fund is depleted, however, then future claimants will suffer because present claimants have already been compensated while future claimants are left to seek compensation from a depleted fund.

The FAIR Act is unfair to future claimants with respect to present claimants along a number of dimensions. First, future claimants receive smaller compensation than present claimants *on average* because future claimants will receive equal compensation with respect to present claimants *only* if future claims fall short or equal expectations.<sup>158</sup> If future claims exceed expectations, however, then future claimants receive less than present claimants; average compensation for future claimants is therefore below average compensation for present claimants. Second, even if future claimants receive the same average compensation as present claimants, the future claimants are exposed to more risk. While present claimants are reasonably certain to receive the amount specified by statute, future claimants' payments are subject to risk because the fixed amount in the fund must be shared amongst a variable number of claimants. As a result, a prospective claimant would prefer to be in the present claimants' position even if average payments for present and future claimants are equal. The lower risk of the present claimants' position makes it more attractive.

3. *Risk Allocation in Smith's Capital Markets Approach.*—Smith's capital markets approach raises the probability that the appropriate estimation procedures would be employed for determining funding for future

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<sup>155</sup> For a description of the UNR procedures, see GIBSON, *supra* note 17, at 173–74.

<sup>156</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=2186](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=2186) (testimony of Ms. Jennifer L. Biggs, describing fixed awards for claimants regardless of the timing of their claim).

<sup>157</sup> *Id.*

<sup>158</sup> A review of the FAIR Act revealed no provision for future claimants to receive higher per capita compensation than present claimants if future claims fall short of expectations. *Id.*

claimants.<sup>159</sup> While this is an important improvement, the capital markets approach does not necessarily satisfy the indifference criterion described above. Indeed, the capital markets approach satisfies the indifference criterion only under two scenarios: if the market prices the risky future payout stream as would a future claimant, or if future claimants are able to diversify cheaply—two very unlikely scenarios.

An example helps to illustrate the drawbacks in Smith's approach. Recall that his approach calls for one tradable share in a tort instrument to be issued for each dollar of liquidated tort claims. The tort instrument holds assets that are distributed pro rata to shareholders after all tort claims are determined. As in our previous example, assume that the trust fund owns assets worth \$1 billion, and that present claimants have \$500 million in liquidated claims. Now assume that all future claims will be realized in year ten. Thus, the tort instrument pays its \$1 billion pro rata in year ten. Now assume that future claims can either be \$500 million or \$1 billion, each with 50% probability. In the first year of the tort instrument's existence, the present claimants receive 500 million shares. The value of these shares in ten years depends upon the size of future claims. If future claims equal \$500 million, then all the shares in the trust fund will be worth \$1 each, since the trust owns \$1 billion in assets and aggregate tort claims total \$1 billion.<sup>160</sup> If future claims equal \$1 billion, then each share will be worth \$.667, because the tort instrument will have issued 1.5 billion total shares and has \$1 billion in assets. Because the two outcomes are equally likely, the expected value of a share is \$.833.<sup>161</sup> Suppose that present claimants attempt to sell their shares in the tort instrument on a well developed market. Financial theory suggests that non-injured participants in the tort instrument market are effectively neutral with respect to risk in the number and size of future claims. The Capital Asset Pricing Model (CAPM), for example, predicts that only systematic risk, the risk that cannot be eliminated by diversification, receives a market premium.<sup>162</sup> Unless the future claims risk is correlated with economy-wide sources of risk (such as risks in oil prices, weather, etc.), the "beta" of the tort instrument is zero.<sup>163</sup> As a result, it will

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<sup>159</sup> For a detailed description of the capital markets approach, see Part II.B.3.

<sup>160</sup> There were \$500 million in present claims and \$500 million in future claims for a total of \$1 billion.

<sup>161</sup>  $.833 = .5 * \$1 + .5 * \$.667$ .

<sup>162</sup> For a discussion of the CAPM model, see MARK GRINBLATT & SHERIDAN TITMAN, FINANCIAL MARKETS AND CORPORATE STRATEGY 151–54 (2d ed. 2002). For a discussion of the types of risk and the pricing of risk in the CAPM model, see *id.* at 178–81.

<sup>163</sup> Beta is a term of art in the CAPM model and is related to the covariance of a given asset return with the market portfolio return. See *id.* at 178–81.

receive no risk premium over a risk-free bond.<sup>164</sup> Consequently, present claimants should receive certain payment of approximately \$.833 per share.

Future claimants, by contrast, continue to hold shares in the instrument (prospectively). While these shares have an expected value of \$.833, the shares' payout is risky. Sometimes the shares will be worth \$.667 and sometimes they will be worth \$1. Thus, a risk-averse prospective tort claimant would not be indifferent between becoming a present or future claimant. Future claimants' expected return is the same as present claimants', but future claimants' returns are riskier. Thus, a risk-averse prospective claimant would prefer the present claimants' position.<sup>165</sup> If future claimants can sell their prospective tort shares, of course, then present and future claimants' positions are equivalent. It is very unlikely, however, that future claimants, who may be unaware of the risks of injury, will be both willing and able to sell their unrealized claims in the market. As a result, all future tort claimants will effectively hold large amounts of a risky security with no potential for diversification. This position is inferior to that of present claimants, who can diversify effectively.

Thus, Smith's capital markets approach, while offering a creative solution for estimating the number of future claimants, does not satisfy the indifference criterion described above. It is an incomplete solution to the fair distribution problem.<sup>166</sup>

4. *Risk Allocation in the Variable Annuity Approach.*—Roe's variable annuity approach reduces the risk borne by future claimants because it delays some payments to present claimants. Instead of allocating all the risk to future claimants, the risk in the size of future claims is partially shared by present claimants.<sup>167</sup> Roe recognizes, however, that some risk

<sup>164</sup> Even if the market was not completely risk-neutral with respect to the risk in future claims, it is very likely that it will be more risk-tolerant than claimants, for whom tort instruments may constitute a large portion of total assets.

<sup>165</sup> Even if a prospective future claimant is not aware that she has been harmed at all, she is still exposed to excess risk. This type of claimant is exposed to two types of risk: (1) the chance that she will be harmed at all and (2) the chance that her harm will prove greater or less than expected, given that she is harmed. In a world with perfect insurance markets, individuals would be able to diversify both types of risk. Bounded rationality, incomplete information, and defects in insurance markets, however, prevent perfect risk sharing. Thus, this paper attempts to facilitate risk sharing (or appropriate risk compensation) from the considerable risks that fall upon all individuals in category 2, thus helping reduce, but not eliminate, the diversification problem.

<sup>166</sup> It is worthwhile to note that the indifference criterion could be satisfied within the framework proposed by Smith if future claimants are given more tort shares than present claimants for a given injury to compensate them for bearing the additional future claimant risk.

<sup>167</sup> Because the variable annuity approach proposed by Roe is just one of many innovations proposed in his seminal paper, it is incompletely specified. For example, the numerical example presented to illustrate the variable annuity approach does not account for all the funds available to tort claimants. See Roe, *supra* note 5, at 873–74. Because individual A in his numerical example does not receive the entire amount of funds available from the annuity in year 1 (A receives \$20,000 out of the \$40,000 available), there should be a greater amount of funds available in year 2. Instead, Roe assumes that the

will remain and that the variable annuity approach reduces rather than eliminates disparities between present and future claimants.<sup>168</sup> Because the annual payout of the variable annuity received by early claimants will be based upon an averaged "best estimate" of future claims, the compensation received by early claimants will be less risky than that received by future claimants, as averages are less risky than extremes.<sup>169</sup> Thus, the variable annuity approach does not satisfy the indifference criterion; prospective claimants would prefer to be present claimants rather than future claimants.<sup>170</sup> Present claimants bear less of the risk in future claims than future claimants, while present claimants and future claimants receive the same amounts on average.

5. *Insurance.*—In addition to the variable annuity approach, Roe also advocates the use of insurance in solving the risk allocation problem.<sup>171</sup> Rather than using the assets of an injury settlement fund to compensate tort claimants directly, the trustee of a fund could use the assets to purchase insurance. The insurance company, in turn, would agree to pay all claimants, present and future, a fixed percentage of liquidated damages as the damage claims become established. The insurance company would thus bear the risk in the size of future claims: if future claims surpassed expectations, then the insurance company would suffer, as it had committed to paying all claimants the fixed percentage. If future claims fell short of expectations, then the insurance company would benefit. Tort claimants would no longer be exposed to the risk in future claims. Regardless of the size of aggregate claims, both present and future claimants would receive the fixed percentage of damages specified in the insurance contract. Thus, insurance along the lines specified would satisfy the indifference criterion.<sup>172</sup>

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same amount is available in both years (\$40,000 in each year). Roe also fails to explain how to allocate the surplus from year 1.

<sup>168</sup> *Id.* at 874 (noting that that the "variable annuity analogy will not eliminate uncertainty or inaccuracy in compensation of the tort victims *inter se*").

<sup>169</sup> Roe recognizes that a more conservative approach might be justified but states that the best estimate approach is preferable and that the choice of procedures is not particularly crucial. *Id.* at 872–73. Given the levels of epidemiological uncertainty and risk aversion, these conclusions are not correct. The "best estimate" (averaging approach) does an inadequate job of accounting for risk aversion, and this constitutes a substantial omission in Roe's otherwise superb analysis.

<sup>170</sup> The fact that prospective claimants would prefer to be present claimants is related to the economic notion of the declining price anomaly in which risk-averse people are willing to pay more for a bird in the hand if there is uncertainty about how much demand will be present in later auctions. For a discussion of the declining price anomaly, see Ian Ayres & Peter Cramton, *Deficit Reduction Through Diversity: How Affirmative Action at the FCC Increased Auction Competition*, 48 STAN. L. REV. 761, 782–83 (1996).

<sup>171</sup> See Roe, *supra* note 5, at 879–84.

<sup>172</sup> Another insurance-based solution relies upon potential future claimants to purchase individual insurance policies against the possibility of future injuries. Many future claimants may be unaware (or only dimly aware) of the risks that they face. As a result, it is highly unlikely that this "solution" would be effective. For more discussion, see *id.* at 883–84.

But Roe identifies several factors that prevent insurance from offering a simple solution to the risk distribution problem.<sup>173</sup> First, he suggests that because mass torts involve massive uncertainties about very large risks, insurance would only be available at a prohibitive premium.<sup>174</sup> Because epidemiological risks are so difficult to quantify, the actuarial tables relied upon by insurers will be difficult to create.<sup>175</sup> As a result, insurers will be unsure about a profitable premium; mistakes will be inevitable. Moreover, mass torts involve large sums that may equal the capitalization of an insurance company—a poor estimate runs the risk of bankrupting the insurance company. This combination of large and ill-defined risks suggests that insurance companies may demand outsized premiums. Because the indifference criterion is not an absolute requirement, it may be reasonable for trustees or judges to forego the purchase of some insurance in order to protect the absolute size of the fund for claimants facing prohibitive premiums. Second, insurers are also likely to require that their liability be capped at some amount.<sup>176</sup> Insurance that is subject to caps will not satisfy the indifference criterion because future claimants will bear all the risk that present claimants will reach the cap—should claims exceed the cap, there will be no compensation available for late-arriving future claimants.

If anything, Roe's analysis underplays the difficulties of insurance. The value of liquidated claims may not be invariant to the choice of insurance. If judges, juries, and fund trustees know that a deep-pocketed insurer is compensating plaintiffs, the size of damage awards may rise. In addition, adverse selection problems may plague the market for tort insurance. Because the size of aggregate claims is so uncertain, insurers may suspect that any trustee who attempts to purchase insurance for future claimants may have private information suggesting that the number of claimants will be large. In response, the insurer will require an even higher premium.

These concerns appear to be empirically important. Although insurance is a seemingly obvious potential solution to the problem of future claims risk, it has generally not played a prominent role in the elimination of future claims risk. For example, the assets of the Dow-Corning breast-

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<sup>173</sup> See *id.* at 879–884.

<sup>174</sup> Recall, for example, that in 1984, estimates of asbestos liability ranged from \$8 billion to \$87 billion. *Id.* at 872 n.73.

<sup>175</sup> Thus, epidemiological risk is not only subject to considerable variance, but it is also difficult to determine the variance itself. Insurance companies are capable of dealing with high variance—they simply charge an appropriate premium. Ill-defined variance, however, raises even thornier problems. For further discussion on this point, see the discussion *supra* at note 83. See generally GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* 39–67 (1970) (discussing the problems of “loss spreading” and insurance for tort victims).

<sup>176</sup> Liability caps are ubiquitous. For example, the federal government is perhaps the least likely insurer to ever declare bankruptcy. Nevertheless, the federal government has specified a liability cap for its function as an insurer of last resort for acts of terrorism. See Terrorism Risk Insurance Act, Pub. L. No. 107-297, Title I, § 103(e)(2), 116 Stat. 2322 (2002).

implant fund were all in cash—the fund purchased no insurance.<sup>177</sup> Even when insurance has been used to protect future claimants, its capacity has been small compared to total assets. The fund protecting the injured Dalkon Shield users in the A.H. Robins related mass tort bankruptcy, for example, held only \$350 million in insurance, protecting from the possibility that claims would exceed the value of fund assets.<sup>178</sup> This amount was a small percentage of the total value of assets in the fund, which were approximately \$2.475 billion.<sup>179</sup>

In spite of these considerable difficulties, insurance should play a greater role in protecting future claimants. Because injured claimants may be particularly risk-averse,<sup>180</sup> future claimants (if they could express their preferences) may be willing to pay unusually steep premiums for insurance. FCRs and trustees should account for these preferences. Thus, insurance, even if it is capped, should play an important role in allocating risk fairly between present and future claimants.

### *C. Solutions to the Fair Distribution Problem: A Certainty Equivalent Approach*

Because insurance is no panacea, mass tort bankruptcies must develop more effective procedures for ensuring that risk is distributed more equitably between present and future claimants. These procedures should attempt to satisfy the indifference criterion while also adhering to the other aims of bankruptcy, such as enabling the productive use of assets and upholding absolute priority.

To improve the allocation of risk between present and future claimants, we advocate a “certainty equivalent” approach. For expositional simplicity, assume that tort claimants receive their damage awards in one lump sum,<sup>181</sup>

<sup>177</sup> See GIBSON, *supra* note 17, at 228 (describing the funding of the breast-implant fund and never mentioning any insurance coverage).

<sup>178</sup> See *In re A.H. Robins Co.*, 880 F.2d 709, 721–22 (4th Cir. 1989).

<sup>179</sup> GIBSON, *supra* note 17, at 197.

<sup>180</sup> For a discussion of this issue, see Part III.A.

<sup>181</sup> Note, however, that the certainty equivalent approach does not require lump-sum payments. Indeed, we strongly recommend the adoption of the variable annuity approach to reduce the disparities between present and future claimants. Even if the variable annuity approach is adopted, however, future claimants will still bear a disproportionate amount of risk. Because present claimants have immediate liquidity needs, they will receive some variable annuity payments “up front.” These payments will not be subject to risk. As a result, present claimants bear less risk than future claimants, although the difference in risk-bearing is smaller than if present claimants received a lump-sum. Thus, the certainty equivalent approach used here could be employed to improve both the Roe and Smith proposals, as discussed in Part III.D.3. Note also that this approach implicitly assumes that it will not be possible to recover money once it has been paid to claimants. Attempts at recovery from overcompensated claimants who are no longer receiving further compensation would “clash severely with the norm of repose.” Roe, *supra* note 5, at 872 n.71.

in accord with current practice.<sup>182</sup> Awarding lump-sum damages, however, allocates all risk associated with the size of future claims to the future claimants; so long as damage awards are funded by assets fixed in size during the bankruptcy proceeding, a higher lump-sum payment to present claimants translates into fewer funds available for future claimants. While the present claimant has already received her award (and thus faces no risk), a future claimant faces the risk that the fund will be depleted when his claim “matures.”<sup>183</sup> As a result, we do not recommend that payments to present and future claimants aim for absolute equality. Instead, future claimants should receive higher average payments that reflect the greater risk level of their damage awards. The value of the present claimants’ fixed award should equal the “certainty equivalent” value of the future claimants’ risky awards. Because risk-averse individuals discount risky payments, the *certainty equivalent* value of the future claimants’ risky outcomes will be less than the *expected* value of the future claimants’ awards, implying that the certainty equivalent approach will (on average) award less compensation in dollar terms to present claimants than to future claimants.

The certainty equivalent approach compensates future claimants for bearing additional risk. For example, future claimants to the FAIR Act trust fund should receive larger awards than present claimants if total claims perfectly meet expectations. This approach would compensate future claimants for the risk that future claims will exceed expectations (thus allowing future claimants only minimal compensation). In addition, the certainty equivalent approach ensures that extra funds are available when they are most needed, i.e., when future claims prove unexpectedly large. Future claims may be surprisingly large for a combination of two reasons: the number of claimants may exceed expectations or the size of each future claimant’s claim may surpass predictions. In either case, future claimants will have a particularly acute need for funds. If the magnitude of future claimants’ injuries proves high, then each claimant may have extraordinary

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<sup>182</sup> For example, the *Johns-Manville* and *UNR* tort claimants received lump-sum payments. See the description of these bankruptcies in Part III.B.2.

<sup>183</sup> This assumes that prospective claimants will wait until their claims are manifested before requesting damages. In recent asbestos cases, however, many claimants with “inchoate” claims have demanded compensation before any actual damages arose. We believe that these inchoate claims should be discouraged because it is very difficult to properly assess them. Inchoate claims also act as anti-insurance—all inchoate claimants receive small awards, regardless of their ultimate damages. Proper insurance, by contrast, would have inchoate claimants who ultimately become injured receive large awards while inchoate claimants who are not damaged should receive nothing. We also believe that our “certainty equivalent” and “percentage-fee” approaches will mitigate the problem of inchoate claims. At present, a prospective future claimant may, knowing that future claimants commonly receive an unfair distribution, prefer a certain, small payment as an inchoate claimant. If the certainty equivalent and percentage-fee approaches are adopted, however, future claimants will be fairly treated. As a result, there will be less incentive for prospective future claimants to push forward inchoate claims. In addition, juries and judges will be more likely to deny inchoate claims because they know that future claimants are protected.

medical needs. On the other hand, if the number of future claimants surpasses predictions, then the compensatory funds will have to be shared with a large group, potentially preventing needy individuals from obtaining adequate compensation.<sup>184</sup> Of course, if the size of future claims falls short of expectations, then the certainty equivalent approach will leave a large sum available for relatively few claimants. However, this "downside" of the certainty equivalent approach is outweighed by the desirability of ensuring adequate funds when future claims are unexpectedly large and claimants are particularly needy.<sup>185</sup>

For example, suppose that there are two claimants, one present and one future.<sup>186</sup> Each claimant has lifetime wealth of \$1.5 million, not including damage awards.<sup>187</sup> The present claimant's damages are equal to \$1 million, while the future claimant's damages may be either \$500,000 or \$1.5 million, each with equal probability. The discount and interest rates are zero. Suppose further that there is a total of \$1 million in a trust fund available to compensate both claimants and that the interest rate and discount rates are zero. Both the present and future claimants have the same expected damage value of \$1 million. If risk were not a factor, this would imply that they should share the fund evenly, i.e., they should both receive \$500,000. By contrast, the certainty equivalence approach suggests that the present and future claimant receive the same certainty equivalent damage awards, i.e., that the future claimant should receive more, on average, than the present claimant so that the present claimant's award equals the certainty equivalent of the future claimant's uncertain need for damages. The size of the certainty equivalence premium will depend upon the degree of risk aversion exhibited by the future claimants. For simplicity, we represent the claimants' risk aversion using a logarithmic utility function. The logarithmic utility function offers a convenient means of translating the qualitative notions of risk aversion and diminishing marginal utility into quantities that can be used to illustrate the certainty equivalent approach numerically.<sup>188</sup> Under these assumptions, present claimants should be awarded approxi-

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<sup>184</sup> Both of these statements are a direct result of the assumption of diminishing marginal utility. See Part III.A.1.

<sup>185</sup> This statement follows from the assumption of diminishing marginal utility as well as the closely related assumption of *convex* marginal utility. For a discussion of the convexity of marginal utility, see DEATON, *supra* note 134, at 177-78.

<sup>186</sup> For simplicity, this example focuses on the case in which the *number* of future claimants is known but the *size* of the future claimants' claims is unknown. The qualitative character of the results would be identical if both these quantities were allowed to vary. The quantitative results would change slightly, however. Awards to future claimants would be awarded even more conservatively when both the number and size of future claims are allowed to vary because of the chance that there will be many severely injured individuals, rather than just one as in the example presented here.

<sup>187</sup> While this number may appear high, it is realistic if an appropriately broad definition of wealth that includes human capital (among other things) is considered.

<sup>188</sup> For discussions of functional forms of utility functions, see DEATON, *supra* note 134, at 64; MAS-COLLEL ET AL., *supra* note 134, at 190-94.

mately \$438,000, while future claimants will receive the remainder, or \$562,000.<sup>189</sup> These amounts would satisfy the indifference norm. A prospective claimant would be approximately indifferent between the following options: (1) having a \$1 million injury along with an award of \$438,000, or (2) having a 50% chance of a \$500,000 injury and a 50% chance of a \$1.5 million injury along with an award of \$562,000.<sup>190</sup>

Although the actual monetary award to each claimant is fixed, the percentage of the future claimant's injury that is compensated remains risky because the size of the injury is uncertain. This uncertainty is not the "fault" of the future claimant. Instead, it arises because mass tort bankruptcies seek to discharge future tort obligations of uncertain size. The future claimant should not be punished by the discharge. Thus, future claimants should receive "more" than present claimants, in spite of the fact that both present and future claimants have the same expected claims values. This premium compensates future claimants for the additional risk, ensuring that adequate funds will be available, should the future claimants' injuries prove to be unexpectedly large and situations in which the future claimant has a particularly desperate need for funds (i.e., when the future claimant's injuries equal \$1.5 million). Although the certainty equivalent approach also raises the possibility of awarding future claimants more than present claimants (i.e., when a future claimant's injuries equal \$500,000), the need to assure adequate funding for future claimants outweighs the disadvantage of overcompensating future claimants where claims fall short of expectations. Furthermore, the certainty equivalent approach will occasionally allow the future claimant to receive an award that exceeds the value of the injury. For example, the future claimant's award (\$562,000) will exceed the injury when the injury equals \$500,000. While seemingly counterintuitive, this outcome is necessary to ensure equitable treatment for the inherently "more exposed" position of the future claimant.

This example does not seem unreasonable. Mass tort injuries involving death or severe injury may easily involve risks this large. Epidemiological uncertainties often mean that future damages to a given exposed individual involve greater risk than that presented here. Moreover, while the example focused on the case where the number of claimants is fixed, in reality, both the magnitude of each claim and the number of future claims are uncertain. If future claims are unexpectedly high in both magnitude and number, then the need for funds will be particularly great, potentially justifying a large premium for future claimants under the certainty equivalent approach. Thus, the certainty equivalent approach may often entail a quan-

<sup>189</sup> These results are obtained by solving for the variable  $x$  in the following equation:

$$\ln(\$1,500,000 - \$1,000,000 + x) = .5\ln(\$1,500,000 - \$500,000 + (\$1,000,000 - x)) + .5\ln(\$1,500,000 - \$1,500,000 + (\$1,000,000 - x))$$

<sup>190</sup> Note that the actual size of the award for future claimants is fixed (\$562,000). The percentage of the injury that is compensated remains risky, however, because the size of the injury is uncertain.

tatively large departure from the current goals of equal expected compensation.

#### *D. Implementing the Certainty Equivalent Approach*

While the previous section described the desirability of the certainty equivalent approach, it provided little or no procedural guidance for implementing the proposed improvements. This section discusses procedural improvements and guidelines that will enable implementation of the certainty equivalent approach. Because the certainty equivalent approach marks a significant departure (and improvement) over current practice, we recommend a conservative approach to implementation. For example, the size of the expectation premium awarded to future claimants should be conservatively estimated until courts acquire greater experience with the certainty equivalent approach. In addition, the desirability of implementing the certainty equivalent approach will depend upon the availability of insurance. If complete insurance can be readily and affordably purchased or if the risk sharing scheme between claimants and other creditors described in Part IV is adopted, then there will be little need for the certainty equivalent approach; its benefits will be outweighed by the added complexity it entails. Under current mass tort bankruptcy practice, however, the certainty equivalent approach will engender a considerably fairer outcome making the added complexity almost certainly worthwhile.

1. *Determining the Size of the Future Claimants' Premium.*—There is no simple way to determine the appropriate size of the future claimants' damage award premiums. One way to get a (very rough) estimate of the size of the premium in a given case is to use asset premiums as a benchmark. For example, suppose that the variance in the size of future claims is roughly similar to a particular type of asset trading in a market. By analyzing the market premium for holding risky assets that is demanded by individuals with similar levels of wealth and risk aversion to those who have been injured by a given mass tort, one can obtain a rough benchmark for the desired premium for future claimants (who hold a risky asset in relation to their claims).<sup>191</sup> For example, for the years 1926 to 1988, common stocks had a mean annual return of 10%, while U.S. Treasury bills had a mean annual return of 3.5%, a difference of 6.5% per year.<sup>192</sup> The standard deviation of annual returns for common stock was approximately six times the

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<sup>191</sup> This procedure will also have to take into account the covariance of the asset with a market asset, as in the CAPM model. See SHERIDAN & TITMAN, *supra* note 162, at 178–81. Because ill-defined future claimants are unlikely to diversify, they may be overexposed to risk in the size of their damage awards, particularly if this risk is correlated with their other assets. This approach would require a greater premium for future claimants than the one that would be provided by the market valuation approach described here. It must be emphasized, however, that the speculative nature of these correlations militates against including them in estimates of the appropriate premium.

<sup>192</sup> See MALKIEL, *supra* note 143, at 28 tbl.12.

standard deviation of returns for Treasury bills. These numbers can be applied to give a rough estimate of the appropriate premium for future claimants. Suppose, for simplicity, that present and future claimants share the market's appetite for risk.<sup>193</sup> If the standard deviation of future claimants' compensation is six times higher than the standard deviation for present claimants, then the future claimants should receive an average premium of 6.5% for each year in which they await payment.

In general, the size of the premium will depend on many factors. These include the uncertainty in the size of future claims, the magnitude of each individual's damages, the wealth of the injured individuals, the degree of risk aversion of the injured individuals, and the amount of insurance purchased.<sup>194</sup> As a result, the size of the premium is heavily context-dependent. The "market premium" procedure described in the previous paragraph, as well as any other procedure used to determine the certainty equivalent approach's premium for future claimants, will depend crucially upon the estimates of these variables.

Fortunately, it is possible to state how this premium should vary with the various factors mentioned above.<sup>195</sup> The effects of insurance purchases, for example, are extremely intuitive. Suppose that all claimants are harmed by the same amount but that the number of future claims is uncertain. Suppose also that a bankruptcy trustee purchased complete insurance, ensuring that all claimants could get a specified amount. In this case, there should be no certainty equivalent premium—both present and future claimants hold claims for damage awards that have no risk. As a result, they should be treated identically.

To illustrate some of the other results, we return to the example of the single present claimant (with damages equal to \$1 million) and the single future claimant with uncertain damages that are \$1.5 million or \$500,000, each with 50% probability (with an expected value of \$1 million). Total assets available for distribution to all claimants remain \$1 million.

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<sup>193</sup> This example ignores the distinction between systematic and idiosyncratic risk. See SHERIDAN & TITMAN, *supra* note 162, at 178–81.

<sup>194</sup> An additional complexity that has yet to be discussed concerns the possibility that future claimants' claims are realized at different periods in the future. In this scenario, it is not sufficient to simply compare present and future claimants. Instead, additional categories, such as near-future claimants and distant-future claimants, must also be considered. If, as seems likely, the most uncertainty will surround the value of the distant-future claimants' claims, then these claimants should receive a premium with respect to both present claimants and near-future claimants. Near-future claimants, by contrast, should receive only a small premium with respect to present claimants.

<sup>195</sup> For formal proofs of these results, see Kenneth Ayotte & Yair Listokin, *Optimal Trust Design in Mass Tort Bankruptcy*, available at <http://www1.gsb.columbia.edu/mygsb/faculty/research/pubfiles/ka2051/future%20Daler%20PDF> (unpublished manuscript, on file with authors). These results depend upon the assumption of convex marginal utility as well as risk aversion.

First, we demonstrate that less uncertainty in the size of future claims implies a smaller premium for future claimants.<sup>196</sup> Suppose that the future claimant has a 50% chance of suffering \$800,000 in damages and a 50% chance of suffering \$1.2 million in damages. Thus, the expected value of the future claimant's damages remains \$1 million but the uncertainty of the damages has decreased. Under this modification, the certainty equivalent approach suggests that the present claimant should receive \$490,000 and the future claimant should receive \$510,000.<sup>197</sup> In the original example, by contrast, the present claimant should receive \$438,000 and the future claimant \$562,000. When the uncertainty in the size of future claims goes down, the premium necessary to make prospective claimants indifferent between becoming a present or future claimant also is reduced. This occurs because less uncertainty means that the "worst case scenario" for the future claimant is less undesirable. As a result, the future claimant does not need as great of a premium as protection from the worst case scenario, and damage awards to the present and future claimant can draw closer to numerical equality. If there were no uncertainty in future claims, then both the present and future claimant would receive \$500,000; as one would expect, if there is no uncertainty then present and future claimants should be treated identically in all respects.

Analogously, greater wealth for present and future claimants (for a given level of uncertainty) implies a smaller certainty equivalent premium. Wealthier future claimants are better able to bear the risk of bad outcomes—bad outcomes do not leave wealthier future claimants as desperate for funds as poorer claimants would be. As a result, the premium needed to protect future claimants from bad outcomes decreases as the wealth of future claimants increases. Because the certainty equivalent approach has a cost—the chance that future claimants will be overcompensated if claims fall short of expectations—the reduction in the benefits implies that the premium should be reduced. Again returning to the example, suppose claimants have wealth of \$1.7 million rather than \$1.5 million and that the future claimant's damages are either \$500,000 or \$1.5 million, each with 50% probability (as in the original example). Under these new parameters, the future claimant should receive approximately \$552,000.<sup>198</sup> This award is less than the \$562,000 implied by the earlier example, showing that

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<sup>196</sup> Again, although the examples only consider uncertainty in the magnitude and not the number of future claims, the results will be qualitatively the same if both quantities were allowed to vary. See *supra* note 186.

<sup>197</sup> To obtain the results in this example, solve for  $x$  in the equation:

$$\ln(\$1,500,000 - \$1,000,000 + x) = .5\ln(\$1,500,000 - \$800,000 + (\$1,000,000 - x)) + .5\ln(\$1,500,000 - \$1,200,000 + (\$1,000,000 - x))$$

<sup>198</sup> To obtain the results in this example, solve for  $x$  in the equation:

$$\ln(\$1,700,000 - \$1,000,000 + x) = .5\ln(\$1,700,000 - \$500,000 + (\$1,000,000 - x)) + .5\ln(\$1,700,000 - \$1,500,000 + (\$1,000,000 - x))$$

greater wealth has reduced the size of the premium necessary to protect the future claimants.

Smaller damages for both present and future claimants also reduce the size of the certainty equivalent premium. In a now familiar refrain, smaller damages imply that the “worst case scenario” is less damaging for future claimants. As a result, there is a reduced need to protect future claimants by awarding them a certainty equivalent premium. Instead, equal expected damage awards for both present and future claimants become more attractive. Returning to the example, suppose that the present claimant suffers \$1000 in damages, while the future claimant will suffer either \$500 or \$1500 with 50% probability each. Suppose also that a total of \$1000 is available for both claimants. In this situation, our example suggests that the present claimant should receive \$499.95 while the future claimant should receive \$500.05.<sup>199</sup> Thus, when damages get sufficiently low, the certainty equivalent premium becomes negligible. This implies that the certainty equivalent approach is only empirically important when injuries are large in reference to aggregate individual wealth. When injuries do not approach this magnitude, the certainty equivalent approach is not worth the additional complexity.

However, many mass tort claims will include injuries that are large with respect to individual wealth. This reality will be especially true in the context of mass tort bankruptcies, which, by definition, will encompass mass tort claims large enough to threaten the solvency of a firm. Asbestos claims, for example, are so high because asbestos exposure may result in death or debilitating injury. As a result, the certainty equivalent approach constitutes an important step towards constructing fair and efficient mass tort bankruptcy procedures.

2. *Estimating the Certainty Equivalent Premium in Mass Tort Bankruptcies.*—Estimating the size of the certainty equivalent premium remains problematic. While the guidelines provided here may be useful, they leave considerable ground for uncertainty and disagreement. These uncertainties evoke those in another aspect of mass tort bankruptcies—estimating the total amount of the damages. As with estimating the certainty-equivalence premium, there is no fixed epidemiological method for estimating the amount of the damages. These uncertainties hinder the ability of judges to supervise and ensure the fairness of mass tort bankruptcy procedures.<sup>200</sup> In response to difficulties estimating the total amount of damages, the NBRC has proposed that the bankruptcy court “determine the amount of mass future claims prior to confirmation of a

<sup>199</sup> To obtain the results in this example, solve for  $x$  in the equation:

$$\ln(\$1,500,000 - \$1000 + x) = .5\ln(\$1,500,000 - \$500 + (\$1000 - x)) + .5\ln(\$1,500,000 - \$1500 + (\$1000 - x))$$

<sup>200</sup> See Part II.A (discussing the *Johns-Manville* bankruptcy).

plan for purposes of distribution as well as allowance and voting."<sup>201</sup>

Along these lines, we propose that bankruptcy courts should be instructed to determine the certainty equivalent premium as well as the estimated amount of damages. Indeed, a court that is estimating the amount of damages will be well situated to provide a rough estimate of the appropriate certainty equivalent premium. In the context of estimating the amount of damages, courts (along with their hired experts) should become intimately aware of the factors that would influence the size of the certainty equivalent premium, such as uncertainty in the size of future claims. Moreover, estimating the certainty equivalent premium will not be obviously more difficult for courts and experts (both economists and statisticians) than implementing the statistical methodologies necessary for estimating the amount of future claims.<sup>202</sup> Once the certainty equivalent premium has been estimated, the court can use this estimate in supervising the bankruptcy proceedings. For example, courts should not approve a bankruptcy settlement that exposes future claimants to greater risk than present claimants but does not offer future claimants an appropriate premium.

The certainty equivalent premium estimated by the court may also be used for voting purposes.<sup>203</sup> If it is agreed that the risk in the number of future claims must be borne by future claimants,<sup>204</sup> then future claimants should receive a premium for bearing this risk. The bankruptcy court's ability to reject a proposal that does not include a premium for future claimants may be insufficient to adequately protect future claimants. To further protect future claimants when they are to bear the risk of future claims, it may be advantageous to give the FCR some additional votes in bankruptcy decisions. The additional votes should reflect the risk in the estimated number of future claims. The greater the risk, the more the votes allocated to the FCR should exceed the estimated value of future claims. This will enable the FCR to exert more leverage in bankruptcy negotiations and help ensure that future claimants receive an appropriate premium when they are to be the bearers of risk in the number of future claims. Because future claimants will not always bear this risk, however, it may well be preferable

<sup>201</sup> NBRC REPORT, *supra* note 1, at 317.

<sup>202</sup> Indeed, requiring the estimate of a certainty equivalent premium would spawn the development of methodologies for estimation of these premiums. Analogously, the need for epidemiological estimation of the amount of future claims has fostered the development of the statistical methodology for estimation. For a discussion of some of these methodologies, see David Salsburg & Jack F. Williams, *A Statistical Approach to Claims Estimation in Bankruptcy*, 32 WAKE FOREST L. REV. 1119 (1997).

<sup>203</sup> Confirmation of a reorganization plan in bankruptcy by an impaired creditor class requires positive votes for the plan by those who hold two-thirds in amount and by those who hold a majority by number of the allowed claims in the class. See 11 U.S.C. § 1126 (2000).

<sup>204</sup> Although it is not obvious that future claimants should bear the risk in the number of future claims, bankruptcy practice suggests that this is the most likely outcome. See Parts I.A and II.B (discussing bankruptcies). Part IV presents a proposal that allocates the future claims risk to contract creditors rather than claimants.

to rely upon the bankruptcy court for the protection of their claims. This goal can be achieved by permitting the allocation of voting rights to future claimants according to the expected level of future claims.

3. *The Certainty Equivalent Approach and the Roe and Smith Proposals.*—The certainty equivalent approach described here is entirely consistent with the Roe and Smith approaches described above. Indeed, the Roe and Smith proposals and the certainty equivalent approach will all be improved by combining the best elements of each approach.

Roe's variable annuity proposal did not properly account for the risk borne by future claimants. As a result, the variable annuity overcompensates present claimants with respect to future claimants. To remedy this flaw, the certainty equivalent methodology could be grafted onto the variable annuity proposal. Variable annuity payments could be adjusted to take into account the risk in future claims. The trustees of the variable annuity should initially award funds to present claimants extremely conservatively. As the risk in future claims is resolved, the trustees should adjust the variable annuity payment along two dimensions. First, they should adjust the awards to reflect the new information about the total amount of future claims, as suggested by Roe. Second, the trustees should also make their award percentages increasingly aggressive because the total amount of uncertainty has decreased. Because future claimants arrive later, they will receive a greater award for a given claim than present claimants if future claims equal expectations. This outcome results from the adjustment strategy undertaken by the annuity's trustees. When claims equal expectations, there is no need for the trustees to change their procedures to account for new information. As a result, the variable annuity payment will increase, and trustees may award payments more aggressively due to the declining need for additional funds in reserve (i.e., aggressive payment becomes increasingly viable as uncertainty is resolved). The chance of very bad outcomes, which drives the certainty equivalent approach, is reduced as the uncertainty is resolved in accord with expectations. Because future claimants begin receiving payments later than present claimants, they will enjoy more of the benefits from the late-arriving aggressive awards than do present claimants. This does not unfairly benefit future claimants, however. Instead, this approach compensates future claimants for bearing greater risk in the payment of variable annuities. Should claims exceed expectations, then all of the future claimants' variable annuity payments will be adjusted downwards. Only some of the present claimants' claims will be moved downward, however, because present claimants will have received some variable annuity payments before the revelation of unexpectedly large future claims.<sup>205</sup>

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<sup>205</sup> This conclusion assumes that variable annuity payments can not be taken back. Taking back payments would violate the right of repose. See Roe, *supra* note 5, at 872 n.71. An additional possibility not mentioned by Roe would involve adjusting the variable annuity payments for past awards. In this

In turn, the variable annuity approach would also improve upon the certainty equivalent approach. When the certainty equivalent approach involves the payments of lump-sums to all claimants, the size of the certainty equivalent premium must often be large because future claimants bear all the risk in future claims.<sup>206</sup> Awarding compensation gradually, the variable annuity approach allocates some of the risk in future claims to present claimants.<sup>207</sup> This sharing of risk reduces the size of the certainty equivalent premium necessary to make prospective claimants indifferent between present and future statuses. As a result, the variable annuity approach reduces the chance that future claimants will receive much larger awards than present claimants when future claims fall short of expectations. With the lump-sum certainty equivalent approach, by contrast, future claimants must occasionally receive seemingly excessive awards in order to protect future claimants from the possibility that future claims will greatly exceed expectations.

The certainty equivalent approach enjoys a similarly symbiotic combination with Smith's capital markets approach. As discussed above, Smith's proposal, like Roe's, fails to account properly for the risk borne by future claimants. Although present and future claimants receive the same compensation on average, present claimants' compensation is received with certainty while the future claimants' compensation is subject to risk.<sup>208</sup> Thus, the unadjusted capital markets approach is unfair to future claimants. However, the certainty equivalent approach can be combined with the capital markets approach. Consistent with the capital markets approach, all claimants will receive shares in a fund that will pay out its resources after all claims have been realized. Instead of awarding one share in the tort instrument for each dollar of liquidated claims to all present and future claimants, the certainty equivalent approach suggests that present claimants receive a discounted number of shares to reflect the fact that their payoff from selling shares is less risky than the one faced by future claimants. Therefore, pre-

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scenario, trustees of the annuity would not simply award annual payments pro rata on the basis of the individual's damages. Instead, the annual payments would be further adjusted to account for past receipts. For example, if future claims exceed expectations, then an early claimant's annual shares in the variable annuity should be devalued with respect to a late-arriving claimant with an identical number of shares. The devaluation reflects the fact that the early claimant's shares were effectively overvalued in the early years of the variable annuity, as the payments did not reflect the true value of total claims. Although not mentioned by Roe, this proposal is very much in the spirit of his variable annuity approach. In addition, it presumably would not violate the right of repose since no money would be "taken back" from future claimants.

<sup>206</sup> Awarding lump-sum has some countervailing benefits. For a discussion, see Rea, *supra* note 94.

<sup>207</sup> The variable annuity payments for present claimants in later years are adjusted downwards if future claims prove unexpectedly large.

<sup>208</sup> This conclusion assumes that risk in the number of future claims does not covary with the market portfolio, a seemingly reasonable presumption. At a minimum, it is likely that market participants are less averse to the future claimants risk than are the future claimants themselves.

sent claimants should receive less than one share in the tort instrument for each dollar in claims.<sup>209</sup> This amalgam of the certainty equivalent and capital market approaches preserves the advantages of the capital markets approach—the reliance on the efficient information processing capabilities of the market—while ensuring that present and future claimants receive fair treatment.

Thus, the certainty equivalent approach can be combined effectively with both the Roe and Smith proposals to allocate risk more evenly between present and future claimants. However, the present versus future claimants risk allocation is not the only distribution of risk undertaken during a mass tort bankruptcy. Bankruptcy procedures must also ensure a fair allocation of risk between claimants and other creditors—a subject to which we now turn.

#### IV. RISK DISTRIBUTION BETWEEN CLAIMANTS AND OTHER CREDITORS

To this point, we have focused on the allocation of risk and return between present and future claimants. In reality, of course, this is an oversimplification. Tort claimants will seldom be the only creditors of a bankrupt firm. Instead, present and future claimants must share the assets of a bankrupt firm with other creditors, such as bondholders or trade creditors.

Allocation of risk to future tort claimants with respect to other creditors presents several novel issues in a bankruptcy context. First, the future claims risk is an unusual form of risk. Ordinary bankruptcies allocate a different type of risk—the performance risk of the reorganized firm.<sup>210</sup> While bankruptcy courts and negotiators have experience allocating this type of risk, the prospect of future claims is a novel risk. As a result, the risk in future claims is more likely to be allocated unfairly or inefficiently. In addition, normal bankruptcy risk allocations are determined by knowing parties. If one party is particularly risk-averse, it can bargain for the receipt of a less risky claim (such as debt) in the reorganized firm. Future claimants, by contrast, are not present at bankruptcy negotiations and therefore cannot bargain for a desirable risk allocation.

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<sup>209</sup> Alternatively, it may be possible to adjust the number of shares received by future claimants to reflect the risks borne by future claimants. However, given the difficulty in establishing a liquid market for tort instruments this strategy appears less attractive because it would complicate trading in the tort instrument, further discouraging potential market participants from becoming involved in the market.

<sup>210</sup> The profits of a reorganized firm, like the profits of all firms, are subject to risk. By allocating debt claims and equity claims in the reorganized firm, bankruptcy negotiations allocate this performance risk. Equityholders have riskier claims than debtholders. In return for the added risk, equity claims generally have higher returns. For a discussion of the relative risk of debt and equity claims, see GRINBLATT & TITMAN, *supra* note 162; *see also* Roe, *supra* note 5, at 876–78 (discussing conventional bankruptcy solutions to the disparity problem in the context of mass tort bankruptcies).

The discussion in this section concerns only the allocation of post-bankruptcy risks. As a result, it is analytically distinct from discussions on the appropriate priority ranking of tort claimants with respect to other creditors. As explained in detail in Part IV.D, it is possible to allocate post-bankruptcy risks optimally while respecting the existing priority structure of the firm's creditors.<sup>211</sup>

*A. Risk Preferences and Allocations to Future Claimants and Other Creditors*

1. *Risk Preferences of Future Claimants.*—Because future claimants can not specify their risk preferences during bankruptcy negotiations, bankruptcy procedures should attempt to replicate the risk allocation that would have occurred had future claimants been able to participate in the negotiations. To accomplish this aim, the risk preferences of future claimants with respect to other creditors must be analyzed.<sup>212</sup>

We believe that future claimants will be more risk-averse than other creditors for several reasons. Future claimants may be severely injured. These injuries may deplete the claimants' wealth and potentially require significant new expenditures.<sup>213</sup> As discussed above,<sup>214</sup> less wealthy individuals tend to be more risk-averse. This observation appears relevant for future claimants. It is unlikely that a future claimant, who may need funds to satisfy basic needs, will be willing to make risky bets.

Another reason to suspect that future claimants will be particularly risk-averse to future claims risk is their inability to diversify. An example helps illustrate this possibility. First, suppose that awards to future claim-

<sup>211</sup> As a result, this discussion of risk allocation and risk preferences is distinct from the academic debates over loss-allocation in bankruptcy. For example, some scholars have asserted that bankruptcy distributions should be determined according to the creditor's ability to handle the risk of the debtor's bankruptcy. See, e.g., Elizabeth Warren, *Bankruptcy Policy*, 54 U. CHI. L. REV. 775, 790-93 (1987). Other scholars have rejected this analysis and claim that bankruptcy allocations should conform to non-bankruptcy rights. See, e.g., Douglas G. Baird, *Loss Distribution, Forum Shopping, and Bankruptcy: A Reply to Warren*, 54 U. CHI. L. REV. 815, 822-23 (1987). These arguments about risk and loss distribution are strictly from a pre-bankruptcy perspective, i.e., they discuss the ability of various bankruptcy parties to anticipate bankruptcies and diversify away from the risk of bankruptcy. The discussion in this paper, however, focuses on post-bankruptcy risk preferences. That is, the insolvency of a firm is accepted as a given. This Article simply seeks to determine how to allocate post-bankruptcy risks (such as the risk in future claims) to best accord with supposed post-bankruptcy risk preferences. Whatever the position one takes on loss distribution and the resultant bankruptcy priorities, one can still believe that post-bankruptcy risk (as opposed to value) should be allocated efficiently. For further details, see the discussion of value and risk bankruptcy priorities discussed below *infra* Part IV.D.

<sup>212</sup> In this section, the term "other creditors" will refer primarily to contract creditors and not present tort claimants.

<sup>213</sup> This argument supposes that future claimants are incompletely insured. This appears to be a reasonable assumption. While medical expenditures may be covered by insurance, it is highly unlikely that lost earnings that result from the injury will be completely insured.

<sup>214</sup> See the discussion in Part III.A.1.

ants are funded from a settlement fund that has a fixed value (in accord with current practice). Suppose also that a given future claimant will definitely be injured, but is not sure about the size of the injury. The injury's value can be either high or low. If the future claimant's injury turns out to be high, then this suggests that the effects of mass tort exposure are worse than expected. In this scenario, it is likely that there are a higher than expected number of other future claimants and that other future claimants also receive a greater than expected injury. As a result, the first future claimant will have to share the fixed-value future claimants' settlement fund with a greater number of others, reducing the size of the award for the first future claimant as a percentage of her total claim. This is an undesirable state of affairs. When the future claimant is badly injured and has the greatest need for money, the amount available to compensate her is at its smallest. When her injury is low, by contrast, there will be fewer other claims to share with; she will be able to recoup a greater percentage of her injury from the fund—in spite of the fact that her needs are not particularly great.

Present claimants will also have a higher level of risk aversion than other creditors. Present claimants are severely injured and therefore presumably quite risk-averse. The diversification problem, however, should cause fewer problems for present claimants. If present claimants are paid immediately, then compensation is no longer correlated with the size of their injury (unlike the case for future claimants). However, when injuries develop over time and a deferred compensation scheme for present claimants is adopted (such as Roe's variable annuity approach), present claimants will also be under-diversified. If the injuries of present claimants become unexpectedly severe, then their deferred compensation is likely to be smaller as other claimants may also be suffering worse than expected injuries.

2. *Allocating Risk Between Present Claimants, Future Claimants, and Other Creditors.*—Correlation between individuals' claims strongly suggests that future claimants (and, to a lesser degree, present claimants) should not bear the risk of future claims. The size of future claimants' injuries will be correlated with the size of their award. This correlation suggests a lack of diversification as future claimants "have all their eggs in one basket." By contrast, contract creditors are less exposed to the future claims risk. Their need for funds is unlikely to depend upon the realization of future claims because the creditors are uninjured. Even if contract creditors are also risk-averse with respect to the future claims risk, it is highly unlikely that they will share the same degree of risk aversion as the undiversified future claimants.

If future claimants participated in bankruptcy negotiations, they would express a greater aversion to future claims risk than other creditors. Future claimants would be willing to accept a lower average return in exchange for diversification away from the risk in future claims. But future claimants do

not participate in bankruptcy negotiations. Nevertheless, bankruptcy outcomes should reflect their risk preferences, implying that future claims risk should be awarded to other creditors to the greatest extent possible. Furthermore, present claimants would also prefer to avoid exposure to future claims risk in exchange for a reduced average return. Because present claimants participate in negotiations, there is less of a need to construct procedures to ensure that they receive their preferred risk allocation. Nevertheless, present claimants (or their representatives) are unlikely to be experienced or sophisticated bankruptcy negotiators.<sup>215</sup> As a result, any outcome that allocates future claims risk to present claimants should be greeted with skepticism.

As recognized by Roe, the future claims risk is not the only risk allocated in a mass tort bankruptcy.<sup>216</sup> The performance risk of the reorganized firm must also be allocated. Tort claimants will tend to be more averse to holding this risk than other creditors. When the need for funds is great (as in the case of tort claimants), the individual's willingness to hold risky securities decreases. As a result, bankruptcy settlements should also allocate as much of the firm risk to contract creditors as possible. The obvious method of achieving this allocation is to award tort claimants debt claims on the reorganized firm while awarding equity claims to the other creditors. Roe recognized, however, that tort claimants can not be compensated entirely with debt, as this would impose a crushing debt burden upon the reorganized firm.<sup>217</sup>

Thus, tort claimants, and in particular future tort claimants, are likely to be more risk-averse than other creditors. In response, mass tort bankruptcies should minimize the risk exposure of claimants relative to contract creditors—potentially by awarding the contract creditors riskier claims with higher expected returns. We will now compare actual mass tort bankruptcy performance with this standard.

### *B. Risk Allocation to Claimants and Other Creditors in Previous Mass Tort Bankruptcies*

It should come as no surprise to the reader that mass tort bankruptcy settlements have generally allocated a considerable amount of risk to future claimants with respect to other creditors. Again, the *Manville* settlement is illustrative.<sup>218</sup> The settlement allocated all of the risk in future claims to fu-

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<sup>215</sup> Because it is unlikely that present claimants' representatives share the same risk preferences as the claimants themselves, present claimants are likely to leave bankruptcy with an undesirable risk allocation. For a discussion of conflicts of interest in risk allocation between future claimants and their representatives, see Part IV.C.2.

<sup>216</sup> See Roe, *supra* note 5, at 876-79.

<sup>217</sup> *Id.* at 876.

<sup>218</sup> For a description of the settlement terms with respect to contract creditors, see *In re Johns-Manville Co.*, 68 B.R. 618, 633-34 (Bankr. S.D.N.Y. 1986).

ture claimants. Both contract creditors and present claimants received 100% of their claims; their payouts were not contingent upon the realization of future claims. For example, general unsecured *Manville* creditors received cash and debt securities equal to 100% of the value of their claims.<sup>219</sup> Neither the value of the notes nor the value of cash was contingent upon the size of future claims. The settlement also intended for future claimants to receive 100% of the value on their claims. The value of the future claimants' compensation, however, depended upon the size of future claims. Because the value of the assets assigned to the fund for future claimants was fixed, the amount received by each claimant depended upon the total amount of future claims.<sup>220</sup>

This outcome was unfair to future claimants along a number of dimensions. First, as previously discussed, the court's estimates do not appear to have been accurately calculated.<sup>221</sup> As a result, future claimants were unlikely to receive full compensation, even if the size of future claims was equal to expectations.<sup>222</sup> Second, future claimants' claims were riskier than those held by other creditors; while other creditors received a guaranteed, riskless return, the claims of future claimants were subject to the possibility of diminution should aggregate future claims exceed expectations. Generally, riskier claims should receive a possibility for higher expected return. There is no hint in the *Manville* settlement description, however, that future claimants might have received more than 100% of their claims, had aggregate future claims fallen short of expectations.<sup>223</sup>

Even if future claimants had received fair market value for their expected claims, the settlement would still have done a poor job of risk allocation. Future claimants are risk-averse and undiversified. This reality means that the market value of risky securities is greater than the personal value of such securities to future claimants. If future claimants could act for themselves, they would sell the securities on the market. But ill-defined future claimants are unable to act for themselves. As a result, bankruptcy settlements should seek to award securities to future claimants that would appeal to extremely risk-averse individuals. By allocating risky securities to future claimants, the *Manville* settlement failed this task. Similarly, following reorganization, risk in *Manville's* future performance was poorly allocated. Equity claims on a firm are riskier than debt claims.<sup>224</sup> Risk-averse future claimants would generally exhibit a greater preference for debt than the av-

<sup>219</sup> *Id.* at 633.

<sup>220</sup> See the discussion in Part III.B.2.

<sup>221</sup> See *supra* Part II.A.

<sup>222</sup> This is the "fair distribution problem" that was the focus of Smith's article, *supra* note 2, as well as the focus of the contingency fee approach discussed in Part II.

<sup>223</sup> See *In re Johns-Manville*, 68 B.R. at 630-35 (failing to mention the possibility that future claimants could receive more than 100% of their claims). This topic is the focus of analysis in Part III.

<sup>224</sup> See MALKIEL, *supra* note 143, at 31 tbl.1.2 (showing that the standard deviation of annual returns for stocks is higher than that for bonds).

erage creditor or market participant. As a result, future claimants should hold as much debt as possible in a reorganized firm.<sup>225</sup> The *Manville* settlement did just the opposite. The *Manville* settlement trust fund for future claimants included approximately \$5 billion in assets.<sup>226</sup> At least \$2.3 billion of this sum consisted of equity in the reorganized Manville Corporation and claims on future Manville profits.<sup>227</sup> Other creditors, by contrast, received all of their disbursements from the bankruptcy negotiation in the form of low-risk cash or notes.<sup>228</sup>

Post-*Manville* mass tort bankruptcies share these flaws. For example, the settlement plan of the Dow Corning breast-implant-related mass tort bankruptcy capped Dow Corning's liability.<sup>229</sup> Thus, claimants were fully exposed to the future claims risk because the cap was not adjustable if future claims should exceed expectations. Bankruptcy reorganizations have also exposed risk-averse future claimants to firm performance risk. The UNR Industries bankruptcy, for example, created a trust for future claimants that was almost entirely funded by risky equity in the reorganized company.<sup>230</sup> Yet again, risk-averse future claimants were exposed to risks as a result of their absence. Such claimants might have been willing to offer a premium in order to avoid such risks, had they been present.

The FAIR Act creates a trust fund that shares these flaws. The risk that future claims will exceed expectations is borne by future claimants. As Senator Patrick Leahy described the FAIR Act trust fund:

[T]his bill shifts the financial risk from defendants and insurers to victims. The bill guarantees businesses a lifetime of absolute legal and financial certainty, but it leaves asbestos victims completely out of luck if the trust fund runs out of money at any time in the next 50 years. The one constant in our experience with projections of asbestos liabilities is that the projections of today will be wrong tomorrow. Twenty years ago, all the experts predicted that the Manville Trust Fund would be paying asbestos victims full compensation for many years. Now, asbestos victims get five cents on the dollar because the Manville Trust Fund is nearly insolvent. The risk of insolvency, and indeed the risk of inadequate funding short of insolvency, in a national trust fund must

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<sup>225</sup> This suggestion was adumbrated in Roe, *supra* note 5, at 878-80.

<sup>226</sup> Smith, *supra* note 2, at 368.

<sup>227</sup> The Manville Trust received 80% of the equity in the reorganized Manville, as well as a claim on 20% of the firm's profits after a certain date. *In re Joint E. & S. Dist. Asbestos Litig.*, 129 B.R. 710, 752-53 (Bankr. E. & S.D.N.Y. 1991). In addition, the fund held cash and debt worth approximately \$2.7 billion. Because the total value of the fund was approximated at \$5 billion, Smith, *supra* note 2, at 368, the value of the equity can be estimated as \$5 billion - \$2.7 billion = \$2.3 billion.

<sup>228</sup> See, e.g., *In re Johns-Manville*, 68 B.R. at 634 (noting that unsecured creditors received cash and debt in the reorganized Manville).

<sup>229</sup> See GIBSON, *supra* note 17, at 5.

<sup>230</sup> See *id.* at 172.

be addressed in order to provide certainty to asbestos victims as well as to defendants and insurers.<sup>231</sup>

### C. *Reallocating Risk Away from Future Claimants*

Previous mass tort bankruptcy settlements have failed to achieve efficient risk allocation. Indeed, such settlements have even failed to recognize or comment on the risk-distributional aspects of settlement plans.<sup>232</sup> Bankruptcy courts appear to believe that future claimants must inevitably bear the risk in future claims if firms are to be protected from the value-crushing effects of future tort liabilities. This view is misguided. The future claims risk may be shared amongst all creditors or it may be allocated to those creditors best able to bear the risk (either approach may be used to free the reorganized firm from the burden of future claims). Similarly, bankruptcy courts have overlooked the importance of the risk level of the assets that fund future claimants' compensation. These facts suggest that mass tort bankruptcy practice can be improved by focusing on the allocation of risk to various classes of claimants.

1. *Roe's Proposal.*—Roe's early paper offered a fascinating analysis of some of these issues.<sup>233</sup> Recognizing that tort claimants are more risk-averse than other creditors,<sup>234</sup> Roe proposed that they should be exposed to a minimum amount of firm-performance risk.<sup>235</sup> Roe also noted a countervailing factor that would prevent claimants from receiving claims that were overwhelmingly composed of debt: the risk of subsequent bankruptcy.<sup>236</sup> If tort claimants' claims comprise a significant percentage of total claims on the bankrupt firm, then it will be difficult to award tort claimants debt claims. Too many outstanding debt claims might put the firm in treacherous financial straits—the very outcome that mass tort bankruptcies are designed to avoid. As a result, Roe calls for a “balance” between reducing tort claimants' exposure to risk and protecting the reorganized firm from financial pressure.<sup>237</sup>

Roe's proposal is a definite improvement over current practice. It can potentially protect future claimants from an undesirable amount of firm-

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<sup>231</sup> See, e.g., *Hearings on Asbestos Litigation*, *supra* note 14, at [http://judiciary.senate.gov/print\\_testimony.cfm?id=777&wit\\_id=50](http://judiciary.senate.gov/print_testimony.cfm?id=777&wit_id=50) (testimony of Senator Patrick Leahy).

<sup>232</sup> When discussing the value and fairness of the claims received by future claimants, courts have seldom recognized the risk level of claims as an important consideration. See, e.g., *In re Johns-Manville*, 68 B.R. at 632–36 (ignoring the risk level of future claims when discussing the efficacy of the *Manville* settlement). To our knowledge, this section constitutes the first systematic analysis of risk allocations in actual mass tort bankruptcies.

<sup>233</sup> See Roe, *supra* note 5, at 874–79.

<sup>234</sup> *Id.* at 877–78.

<sup>235</sup> See *id.*

<sup>236</sup> See *id.* at 876.

<sup>237</sup> *Id.* at 878.

performance risk. Nevertheless, Roe's suggestions are incomplete. While Roe acknowledges the existence of future claims risk in addition to firm-performance risk, his "debt" suggestion only "protects" future claimants from firm-performance risk. In effect, Roe proposes that future claimants' trust funds hold low-risk assets to the greatest extent possible. Thus, if the reorganized firm's performance falls short of expectations, future claimants should not suffer much loss of compensation (in contrast to the compensation of equity-holding creditors). Roe's proposal leaves future claimants exposed to the risk in future claims, however. If future claims prove unexpectedly high, future claimants' compensation will suffer (and not the compensation of other creditors). Because the risks in the size of future claims may be even larger than the risks in firm performance,<sup>238</sup> future claimants remain exposed to undesirable amounts of risk.

2. *Risk Allocation and Percentage-Fee Compensation for Future Claimants' Representatives.*—The percentage-fee approach recommended in Part II will help mitigate, but not eliminate, the risk-distributional biases that currently plague mass tort bankruptcies. To briefly review, the percentage-fee approach called for FCRs to receive a percentage of the future claimants' total compensation. This approach ensures that the FCR's incentives are aligned with the goals of future claimants: higher compensation for future claimants translates into a greater fee for the FCR.

A percentage-fee approach would encourage the FCR to eliminate uncompensated risk bearing for future claimants. Currently, claimants are sometimes placed in circumstances where they experience "downside" risk but no upside reward.<sup>239</sup> Because FCRs receive a percentage of future claimants' claims, they will refuse to accept these "no upside" securities as adequate compensation for future claimants. Instead, the FCRs will have an incentive to obtain compensation for this risk-bearing by future claimants. FCRs might demand, for example, that future claimants should be able to obtain more than 100% compensation in some cases to "compensate" them for the chance that their compensation might be far less than 100% if future claims exceed expectations. The FCRs' demands will be reinforced by their ability to vote on behalf of future claimants with respect to reorganization plans and by pointing out the inherent unfairness of uncompensated risk-bearing to the judge.

The percentage-fee approach is no panacea, however. While FCRs may ensure that future claimants are compensated for bearing risk, they will not strive to achieve the future claimants' ideal risk allocation. Even if future claimants receive the market rate for bearing a given amount of risk, this does not imply that future claimants would choose to bear this risk. Fu-

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<sup>238</sup> See *supra* text accompanying note 60.

<sup>239</sup> See, e.g., description of the Dow-Corning bankruptcy in the text accompanying note 229.

ture claimants are exceedingly risk-averse and will probably be willing to pay an above-market premium to avoid risk. FCRs, by contrast, are probably less risk-averse than future claimants. FCRs have not been injured and therefore have a less pressing need for guaranteed income. Furthermore, FCRs may be able to diversify their investments. If FCRs are members of plaintiffs' law firms, for example, then they may share their fees with the rest of the firm and in turn receive a diverse stream of income from a variety of legal activities. An FCR in this position will not share the future claimants' desire to avoid risk. As a result, an FCR under such conditions may seek to obtain risky returns for future claimants, so long as the risks are compensated at the market rate. For example, FCRs may be far more willing than future claimants to hold (properly priced) risky equity in the reorganized firm. As a result, FCRs may vote for plans that allocate equity to future claimants in spite of the fact that such plans may provide undesirable security from the future claimants' perspective.

Thus, the percentage-fee approach does not perfectly align the incentives of FCRs and future claimants.<sup>240</sup> FCRs and future claimants will probably have disparate levels of risk aversion. Some modifications of the percentage-fee approach, however, may give FCRs a greater incentive to consider the future claimants' degree of risk aversion. One potential modification of the percentage-fee approach would involve a "sliding scale" percentage fee.<sup>241</sup> Rather than awarding FCRs a fixed percentage of future claimants' compensation, the courts could insist that the percentage should go down as the amount of claims goes up. If the sliding scale were appropriately designed, this compensation scheme would ensure that the FCRs (acting in their own self-interest) prefer averages to extremes. FCRs would thus seek to reduce the risk exposure of future claimants.

An example is illustrative. Suppose that a risk-neutral percentage-fee-compensated FCR has two choices for future claimants' compensation. In the first option, the future claimants would receive \$10,000 with certainty. In the second option, the future claimants will receive \$5000 or \$16,000 with equal probability (for an expected value of \$10,500). Although the second option has a higher expected value, assume that risk-averse future claimants prefer the first option because it is less risky. Suppose that the FCR is compensated at a fixed rate of 10%. Under these circumstances, the risk-neutral FCR will choose the second option because it will pay her an average of \$1050 per claimant while the first option will only pay an average of \$1000. Thus, the FCR compensated by a fixed percentage does not choose the future claimants' preferred option because she has a different level of risk-tolerance. Now, however, suppose that the FCR is given a

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<sup>240</sup> In spite of this imperfection, the percentage-fee approach does a considerably better job of aligning the representatives' interests with those of future claimants than other proposals. See Part II.C.

<sup>241</sup> Mathematically, a sliding scale fee means that an FCR's compensation is a concave function of the amount received by future claimants.

sliding scale percentage fee. She receives 10% of the first \$10,000 received by a given future claimant, but only 5% of any remaining compensation received by future claimants. Under the sliding scale approach, the first option would again yield the FCR \$1000 per claimant. The second option will now yield an average of \$900 per claimant.<sup>242</sup> Under the sliding scale approach, the FCR will prefer the first option to the second option. Thus, the sliding scale percentage fee does a superior job of aligning the interests of FCRs with those of risk-averse future claimants. When the uncertainties surrounding future claimants are great and future claimants are likely to be risk-averse, the sliding scale approach is likely to offer significant gains over a fixed percentage-fee approach.

Another approach will similarly improve the FCR's incentives to achieve an optimal risk allocation for future claimants. Instead of compensating the FCR based on a percentage of the pool of funds set aside for future claimants, the FCR's compensation could be based on the *average percentage recovery of a future claimant*.

A simple example will best illustrate the distinction between this average recovery method and the percentage-of-funds method. Suppose that, instead of giving the FCR 1% of the total awards paid to future claimants, the FCR's compensation is set at \$1 million multiplied by the average percentage recovery of the future claimant. Suppose also that the FCR is able to negotiate for \$1 billion to be set aside for future claimants, but the amount of future claims, realized in twenty years, could be \$1 billion or \$2 billion with equal probability. In the first scenario, the recovery of a future claimant would be 100%, since a dollar of funds is available for each dollar of claims, and the FCR would receive a payment of \$1 million. In the second scenario, a future claimant would only recover 50%, since there are two dollars of claims for every dollar in the trust. The FCR would then receive 50% of \$1 million, or \$500,000. While the FCR's expected compensation in this example is \$750,000 (the simple average of \$1 million and \$500,000), the FCR will value this risky claim at less than \$750,000 if she is risk-averse. Aware that the uncertainty surrounding future claims will affect both her welfare and that of the future claimants she represents, the FCR will then have the proper incentive to seek more compensation for future claimants when this uncertainty is greater. She will also have the incentive to use the appropriate means necessary to shield future claimants from risk, since she will be shielding her own payment from risk in the process.

Using this approach would have two advantages relative to the simpler percentage-of-funds approach. First, as we have already mentioned, this approach better aligns the incentives of the FCR and future claimant, since

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<sup>242</sup> If each future claimant receives \$5000, then the FCR will receive \$500 per claimant. If each future claimant receives \$16,000, then the FCR will receive  $.1 * \$10,000 + .05 * \$6000 = \$1300$ . Because both possibilities are equally likely, the FCR receives an average fee of \$900 per claimant.

the compensation scheme is automatically adjusted for risk. If there is more uncertainty about the severity of future claims, all else being equal, the FCR's compensation will be riskier as well, leading her to seek compensation for bearing this risk. Second, the procedure provides an easier mechanism for limiting the FCR's compensation to a reasonable level without affecting her incentives to secure funds for future claimants. If the percentage-of-funds approach is used, the bankruptcy judge would need to select both an FCR and a percentage fee based on sparse information. It would be unwise to choose a standard percentage, such as 1%, since the size of trust funds may vary considerably from firm to firm. Similarly, as mentioned earlier, it would be unwise to revise an FCR's compensation after negotiations have concluded to reach a "reasonable" amount because knowledge that such an adjustment will occur *ex post* affects the FCR's incentive to secure more funds for future claimants. The average recovery method allows the judge to peg the FCR's compensation to a reasonable level at the beginning of the procedure (in the example above, the judge would be certain that the FCR would never receive more than \$1 million) without any knowledge of the magnitude of future claims and without distorting her incentives to negotiate for future claimants vigorously.

When the uncertainties surrounding future claimants are great and future claimants are likely to be risk-averse, the sliding scale and average percentage-fee approaches are likely to offer significant gains over a fixed-percentage-fee approach. Bankruptcy judges and policymakers should implement the procedure that proves most transparent and workable.

#### *D. Allocating Future Claims Risk to Contract Creditors: The "Risk Priority" Approach*

The sliding scale and average percentage recovery approaches offer a superior alignment of incentives between FCRs and future claimants. This means little, however, if FCRs do not have a mechanism for reducing future claimants' risk exposure. This section examines two procedures for reducing the future claimants' exposure to risk.

1. *Existing Proposals for Shielding Future Claimants from Future Claims Risk.*—One existing method of reducing future claimants' exposure to future claims risk involves the purchase of insurance. Future claimants would be willing to pay a premium to have an insurer bear the risk of future claims. As a result, the FCR should carefully explore and consider insurance options.<sup>243</sup> Nevertheless, as discussed in Part III.B.5, insurance is likely to be both prohibitively expensive as well as incomplete.<sup>244</sup>

<sup>243</sup> Because insurance premiums are likely to be high, relatively risk-neutral FCRs are unlikely to purchase insurance if they are compensated on a percentage-fee basis. *See supra* text accompanying notes 173–180. As a result, the sliding scale approach will be particularly important for encouraging FCRs to pay the necessary premiums to acquire at least some insurance.

<sup>244</sup> *See supra* text accompanying notes 173–180.

Adverse selection problems and the size and uncertainty of the claims prevent insurance from offering an adequate solution. Even risk-averse future claimants will not be willing to pay the exorbitant premiums that would be demanded by insurance companies to bear the entire future claims risk.

Someone must bear the future claims risk, however. Incomplete insurance markets are not a reason to allocate the future claims risk to future claimants. Contract creditors of the bankrupt firm are likely to be less risk-averse than the future claimants. Consequently, contract creditors should bear the future claims risk. A contract creditor's return should fluctuate with the size of future claims, while future claimants' compensation should be shielded from these fluctuations to the greatest possible extent.

The simplest way to shield future claimants from the future claims risk would be to give tort claimants priority over other creditors.<sup>245</sup> For example, suppose that a firm's assets exceeded the value of tort claimants' claims under any eventuality (including an unexpectedly high future claims value). Suppose further that the firm's assets fell short of the combined value of tort claimants' and contract creditors' claims. Under these circumstances, absolute priority relative to all other creditors shields future claimants from risk; all tort claimants (present and future) will be fully compensated regardless of the size of future claims.<sup>246</sup> If future claimants share priority with other creditors, however, then future claimants will be exposed to the future claims risk. When future claims exceed expectations, future claimants, like other creditors, receive less than full compensation. Thus, absolute priority shields future claimants from risk.

However, awarding tort claimants absolute priority is a very blunt method of protecting risk-averse future claimants. Many considerations, including pre-bankruptcy state law, determine the existing priority structure amongst creditors.<sup>247</sup> Restructuring priority to protect future claimants from risk may have unforeseen consequences, such as restricting corporations' access to credit or reducing the incentive for corporations to file for bankruptcy. Furthermore, existing bankruptcy practice suggests that future claimants will be the default party to assume the risk of future claims. Absolute priority for tort claimants may not change this practice. Instead,

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<sup>245</sup> Currently, tort claimants share priority with unsecured creditors and have lower priority than secured creditors. See 11 U.S.C. § 507 (2000) (stating that classes of unsecured creditors entitled to priority do not include tort claimants); 11 U.S.C. § 726(a)-(b) (2000) (stating that holders of "allowed unsecured claims" who are not entitled to priority pursuant to 11 U.S.C. § 507 share pro rata in remaining assets of bankrupt firm). Several commentators have suggested that tort claimants be awarded priority over all other claimants. See, e.g., David Leebron, *Limited Liability, Tort Victims, and Creditors*, 91 COLUM. L. REV. 1565, 1643-44 (1991) (offering several reasons why tort claimants should receive priority with respect to other creditors).

<sup>246</sup> This assumes that distributions to contract creditors will be delayed until the size of future claims becomes clear. For a discussion of a proposal along these lines, see *infra* text accompanying notes 250-253.

<sup>247</sup> See Baird, *supra* note 211, at 822-23.

higher priority for tort claimants may simply increase the average compensation value received by tort claimants while maintaining the existing (unfavorable) allocation of risk. As a result, a more precise method of reducing future claimants' exposure to future claims risk is desirable.

2. *“Risk” Priority: A Low-Impact Means of Shielding Future Claimants from Future Claims Risk.*—To shield tort claimants from future claims risk while preserving the existing bankruptcy priority structure, we first distinguish between the conventional definition of priority and “risk” priority. Traditional bankruptcy priority refers to the division of *value* between creditors in bankruptcy. For example, the traditional “pro rata sharing rule” specifies that creditors with identical priority levels should receive value in the bankrupt firm on a pro rata basis if there are insufficient assets to pay all the creditors of that priority level in full. To illustrate, suppose that there are two general unsecured creditors, one (creditor A) with a claim for \$40 million and another (creditor B) with a claim for \$60 million. Suppose that there are \$50 million in assets available to distribute to general unsecured creditors. The traditional pro rata rule implies that creditor A should receive assets worth

$$\$20M = \frac{\$40M}{\$40M + \$60M} * \$50M ,$$

while creditor B should receive claims worth

$$\$30M = \frac{\$60M}{\$40M + \$60M} * \$50M .$$

Risk priority, by contrast, refers to the division of *risk* between creditors. Risk priority takes the division of value between creditors as given. Given these values, the risk priority structure determines how to apportion the risk level of claims. Awarding one creditor risk priority implies that the creditor should receive low-risk claims relative to another creditor. Returning to the above example, suppose that the reorganized firm will be issuing debt with a market value of \$20 million and equity with a market value of \$30 million. Suppose further that creditor A has been awarded risk priority. This priority would imply that creditor A should receive all of the debt claims on the reorganized firm while creditor B should receive the equity claims. Note that risk priority does not affect traditional priority. Both A (\$20 million in debt) and B (\$30 million in equity) receive securities with market values that equal the respective values specified by the pro rata sharing rule. In the absence of risk priority, risk is distributed differently between creditors A and B. If risk as well as value is distributed evenly between creditors A and B, then A should receive debt with a market value of \$8 million and equity with a value of \$12 million while B receives \$12 million in debt and \$18 million in equity. Risk priority for A therefore reduces the risk level of A's return by increasing the amount of low-risk debt received by A. In ordinary bank-

ruptcies, the notion of risk priority will have reduced relevance because all claimants can bargain for the claims-risk level that they prefer or sell their claims in the market. If creditor A is more risk-averse than creditor B for example, then they may agree to allocate all the debt in the reorganized firm to A even without any risk priority for A.

In mass tort bankruptcies, by contrast, risk priority assumes heightened relevance. If risk-averse (tort) creditor A cannot bargain to acquire the less risky assets or sell assets with an undesirable amount of risk to a more willing risk bearer, then bankruptcy settlements may allocate risk inefficiently.<sup>248</sup> Risk priority helps prevent this possibility. Just as bankruptcy judges currently evaluate settlements to determine if they accord with traditional priority,<sup>249</sup> so too should bankruptcy judges in mass tort bankruptcies evaluate settlements with respect to conformance with risk priority.

We propose that tort claimants (and in particular future claimants) receive risk priority. Because tort claimants are extremely risk-averse and are unlikely to be able to specify their risk preferences in bankruptcy, bankruptcy courts should ensure that they receive low-risk compensation by awarding them risk priority. Risk priority for tort claimants implies that contract creditors (including secured creditors) will bear as much of the future claims and firm-performance risk as possible. This approach will protect tort claimants from their inherent disadvantages in bankruptcy negotiations.<sup>250</sup> Risk priority will not harm contract creditors, however, because the market value of their securities should accord with the values specified by the traditional priority structure.

Effective adherence to risk priority for tort claimants will require some creativity. New securities must be designed that will enable risk to be allocated to contract creditors rather than tort claimants. Although this innovation may be difficult, such an approach is preferable to the current default position of allocating the risk to late-arriving future claimants.

One possibility is to create a fund analogous to Smith's capital markets approach fund.<sup>251</sup> The fund will be backed with assets from the bankrupt firm and will pay out the value of these assets at a future point after the size

<sup>248</sup> In general, the benefits of risk priority specification will be highest when discrete groups of claimants have disparate risk preferences and an inability to bargain to obtain securities that conform to their risk preferences.

<sup>249</sup> See 11 U.S.C. § 1129 (2000). For a brief description of priority rules, see *supra* notes 35 and 142.

<sup>250</sup> Indeed, risk priority will reduce the need to align the FCR's risk incentives with those of future claimants. So long as bankruptcy judges ensure that risk priority is enforced, an FCR will not have to focus on risk allocation to claimants and can instead focus on value allocation.

<sup>251</sup> Smith discusses the possibility of issuing shares in a trust fund to contract creditors as well as tort claimants. Smith, *supra* note 2, at 420–22. These shares would be paid out in accord with ex ante priority, however. Thus, future claimants will be exposed to the same degree of risk as unsecured contract creditors, making for an inefficient risk allocation. Awarding shares in accordance with risk priority, by contrast, reduces tort claimants' exposure to risk.

of future claims has been fully determined. If future claims exceed expectations, the value of a share in the fund will be low, while if future claims fall short of expectations, the value of a share in the fund will be high. Rather than awarding shares in this fund to tort claimants, as proposed by Smith, the shares should be awarded to contract creditors. The number of shares awarded to contract creditors should be determined by the priority rankings of the various shareholders. This will enable the contract creditors to bear the risk of future claims.

An example can help illustrate the effects of risk priority as well as the workings of a future claimants' fund. Suppose that a tort-feasing firm has \$4 million in assets. Suppose also, for simplicity, that contract creditors and other market participants are risk-neutral with respect to future claims risk.<sup>252</sup> Suppose further that all claimants are future claimants and that each future claimant will suffer a \$100,000 injury. The number of future claimants is uncertain, however, and can be either twenty or one-hundred with equal probability. Thus, the expected value of future tort claims is \$6 million.<sup>253</sup> Unsecured creditors, who share value pro rata with tort claimants also hold \$6 million in claims. The pro rata rule states that the tort claimants and the unsecured creditors should each receive claims worth

$$\frac{\$6M}{\$6M + \$6M} * \$4M = \$2M .$$

Consider the following proposal. Allocate all \$4 million in assets to a fund, award unsecured creditors one share in the fund for each dollar in claims, and have the fund pay \$33,333 to each future claimant. The \$33,333 figure was chosen to ensure that claimants and unsecured creditors share value according to the pro rata rule. After all future claimants have come forward, the fund will award its remaining assets to the unsecured creditors according to the number of shares they have in the fund.

The payoff to future claimants and creditors will be as follows. If only twenty future claimants come forward, then the fund will award a total of  $20 * \$33,333 = \$666M$  to future claimants. Thus, the fund will have  $\$4M - \$666M = \$3.333M$  remaining for contract creditors after all the future claimants have come forward. Contract creditors do very well when future claims fall short of expectations. They recover more than half of their \$6M in total claims. If one-hundred future claimants come forward, however, then the situation changes. The fund will award  $100 * \$33,333 = \$3.333M$  to future claimants. As result, only  $\$4M - \$3.333M = \$666M$  will remain for contract creditors. Contract creditors fare quite poorly when future claims

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<sup>252</sup> In reality, contract creditors will also be risk-averse. Their risk aversion will be smaller and their ability to diversify greater than future claimants, however. The general trend of the results presented in this example is not affected by the relaxation of the simplifying assumption of risk neutrality for contract creditors.

<sup>253</sup>  $0.5(20 * \$100K) + 0.5(100 * \$100K) = \$6M$ .

exceed expectations.

This proposal and example has effectively granted future claimants risk priority while preserving the traditional pro rata sharing between tort claimants and other creditors. Both tort claimants and other creditors receive an average of \$2M from the assets of the bankruptcy firm, in accord with their rights under the pro rata rule. Future claimants' individual recoveries are subject to considerably less risk than individual shareholders in the contract creditor's fund. All future claimants received \$33,333 regardless of the number of future claimants—the future claimants' payment was subject to no risk. However, the value of a contract creditor's share in the fund is highly dependent on the number of claimants—contract creditors received five times as great a return when the number of future claimants was low as when it was high. Thus, the proposal adheres to risk priority for tort claimants. Risk-averse claimants bear very little risk relative to contract creditors.<sup>254</sup>

Risk-averse tort claimants should also receive risk priority with respect to secured creditors. That is, secured creditors should receive riskier claims than tort claimants. The conventional bankruptcy priority of secured credit will be reflected in the greater *value* of risky claims allocated to secured creditors, while unsecured creditors hold debt or tort claims with a similar face value.

Risk priority can also be applied to the asbestos trust fund created by the FAIR Act. Indeed, this priority could be accomplished without raising the funding requirements from insurers and asbestos producing companies. If risk priority were to be applied to the trust fund while keeping funding requirements constant, the compensation levels awarded to claimants would be reduced. In turn, insurers and companies will guarantee that all claimants receive the reduced compensation level. If future claims exceed expectations, insurers and companies will be required to pay more to claimants than specified by the fund (currently, the liability of insurers and other companies is capped by the mandated size of the fund). If claims fall short of or equal expectations, then insurers and companies will benefit because the size of awards per claimant has been reduced. Thus, insurers and companies—and not risk-averse future claimants—will bear the risk that future claims exceed expectations. The size of the reduction in per capita payments should be chosen to ensure that companies and insurers will expect to pay the same amount to asbestos claimants as they would have with the creation of the capped fund (as described above).

This discussion suggests that risk priority can be reconciled with traditional notions of priority and pro rata sharing. Given the potentially large

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<sup>254</sup> In this example, claimants and other creditors receive the same average value in spite of the fact that contract creditors bore more risk. This is the result of the assumption of risk neutrality for contract creditors. In actuality, slightly risk-averse contract creditors will require a slightly higher average return than future claimants to compensate them for bearing the risk.

gains from shielding tort claimants from risk, the creation of risk priority rights for tort claimants is an extremely desirable development.<sup>255</sup>

3. *Risk Priority and the Certainty Equivalent Approach.*—If risk priority is granted to tort claimants, then the importance of the certainty equivalent approach discussed in Part III is reduced. Recall that the purpose of the certainty equivalent approach was to make prospective tort claimants indifferent between becoming present or future claimants.<sup>256</sup> Because tort claimants are risk-averse and future tort claimants' claims are subject to greater risk, the certainty equivalent approach implied that future claimants should receive a premium to compensate them for the added risk.

The relevance of the certainty equivalent approach therefore depends upon the relative risk level of present and future claimants' overall compensation. Risk priority will reduce if not eliminate the disparity in risk between present and future claimants' compensation. In existing mass tort bankruptcies, future claimants' compensation has been riskier because future claimants were exposed to future claims risk to a greater extent than present claimants. Risk priority, however, limits future claimants' (and present claimants') exposure to future claims risk; the future claims risk is borne by contract creditors who have low risk priority. As a result, both future claimants' and present claimants' compensation is subject to minimal risk. For example, all tort claimants received \$33,333 in all cases in the risk priority illustration presented above, implying that their compensation was riskless. When both present and future claimants' compensation have the same amount of risk, a prospective tort claimant will not demand a premium to be a future claimant because future claimants do not bear any extra risk. Thus, the certainty equivalent premium should be zero. Even if the risk priority approach reduces rather than eliminates the risk exposure disparity between present and future claimants, the size of the certainty equivalent premium will be greatly reduced.

Given the complexities of the certainty equivalent approach, this observation implies that the risk priority and certainty equivalent approaches should not be adopted together. Risk priority for tort claimants obviates much of the need for the certainty equivalent approach. In addition, risk priority offers several improvements over the certainty equivalent approach. With risk priority, risk is allocated efficiently between tort claimants and contract creditors. In the certainty equivalent approach, by contrast, tort

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<sup>255</sup> Risk priority makes the contract creditors insurers of the future claimants. In spite of the incompleteness of the insurance markets, this proposal is still feasible. Because risk priority would be *de rigueur*, the contract creditors will not be subject to the adverse selection problems that would plague insurance markets, enabling contract creditors to receive fair value for bearing the future claims risk. In addition, the creation of risk priority would establish a new constituency in favor of the development of mass tort insurance—the contract creditors. These creditors may be able to give greater impetus to the development of this market than widely scattered and ill-defined present and future tort claimants.

<sup>256</sup> See *supra* text accompanying notes 187–190.

claimants bear an unnecessarily large amount of risk although the premium prevents unequal treatment between present and future tort claimants. Furthermore, risk priority helps reduce any retrospective disparities between present and future claimants. Although the certainty equivalent approach assures that, behind a veil of ignorance, prospective tort claimants would be indifferent between present and future status, the retrospective disparities in outcome may still be problematic and subject to controversy. As a result, the risk priority approach is preferable to the certainty equivalent approach. If the risk priority approach proves infeasible,<sup>257</sup> however, then the certainty equivalent approach still offers a substantial improvement beyond the status quo.

## V. CONCLUSION

Existing mass tort bankruptcy and legislative mass tort fund procedures suffer from many inadequacies. To remedy these inadequacies, scholars have presented several proposals. While these recommendations ameliorate several existing deficiencies, they do not fully address many of the problems that plague future claimants in mass tort bankruptcies and legislative trust funds. This paper offers several novel recommendations for improving mass tort bankruptcy and trust fund procedures while identifying hitherto overlooked flaws in mass tort bankruptcy practice and scholarship.

First, we discussed how future claimants' inability to choose, monitor, or pay their representatives negatively affects the average compensation received by future claimants in a mass tort bankruptcy. To help rectify this situation, we proposed that future claimants' representatives ("FCRs") receive a percentage of the total compensation obtained by future claimants. The percentage-fee approach will help remedy future claimants' handicaps by ensuring that FCRs self-interestedly pursue a high total return for future claimants. This approach is notably different from the current method of hourly compensation for FCRs.

Next, we noted that future claimants do not simply suffer from inadequate average compensation, but their compensation is also subject to large amounts of risk. When the total size of future claims is larger than expected, individual compensation awards to future claimants tend to be reduced. Present claimants, however, are not exposed to this risk. To reduce the risk-bearing disparity, we recommend the adoption of the variable annuity approach first proposed by Roe. We further recommend the adoption of a "certainty equivalent approach" (regardless of whether or not the variable annuity approach is adopted). The certainty equivalent approach awards extra compensation (on average) to risk-bearing future claimants. These extra funds help protect future claimants should future claims greatly ex-

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<sup>257</sup> Risk priority would require more procedural changes and innovations than the certainty equivalent approach. As a result, it is quite possible that the certainty equivalent approach may prove more workable than risk priority.

ceed expectations. The size of the extra funds should be determined by the indifference criterion—the amount that would make a prospective tort claimant indifferent between receiving the present claimants' guaranteed compensation and the future claimants' risky compensation with a higher average value. The size of the premium should be higher when future claimants' compensation is subject to greater risk, when future claimants are less wealthy, and when the average size of the mass tort injury is greater. The certainty equivalent approach represents a sharp break from current practice, which typically awards greater (or at least equal) compensation to present claimants.

We then discussed the allocation of risk to tort claimants with respect to other creditors. We noted that relatively impoverished tort claimants are generally extremely risk-averse. Moreover, undiversified future claimants are likely to be particularly averse to the risk associated with future claims. Because tort claimants (and future claimants in particular) will not be able to negotiate for their desired risk allocation, we recommend that they hold risk priority. Risk priority concerns the allocation of *risk* in bankruptcy, taking as given the distribution of *value* specified by conventional priority. Risk priority for tort claimants implies that they should receive the least risky claims that enable them to obtain the value of the firm specified by their conventional priority ranking. Thus, debt claims and preferred equity claims in the reorganized firm should generally be awarded to tort claimants rather than other creditors. Contract creditors, by contrast, should receive equity claims on the reorganized firm. Similarly, tort claimants' exposure to future claimants risk should be minimized. Instead, tort claimants should receive a relatively fixed amount of compensation (which will generally be less than the value of their claims) while the value of contract creditors' distribution should fluctuate with the size of future claims.

These proposals will not eliminate the complications inherent in mass tort bankruptcies. The size of future claims will still require estimation and mistakes will be made. The proposals presented here, however, will ensure that future claimants do not suffer from systematic inequities in mass tort bankruptcies. They also serve to minimize the costs of the inevitable estimation errors. In total, these proposals further the ongoing process of solving the "fair distribution problem."

