

# We Mean What We Don't Say: The *Archer Daniels Midland* Case, Reputation, and the Curiosity of Refunding Clauses

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*The Archer Daniels Midland litigation and its aftermath highlighted the oddity of the continued use of the refunding clause in bond covenants, despite its legal ineffectiveness. This Note suggests three reasons for why the refunding clause might have retained value despite judicial curtailment of its legal reach: investor ignorance of the legal details of bond indentures, discounted but residual legal value, and extra-judicial reputation-based enforcement. The reputation-based hypothesis construes the refunding clause as a division of benefits between issuers and investors, where issuers retain the right to call bonds for "legitimate" business purposes, but investors are promised all gains from market interest rate movements. In this view, the refunding clause is an implicit pledge by issuers not to appropriate bondholders' market gains. As this line is too fine for courts to police, the understood pact is enforced via investor retaliation against future bond issues and other reputation effects. Initial empirical observations yield mixed results: There is support for the preconditions of the reputation-based hypothesis as to investors, but observations of bond issuances are less supportive, suggesting that the use of the refunding clause, while still done by some companies, decreased sharply following the Archer Daniels Midland decision. These observations also suggest, however, that many other factors were at work and that this drop in use might be the result of changes aside from the clause's legal value.*

Introduction.....	122
I. The Puzzling ADM Episode .....	123
II. Possible Reasons for the Continued Viability of Refunding Clauses .....	128
A. <i>Investors Ignore Indenture Terms and Their Enforceability</i> .....	128
B. <i>Refunding Clauses Could Be Priced as Retaining Diminished Legal Value</i> .....	130
C. <i>An Extralegal Alternative: Reputation and Investor Retaliation</i> .....	133

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III. Suggestions for Future Research: Initial Empirical Observations ..... 145

    A. *Investors* ..... 146

    B. *Issuers* ..... 155

IV. Conclusion ..... 165

Appendix..... 168

Introduction

In 1983, a decision by Archer Daniels Midland (ADM) to call<sup>1</sup> some of its outstanding bonds took bond investors by surprise.<sup>2</sup> Part of this shock stemmed from the belief that ADM’s action was forbidden by a “refunding clause” in the bond’s indenture. Based on this belief, a sophisticated investor even took ADM to court over the issue. Holding that ADM’s action was not forbidden by the refunding clause, the court ruled in ADM’s favor. Indeed, despite the shock of investors, ADM’s call and its subsequent legal victory should not have been a surprise to anyone. Precedent strongly favored ADM’s position, since the limitations on the refunding clause’s legal power were already exposed in litigation that was resolved years before the ADM bonds in question were even issued. But even after the high-profile ADM case, some companies still employed refunding clauses in new issuances.<sup>3</sup> The ADM episode and its aftermath present a legal puzzle: How can we explain the continued existence of a contract term that appears to have no legal value?

One possible answer is that investors were simply unaware of the state of the law surrounding refunding clauses. Another possibility is that while adverse precedents reduce the probability of a successful lawsuit, such precedents do not reduce the chances of prevailing in court to zero. This Note suggests a different possibility: The refunding clause has endured because some part of the clause’s value is derived from extra-judicial sources. In other words, apart from any legal value that the clause might or might not have, the market could nevertheless value the clause for other reasons.

While a number of authors have suggested the forces of reputation or other informal devices,<sup>4</sup> this Note goes further in suggesting that the refunding clause allows for a specific deal that finely divides the benefits of refunding

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1 With regard to bonds, a call is the right of the issuer to repurchase the bond, usually at a fixed price. See JOHN DOWNES & JORDAN ELLIOT GOODMAN, *DICTIONARY OF FINANCE AND INVESTMENT TERMS* 75-77 (5th ed. 1998) (defining “call” and related terms). By exercising its call option, ADM was attempting to repurchase its debt at a fixed price, regardless of the trading price of ADM’s bonds in the bond market.

2 The details of this episode and the ensuing litigation are related more fully *infra* Part I.

3 There are some instances where companies continued to use refunding clauses. See *infra* text accompanying notes 33-35. However, for reasons that are unclear and potentially separate from the ADM litigation and court holding, the continued use of refunding clauses does not appear to have been a widespread phenomenon. See *infra* Section III.B.

4 See *infra* notes 86, 104, 106-108 and accompanying text.

between investors and issuers in a “good faith” manner.<sup>5</sup> The clause seems to serve as a signal of an implicit agreement between investors and the issuer that the investors should receive the benefits of market changes in interest rates, while the issuer retains the “legitimate” business benefits that can flow from calling debt. This implicit agreement binds the issuer because it is self-enforcing through investor retaliation and reputation effects. This parsing of outcomes seems to be one that both investors and issuers desire, yet cannot replicate through formal enforcement of legally airtight contracts. Hence, the utility of refunding clauses may be greater than simply the low probability of successful legal enforcement; refunding clauses may have the additional benefit of producing a nuanced, precise division of benefits.

Part I relates the details of the ADM episode, as well as discussing the curious persistence of refunding clauses. Part II seeks to explain this phenomenon. It examines three possible reasons that refunding clauses may retain some value, including the reputation explanation. Part III provides directions for future research by presenting some initial empirical observations. Part IV concludes.

## I. The Puzzling ADM Episode

On the evening of June 1, 1983, news of Archer Daniels Midland’s decision to call its 16% sinking fund debentures, due May 15, 2011, in August 1983 broke upon the corporate bond market.<sup>6</sup> The resulting drop in bond prices led the investment bank Morgan Stanley to sue ADM in hopes of preventing the call from taking place.<sup>7</sup> In the month preceding the call announcement, Morgan Stanley had taken a position of approximately \$16 million, in face value, in the ADM bonds.<sup>8</sup> If Morgan Stanley were to hold the bonds to the call date, the firm would have lost approximately \$1.8 million.<sup>9</sup>

The reaction of the bond market and of Morgan Stanley was rooted in the refunding clause found in the indenture for the ADM bonds, which seemed to prohibit any calls prior to May 15, 1991 that were

from the proceeds, or in anticipation, of the issuance of any indebtedness for money borrowed by or for the account of the Company or any Subsidiary or from the proceeds, or in anticipation, of a sale and leaseback transaction . . . if,

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5 The term “good faith” is not used here for the legal contractual notion of good faith, but rather as an extra-legal, implicitly understood, business concept. For an argument that legal notions of good faith should be employed in judicial decisions on debt contracts, by placing higher burdens on debtors to favor dispersed bondholders, see Victor Brudney, *Corporate Bondholders and Debtor Opportunism: In Bad Times and Good*, 105 HARV. L. REV. 1821, 1869-75, 1877-78 (1992).

6 RICHARD S. WILSON & FRANK J. FABOZZI, *THE NEW CORPORATE BOND MARKET* 186 (1990).

7 *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, 570 F. Supp. 1529, 1530 (S.D.N.Y. 1983).

8 *Id.* at 1532.

9 WILSON & FABOZZI, *supra* note 6, at 187.

in either case, the interest cost or interest factor applicable thereto . . . shall be less than 16.08% per annum.<sup>10</sup>

Between the issuance of these 16% debentures and the ensuing call, ADM had, in the court's view, raised money through borrowing at less than 16.08% at least twice, while also raising money through two common stock offerings during the same period of time.<sup>11</sup> Morgan Stanley's claim, as characterized by the court, was that these borrowings were "proof that the redemption is being funded, at least indirectly, from the proceeds of borrowing in violation of the Debentures and Indenture agreement."<sup>12</sup> The court nevertheless found against Morgan Stanley, denying both the bank's request for a preliminary injunction prohibiting the call and its claim for contractual damages after the bonds were retired.<sup>13</sup>

ADM, however, had not completely bested investors. As Wilson and Fabozzi put it, "[i]nvestors don't readily forget the times that they lost money, especially if they felt that they might have been 'bamboozled.'"<sup>14</sup> When ADM tried to sell a new set of 13% bonds on August 6, 1984, again with the same ten year refunding clause, underwriters managed to sell only 70% of the issue at the original offering terms, and the bonds dropped immediately in value as trading began.<sup>15</sup> Furthermore, ADM's next bond issue in January 1986 was simply non-callable for life, and the company chose to retire its 13% debentures in April 1986 through a tender offer, rather than exercising its call again.<sup>16</sup>

One of the most puzzling issues arising from *ADM* is why it was so shocking to the bond market, or why commentators would later dub this decision "an important event in [the] modern corporate bond world, as it substantially eroded the effectiveness of standard refunding provisions."<sup>17</sup> The court's decision in *ADM* was not driven by novel legal theories, but rather deduced from long-standing, widely available sources. In making its initial determination on Morgan Stanley's preliminary injunction request, the court looked to the commentary accompanying the model bond indenture "from which the boilerplate language in question was apparently taken verbatim."<sup>18</sup> A relatively straightforward analysis of the commentary led the court to "read this

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10 *Archer Daniels Midland*, 570 F. Supp. at 1531 n.1. It is not clear whether the entirety of this bond indenture is still in existence. The author attempted to locate it, contacting an Assistant Treasurer at ADM, to see if the document was still on file with the company. The response was that documentation for these bonds had almost certainly been destroyed, because the issue had been called and there were no longer any tax or audit purposes for retaining the documentation.

11 *Id.* at 1531-32.

12 *Id.* at 1532.

13 *Id.* at 1538, 1542.

14 WILSON & FABOZZI, *supra* note 6, at 188.

15 *Id.*

16 *Id.*

17 *Id.*

18 *Archer Daniels Midland*, 570 F. Supp. at 1535.

comment as pointing to the *source* of funds as the dispositive factor in determining the availability of redemption to the issuer—the position advanced by defendant ADM.”<sup>19</sup>

Besides relying on interpretative advice provided with the exact contract language, the court also looked to previous decisions. Indeed, the eventual decision on the contract claims in *ADM* was largely guided by an existing precedent that was almost perfectly on point.<sup>20</sup> In *Franklin Life Insurance Co. v. Commonwealth Edison Co.*, an investor challenged Commonwealth Edison’s redemption, using proceeds from a common stock offering, of its 9.44% preferred stock—a redemption done two years after the preferred stock was issued, even though the preferred stock had a refunding clause prohibiting lower cost refunding for ten years.<sup>21</sup> The court in *Franklin* ruled for the issuer, because the refunding clause “requires an examination of only the source of the funds actually used to achieve the redemption.”<sup>22</sup> This rule rejected the *Franklin* plaintiffs’ contention that the issuer was redeeming in “anticipation” of lower cost borrowing; the plaintiffs had argued for a broad reading of the refunding prohibition, so that Edison’s plan (at the time of redemption) to borrow additional lower interest debt would have been sufficient to bar the call.<sup>23</sup> By deciding against the plaintiffs, the *Franklin* court had determined that the refunding clause did not “require[] an examination of the entire borrowing activities of” the issuer.<sup>24</sup> *Franklin* was handed down in 1978, three years before the ADM bonds contested by Morgan Stanley were even issued. This fact did not go unnoticed by the court deciding *ADM*, and was used to bolster the court’s reliance on *Franklin*:

Moreover, we note that the decision in *Franklin* preceded the drafting of the ADM Indenture by several years. We must assume, therefore, that the decision was readily available to bond counsel for all parties. . . . While *Franklin* was decided under Illinois law and is therefore not binding on the New York courts, we cannot ignore the fact that it was the single existing authority on this issue, and was decided on the basis of universal contract principles. Under these circumstances, it was predictable that *Franklin* would affect any subsequent decision under New York law. *Franklin* thus adds an unavoidable gloss to any interpretation of the redemption language.<sup>25</sup>

But the disputes and fallout from the episode of the ADM 16% debentures suggests that the *Franklin* “source rule” did not change expectations of the protection yielded by refunding provisions. Nor was *Franklin* the only pre-

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19 *Id.*

20 *Id.* at 1539-42, 1539 (“[T]he [*Franklin*] district court found, with respect to language nearly identical to that now before us, that an early redemption of preferred stock was lawful where funded directly from the proceeds of a common stock offering.”)

21 *Franklin Life Ins. Co. v. Commonwealth Edison Co.*, 451 F. Supp. 602, 605-06, 612-13 (S.D. Ill. 1978), *aff’d per curiam*, 598 F.2d 1109 (7th Cir. 1979).

22 *Id.* at 614.

23 *Id.* at 613-14.

24 *Id.* at 614.

25 *Archer Daniels Midland*, 570 F. Supp. at 1541-42.

*ADM* decision where issuers had successfully redeemed bonds in spite of refunding clauses.<sup>26</sup> This lack of market reaction after adverse legal decisions is especially striking because bondholder protections are almost entirely contractual, and boilerplate contract language is construed uniformly as a question of law.<sup>27</sup>

The *ADM* episode reaffirmed a major legal problem with the source rule. The source rule seems to allow, because of the “fungibility of money,” circumvention of refunding provisions through cautious separation of funds.<sup>28</sup> While the source rule would not allow the most egregious abuses to go unpunished,<sup>29</sup> legal commentary has nevertheless viewed the rule as largely ineffective in providing protection. As one commentator wrote, *Franklin* and *ADM* make “[c]lear . . . that the prohibition against lower rate refinancing . . . must be clearly set forth with all inclusive language to prevent the corporation from finding a loophole in which to reap a large reward during low interest rate

26 *Associated Builders, Inc. v. Ala. Power Co.*, 505 F.2d 97 (5th Cir. 1974) (upholding use of a sinking fund to redeem bonds at par before the refunding prohibition had passed); *Harris v. Union Elec. Co.*, 622 S.W.2d 239 (Mo. Ct. App. 1981) (upholding validity of issuer’s aborted plan to refund bonds before the expiration of a refunding prohibition, by redeeming them at par through the operation of improvement and maintenance funds). An analogous case was also decided in Florida around the same time as *ADM*. *Lucas v. Fla. Power & Light Co.*, 575 F. Supp. 552 (S.D. Fla. 1983) (upholding issuer’s 1977 bond redemption through a replacement fund, before the refunding prohibition had expired, and refusing to find a Rule 10b-5 violation for failing to disclose the possibility of such a redemption), *aff’d*, 765 F.2d 1039 (11th Cir. 1985). See discussion of all three of these cases *infra* text accompanying notes 110-111, 113-128.

27 *Sharon Steel Corp. v. Chase Manhattan Bank, N.A.*, 691 F.2d 1039, 1048-49 (2d Cir. 1982). The strictly contractual nature of bonds is true as a matter of state law as well. As Chancellor Allen of Delaware explained:

Under our law—and the law generally—the relationship between a corporation and the holders of its debt securities, even convertible debt securities, is contractual in nature. . . . The rights and obligations of the various parties are or should be spelled out in that documentation. The terms of the contractual relationship agreed to and not broad concepts such as fairness define the corporation’s obligation to its bondholders.

*Katz v. Oak Indus., Inc.*, 508 A.2d 873, 879 (Del. Ch. 1986). The Chancellor did, however, allow that contract notions of good faith and fair dealing applied, although distinguishing them from fiduciary duties. *Id.* at 879 n.7.

28 *Chester L. Fisher III & James Greenfield, Refunding Provisions and the Archer Daniels Midland Case*, 39 BUS. LAW. 1671, 1671, 1679-80 (1984).

29 As the *Archer Daniels Midland* court noted:  
[T]he “source” rule adopted in *Franklin* in no sense constitutes a license to violate the refunding provision. The court is still required to make a finding of the true source of the proceeds for redemption. Where the facts indicate that the proposed redemption was indirectly funded by the proceeds of anticipated debt borrowed at a prohibited interest rate, such redemption would be barred regardless of the name of the account from which the funds were withdrawn. Thus, a different case would be before us if *ADM*, contemporaneously with the redemption, issued new, lower-cost debt and used the proceeds of such debt to repurchase the stock issued in the first instance to finance the original redemption. On those facts, the redemption could arguably be said to have been indirectly funded through the proceeds of anticipated lower-cost debt . . . .

*Archer Daniels Midland*, 570 F. Supp. at 1542 n.4. However, as Fisher and Greenfield note, even a more expansive understanding of the source rule, one encompassing an “equity analysis,” would still leave the plaintiffs in *Franklin* and *Archer Daniels Midland* unsatisfied. Fisher & Greenfield, *supra* note 28, at 1680.

times at the expense of the bondholder.”<sup>30</sup> The weakness of the clause was such that two suggestions were put forward to reinvigorate it.<sup>31</sup> The fixes were to insert language that prohibited the calling of bonds with interest rates above the average market interest rate of comparable bonds (at the time of the call), or that prevented the calling of bonds when the issuer borrowed at a lower interest rate within a specific, enumerated time period before or after the call.<sup>32</sup>

Despite its problems, the refunding clause, in the same unimproved state as was employed in ADM’s bonds, did not disappear after the ADM episode. In fact, the ADM case has been cited as an example of how “the language of publicly issued debt covenants changes slowly, if at all, even after events seem to have established a need for new language.”<sup>33</sup> It also seems that the market may have continued to value refunding provisions.<sup>34</sup> A brief, informal survey of bond summaries in the *Moody’s Industrial Manual* for 1992 reveals several examples of bonds, issued after *ADM*, that appear to have the same refunding clause protection as the *ADM* bonds.<sup>35</sup> The Appendix lists the fourteen examples. A more systemic sample, again based on the *Moody’s* manual, was also taken as an initial empirical observation. Those observations suggest that

30 James E. Spiotto, *Early Redemption and Leveraged Buyouts: All That Glitters May Not Be Valid, Binding and Enforceable—the Erosion of Covenants, Confidence or Responsibility?*, in HIGH-YIELD BONDS 1990, at \*21, \*25 (PLI Real Estate & Practice, Course Handbook Series No. N4-4543, 1990), available at 364 PLI/Real 21 (Westlaw). For a similar assessment of the legal relationship between bondholders and issuers on this topic, although offering a different solution, see Robert S. Blanc & Randy D. Gordon, *Reforming the Unbargained Contract: Avoiding Bondholder Claims for Surprise Par Calls*, 55 BUS. LAW. 317, 349 (1999) (“Existing paradigms of liability for wrongful par calls are inadequate.”).

31 Fisher & Greenfield, *supra* note 28, at 1681.

32 *Id.*

33 John C. Coffee, Jr. & William A. Klein, *Bondholder Coercion: The Problem of Constrained Choice in Debt Tender Offers and Recapitalizations*, 58 U. CHI. L. REV. 1207, 1254 n.136 (1991). Coffee and Klein suggest that “investors like Morgan Stanley continued to accept the same language in obligations issued after the decision.” *Id.* Note that these assertions are somewhat in tension with the results of this Note’s bond covenant survey, although it is not clear that the observed drop in the use of refunding covenants was solely the result of the court’s decision in *ADM*. See *infra* Section III.B.

While Coffee and Klein suggest that the market had little reaction to *ADM*, they do allow, however, that some issuers probably did not intend to refund and that informal sanctions may play a role. Coffee & Klein, *supra*, at 1254 n.136. See discussion *infra* Section II.C for more on reputation-based mechanisms.

34 One study of bonds from 1980 to 1986 found that refunding clauses reduced the yield issuers had to pay for calls. Richard J. Kish, *Valuation: Call Options and Deferrals on Corporate Bonds*, 7 PA. ECON. REV. 77, 77, 83 (1999); see also *infra* note 44 and accompanying text. But see David S. Allen et al., *Agency Costs and Alternative Call Provisions: An Empirical Investigation*, FIN. MGMT., Winter 1987, at 37, 40, 43-44 (concluding from a January 1970 to June 1983 sample of bonds that no value was conferred for refunding clauses, thus posing the question of why refunding clauses have continued in use). Note that Kish’s dataset begins before *ADM* and ends after, so Kish’s work cannot serve as unambiguous evidence of the market placing value on refunding clauses after *ADM* was decided.

35 MOODY’S INVESTORS SERV., MOODY’S INDUSTRIAL MANUAL 1992 (1992) [hereinafter MOODY’S 1992]. *Moody’s* does not provide actual indenture language, but does summarize the relevant bond covenants. For reasons noted below, there is good cause to believe that the refunding clauses in each of these bonds are not substantially different from those provided in the *ADM* 16% debentures’ indenture. See *infra* notes 157-160 and accompanying text.

the number of bonds utilizing refunding clauses did indeed drop sharply in the period after *ADM*, though the sample also reveals other changes in bond structuring as well. This initial look suggests that many forces were at work in this period, and that future empirical work should be carried out keeping these various effects in mind. A discussion of these alternative explanations and the relationship between the initial empirical observations and the explanations offered in this Note is given below.<sup>36</sup> Although they do not seem to have had the same level of popularity in the mid to late 1980s as they did before, refunding clauses do appear to have survived for some applications. The following Part considers some of the reasons why that might be.

## II. Possible Reasons for the Continued Viability of Refunding Clauses

### A. Investors Ignore Indenture Terms and Their Enforceability

One potential reason that these clauses continued to be seen is that investors simply do not pay attention to the bond indenture. For instance, it seems clear that bondholders, at least in some instances, do not read the materials describing their securities. In one redemption case, “[t]he trial court found and the class conceded that none of these purchasers read the prospectus. Instead, they relied on their stockbrokers and/or various other sources of information.”<sup>37</sup> Anecdotally, it seems that a number of investors, including professionals, fail to read documentation.<sup>38</sup>

It is hard to claim that the documentation, if evaluated, would not have cured investor ignorance about the refunding clause’s weaknesses. In *ADM*, *Franklin*, and other cases where bonds were to be retired before refunding provisions expired, plaintiffs alleged 10b-5 claims of failure to disclose or of material misrepresentation; in all but one case, these claims failed.<sup>39</sup> In the absence of insufficient materials, any ignorance explanation must turn on a failure to properly or adequately analyze the bonds’ disclosures.

One such explanation is that investors may be aware of the bond indenture’s provisions, but may decide not to focus any energy on the legal details. In *ADM*, a Morgan Stanley salesman was quoted as stating that the question whether a court would ultimately find that a call was lawful or unlawful was largely irrelevant to my view of the economic risks for

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36 See *infra* Section III.B.

37 *Lucas v. Fla. Power & Light Co.*, 765 F.2d 1039, 1041 (11th Cir. 1985).

38 *WILSON & FABOZZI*, *supra* note 6, at 174-75; see also *Blanc & Gordon*, *supra* note 30, at 321 (“[Head bond traders] rarely study the indenture, but rely on the underwriters’ ‘talk’ and on the preliminary prospectus, or ‘red herring.’”).

39 *Lucas*, 765 F.2d at 1040, 1043-46; *Associated Builders, Inc. v. Ala. Power Co.*, 505 F.2d 97, 99-102 (5th Cir. 1974); *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, 570 F. Supp. 1529, 1536-38 (S.D.N.Y. 1983); *Franklin Life Ins. Co. v. Commonwealth Edison Co.*, 451 F. Supp. 602, 606-11 (S.D. Ill. 1978), *aff’d per curiam*, 598 F.2d 1109 (7th Cir. 1979). Only in *Harris v. Union Elec. Co.*, 787 F.2d 355, 360-72 (8th Cir. 1986), did the plaintiffs prevail on the misrepresentation claim.

bondholders if any corporation announced a call. . . . No portfolio manager with whom I have dealt has ever expressed to me a view, *one way or the other*, as to whether a call . . . would violate the nonrefunding provisions. . . .<sup>40</sup>

To the extent that investors feel that their legal acumen is too limited to create useful expectations for legal questions, it may be rational and value-maximizing for such investors to focus their analytical resources elsewhere. If the market were mostly composed of such investors, then the weakened legal protection of the refunding clause would not be cause to remove the language from future bond issues.

This explanation—that there exist risks that the market simply overlooks or ignores—is unsatisfactory, as it lies in such strong tension with the notion of efficient capital markets.<sup>41</sup> While it is possible to construct situations, especially for small investors, where the marginal gain from investigating the legal implications of an indenture is so minimal as to make ignorance rational, the frequency of such situations is bounded by the no-arbitrage principle. At some point, the gains from exploiting inaccurate debt pricing make reading the indenture or having a lawyer check the document profitable. It seems highly plausible that at least institutional investors, who can spread out the fixed costs of maintaining a legal staff over many different bonds, would engage in this strategy at some point, reining in inefficient pricing.<sup>42</sup> The notion that the weakness of refunding clauses went unnoticed is even less tenable when one considers the publicity calling attention to *ADM* (and to the circumvention of refunding prohibitions through replacement and maintenance funds), which should have made professionals aware of the implications of these developments for the possibility of early bond calls.<sup>43</sup> The explanation for any persistence of refunding clauses lies beyond any version of ignorance.

40 *Archer Daniels Midland*, 570 F. Supp. at 1537.

41 The efficient capital markets hypothesis has been more fully explored for equity markets; for a review of empirical work see Eugene F. Fama, *Efficient Capital Markets: II*, 46 J. FIN. 1575 (1991). Despite the number of anomalies and market imperfections that have been raised, it seems that stock markets are still very efficient. See Burton G. Malkiel, *The Efficient Market Hypothesis and Its Critics*, 17 J. ECON. PERSP. 59 (2003). Given the level of efficiency in equity markets, for debt markets to be inefficient seems incredibly unlikely. But not all commentators agree. “Whatever may be urged about the efficiency of the stock market . . . the market for bonds . . . is considerably less efficient in reflecting the absence or import of many protective covenants.” Brudney, *supra* note 5, at 1827; see also *id.* at 1850 & n.88, 1851 & n.90, 1852, 1875. Refunding covenants are specifically noted. *Id.* at 1851 n.90, 1875 n.173. On covenant pricing, see *supra* note 34 and *infra* notes 44, 57.

42 Indeed it seems that investors do have some balance between always, or never, assessing their legal rights. After a discussion with four money managers (who managed a total of approximately twenty-five billion in assets), in which all admitted to not reading prospectuses nor knowing anyone who did, one author still noted that “[t]o infer that all money managers and other analysts do not read prospectuses is a quantum and incorrect leap.” Charles A. D’Ambrosio, *Three Stories: The Good Ol’ Summertime*, FIN. ANALYSTS J., Sept.-Oct. 1983, at 10, 10. However, the author retained “uneasy feelings . . . about the number that do,” asking, “[i]s there a delusory safe harbor in believing too strongly that all known information is reflected in market prices and well diversified portfolios insure against all but market-related risks?” *Id.*

43 Fisher & Greenfield published an article for lawyers on *ADM* in 1984, see Fisher & Greenfield, *supra* note 28; see also Spiotto, *supra* note 30 (discussing the *ADM* issue in a 1990 article targeted at lawyers), and the *Wall Street Journal* reported on the decision shortly after it was handed

## B. *Refunding Clauses Could Be Priced as Retaining Diminished Legal Value*

Call provisions, as well as refunding protections, seem to be priced by bond investors. One study of corporate bond prices from 1980 through 1986 found that call provisions were valued at approximately sixty basis points, and that call protection in the form of refunding restrictions aided the issuer by reducing the yield demanded by investors.<sup>44</sup> Thus another possible explanation for the continued viability of refunding clauses is that investors were aware of the legal weakening of the clauses, but reacted only by decreasing their willingness to concede yield, in order to reflect the lowered probability of successful legal enforcement. As noted by the *ADM* court, since *Franklin* was decided outside of New York, there was still some small chance, albeit slight, of Morgan Stanley winning its action against ADM.<sup>45</sup> Given this possibility of success, a rational reaction from investors would be to continue to give issuers some price benefit, but properly scaled down for the decreased likelihood of successfully enforcing the clause.

If investors were still willing to assess refunding clauses as providing some value, then companies would choose to leave them in bond indentures. Kahan and Klausner offer a “switching costs” explanation for the persistence of some features of bond indentures: “When internal learning or network benefits are present, they result in ‘switching costs’ which may induce a firm to adopt the same term repeatedly in different documents—for instance, in different indentures.”<sup>46</sup> As the refunding clause language had already been drafted, and both issuers’ counsel and management already understood the clause and its source rule requirement, issuers would be inclined to stick with the same language despite its reduced efficacy. This explanation, however, hinges on investors giving issuers some credit for the presence of refunding clauses after *ADM*. Kahan and Klausner’s “switching costs” story is viable for the distinction between using older versions of legal provisions rather than improved ones,<sup>47</sup> but would not explain retaining a worthless covenant in the indenture rather than dropping it. The costs of adopting a different provision might exceed the benefits, but arguably the costs of simply dropping a covenant

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down, *Morgan Stanley’s Suit Against Archer-Daniels Is Voided in Large Part*, WALL ST. J., Aug. 25, 1983, at 25. The analogous avoidance of call protection through replacement and maintenance funds was also covered by that newspaper in 1977. See *Florida P&L to Redeem Bonds in Unusual Way*, WALL ST. J., June 21, 1977, at 36; Lindley B. Richert, *Issuers of High-Yield Bonds May Use Little-Known Method of Early Retirement*, WALL ST. J., May 9, 1977, at 30.

44 Kish, *supra* note 34, at 77, 83. The specific value of a call deferment is disputed and estimates vary. *Id.* at 78, 82, 84 n.16; Allen et al., *supra* note 34, at 43 (finding, contrary to Kish, that refunding clauses do not reduce yields).

45 *Archer Daniels Midland*, 570 F. Supp. at 1542. Indeed, Morgan Stanley contended both that its case could be distinguished, and that *Franklin* had been wrongly decided. *Id.* at 1540.

46 Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (or “the Economics of Boilerplate”)*, 83 VA. L. REV. 713, 727 (1997).

47 Kahan and Klausner present empirical evidence of the impact of switching costs in the context of event risk covenants, where certain forms persisted despite improved versions. *Id.* at 752.

are nearly zero. If issuers were not to receive any benefit from the presence of a refunding clause, then switching costs of zero would not stand in the way of removing the language. Indeed, in the absence of any investor-conferred benefit, issuers would be loathe to include the refunding clause because it would still have the downside potential of sparking costly, even if ultimately futile, litigation in the event the issuer called the bonds.

This litigation cost that a bondholder could inflict upon issuers, even if the probability of victory is low, leads to another explanation for why investors might still value a refunding clause. In a sense, call provisions are not necessary for issuers to capitalize on falling interest rates. Emery and Lewellen show that when non-callable debt trades at a premium because of lower interest rates, it is possible that tax consequences would allow companies to refund profitably through a strategy of repurchasing the existing debt at a premium and issuing new debt at lower interest rates.<sup>48</sup> They argue that this tax gain creates a margin that enables issuers to execute the refunding strategy with a tender for non-callable debt at above-market prices.<sup>49</sup> In their model, transaction costs limit the opportunities for profitable refunding through open-market repurchases, so they posit that one possible advantage of callable debt is that it lowers such costs.<sup>50</sup> However, a key feature of a call is that it allows the issuer to avoid negotiation with bondholders, negotiation which must take place if the bonds are to be retired in an open-market repurchase.<sup>51</sup> If the issuer's gain is tax-driven, then avoiding negotiation is crucial. Because so many companies are public, it is possible that sophisticated institutional bondholders would be able to use financial disclosures to estimate the issuer's tax gains. Once bondholders have a sense of the issuer's gains and thus its reservation price, the issuer is exposed to the possibility that the only acceptable tender offers would be those which are so high that the issuer is left with little final benefit. Having a call provision avoids the messiness of negotiation and the possible loss of surplus to bondholders.<sup>52</sup>

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48 Douglas R. Emery & Wilbur G. Lewellen, *Refunding Non-callable Debt*, 19 J. FIN. & QUANTITATIVE ANALYSIS 73 (1984).

49 *Id.* at 78.

50 *Id.* at 80.

51 Gordon Pye, *The Value of the Call Option on a Bond*, 74 J. POL. ECON. 200, 200 (1966) (suggesting that issuers value calls as a way to avoid bargaining, and the resulting premiums, when changing covenants). Such a view has also been discussed in the context of the impact of calls on agency issues, see *infra* note 63.

52 Emery & Lewellen, *supra* note 48, do not address the issue of surplus division.

When part of a call's value is seen as cost containment,<sup>53</sup> it becomes clear that having a refunding clause still provides bondholders with some protection, since the source rule requires issuers to raise redemption funds from a source other than borrowing, thus increasing the transactions costs of a refunding.<sup>54</sup> Additionally, the bondholder's contractual claim, which has some probability of success, can be litigated to further raise the transactions costs of an issuer's refunding.<sup>55</sup> By increasing costs, the clause can potentially limit the issuer's ability to refund profitably. The specific power of the refunding clause when deployed in this fashion depends on the relative magnitudes of the costs and benefits.<sup>56</sup>

It seems quite possible that refunding clauses have continued utility because investors reassess the clauses as having diminished, but still discernable, value. If this is the case, the impact of this revised view would be felt in the prices of all bonds with refunding clauses. Prices of outstanding bonds with refunding clauses would fall, while the offering spreads of newly issued bonds with refunding clauses would rise. If the driving factor is the decision of courts to interpret the refunding clause according to the source rule, then this price effect would likely be felt across all issuers. Even if a good deal of the clause's value is derived from the increased transactions costs a refunding clause imposes on any refunding, similarities across issuers as to costs suggests that price effects would still be widespread. Ultimately, any reassessment by investors of the value of refunding clauses in general is likely to result in a negative price impact on all bonds with such clauses, regardless of issuer.<sup>57</sup>

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53 Pye suggests another way in which transactions costs, besides those from raising new capital, play a role in making calls valuable. Pye notes that if an issuer wants to reduce debt, [e]ssentially the same effect as retiring his own bonds could be obtained by buying on the market similar bonds issued by someone else. However, because of the transactions costs *involved in making interest payments*, the costs of bonds to the issuer will always be somewhat greater than their value on the market. There will therefore be some saving to the issuer in retiring his own bonds rather than buying someone else's.

Pye, *supra* note 51, at 200 (emphasis added).

54 Getting funds from a non-debt source may entail issuing equity. Not only would a stock offering have underwriting and other such costs, but may have further costs if the issuer must solicit proxies to get shareholder authorization to issue more stock.

55 This strategy is not costless to investors, however, as bondholders would also have to expend litigation costs.

56 Considering the numerical example given in Emery & Lewellen, *supra* note 48, at 77-78, it seems that the magnitude of extra underwriting or litigation costs must be relatively large to make it unprofitable for an issuer to refund. Also, issuers may not actually factor transactions costs into refunding decisions. A study of the timing of calls, examining how long issuers wait after a bond trades above the exercise price before calling, finds that transactions costs are not significant in determining the length of such delays in bond calls. Tao-Hsien Dolly King & David C. Mauer, *Corporate Call Policy for Nonconvertible Bonds*, 73 J. BUS. 403, 428 (2000). King and Mauer eliminated all bonds with refunding restrictions from their data sample, *id.* at 406, but the study is still informative for general bond call practices of management.

57 Issuers can certainly differ as to costs; some may have better banking relationships and thus obtain lower underwriting fees, while others may have more or less restrictive corporate charters, giving management more or less flexibility to raise capital without shareholder approval. Nevertheless, it seems

### C. *An Extralegal Alternative: Reputation and Investor Retaliation*

Refunding clauses may have continued viability for some issuers if a portion of the clause's value lies outside of the judicial system. The main value of the clause may reside beyond the reaches of legal enforcement if the clause's ultimate goal is to create a fine division of rights<sup>58</sup> between issuers and investors, where issuers retain the flexibility of being able to call the bonds for "legitimate" business reasons but implicitly pledge that they will not compete with bondholders for the gains from market changes in interest rates. A fall in the general level of interest rates, from economic changes unrelated to the issuer, or a contraction of the issuer's credit spread, for reasons specific to that individual company, will cause the price of investors' bonds to rise, as these bonds now have interest rates that are relatively more attractive compared to new bonds then available in the marketplace. A way for an issuer to seize this gain from bondholders would be to call the bonds at a below-market price and issue new ones at lower interest rates, thus capturing the present value of the interest differential.<sup>59</sup> The refunding clause can serve as a signal that issuers

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that the differences in such costs would be relatively small across companies, and would be swamped by the price impact of any reevaluation by investors of the fundamental legal enforceability of refunding clauses.

The analysis in Kish, *supra* note 34, uses data that spans the time both before and after *ADM*, and thus that work is unable to help answer whether there was a widespread price effect. The contradictory study of Allen et al., *supra* note 34, covers only until June 1983 and so is also unhelpful. The price impact of having a maintenance and replacement (M&R) fund or having a funnel sinking fund, both used by some issuers to call debt before the end of refunding protection, *see* cases cited and text accompanying *infra* notes 110-128, has been studied by Laber. Gene Laber, *Bond Covenants and Managerial Flexibility: Two Cases of Special Redemption Provisions*, FIN. MGMT., Spring 1990, at 82. Laber finds that from 1980 to 1982, having a M&R fund with special redemption prices increased yields, offsetting the benefit of having this fund without special call prices. *Id.* at 85-89. However, the study did not find that the existence of a funnel sinking fund had any impact on reoffering yields. *Id.* at 89. The result for M&R funds suggests that perhaps there may be widespread price effects, but the result for funnel sinking funds clouds this conclusion. Also, the study is useful for M&R fund redemptions, as it looks at a period after Florida Power & Light's redemption using a M&R fund broke the ice, but the period examined is still before *ADM*, so it is hard to draw from Laber's work any clean conclusions for refunding clauses. For more context on M&R funds and funnel sinking funds, *see* discussion *infra* accompanying notes 113-128. It should also be noted that the notion of price impacts from covenants, even those regarding refunding or coercive tenders, is in tension with some commentators who assert that price may not actually capture all such risk. *See* Brudney, *supra* note 5, at 1850 & n.88, 1851 & n.90, 1852; Coffee & Klein, *supra* note 33, at 1252.

58 Allen, Lamy, and Thompson allude to the notion of the "spirit" of the refunding clause, recognizing the possibility that issuers will violate this "spirit" because the clause is not enforceable, when introducing their empirical study on the value of refunding clauses. Allen et al., *supra* note 34, at 39, 42, 44. They do not, however, elaborate on what the "spirit" of the clause is, or how enforcement might be accomplished through extra-legal means.

59 This calculation would have to account for transaction costs and tax consequences also. *See* WILSON & FABOZZI, *supra* note 6, at 184; *see also* Pye, *supra* note 51, at 200-03 (giving a more formal model of the timing of bond calls). Note, however, that the decision to call, whether or not for refunding, can be complicated. Also, being able to call at a below-market price is not required for a refunding operation to benefit an issuer's shareholders, although having the call has distinct advantages, *see supra* text accompanying notes 48-52. This sort of issuer behavior may not be too pervasive. King and Mauer's empirical study, spanning from 1975 to 1994, suggests that only a fraction of calls (372 in their sample of 1642 called bonds) are refundings, where refunding was defined as issuing new debt within a

will not partake in such actions, allowing investors to price the bonds on that assumption. Once an issuer has represented such intentions, and has been compensated with lower yields, investors can penalize the issuer through reputation effects in future transactions if the issuer later defects from its commitment not to take market gains.

The role of an issuer's credit spread in the price of its bonds adds an additional nuance to this division of market gains from non-market gains. The refunding clause does not prohibit retiring bonds out of operating revenue. If an issuer's credit spread is narrowing because of business successes that bring in free cash flow, then issuers are still allowed to employ that excess cash to benefit shareholders by retiring debt and accruing interest cost savings, even though this action simultaneously destroys some bondholder value. Note that in this setting, shareholder gains are related to the interest rate of the existing bonds, but do not depend on the market difference between the issuer's credit spread in existing bonds and the issuer's new, narrower credit spread. While this sort of transaction is likely to take place concurrently with a market gain for holders of the existing bonds, it is not dependent on market changes—an issuer could execute such a transaction profitably even if the market failed to react to the improvement in cash flow.<sup>60</sup> If the credit spread narrows for other reasons, such as general optimism about an issuer's sector, then the refunding clause's implicit issuer-investor pact still serves to bar opportunistic refundings that attempt to capture such market gains.

Besides use of free cash flow, there are other non-market, business reasons for redeeming debt that would be considered "legitimate," even if the issuer is relying on a capital infusion that is only technically distinguishable from borrowing. Agency issues have been argued by some authors as a reason for having calls, including those with refunding protection,<sup>61</sup> embedded in debt.<sup>62</sup> Retiring debt may be necessary to give an issuer the proper incentives for future investment,<sup>63</sup> even if the issuer is not near bankruptcy.<sup>64</sup> Information

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12-month period bracketing the call. King & Mauer, *supra* note 56, at 433. Allen, Lamy, and Thompson tried to determine empirically "[t]he actual behavior of firms calling non-refundable debt," but had inconclusive results. Allen et al., *supra* note 34, at 39 n.6.

60 A decision to retire existing funds is related to the market indirectly, in that the decision to call bonds is only rational if a company has no other high return applications for the cash—that is, if the best investment available to the company is its own bonds at the call price. See Pye, *supra* note 51, at 200 (noting the similarity between debt retirement and investment in similar bonds). Even this view of redemptions, however, does not involve a direct market play on moving interest rates in the same sense as the activities of bond market investors.

61 Janet S. Thatcher, *The Choice of Call Provision Terms: Evidence of the Existence of Agency Costs of Debt*, 40 J. FIN. 549 (1985). Thatcher's argument is discussed below. See *infra* notes 66-71 and accompanying text.

62 On various agency issues arising from debt, see generally Amir Barnea et al., *Market Imperfections, Agency Problems, and Capital Structure*, FIN. MGMT., Summer 1981, at 7.

63 It has been shown that while non-callable debt reduces shareholders' incentive to invest, relative to a firm funded by equity only, call provisions can correct this distortion. Zvi Bodie & Robert A. Taggart, Jr., *Future Investment Opportunities and the Value of the Call Provision on a Bond*, 33 J. FIN. 1187 (1978) [hereinafter Bodie & Taggart, *Investment Opportunities*]. Non-callable debt is

asymmetry and shareholders' tendency to shift towards riskier projects after issuing debt are two other agency problems that calls can mitigate.<sup>65</sup> Thatcher argues that calls with refunding prohibitions serve to resolve these agency problems while protecting bondholders from interest rate risk, but assumes that refunding clauses are enforceable.<sup>66</sup> From a sample of bond issuances over six months of 1975, Thatcher produces empirical evidence that firms with larger agency costs issue bonds with refunding clauses, suggesting that such calls are used to reduce agency costs.<sup>67</sup> Although relying on extra-judicial enforcement narrows shareholder discretion in using a call with a refunding prohibition,<sup>68</sup> such a call can reduce agency problems<sup>69</sup> to some extent by restoring proper investment incentives.<sup>70</sup> Yet the explanation of the refunding clause discussed here, because of the implicit understanding it requires and the extra-judicial enforcement it necessitates, would suggest that a call with a refunding restriction is less helpful in resolving the other two agency problems of asymmetric information and asset substitution.<sup>71</sup>

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problematic because some benefits from profitable investments aid bondholders, by reducing the probability of default, so that shareholders internalize less than 100% of the benefits of any investment and thus face reduced incentives. *Id.* at 1188. Calling debt solves this problem by allowing an interest rate reset so that shareholders reap the full benefit of later investments. *Id.* Others have described this role for calls less as a solution to an agency dilemma than as a way of reducing negotiation costs from a Coasean bargaining between bondholders and shareholders to split the surplus that arises when the appropriate investment occurs. Varouj A. Aivazian & Jeffrey L. Callen, *Future Investment Opportunities and the Value of the Call Provision on a Bond: Comment*, 35 J. FIN. 1051 (1980); Bodie & Taggart, *Investment Opportunities*, *supra* 1197 n.13; Zvi Bodie & Robert A. Taggart, Jr., *Future Investment Opportunities and the Value of the Call Provision on a Bond: Reply*, 35 J. FIN. 1055 (1980).

64 Coffee and Klein give scenarios in a similar vein as the argument of Bodie & Taggart, *Investment Opportunities*, *supra* note 63, but involving distressed debt trading below par, where scaling back bond claims reallocates gains (away from restoring bond prices) so that equity has the right investment incentives. Coffee & Klein, *supra* note 33, at 1234-41. Yet shareholder incentives are important even when bonds are not trading below par. *See supra* note 63.

65 Barnea, Haugen, and Senbet discuss these problems along with the issue of investment incentives, noting that all of these problems can be solved by either calls or shorter maturities. Amir Barnea et al., *A Rationale for Debt Maturity Structure and Call Provisions in the Agency Theoretic Framework*, 35 J. FIN. 1223, 1225-33 (1980).

66 Thatcher, *supra* note 61, at 551-52.

67 *Id.* at 552-60.

68 A straight call would permit an issuer to call for more than just the "legitimate" business reasons described here.

69 It is noted above, *see supra* note 63, that interest rate resets restore incentives, but refunding is not required. Rather it is debt extinguishment that is needed, so that 100% of investment benefits accrue to shareholders; payment from equity or other sources should suffice. Bodie and Taggart's example does not use refunding, Bodie & Taggart, *Investment Opportunities*, *supra* note 63, at 1192 n.7, and it seems generally to be unnecessary, *see id.* at 1198.

70 But empirical evidence on the investment issue is weak. *See* Thatcher, *supra* note 61, at 555, 557-58.

71 The argument here that investors can discern calls for "legitimate" business reasons from those done purely as market plays suggests a familiarity with the issuer that precludes severe informational asymmetry. Barnea, Haugen, and Senbet's argument that calls alleviate shareholder tendencies for asset substitution because such shifting decreases the value of the issuer's call, Barnea et al., *supra* note 65, at 1227-30, suggests that issuers treat their own debt as vehicles for market activity, an attitude that is inconsistent with the "good faith" division that the current hypothesis ascribes to issuers.

Besides agency concerns, another “legitimate” business reason for an issuer to call debt would be if there were restrictive covenants preventing it from pursuing a beneficial business venture.<sup>72</sup> Or, the issuer may simply have to reduce debt in order to partake in a beneficial transaction, as was the case in *Katz v. Oak Industries, Inc.*<sup>73</sup> There, Oak Industries was under duress and needed a cash injection, in the form of a stock and warrants purchase, from Allied-Signal; Allied-Signal conditioned this infusion on an 85% reduction in Oak Industries’ debt.<sup>74</sup> Oak Industries’ bonds were trading well below par<sup>75</sup> so that refunding was not possible, but the case illustrates that needing to reduce debt is a situation where calls would greatly facilitate a productive business transaction.<sup>76</sup> These reasons for managerial freedom seem eminently reasonable and compelling. Estimates of their importance should, however, be tempered by empirical work which questions the extent to which such reasons underlie an issuer’s policies for using call provisions.<sup>77</sup>

Nevertheless, managers may very well value having some discretion to partake in such actions. Using the refunding clause with its informal understanding would then be an intermediate method of obtaining such freedom; the issuer would have more options than with non-callable debt, but

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72 One possibility is where an issuer has a merger proposal that would create many operating synergies, but is blocked by the counterpart’s refusal to take on the issuer’s more restrictive covenants. The refusal here is a function of another form of Kahan and Klausner’s “switching costs”: “the inclusion of a stricter covenant in a subsequent indenture . . . confers an uncompensated windfall on existing bondholders (who would benefit from the company’s compliance with the later restriction).” Kahan & Klausner, *supra* note 46, at 728. Pye, *supra* note 51, at 200, also suggests removing covenants as a reason for calls. While make-whole calls are very different from the calls of interest here, surveys of thoughts on make-whole calls can offer insights on managerial attitudes toward debt. A descriptive survey of chief financial officers suggests that getting rid of “troublesome” covenants would be a motivating factor for exercising a make-whole call. Steven V. Mann & Eric A. Powers, *Indexing a Bond’s Call Price: An Analysis of Make-Whole Call Provisions*, 9 J. CORP. FIN. 535, 552-53 (2003). Note that defeasance covenants may be another option for removing difficult covenants. *Id.* at 538 & n.3.

73 *Katz v. Oak Indus., Inc.*, 508 A.2d 873 (Del. Ch. 1986).

74 *Id.* at 875-77, 882. In *Katz*, Oak Industries had to use an exchange offer, in conjunction with exit consents to rid the bonds of certain restrictive covenants, in order to effect the debt reduction. *Id.* at 876-77. While a call provision with a refunding clause might not have solved all of Oak Industries’ problems with its restrictive covenants, it would have helped eliminate the plaintiff’s coercion theory, *id.* at 879-80.

75 *Id.* at 875 n.2.

76 The underlying transaction with Allied-Signal has been considered positive, even though the lack of call provisions left Oak Industries to employ an exit consent strategy—Coffee and Klein cite *Katz* as an example of “Beneficial Coercion.” Coffee & Klein, *supra* note 33, at 1241-42.

77 Empirical evidence on covenants as the reason for calls is mixed. King and Mauer give evidence that removing more restrictive covenants may be a motive for some portion of bond calls, King & Mauer, *supra* note 56, at 435, while also showing that the restrictiveness of covenants does not seem to impact the length of delay between bonds trading above a call price and an issuer’s exercise of the call, *id.* at 428. King and Mauer also show that while equity values react to changes in leverage from bond calls and refundings, *id.* at 437-39, covenants are not significant explanatory factors for such equity impacts when tax implications are accounted for, *id.* at 441.

still fewer than those provided by callable debt.<sup>78</sup> This intermediate functionality should lead to a similarly intermediate cost being exacted by bond investors.<sup>79</sup> It seems likely that managers would be willing to pay some amount of increased interest for these privileges.<sup>80</sup> A nuanced understanding with investors evidenced by the inclusion of a refunding clause could serve as an attractive balance of costs and freedoms.<sup>81</sup>

The compromise nature of this understanding of the refunding clause can make court policing of this fine division, of benefits for bondholders and privileges for managers, difficult. A court must always consider the impact of a precedent beyond the specific parties to a dispute, but this focus is heightened in disputes over boilerplate contracts in capital markets because of the especially high value of uniformity and clarity in this context.<sup>82</sup> Determinations can be especially confused when there are concurrent issuances of equity and lower interest debt, as was the situation in *ADM*.<sup>83</sup> Given these pressures, it is

78 As noted above, the inclusion or exclusion of a call feature is not determinative of whether a company can redeem its bonds, but rather the ease with which it is done. See *supra* notes 48-50, 74 and accompanying text.

79 Economic studies suggest investors do indeed provide some yield reduction when pricing a call, if an issuer provides refunding protection; however, some question the accuracy of pricing. See *supra* notes 34, 44, 57.

80 A 1991 survey of chief financial officers found that only 9.0% would include "covenants offering strong protection" if they were to issue bonds in the next six months; 43.8% would include "covenants offering some protection" while the plurality, 47.2%, would not attach any covenants. *CFO Forum: Is Anyone Paying Any Heed to Bondholders?*, INSTITUTIONAL INVESTOR, Feb. 1991, at 123, 123. Coffee and Klein interpret this survey as suggesting "strong managerial resistance to stronger covenants or to other changes that would restrict managerial discretion." Coffee & Klein, *supra* note 33, at 1252 n.131. They argue that it is evidence that managers, out of risk aversion, may be willing to pay for the right to make coercive tender offers to avoid bankruptcy. *Id.* at 1252-53. Although make-whole calls are different, the Mann and Powers descriptive survey on them is helpful in ascertaining managerial attitudes; their work suggests that chief financial officers feel "financial flexibility" is important and a good reason for including make-whole calls on debt. Mann & Powers, *supra* note 72, at 552. The lack, however, of clear empirical understanding of managerial call policies, see King & Mauer, *supra* note 56, at 404 (giving evidence of issuers waiting to call bonds long after prices made such calls advantageous); *supra* notes 56, 77, cautions against over-emphasizing manager conceptions of the value of calls.

81 Cost seems to play into managers' considerations. Although it is *not* argued here that make-whole calls have the same function as calls with refunding protection, looking to the make-whole call survey data compiled by Mann and Powers is still informative of managers' mindsets: "[w]hen asked why firms would use a make-whole call provision rather than a fixed-price call provision, the overwhelming rationale is that the upfront cost of a make-whole call provision is substantially lower. . . ." Mann & Powers, *supra* note 72, at 553. These same chief financial officers, however, thought make-wholes were costless, which the article showed empirically is not the case. *Id.* at 536.

82 See *Sharon Steel Corp. v. Chase Manhattan Bank, N.A.*, 691 F.2d 1039, 1048 (2d Cir. 1982). In holding that interpretation of boilerplate provisions were a matter of law, the *Sharon* court noted that:

Moreover, uniformity in interpretation is important to the efficiency of capital markets. . . . Whereas participants in the capital market can adjust their affairs according to a uniform interpretation, whether it be correct or not as an initial proposition, the creation of enduring uncertainties as to the meaning of boilerplate provisions would decrease the value of all debenture issues and greatly impair the efficient working of capital markets.

*Id.*

83 *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, 570 F. Supp. 1529, 1531-32 (S.D.N.Y. 1983).

not surprising that the courts opted for a clearer, cleaner source rule,<sup>84</sup> rather than attempting a more discretion-laden determination of whether management transgressed the boundary between market and non-market operations.<sup>85</sup>

The refusal of courts to pass judgment on whether an issuer breached the implicit compact of the refunding clause does not mean that investors cannot make this determination. With issuers that return to the bond market repeatedly, investors have an opportunity to retaliate through purchasing new bonds only at steep yields.<sup>86</sup> A formal model of reputation and dependency on next period gains is beyond the scope of this Note. Here, it suffices to observe that such models have been advanced in the literature. Telser puts forward a simple, repeated transaction model that can be analogized to roughly fit the current situation.<sup>87</sup> Note that Telser's conditions for a self-enforcing agreement are met

84 *Id.* at 1542; *Franklin Life Ins. Co. v. Commonwealth Edison Co.*, 451 F. Supp. 602, 614 (S.D. Ill. 1978), *aff'd per curiam*, 598 F.2d 1109 (7th Cir. 1979). In ruling on the motion for a preliminary injunction, the *ADM* court observed that Morgan Stanley's suggested

case-by-case approach is problematic in a number of respects. First, it appears keyed to the subjective expectations of the bondholders; if it *appears* that the redemption is funded through lower-cost borrowing, based on the Company's recent or prospective borrowing history, the redemption is deemed unlawful. The approach thus reads a subjective element into what presumably should be an objective determination based on the language appearing in the bond agreement. Second, and most important, this approach would likely cause greater uncertainty among bondholders than a strict "source" rule such as that adopted in *Franklin* . . . .

*Archer Daniels Midland*, 570 F. Supp. at 1535-36. Courts strive for objectivity; thus the realm of business judgments on relationship management (where seeking to drive out subjectivity seems at best futile, and at worst, dangerously misguided) seems best addressed outside of the courts. *But see* Brudney, *supra* note 5, at 1848-49 (arguing that judicial recognition of coercion would make substantive fairness decisions possible).

85 Brudney argues that such concerns should not stop courts from judging whether good faith obligations are met, and that in such decisions, courts should favor dispersed bondholders more than single lenders because of the inherent differences in bargaining power—individual lenders are better able to bargain over and understand the shortcomings of specific covenants. *See* Brudney, *supra* note 5, at 1869-75, 1877-78.

86 Morey W. McDaniel, *Bondholders and Corporate Governance*, 41 *BUS. LAW.* 413, 434 (1986) ("A company with a reputation for hurting its bondholders will find it more difficult to sell bonds in the future."); William W. Bratton, Jr., *Corporate Debt Relationships: Legal Theory in a Time of Restructuring*, 1989 *DUKE L.J.* 92, 141 ("[M]anagers had passed up opportunities to injure bondholders even when debt contracts posed no obstacle. According to the conventional wisdom, such opportunistic conduct would lead creditors in future financings to impose unfavorable terms, the costs of which would outweigh the benefits of present wealth transfers."). Neither author, however, is optimistic about the effectiveness of reputational restraints, *id.* at 142; McDaniel, *supra*, at 434-35; *see also infra* note 104 and accompanying text.

87 L.G. Telser, *A Theory of Self-enforcing Agreements*, 53 *J. BUS.* 27 (1980). Analogizing Telser's model (where enforcement comes only from termination), *id.* at 30-36, to the current bond issuance scenario (where enforcement comes from worse pricing on bonds), can be done by conceptualizing each bond issuance as the average of two separate streams of transactions. One transaction stream is composed of debt that is cheap for the issuer and the other is made up of debt that is expensive, with the average transaction stream being mutually beneficial. In this way, it is possible to view a stream of bond issuances as a package of two self-enforcing agreements, with one (the cheap debt) contingent on an understanding of the restrictions of the refunding clause. Defection from the norm results in the termination of the cheap debt stream, while the stream of expensive debt continues.

The "cheap" and "expensive" labels here come from the point of view of the issuer, in that debt is "cheap" because the issuer gets a price reduction for purchasing from investors not a full call but one that is limited by a refunding clause. However, remember that the "cheap" debt is beneficial for both parties. Investors want it because they want to sell the call limited by a refunding clause—an

in the corporate bond issuance setting, at least for large companies and institutional investors. Corporations are legally created to live forever, and the types of institutions that invest in bonds are not generally created with a limited period of time in mind.<sup>88</sup> As long as a corporation or institutional investor is large and in fairly stable financial health, that entity can be a party to transactions that satisfy Telser's condition that self-enforcing agreements have no known, certain end.<sup>89</sup> Additionally, the nature of bonds is such that their time horizon is necessarily long.<sup>90</sup> Finally, Telser notes that one important characteristic of self-enforcing agreements is that neither party expects the agreements to be violated.<sup>91</sup> This behavior is seen in the refunding clause cases discussed in this Note.<sup>92</sup>

However, Telser's model is crafted for one buyer and one seller with centralized decision-making,<sup>93</sup> and therefore is not a perfect fit for the current situation. An issuer faces numerous bondholders. Yet institutional investors may form a large enough block to have purchasing power, and with the requisite sophistication and means of cooperation, they may be able to approximate the retaliatory behavior of a single entity.<sup>94</sup> Indeed, the need for coordination can be seen as a reason for the refunding clause to increase in value after ADM's bond call and the ensuing aftermath of investors penalizing

underpinning assumption of this analysis is that investors feel that even with the price discount they are still getting a good deal. Thus, the "cheap" debt is beneficial for both parties, creating a self-enforcing agreement through repeated transactions.

88 Regardless of the legal structuring of an entity's lifetime, presumably the individuals running these entities are career investment professionals who continue to invest for an indeterminate period into the future.

89 *See id.* at 44. McDaniel argues that this condition of Telser's is not met. McDaniel, *supra* note 86, at 434-35, 435 n.112; *see also* discussion *infra* note 104.

90 This fulfills another requirement of Telser's model. *See* Telser, *supra* note 87, at 44.

91 *See id.* ("The theory explains violations of a self-enforcing agreement as the response to unexpected changes in the underlying factors that determine the terms of the agreement.")

92 Morgan Stanley alleged that reliance on the refunding protection was a vital part of its decision to buy ADM's bonds, while ADM asserted that redemption not been considered until Merrill Lynch suggested it two years after the bonds were issued. *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, 570 F. Supp. 1529, 1533 (S.D.N.Y. 1983). In the state case in *Harris*, the court explicitly noted that the

plaintiffs' understanding of the redemption protection is found[ed] largely on the fact that special redemptions had never been pursued in the past. And, basically, plaintiffs assumed that they would not be done in the future. UE's executives simply admit that they were not aware of the possibility of a special redemption.

*Harris v. Union Elec. Co.*, 622 S.W.2d 239, 248 (Mo. Ct. App. 1981); *see also* *Lucas v. Fla. Power & Light Co.*, 765 F.2d 1039, 1044 (11th Cir. 1985).

93 *See* Telser, *supra* note 87, at 30.

94 Coffee and Klein suggest that some holders of distressed bonds can act in concert. Coffee & Klein, *supra* note 33, at 1222 & n.49, 1232. *But see* Brudney, *supra* note 5, at 1824 & n.8, 1825-26, 1831, 1835 (arguing that dispersed bondholders cannot act as strategically as single lenders and get worse terms and pricing than single lenders). It should also be noted that behavioral patterns will mimic Telser's model if each investor is limited to thinking only in terms of their own actions relative to those of the issuer; in other words, if the notion of lack of coordination is taken to the extreme and no investor considers the actions of any other investor. Narrowing the scope of each investor's options in this way simply reduces the problem to many simultaneous two-party situations.

the company in later transactions.<sup>95</sup> This episode increased the value of refunding clauses by providing a benefit akin to Kahan and Klausner's "learning benefits."<sup>96</sup> Kahan and Klausner point out that judicial precedents decrease uncertainty around covenants and thus increase the covenants' value because companies are better able to get to desired results.<sup>97</sup> Although the source rule judicial precedent from *ADM* did not help the vitality of the refunding clause, the entirety of the episode, with the extra-judicial enforcement exercised against *ADM* in its next bond offering, served to clarify the clause's understood meaning for both investors and issuers, as well as clarifying when retaliation is appropriate. The episode's benefits relate to the need for coordinated investor action; tacit collective action is simpler if all of the required actors know when they are supposed to conspire in retaliatory action. Reductions in uncertainty can come not only from judicial precedents, but also from precedent-setting market action. The resulting benefits accrue both to those who use the boilerplate refunding language in later bonds, and also to those who already had refunding clauses in existing bonds.<sup>98</sup>

The extent of deviation from single entity behavior, however, still remains to be treated in a formal model. In addition, there remain other non-self-reliant means of coercing issuers to comply, such as recourse to courts (regardless of how unlikely such a challenge is to succeed<sup>99</sup>). Any formal self-enforcement model of the refunding clause would have to be more complex than that put forth by Telser; however, viewing Telser's model as a skeletal outline suggests that a self-enforced reputation explanation can account for at least some part of the continued viability of refunding clauses.

Breaching the implicit understanding of the refunding clause may also have a signaling impact on other aspects of an issuer's reputation.<sup>100</sup> If the refunding clause is really a promise by management to refrain from taking money away from bondholders to give it to shareholders through exploiting bond market moves, then any breaches of this refunding clause pact should adversely affect the issuer's reputation in other areas that are also, at heart, questions of whether managers are willing to expropriate bondholder wealth for shareholders. Thus, issuers who opportunistically violate the implied bargain of the refunding clause, at least in the eyes of investors, should also face an erosion of investor confidence in relation to dividend payment, claim dilutions,

95 See *supra* text accompanying notes 6-16, relating the relevant events.

96 Kahan and Klausner, *supra* note 46, at 719-20.

97 *Id.* at 722-23.

98 To follow the Kahan and Klausner distinction between "learning benefits" and "network benefits," *id.* at 726-27, one can term the benefits for issuers of later bonds as "learning benefits," while the benefits to issuers who had refunding clauses already in their bonds can be labeled "network benefits."

99 See *supra* Section II.B.

100 The author is indebted to Professor Jonathan R. Macey for suggesting this possibility.

asset substitution, and underinvestment.<sup>101</sup> Although these are areas that are ripe for control through covenants to protect bondholders,<sup>102</sup> it is not clear that such legal control is actually effective.<sup>103</sup> Thus, the pricing benefit conferred by investors upon issuers for such covenants may depend in part, even for nominally legally enforceable covenants, on an issuer's reputation for treating bondholders fairly. To the extent that an issuer is dependent on its reputation, breaches of the refunding clause's implied guarantees would have additional adverse impacts on the pricing of the issuer's debt.

Some commentators have been skeptical of the power of reputation in repeat play scenarios to constrain the actions of issuers, especially in takeover situations where managers are unlikely to need bond investors again.<sup>104</sup> The setting of the refunding clause, however, suggests that the relevant context for refunding clauses is indeed one of repeated bond issuances.<sup>105</sup> The very nature of the most egregious transgression, replacing high interest bonds with low interest ones, itself involves bond issuances. It seems unlikely that an issuer would seek to borrow today at a lower rate while anticipating never borrowing again. Other commentators writing on redemption decisions have taken a more positive view of the power of reputation in these markets.<sup>106</sup> Coffee and Klein

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101 These are the four major areas identified by Smith and Warner for divergences between shareholder and bondholder interests that necessitate bond covenants, to prevent shareholders from failing to maximize value or taking bondholder wealth. Clifford W. Smith, Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, excerpted in FOUNDATIONS OF CORPORATE LAW 127, 127 (Roberta Romano ed., 1993).

102 *Id.* at 128-33.

103 McDaniel, *supra* note 86 (arguing that far fewer covenant protections exist than are perceived, and that effective legal protection must come in the form of fiduciary duties of directors to bondholders); see also Bratton, *supra* note 86 (discussing conceptions of bondholder protections, and arguing that existing law and legal theory could, but do not, protect bondholders against wealth transfers from claim dilutions in restructurings).

104 McDaniel notes that "[w]hile market forces are an important constraint in normal circumstances," takeover scenarios are more akin to a final period where, citing Telser, *supra* note 87, managers are not constrained by self-enforcing agreements. McDaniel, *supra* note 86, at 434-35, 435 n.112. Bratton similarly lacks confidence in reputation's power in these settings:

Corporate reputation—the unprotected bondholders' backstop—has proved ineffective. Managers' and stockholders' incentives to maintain good reputations in the capital markets do not have the staying power of contract promises; they shift along with power and money. Exiting stockholders and managers care nothing about a corporate entity's future financing costs. Managers battling to stay on might indeed care, but have more immediate problems.

Bratton, *supra* note 86, at 142. Wilson and Fabozzi are negative on the power of reputation in general, and although they note that issuers must bear in mind relationships with the investment community when considering redemptions, they caution that interest rates are an important driver and patterns of previous issuer behavior are no guarantee against early redemptions. WILSON & FABOZZI, *supra* note 6, at 216-17. Estimates of corporate reputations for delivering on promises seem to have gone down as well. Spiotto, *supra* note 30, at \*41.

105 None of the cases discussed here, where the plaintiffs alleged circumvention of refunding clauses, arose in the context of the terminal phase of a corporation's life. Cf. Morgan Stanley & Co. v. Archer Daniels Midland Co., 570 F. Supp. 1529 (S.D.N.Y. 1983); Franklin Life Ins. Co. v. Commonwealth Edison Co., 451 F. Supp. 602 (S.D. Ill. 1978), *aff'd per curiam*, 598 F.2d 1109 (7th Cir. 1979); cases cited *supra* note 26.

106 See Blanc & Gordon, *supra* note 30, at 334 (noting that issuer behavior may be constrained by "business considerations such as the issuer's desire to sell bonds in the future"). King and

suggest that market reputation mechanisms may constrain issuer behavior in the coercive tender offer context, but consider it an expensive mechanism whose cost is ultimately borne by companies at debt issuance.<sup>107</sup> They further suggest that issuers may try to avoid this cost through covenants against coercive offers, but cite *ADM* as an example of how covenants fail to evolve as needed, suggesting that other issuers with refunding clauses “may have paid a price for the opportunity” to act as *ADM* did—even though they had no such intentions.<sup>108</sup> The reputation argument presented here disagrees with this notion of a widespread reaction against all issuers utilizing refunding clauses. If the key driver is defection from an implicit agreement, then only those companies who act as *ADM* did, or evidence an intention to do so, should face penalties in the pricing of their bonds. The implication that price effects would not be widespread, but rather limited to companies based on their actions, is one way to differentiate between this reputation hypothesis for the refunding clause and the simpler discounting hypothesis given above.<sup>109</sup>

The facts surrounding *ADM*, and some other cases where refunding clauses were effectively circumvented, support this picture of a self-enforced refunding clause, prohibiting calling bonds for market gains but permitting calling bonds for non-market business reasons.<sup>110</sup> The presence of Rule 10b-5 claims<sup>111</sup> suggests that representations by issuers matter in these circumstances. In *ADM*, notions of the company attempting to reap market gains appear to have been present: Morgan Stanley alleged, in the court’s words, that “*ADM* intended to use the proceeds from the sale of the Debentures for speculation in

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Mauer offer weak empirical evidence that investors react to issuer reputations, created by an issuer’s behavior the first time it calls a bond (for being “aggressive” or “not aggressive” bond callers); by the second call, “aggressive” issuers tend to have their callable bonds trade at smaller premiums to call prices compared to premiums on callable bonds of those who are “not aggressive.” King & Mauer, *supra* note 56, at 420, 421 fig.2.

107 Coffee & Klein, *supra* note 33, at 1253-54.

108 *Id.* at 1254 n.136.

109 See *supra* Section II.B; note 57 and accompanying text; see also *infra* text accompanying notes 129-136 (discussing which explanation is more likely).

110 In *ADM*, the court noted that “[t]he market price at which *ADM* Debentures were trading was no doubt more reflective of the investment community’s perception of what *ADM* might do than it was of what *ADM* had the legal right to do.” *Archer Daniels Midland*, 570 F. Supp. at 1537 (S.D.N.Y. 1983). In *Associated Builders, Inc. v. Alabama Power Co.*, 505 F.2d 97 (5th Cir. 1974), a court upheld the use of a funnel sinking fund to redeem bonds at par before the refunding prohibition had passed. A funnel sinking fund is where sinking fund requirements for all outstanding bonds are satisfied by purchases of one issue. WILSON & FABOZZI, *supra* note 6, at 193-94. In *Lucas v. Florida Power & Light Co.*, 575 F. Supp. 552 (S.D. Fla. 1983), *aff’d*, 765 F.2d 1039 (11th Cir. 1985), an issuer’s redemption of bonds through a replacement fund, before refunding clause protection had expired, was upheld. In *Harris v. Union Electric Co.*, 622 S.W.2d 239 (Mo. Ct. App. 1981) a state court upheld the validity of Union Electric’s ultimately aborted plan, patterned on the FPL plan contested in *Lucas*, to refund bonds before the expiration of refunding clause protection by redeeming them at par through the improvement and maintenance funds. These cases are often mentioned together with *ADM* when commenting on par bond calls, along with other possibilities for early redemptions, such as use of eminent domain clauses, which go beyond the scope of this Note. See Blanc & Gordon, *supra* note 30, at 325-31; WILSON & FABOZZI, *supra* note 6, at 174-217; see also Spiotto, *supra* note 30, at 23-33.

111 These were present in every case studied in this Note. See case citations *supra* note 39.

long-term government securities in conjunction with a plan to call the Debentures if and when interest rates dropped.”<sup>112</sup> Although sales of new bonds by Alabama Power in 1972 and 1973 seemed to face no investor wrath,<sup>113</sup> despite its use of a sinking fund to redeem bonds before the end of refunding protection, the company’s parent did eventually have to make some of its subsidiaries put restrictions on funnel sinking fund calls.<sup>114</sup>

Florida Power & Light’s use of their replacement fund to redeem bonds<sup>115</sup> also seemed to escape investor retaliation,<sup>116</sup> but this result is consistent with the reputation explanation. The company executed its redemptions under pressure from a public rate-setting commission, and furthermore, the purchase of the bonds was not really a refunding.<sup>117</sup> The trial court specifically noted that because the Public Service Commission’s rate order was premised on redemption, “[a]ll benefits resulting from the redemption were passed through to the ratepayers . . . FPL’s shareholders did not receive any of the cost savings.”<sup>118</sup> Further, “FPL did not sell any bonds to redeem the 10⅞ bonds.”<sup>119</sup> The company had commercial paper borrowings at the time of the redemption, but “FPL had generated sufficient money through internal sources to have paid off the commercial paper and was in a net invested position.”<sup>120</sup> The Florida Power & Light redemption was done for legitimate business purposes, and the absence of negative consequences in this episode supports the reputation explanation and its postulated division of benefits.<sup>121</sup>

112 *Archer Daniels Midland*, 570 F. Supp. at 1533.

113 See Phil Hawkins, *Prices Continue To Gain As 3 Issues Totaling \$179 Million Sell Out*, WALL ST. J., Apr. 20, 1972, at 29; Byron Klapper, *Price Gains of ½ Point Achieved by Seasoned Corporates, Treasuries: Upswing Is Laid To Good Demand for 2 New Utility Offerings, High U.S. Agency Debt Yields*, WALL ST. J., Aug. 9, 1973, at 17; *Southern Co. Unit Plans \$120 Million Issue*, WALL ST. J., Mar. 14, 1972, at 39; *Southern Co. Unit To Seek \$795 Million*, WALL ST. J., Mar. 8, 1972, at 25.

114 See WILSON & FABOZZI, *supra* note 6, at 194. Alabama Power appears to have escaped this prohibition on funnel sinking funds, as it did another such redemption in 1986. Laber, *supra* note 57, at 85.

115 For an empirical study of the pricing of bonds with M&R funds that provide special redemption prices, see Laber, *supra* note 57.

116 *Harris v. Union Elec. Co.*, 787 F.2d 355, 369 (8th Cir. 1986) (“Once UE observed that FP & L’s plan did not adversely affect its ability to re-enter the market, UE implemented its plan.”).

117 *Lucas v. Fla. Power & Light Co.*, 575 F. Supp. 552, 561-63, 565-66 (S.D. Fla. 1983).

118 *Id.* at 563 (emphasis added). This aspect of the redemption is also related in WILSON & FABOZZI, *supra* note 6, at 199-200.

119 *Lucas*, 575 F. Supp. at 566.

120 *Id.* The trial court’s findings of fact were strong enough to flatly state that “[t]he terms ‘redemption’ and ‘refunding’ are not synonymous. . . . The 1977 redemption was not a refunding.” *Id.* at 565-66.

121 Although Florida Power & Light ultimately returned to the bond market without harm, the announcement of its plan did draw severe criticism, *Lucas v. Fla. Power & Light Co.*, 765 F.2d 1039, 1042-43 (11th Cir. 1985); Richert, *supra* note 43. Note also that the cash used by the utility to make this buyback seems to have been the result of curtailing construction. *Id.* This slowdown in construction may have been due to reduced electric power demand, WILSON & FABOZZI, *supra* note 6, at 199, rather than a function of the desire to reduce interest cost. The extent to which curtailing construction was, however, a negative net present value decision for Florida Power & Light, and thus a poor business choice, weakens the support this episode lends to the reputation hypothesis.

In sharp contrast to FPL's intentions was the attempted Union Electric redemption of \$50 million in bonds via the replacement fund, where the company announced that its plan was motivated by "current relatively attractive' bond rates" and that it would increase a planned bond issue by fifty million if the redemption was successful.<sup>122</sup> As a result of a bondholder lawsuit in state court, "purchasers of the 9.35% bonds [which effectively would have replaced the outstanding bonds that had the refunding clause] . . . refused to buy . . ."<sup>123</sup> Despite prevailing on the indenture contract claims on appeal,<sup>124</sup> Union Electric had to cancel its planned bond sale, admitting that "the suit 'had effectively prohibited the intended redemption and retirement of the 10½% bonds.'"<sup>125</sup> *Union Electric* was also the only case of those discussed here where the plaintiff later prevailed on a federal 10b-5 claim, winning a jury verdict in the district court that was upheld upon appeal.<sup>126</sup> Indeed, the 10b-5 litigation revealed "evidence indicat[ing] that Mr. Grainger, one of UE's Advisory Directors, vehemently opposed the plan as 'subordinating moral responsibility for financial gain' and cautioned UE's president that the 'contract with the Bondholders should be kept inviolate.'"<sup>127</sup> In this instance, Union Electric manifested a clear intention to let shareholders profit by taking interest rate-driven gains away from bondholders, but the plan was stopped by a combination of investor lawsuits and market reaction.<sup>128</sup> Consistent with an extra-judicial reputation function for the refunding clause, investors succeeded in defeating the refunding, even though legal enforcement of the refunding clause itself could not directly do so.

The question remains as to whether the post-*ADM* value of the refunding clause is primarily a function of the reputation hypothesis or the simpler discounting hypothesis given above.<sup>129</sup> As suggested above, price effects may help distinguish the two.<sup>130</sup> If *ADM* led to an across the board drop in bond prices, then it is likely that investors adjusted all prices to reflect the lower probability of successful legal protection from the refunding clause. But if only those bonds where issuers manifested an inclination to refund the bonds in "bad

122 *Union Electric Plans To Redeem 10½% Issue at Special Price of 100*, WALL ST. J., Apr. 12, 1978, at 47.

123 *Harris v. Union Elec. Co.*, 787 F.2d 355, 360 (8th Cir. 1986).

124 *Harris v. Union Elec. Co.*, 622 S.W.2d 239 (Mo. Ct. App. 1981).

125 *Union Electric Drops Redemption Proposal, Citing Court Challenge*, WALL ST. J., June 20, 1978, at 35 (quoting a company press release).

126 *Harris*, 787 F.2d at 359.

127 *Id.* at 369.

128 The *Harris* plaintiffs actually continued to litigate after the conclusion of the federal 10b-5 suit by returning to state court for injunctive relief, an ultimately unsuccessful attempt ended by an adverse decision of the Missouri Supreme Court. *Harris v. Union Elec. Co.*, 766 S.W.2d 80 (Mo. 1989). This "apparently unending litigation" seems to have finally concluded in 1991 with a decision by the Missouri Court of Appeals against allowing further claims by the plaintiffs on the basis of these same facts. *Harris v. Union Elec. Co.*, 817 S.W.2d 591, 591-92 (Mo. Ct. App. 1991).

129 See *supra* Section II.B.

130 See *supra* notes 57, 108-109 and accompanying text.

faith” showed price effects, then the reputation explanation is more likely. Anecdotally, the reputation explanation is favored. The *Wall Street Journal*’s coverage of Florida Power & Light’s innovative redemption noted that

utility officials surveyed indicated they fear a ‘backlash’ from investors should they choose to retire bonds early at the special redemption price. Most managements who have the option say they believe it is contrary to the original intent of the provisions, a ‘breach of confidence,’ in the words of one.<sup>131</sup>

The same article also reported on other issuers who had both the cash flow and indentures necessary to retire their bonds similarly—while the article noted that Florida Power & Light bond prices were falling, it was silent as to whether the bonds of the other given issuers were suffering the same market impact.<sup>132</sup> This seems especially salient, given that one of the named issuers, Carolina Power & Light Company,<sup>133</sup> did indeed redeem its bonds through the replacement and maintenance fund soon after—bonds which were trading above the redemption price at the time of call.<sup>134</sup> There seem to be no reports of widespread, cross-issuer price effects, but there continued to be examples of price drops following redemption announcements.<sup>135</sup> Without a solid pricing study<sup>136</sup> that is beyond the scope of this Note, it is hard to tell which explanation is prevalent, but anecdotal evidence points to the reputation explanation.

### III. Suggestions for Future Research: Initial Empirical Observations

This Part makes some initial empirical observations with the goal of illuminating directions for future empirical investigation. The observations presented here run to the limited purpose of seeing whether conditions exist, on both the investor and issuer sides of the bond market, that are consistent with the reputation explanation presented above.

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131 Richert, *supra* note 43. Wilson and Fabozzi also note that “some companies may be reluctant to utilize an M&R call for fear of angering their investors” but caution that regulators may give the companies no choice. WILSON & FABOZZI, *supra* note 6, at 199.

132 Richert, *supra* note 43.

133 *Id.*

134 Laber, *supra* note 57, at 83; WILSON & FABOZZI, *supra* note 6, at 200. Carolina Power & Light was also unsuccessfully sued by bondholders. *Id.*; see also Laber, *supra* note 57, at 83.

135 The examples are Houston Lighting & Power Company’s 1986 par redemption of some its 12.375% first mortgage bonds due 2013, and Central Maine Power Company’s 1988 par redemption of some of its 12.25% General and Refunding Mortgage Bonds due 2013. WILSON & FABOZZI, *supra* note 6, at 200-01. Wilson and Fabozzi attribute the price drop in the Central Maine episode to reported investor ignorance about the specifics of Central Maine’s outstanding debt. *Id.* Laber also gives examples of bonds trading at a premium just before redemptions at lower prices through maintenance and replacement funds. Laber, *supra* note 57, at 83-84.

136 For existing pricing studies and accompanying discussion, see *supra* notes 34, 44, 57.

A. *Investors*

For investors to enforce any breaches of the division of benefits implied by the refunding clause, there must be bondholders sophisticated enough to understand the nuances of the clause, stable enough to be repeat buyers over time, and large enough to exact future price punishment upon defecting issuers. Status as an institutional investor is one convenient proxy for the first two requirements. As professionals, one would expect institutions to be as sophisticated as investors get. Given the levels of market and business acumen necessary to appraise bond investments, they should be able to assess whether an issuer's decision to call bonds before the end of refunding protection is due to business reasons or to a desire to capitalize on market moves. Institutional investors are also likely to be a much more permanent presence in bond markets than retail investors.<sup>137</sup> Thus institutional investors' market share, as a proxy for the third requirement of having sufficient size to retaliate against wayward issuers, can be an initial indicator of whether the investor side of the bond market could play the required role in a self-enforced, reputational view of the refunding clause.<sup>138</sup>

A ready source of data on bond purchasers in the U.S. market is the Federal Reserve's historical annual Z.1 releases, the *Flow of Funds Accounts of the United States*,<sup>139</sup> which give in flow table F.212 each year's bond issuances and purchases, broken down by categories of issuers and purchasers.<sup>140</sup> These statistics are broader than the type of bonds contemplated in this Note,

137 Life insurance companies and pension funds, which by their very nature must take long-term perspectives, are included here under the grouping of institutional investors.

138 For a caveat to this view, see Brudney, *supra* note 5, at 1854 n.99 (noting that institutional investors are better, relative to individuals, in dealing with issuers, but collective action is still unlikely, especially in refundings).

139 Publications covering the period from 1955 to 2003 were used. These were: BD. OF GOVERNORS OF THE FED. RESERVE SYS., FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES: ANNUAL FLOWS AND OUTSTANDINGS 1955-1964, at 36 (2004), available at <http://www.federalreserve.gov/releases/z1/20040304/annuals/a1955-1964.pdf>; BD. OF GOVERNORS OF THE FED. RESERVE SYS., FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES: ANNUAL FLOWS AND OUTSTANDINGS 1965-1974, at 36 (2004), available at <http://www.federalreserve.gov/releases/z1/20040304/annuals/a1965-1974.pdf>; BD. OF GOVERNORS OF THE FED. RESERVE SYS., FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES: ANNUAL FLOWS AND OUTSTANDINGS 1975-1984, at 36 (2004), available at <http://www.federalreserve.gov/releases/z1/20040304/annuals/a1975-1984.pdf>; BD. OF GOVERNORS OF THE FED. RESERVE SYS., FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES: ANNUAL FLOWS AND OUTSTANDINGS 1985-1994, at 36 (2004), available at <http://www.federalreserve.gov/releases/z1/20040304/annuals/a1985-1994.pdf>; BD. OF GOVERNORS OF THE FED. RESERVE SYS., FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES: ANNUAL FLOWS AND OUTSTANDINGS 1995-2003, at 36 (2004), available at <http://www.federalreserve.gov/releases/z1/20040304/annuals/a1995-2003.pdf>.

140 For a detailed explanation of the table construction, see BD. OF GOVERNORS OF THE FED. RESERVE SYS., GUIDE TO THE FLOW OF FUNDS ACCOUNTS 500-13 (1993). The author acknowledges that this descriptive manual is older than the data series employed here, and that there have been some changes in data construction, but remains confident that the information in the 1993 manual is sufficiently accurate for the current purposes of general observation.

encompassing securities such as convertibles and asset-backed debt,<sup>141</sup> but should suffice for the current purpose, since there is little reason to believe that purchaser characteristics for the bond market overall should differ vastly from the purchaser characteristics of interest here. Also, it should be noted that this data reflects *net* purchases of new issues and outstanding issues.<sup>142</sup>

Tables 1A to 1C give the percentages of bond purchases made by non-institutional versus institutional investors.<sup>143</sup> To match the time spanned by the issue dates in the bond sample discussed below,<sup>144</sup> these tables cover 1961 through 1992.<sup>145</sup> Because the Federal Reserve data do not break down foreign purchasers into subunits that can be classified as either institutional or non-institutional, all foreign purchases are considered non-institutional in Tables 1A to 1C.<sup>146</sup> Tables 2A to 2C give the non-institutional/institutional breakdown excluding foreign purchases.<sup>147</sup> Table 3 summarizes the relative market shares over time, including foreign purchases. Table 4 does the same, excluding foreign purchases.

The relative market shares of non-institutional to institutional investors fluctuate over this period, but it is clear from Tables 1A to 1C and 2A to 2C that institutional investors always constitute a substantial proportion of the market. As indicated by negative numbers in Tables 1 through 4, in some years non-institutional investors are actually net sellers of bonds—but this is never true of institutional investors. In their lowest year, as shown by Tables 3 and 4, institutional investors still comprised over 40% of the market; on average over this period, institutional investors constituted about 80% of bond buyers. Given their continuous and large presence, it seems plausible that the bond purchasing market includes enough institutional bond investors to be consistent with the reputation hypothesis that these investors could retaliate against defecting issuers.

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141 *Id.*

142 The cleanest examination would be to look only at purchasers of new issues, since retaliation against issuers would have to take place in the pricing of bonds at issuance. It is possible to get net purchase results such as those presented below, *see infra* text accompanying notes 143-147, but still not have new issue conditions that are consistent with the reputation explanation, if households purchased most new issues and institutions did the bulk of their buying in secondary transactions with households. This scenario, however, seems fairly implausible, and there is little reason to believe that the purchasers of bonds generally should be drastically different from the purchasers of new issues.

143 For the division between non-institutional and institutional, *see infra* notes b-d, accompanying Tables 1A to 1C.

144 *See infra* Section III.B.

145 2003 is also included simply for reference.

146 *See* sources cited *supra* notes 139-140.

147 The percentages in Tables 2A to 2C are the same as those which would result from the assumption that foreign bond purchases have the same non-institutional/institutional division as American purchases.

**Table 1A: Percentage of Net Bond Purchases, Non-Institutional versus Institutional Investors, 1961-1971**

Year	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
<b>Non-Institutional<sup>a, b</sup></b>	3.6%	-11.1%	0.0%	3.9%	-18.5%	26.4%	25.6%	36.3%	36.4%	39.7%	37.1%
<b>Institutional<sup>a, c</sup></b>	92.9%	109.3%	100.0%	94.7%	118.5%	74.4%	73.8%	63.0%	63.6%	60.3%	62.9%
<b>Breakdown<sup>a, d</sup></b>											
<i>Non-Institutional:</i>											
Household sector	3.6%	-11.1%	-1.6%	1.3%	-16.9%	21.6%	26.2%	34.9%	32.1%	34.9%	29.0%
Rest of the world	0.0%	0.0%	1.6%	2.6%	-1.5%	4.8%	-0.6%	1.4%	3.6%	3.0%	1.2%
Bank personal trusts and estates	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	6.9%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Institutional:</i>											
State and local governments	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial banking	-3.6%	1.9%	-7.9%	6.6%	-1.5%	0.8%	5.4%	1.4%	-0.7%	4.7%	3.7%
Savings institutions	-3.6%	-1.9%	-4.8%	-2.6%	-1.5%	2.4%	12.5%	9.6%	4.3%	11.6%	20.0%
Life insurance companies	44.6%	46.3%	44.4%	30.3%	43.1%	19.2%	22.6%	25.3%	12.1%	6.5%	22.4%
Other insurance companies	0.0%	5.6%	0.0%	3.9%	9.2%	4.8%	4.2%	8.2%	5.7%	9.9%	1.2%
Private pension funds	21.4%	22.2%	23.8%	21.1%	23.1%	20.0%	6.5%	4.1%	4.3%	7.8%	-3.3%
State and local govt. retirement funds	30.4%	33.3%	33.3%	28.9%	35.4%	23.2%	22.0%	17.8%	28.6%	19.4%	15.9%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Money market mutual funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mutual funds	5.4%	0.0%	3.2%	5.3%	6.2%	3.2%	-2.4%	-4.1%	6.4%	2.6%	0.8%
Closed-end funds	0.0%	0.0%	4.8%	2.6%	0.0%	0.0%	0.6%	2.1%	0.0%	-2.6%	1.6%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brokers and dealers	-1.8%	1.9%	3.2%	-1.3%	4.6%	0.8%	2.4%	-1.4%	2.9%	0.4%	0.4%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Net Purchase Amounts (billions)</b>	<b>5.6</b>	<b>5.4</b>	<b>6.3</b>	<b>7.6</b>	<b>6.5</b>	<b>12.5</b>	<b>16.8</b>	<b>14.6</b>	<b>14.0</b>	<b>23.2</b>	<b>24.5</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations.

**Table 1B: Percentage of Net Bond Purchases, Non-Institutional versus Institutional Investors, 1972-1982**

Year	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>Non-Institutional</b> <sup>a, b</sup>	16.0%	27.7%	48.3%	25.2%	25.1%	18.9%	-14.8%	-11.4%	-12.4%	33.9%	51.1%
<b>Institutional</b> <sup>a, c</sup>	84.0%	72.3%	52.1%	74.8%	74.7%	81.8%	114.8%	111.0%	111.8%	66.1%	48.8%
<b>Breakdown</b> <sup>a, d</sup>											
<i>Non-Institutional:</i>											
Household sector	9.2%	18.7%	40.0%	23.5%	21.4%	6.2%	-30.3%	-24.4%	-39.6%	3.5%	23.6%
Rest of the world	0.5%	0.6%	3.1%	1.4%	2.3%	9.5%	6.0%	11.8%	25.3%	29.5%	30.1%
Bank personal trusts and estates	6.3%	8.4%	5.2%	0.2%	1.3%	3.2%	9.5%	1.2%	1.9%	0.8%	-2.7%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Institutional:</i>											
State and local governments	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial banking	6.3%	1.9%	3.4%	6.8%	-0.8%	2.2%	-3.8%	4.5%	3.0%	-0.3%	1.3%
Savings institutions	12.6%	-20.0%	-0.7%	5.4%	14.4%	-2.7%	7.6%	-7.7%	16.2%	-8.9%	10.2%
Life insurance companies	34.0%	38.1%	13.8%	21.4%	44.1%	46.8%	54.6%	47.2%	23.9%	19.8%	31.1%
Other insurance companies	-3.4%	-0.6%	6.9%	5.2%	10.2%	9.2%	5.7%	8.1%	0.0%	7.6%	-1.0%
Private pension funds	9.7%	13.5%	7.9%	16.2%	-4.4%	10.7%	26.5%	43.5%	38.5%	15.2%	-1.7%
State and local govt. retirement funds	20.4%	33.5%	21.0%	15.1%	12.3%	13.9%	27.8%	11.8%	25.3%	23.3%	3.5%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Money market mutual funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	1.4%	-0.6%
Mutual funds	2.4%	0.6%	2.1%	1.6%	0.8%	2.7%	-2.2%	3.3%	3.6%	4.3%	0.4%
Closed-end funds	1.0%	2.6%	-0.3%	0.2%	0.5%	-1.2%	0.9%	0.0%	0.0%	0.0%	0.8%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brokers and dealers	1.0%	2.6%	-2.1%	2.8%	-2.3%	0.2%	-2.2%	0.4%	1.1%	3.8%	4.8%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Net Purchase Amounts (billions)</b>	<b>20.6</b>	<b>15.5</b>	<b>29.0</b>	<b>42.5</b>	<b>38.3</b>	<b>40.2</b>	<b>31.7</b>	<b>24.6</b>	<b>36.4</b>	<b>36.9</b>	<b>52.1</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations.

**Table 1C: Percentage of Net Bond Purchases, Non-Institutional versus Institutional Investors, 1983-1992, and 2003**

Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	2003
<b>Non-Institutional<sup>a, b</sup></b>	<b>5.8%</b>	<b>11.6%</b>	<b>27.3%</b>	<b>33.7%</b>	<b>34.2%</b>	<b>6.8%</b>	<b>19.3%</b>	<b>56.9%</b>	<b>49.6%</b>	<b>29.7%</b>	<b>30.1%</b>
<b>Institutional<sup>a, c</sup></b>	<b>93.8%</b>	<b>88.3%</b>	<b>72.9%</b>	<b>66.2%</b>	<b>65.8%</b>	<b>93.2%</b>	<b>80.5%</b>	<b>43.0%</b>	<b>50.5%</b>	<b>70.4%</b>	<b>69.9%</b>
<b>Breakdown<sup>a, d</sup></b>											
<i>Non-Institutional:</i>											
Household sector	-8.8%	-5.9%	1.9%	13.9%	20.0%	-2.7%	6.4%	53.0%	40.1%	18.4%	-17.9%
Rest of the world	15.3%	17.7%	25.3%	17.6%	11.4%	9.8%	10.9%	3.8%	7.9%	8.4%	47.3%
Bank personal trusts and estates	-0.6%	-0.2%	0.1%	2.2%	2.7%	-0.3%	2.1%	0.1%	1.7%	2.9%	0.6%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
<i>Institutional:</i>											
State and local governments	2.2%	4.5%	2.1%	0.9%	1.2%	0.6%	1.7%	0.7%	1.0%	1.4%	-0.2%
Commercial banking	11.2%	6.3%	6.4%	10.0%	15.1%	6.7%	3.6%	3.3%	3.7%	-0.7%	7.6%
Savings institutions	25.2%	12.9%	2.2%	3.7%	5.2%	8.0%	-10.9%	-13.7%	-1.4%	3.4%	-1.4%
Life insurance companies	35.9%	26.9%	26.4%	18.3%	40.6%	42.2%	44.2%	40.0%	12.3%	25.6%	22.7%
Other insurance companies	-9.0%	4.6%	5.4%	5.8%	4.5%	6.2%	11.4%	7.4%	3.6%	-0.6%	3.1%
Private pension funds	39.6%	14.2%	14.8%	12.0%	-2.4%	3.4%	10.1%	14.0%	10.3%	12.9%	1.3%
State and local govt. retirement funds	-20.6%	10.9%	3.3%	5.3%	0.2%	11.5%	12.1%	-7.4%	1.3%	5.7%	0.3%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Money market mutual funds	-0.2%	0.5%	0.1%	0.4%	0.2%	0.1%	1.2%	-1.2%	0.9%	1.2%	2.3%
Mutual funds	5.8%	1.5%	5.6%	9.1%	2.5%	2.0%	4.0%	3.3%	13.8%	14.4%	11.9%
Closed-end funds	-0.4%	-0.5%	0.2%	0.6%	1.3%	6.4%	0.1%	-0.6%	-0.8%	2.0%	6.4%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.2%
Brokers and dealers	4.3%	6.5%	6.4%	0.1%	-2.7%	6.0%	3.1%	-2.8%	5.8%	4.7%	5.5%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%
<b>Total Net Purchase Amounts (billions)</b>	<b>46.5</b>	<b>88.2</b>	<b>143.4</b>	<b>222.5</b>	<b>164.7</b>	<b>162.2</b>	<b>119.5</b>	<b>141.1</b>	<b>206.0</b>	<b>214.8</b>	<b>650.6</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations.

**Table 2A: Percentage of Net Bond Purchases, Non-Institutional (Excluding Foreign Purchases) versus Institutional Investors, 1961-1971**

Year	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
<b>Non-Institutional</b> <sup>a, b</sup>	3.6%	-11.1%	-1.6%	1.4%	-16.7%	22.7%	26.0%	35.4%	34.1%	37.8%	36.4%
<b>Institutional</b> <sup>a, c</sup>	92.9%	109.3%	101.6%	97.3%	116.7%	78.2%	73.4%	63.9%	65.9%	62.2%	63.6%
<b>Breakdown</b> <sup>a, d</sup>											
<i>Non-Institutional:</i>											
Household sector	3.6%	-11.1%	-1.6%	1.4%	-16.7%	22.7%	26.0%	35.4%	33.3%	36.0%	29.3%
Bank personal trusts and estates	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	1.8%	7.0%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Institutional:</i>											
State and local governments	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial banking	-3.6%	1.9%	-8.1%	6.8%	-1.5%	0.8%	5.3%	1.4%	-0.7%	4.9%	3.7%
Savings institutions	-3.6%	-1.9%	-4.8%	-2.7%	-1.5%	2.5%	12.4%	9.7%	4.4%	12.0%	20.2%
Life insurance companies	44.6%	46.3%	45.2%	31.1%	42.4%	20.2%	22.5%	25.7%	12.6%	6.7%	22.7%
Other insurance companies	0.0%	5.6%	0.0%	4.1%	9.1%	5.0%	4.1%	8.3%	5.9%	10.2%	1.2%
Private pension funds	21.4%	22.2%	24.2%	21.6%	22.7%	21.0%	6.5%	4.2%	4.4%	8.0%	-3.3%
State and local govt. retirement funds	30.4%	33.3%	33.9%	29.7%	34.8%	24.4%	21.9%	18.1%	29.6%	20.0%	16.1%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Money market mutual funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Mutual funds	5.4%	0.0%	3.2%	5.4%	6.1%	3.4%	-2.4%	-4.2%	6.7%	2.7%	0.8%
Closed-end funds	0.0%	0.0%	4.8%	2.7%	0.0%	0.0%	0.6%	2.1%	0.0%	-2.7%	1.7%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brokers and dealers	-1.8%	1.9%	3.2%	-1.4%	4.5%	0.8%	2.4%	-1.4%	3.0%	0.4%	0.4%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Net Purchase Amounts (billions)</b>	<b>5.6</b>	<b>5.4</b>	<b>6.2</b>	<b>7.4</b>	<b>6.6</b>	<b>11.9</b>	<b>16.9</b>	<b>14.4</b>	<b>13.5</b>	<b>22.5</b>	<b>24.2</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations, see *supra* text accompanying notes 146-147.

**Table 2B: Percentage of Net Bond Purchases, Non-Institutional (Excluding Foreign Purchases) versus Institutional Investors, 1972-1982**

Year	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>Non-Institutional<sup>a, b</sup></b>	15.6%	27.3%	46.6%	24.1%	23.3%	10.4%	-22.1%	-26.3%	-50.4%	6.2%	29.9%
<b>Institutional<sup>a, c</sup></b>	84.4%	72.7%	53.7%	75.9%	76.5%	90.4%	122.1%	125.8%	149.6%	93.8%	69.8%
<b>Breakdown<sup>a, d</sup></b>											
<i>Non-Institutional:</i>											
Household sector	9.3%	18.8%	41.3%	23.9%	21.9%	6.9%	-32.2%	-27.6%	-52.9%	5.0%	33.8%
Bank personal trusts and estates	6.3%	8.4%	5.3%	0.2%	1.3%	3.6%	10.1%	1.4%	2.6%	1.2%	-3.8%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Institutional:</i>											
State and local governments	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial banking	6.3%	1.9%	3.6%	6.9%	-0.8%	2.5%	-4.0%	5.1%	4.0%	-0.4%	1.9%
Savings institutions	12.7%	-20.1%	-0.7%	5.5%	14.7%	-3.0%	8.1%	-8.8%	21.7%	-12.7%	14.6%
Life insurance companies	34.1%	38.3%	14.2%	21.7%	45.2%	51.6%	58.1%	53.5%	32.0%	28.1%	44.5%
Other insurance companies	-3.4%	-0.6%	7.1%	5.3%	10.4%	10.2%	6.0%	9.2%	0.0%	10.8%	-1.4%
Private pension funds	9.8%	13.6%	8.2%	16.5%	-4.5%	11.8%	28.2%	49.3%	51.5%	21.5%	-2.5%
State and local govt. retirement funds	20.5%	33.8%	21.7%	15.3%	12.6%	15.4%	29.5%	13.4%	33.8%	33.1%	4.9%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Money market mutual funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.9%	-0.8%
Mutual funds	2.4%	0.6%	2.1%	1.7%	0.8%	3.0%	-2.3%	3.7%	4.8%	6.2%	0.5%
Closed-end funds	1.0%	2.6%	-0.4%	0.2%	0.5%	-1.4%	1.0%	0.0%	0.0%	0.0%	1.1%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brokers and dealers	1.0%	2.6%	-2.1%	2.9%	-2.4%	0.3%	-2.3%	0.5%	1.5%	5.4%	6.9%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Net Purchase Amounts (billions)</b>	<b>20.5</b>	<b>15.4</b>	<b>28.1</b>	<b>41.9</b>	<b>37.4</b>	<b>36.4</b>	<b>29.8</b>	<b>21.7</b>	<b>27.2</b>	<b>26.0</b>	<b>36.4</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations, see *supra* text accompanying notes 146-147.

**Table 2C: Percentage of Net Bond Purchases, Non-Institutional (Excluding Foreign Purchases) versus Institutional Investors, 1983-1992, and 2003**

Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	2003
<b>Non-Institutional</b> <sup>a, b</sup>	-11.2%	-7.4%	2.6%	19.6%	25.7%	-3.3%	9.5%	55.2%	45.3%	23.2%	-32.7%
<b>Institutional</b> <sup>a, c</sup>	110.7%	107.3%	97.6%	80.4%	74.2%	103.3%	90.3%	44.7%	54.8%	76.9%	132.7%
<b>Breakdown</b> <sup>a, d</sup>											
<i>Non-Institutional:</i>											
Household sector	-10.4%	-7.2%	2.5%	16.9%	22.6%	-3.0%	7.1%	55.1%	43.5%	20.1%	-34.0%
Bank personal trusts and estates	-0.8%	-0.3%	0.1%	2.7%	3.1%	-0.3%	2.3%	0.1%	1.8%	3.2%	1.1%
Exchange-traded funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
<i>Institutional:</i>											
State and local governments	2.5%	5.5%	2.8%	1.1%	1.4%	0.7%	1.9%	0.7%	1.1%	1.5%	-0.3%
Commercial banking	13.2%	7.7%	8.6%	12.1%	17.0%	7.5%	4.0%	3.4%	4.0%	-0.8%	14.4%
Savings institutions	29.7%	15.7%	2.9%	4.5%	5.8%	8.9%	-12.2%	-14.2%	-1.5%	3.7%	-2.6%
Life insurance companies	42.4%	32.6%	35.3%	22.2%	45.9%	46.8%	49.6%	41.6%	13.4%	28.0%	43.1%
Other insurance companies	-10.7%	5.6%	7.2%	7.1%	5.1%	6.9%	12.8%	7.7%	3.9%	-0.6%	5.9%
Private pension funds	46.7%	17.2%	19.8%	14.6%	-2.7%	3.8%	11.4%	14.6%	11.2%	14.1%	2.5%
State and local govt. retirement funds	-24.4%	13.2%	4.5%	6.4%	0.3%	12.8%	13.5%	-7.7%	1.4%	6.2%	0.6%
Federal government retirement funds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%
Money market mutual funds	-0.3%	0.6%	0.2%	0.4%	0.3%	0.1%	1.3%	-1.3%	0.9%	1.3%	4.4%
Mutual funds	6.9%	1.8%	7.5%	11.0%	2.8%	2.2%	4.5%	3.5%	15.0%	15.8%	22.6%
Closed-end funds	-0.5%	-0.6%	0.3%	0.8%	1.4%	7.1%	0.1%	-0.7%	-0.8%	2.1%	12.1%
Government-sponsored enterprises	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%
REITs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.4%
Brokers and dealers	5.1%	7.9%	8.6%	0.2%	-3.0%	6.7%	3.5%	-2.9%	6.3%	5.1%	10.4%
Funding corporations	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%
<b>Total Net Purchase Amounts (billions)</b>	<b>39.4</b>	<b>72.6</b>	<b>107.1</b>	<b>183.4</b>	<b>145.9</b>	<b>146.3</b>	<b>106.5</b>	<b>135.8</b>	<b>189.8</b>	<b>196.7</b>	<b>342.9</b>

<sup>a</sup> Note that due to rounding in the Federal Reserve figures, not all percentages will sum to 100%.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown." Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown."

<sup>d</sup> Sectors listed under non-institutional and institutional are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations, see *supra* text accompanying notes 146-147.

**Table 3: Summary Statistics for Percentages of Net Bond Purchases, Non-Institutional (Including Foreign Purchases), versus Institutional Investors, 1961-1992<sup>a</sup>**

	Minimum	Maximum	Average
Non-Institutional <sup>b, d</sup>	-18.5%	56.9%	20.7%
Institutional <sup>c, d</sup>	43.0%	118.5%	79.1%

<sup>a</sup> Since the horizon of the analysis is only 1961 to 1992, to be consistent with *infra* Section III.B, minimums, maximums, and averages are calculated only for that period. The percentages for 2003, although listed in Table 1C for comparative purposes, are not included in these calculations.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown" in Tables 1A to 1C. Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown" in Tables 1A to 1C.

<sup>d</sup> Sectors listed under non-institutional and institutional in Tables 1A to 1C are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations, see text.

**Table 4: Summary Statistics for Percentages of Net Bond Purchases, Non-Institutional (Excluding Foreign Purchases), versus Institutional Investors, 1961-1992<sup>a</sup>**

	Minimum	Maximum	Average
Non-Institutional <sup>b, d</sup>	-50.4%	55.2%	12.9%
Institutional <sup>c, d</sup>	44.7%	149.6%	86.9%

<sup>a</sup> Since the horizon of the analysis is only 1961 to 1992, to be consistent with *infra* Section III.B, minimums, maximums, and averages are calculated only for that period. The percentages for 2003, although listed in Table 2C for comparative purposes, are not included in these calculations.

<sup>b</sup> Non-institutional includes those Federal Reserve sectors listed under non-institutional below the heading "Breakdown" in Tables 2A to 2C. Bank personal trusts and estates are listed here because it is unclear whether these are professionally managed; exchange traded funds are listed here because most such funds are passively managed.

<sup>c</sup> Institutional includes those Federal Reserve sectors listed under institutional below the heading "Breakdown" in Tables 2A to 2C.

<sup>d</sup> Sectors listed under non-institutional and institutional in Tables 2A to 2C are those used by the Federal Reserve. The non-institutional/institutional division is the author's own.

Source: Federal Reserve Z.1 releases, see *supra* note 139, and author's own calculations, see text.

Clearly, more empirical work remains before any pronouncement on the reputation hypothesis, as far as investors are concerned, can be made. This

initial set of observations reveals that it could be fruitful to delve deeper into the composition of the pool of institutional investors. Are there particular institutional investors that in fact denominate the group such that there are perhaps a few institutions which might have enough clout to punish an issuer alone? Or is the buying power of institutions more evenly spread so that some level of implicit cooperation would be required before an issuer would feel the price impact? Empirical estimates of how the buying behavior of one institution impacts another would also be useful in further evaluating this hypothesis—is it possible that one disgruntled investor might take the lead in initiating retaliation? Such finer exploration of the investor side of the market could be productively paired with a more rigorous model of a reputation and retaliation mechanism, which might assist in divining boundaries on or estimates of how much investor pressure might constitute “enough.” Nevertheless, this preliminary analysis of the composition of bond market investors suggests that the reputation hypothesis is empirically possible.

## B. *Issuers*

An initial step in exploring whether issuer behavior is consistent with the reputational explanation of the refunding clause is to examine whether issuers found the clause valuable enough to continue using after *ADM* greatly weakened the clause’s legal value in August 1983. A first look at the timing of issuers’ use of the clause is taken here.

Thirty companies were randomly chosen from the *Moody’s Industrial Manual* for 1982.<sup>148</sup> Foreign companies and companies not covered in the *Moody’s Industrial Manual* were excluded. Cross-references, for all information or for debt information, were traced until a *Moody’s* report was located; if subsidiary debt was reported with the parent, the parent company was included.<sup>149</sup> This meant that bigger companies, with more listed entities, were more likely to be chosen. Using the *Moody’s Industrial Manuals* for 1982 and 1992,<sup>150</sup> data on bond covenants were collected for all of the reported

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148 MOODY’S INVESTORS SERV., MOODY’S INDUSTRIAL MANUAL 1982 (1982) [hereinafter MOODY’S 1982]. This is the first version in which the disputed ADM bonds appear in the regular section; the summary of the refunding protection for the ADM 16% debentures appears with the other ADM information, 1 MOODY’S 1982, *supra*, at 2572, rather than in the addenda as occurred in the previous edition, 1 MOODY’S INVESTORS SERV., MOODY’S INDUSTRIAL MANUAL 1981, at 3064 (1981).

The selection process was based on using random numbers to choose companies from the table of contents. Fifteen companies were selected from each volume, (volume 1 covers names starting with A through I; volume 2 covers J to Z). A random number generator was used to pick a page on the table of contents of the manual, and another random number was used to pick a company from the entries on that page. Random selections of excluded companies, such as foreign companies, were disregarded and replaced with another random draw. The one instance where a previously selected company was picked a second time was treated the same way.

149 In this way, the selection of Marathon Oil led to the inclusion of U.S. Steel’s bonds, while the choice of the Sunbeam Corporation led to the inclusion of all of the debt of Allegheny International.

150 MOODY’S 1982, *supra* note 148; MOODY’S 1992, *supra* note 35.

bonds of each of the thirty companies at these two points in time. Only eighteen of the companies had survived to 1992.<sup>151</sup> The depth of *Moody's* coverage varies; all bonds that were described in sufficient detail, such that it was possible to discern whether the debt indenture contained a refunding covenant, were included.<sup>152</sup> Debt of all seniorities was included, as was subsidiary debt if it was reported with the parent. Although often described sufficiently, convertible securities and preferred stock were excluded.<sup>153</sup>

The final survey covered 123 bonds.<sup>154</sup> Because outstanding bonds continue to be reported in later *Moody's* manuals, the earliest issue date was in 1961. The latest was in 1992. A result of *Moody's* varying treatment depth is that only fifteen of the thirty companies have bonds in this set of 123, and the represented fifteen tend to be companies with large market capitalizations.<sup>155</sup> Table 5 lists the thirty companies, ordered by 1981 market capitalization, indicating how many bonds from each issuer are surveyed. Table 5 makes clear that, despite the random selection of the companies, depending on *Moody's* for details tilted the survey heavily towards the bonds of larger companies.<sup>156</sup>

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151 MOODY'S 1992, *supra* note 35. Debt of companies that merged into other companies, went out of business, went private, or simply could not be found in the MOODY'S 1992, was not further investigated for inclusion in the data set. For details regarding each of the twelve companies that were not found in MOODY'S 1992, see *infra* notes accompanying Table 5.

152 From the *Moody's* description of the ADM 16% debentures' call and refunding protection, 1 MOODY'S 1982, *supra* note 148, at 2572, it is clear what level of detail is necessary to make this determination. In total, 350 different securities were noted, with 164 of them being described in sufficient detail to be usable. This group was then further reduced by excluding certain types of securities, see *infra* note 153 and accompanying text.

153 This resulted in dropping eleven sufficiently described convertible bonds, fifteen convertible preferred stocks, and fourteen regular preferred stocks. Although the preferred stocks were often described in enough detail to determine call provisions and terms, they seldom had issue dates.

154 After removing convertible and preferred securities, 124 bonds remained, one of which had to be dropped due to data entry problems.

155 The *Moody's Industrial Manual* gives each company's high and low stock price for the previous year, as well as shares outstanding (but not all figures are as of the same dates, either within a company or across companies). Market capitalization here means the average of the high and low market capitalization figures as computed from this information in MOODY'S 1982, *supra* note 148, which gives stock data for the previous year, 1981.

156 To the extent that larger companies tend to issue debt more frequently and are likely to survive for longer, as is suggested by Table 5, this bias might be expected to result, if the reputation hypothesis is correct, in more uses of the refunding clause being found within this sample than among bond issuers in general.

Table 5: Issuers in the Bond Data Set

Company	Average 1981 Market Capitalization (\$ millions) <sup>a</sup>	Present in <i>Moody's</i> 1992?	Number of bonds in data set	Percentage of data set
Mobil Corp.	14,092.8	Yes	17	13.8%
Atlantic Richfield Company	12,629.8	Yes	31	25.2%
Occidental Petroleum Corp.	2,688.8	Yes	20	16.3%
United States Steel	2,655.1	Yes	15	12.2%
Rockwell International Corp.	2,621.2	Yes	9	7.3%
Cabot Corp.	936.7	Yes	2	1.6%
Holiday Inns, Inc.	894.7	No <sup>b</sup>	2	1.6%
Rohm and Haas Company	761.3	Yes	9	7.3%
Valero Energy Corp.	680.0	Yes	6	4.9%
Geosource, Inc.	584.8	No <sup>c</sup>	0	0.0%
Allegheny International, Inc.	470.5	No <sup>d</sup>	5	4.1%
Analog Devices, Inc.	201.6	Yes	0	0.0%
Lee Enterprises, Inc.	183.0	Yes	0	0.0%
MacMillian, Inc.	182.4	No <sup>e</sup>	1	0.8%
Core Industries Inc.	149.3	Yes	0	0.0%
North American Coal Corp.	107.8	Yes	1	0.8%
Condec Corp.	84.1	No <sup>f</sup>	2	1.6%
Commercial Metals Co.	82.7	Yes	0	0.0%
Stride Rite Corp.	71.9	Yes	0	0.0%
Commonwealth Oil Refining Co., Inc.	47.8	No <sup>g</sup>	0	0.0%
Amedco, Inc.	30.7	No <sup>h</sup>	0	0.0%
APL Corporation	26.4	No <sup>i</sup>	2	1.6%
Friedman Industries, Inc.	23.1	Yes	0	0.0%
National Homes Corporation	22.6	No <sup>j</sup>	0	0.0%
Guardsman Chemical, Inc.	17.2	Yes	0	0.0%
REDM Industries, Inc.	13.9	No <sup>k</sup>	0	0.0%
Hudson General Corp.	13.8	Yes	1	0.8%
Barnes Engineering Co.	11.8	No <sup>l</sup>	0	0.0%
Systems Planning Corp.	9.3	Yes	0	0.0%
Homasote Co.	8.4	No <sup>m</sup>	0	0.0%
		<b>TOTAL:</b>	<b>123</b>	<b>100.0%</b>

<sup>a</sup> See *supra* note 155 for an explanation of these numbers.

<sup>b</sup> Merged into Holiday Corp., and in 1990 merged into Bass PLC. 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1990 (1990) [hereinafter MOODY'S 1990] (listing changes in "Additional Companies Formerly Included" section).

<sup>c</sup> Merged into an Aetna Life & Casualty Co. subsidiary in 1982. 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1983 (1983) (listing change in "Additional Companies Formerly Included" section).

<sup>d</sup> Merged into Japonica Partners subsidiary Sunbeam-Oster Company, Inc., in 1990. 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1991 (1991) [hereinafter MOODY'S 1991] (listing change in "Additional Companies Formerly Included" section).

<sup>e</sup> Merged with Maxwell Communications in 1988. 2 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1989 (1989) [hereinafter MOODY'S 1989] (listing change in "Additional Companies Formerly Included" section).

<sup>f</sup> Changed name to VBQ, Inc. and became private. *Id.* (listing change in "Additional Companies Formerly Included" section).

<sup>g</sup> Disappears from *Moody's* without explanation between 1990 and 1991. Compare 1 MOODY'S 1990, *supra* note b, at 2775-77 (reporting on Commonwealth Oil Refining Co., Inc.), with 1 MOODY'S 1991, *supra* note d (not mentioning Commonwealth Oil Refining Co., Inc.).

<sup>h</sup> Merged in 1986 with Service Corp. Intl. 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1987 (1987) [hereinafter MOODY'S 1987] (listing change in "Additional Companies Formerly Included" section).

<sup>i</sup> Disappears from *Moody's* without explanation between 1988 and 1989. Compare 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1988 (1988), at 2575-76 (reporting on APL Corp.), with 1 MOODY'S 1989, *supra* note e, (not mentioning APL Corp.).

<sup>j</sup> Changed name to National Enterprises, Inc. in 1986, 1 MOODY'S INVESTORS SERV., MOODY'S INDUSTRIAL MANUAL 1986 (1986) [hereinafter MOODY'S 1986] (listing change in "Additional Companies Formerly Included" section), which filed for Chapter 11 bankruptcy in 1990, 2 MOODY'S 1991, *supra* note d, at 5987.

<sup>k</sup> Disappears from *Moody's* for lack of new information, between 1985 and 1986, MOODY'S 1986, *supra* note j (listing change in "Additional Companies Formerly Included" section).

<sup>l</sup> Merged with an EDO Corp. subsidiary in 1987. 1 MOODY'S 1987, *supra* note h (listing change in "Additional Companies Formerly Included" section).

<sup>m</sup> Disappears from *Moody's* without explanation between 1990 and 1991. Compare 1 MOODY'S 1990, *supra* note b, at 3095-96 (reporting on Homasote Co.), with 1 MOODY'S 1991, *supra* note d (not mentioning Homasote Co.).

Source: MOODY'S 1982, *supra* note 148; MOODY'S 1992, *supra* note 35; author's calculations, *see text*.

Special attention was paid to each bond's call, sinking fund, and refunding protection characteristics. Using as a template the summary language on the

ADM 16% debentures,<sup>157</sup> other bonds with similar summaries were counted as having the same provision. Assuming this connection between the summaries and indenture language seems reasonable. The ADM refunding clause was a boilerplate provision,<sup>158</sup> making it likely that other bonds would use the same language—and there is no reason why *Moody's* would not summarize the same terms in the same way. Additionally, this notion that the same type of summary indicates the same type of refunding protection is bolstered by examples where the summaries changed to note additional features.<sup>159</sup> Finally, it is important to note that these summaries did not change after the *ADM* decision. One would expect that if any of the suggested changes to the refunding clause had been implemented, making a substantial change to the clause, *Moody's* would have altered its summaries to reflect this.<sup>160</sup>

The 123 bonds were separated into two groups based on whether they were issued before or after the August 19, 1983 *ADM* decision. Within each group, the number of callable bonds without refunding clauses, and the number of callable bonds with them, were counted. These two groups of callable bonds were further parsed for the number of bonds with sinking fund provisions. For bonds that were callable, had a refunding prohibition for some period, and also had a sinking fund, the sinking fund terms were explored to see if they were “consistent” with the terms of the refunding clause.<sup>161</sup> Non-callable bonds were

157 *Moody's* summarized the ADM refunding clause by giving the bond's call schedule, followed by: “Also callable for sinking fund (which see) at 100. Not callable, however, prior to May 15, 1991 thru refunding at an interest cost of less than 16.08% per annum.” 1 MOODY'S 1982, *supra* note 148, at 2572.

158 *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, 570 F. Supp. 1529, 1535 (S.D.N.Y. 1983) (noting that the ADM refunding protection language was “apparently taken verbatim” from model indenture provisions).

159 For instance, the summary of U.S. Steel's Texas Oil & Gas Corp. 11.5% debentures due November 2002 includes the standard refunding prohibition language, but also includes the proviso that an officers' certificate is sufficient evidence that any bond calls are not a part of a prohibited refunding. 2 MOODY'S 1992, *supra* note 35, at 6462. Another example is Valero Energy Corp.'s Coastal States Gas Producing Co., 7.75% Series E bonds due 1991; after the usual language on refunding prohibitions, the summary adds that redemptions as a result of eminent domain actions would be done at par. 2 MOODY'S 1982, *supra* note 148, at 4593. For more on redemptions relating to eminent domain, see Blanc & Gordon, *supra* note 30, at 323, 329. A few other bonds' summaries also explicitly noted restrictions on redeeming the bonds through sale and leaseback transactions. Because neither the eminent domain nor officers' certificate information seem to reduce the issuer's ability to redeem bonds within the refunding call protection period, both of those bonds were counted as instances of ADM-like refunding clauses. Since the ADM provision itself included a sale and leaseback condition, *Archer Daniels Midland*, 570 F. Supp. at 1535, the bonds where those conditions were listed explicitly were also counted as examples of standard, ADM-like refunding clauses.

160 See *supra* text accompanying notes 31-32 for the suggested improvements of Fisher and Greenfield. No hint of any such change is given in any of the *Moody's* summaries of refunding protection, suggesting that it is much more likely that the summarized bonds had provisions like the one found in the ADM 16% debentures rather than incorporating the suggested improvements.

161 A sinking fund was “consistent” with a refunding clause if sinking fund payments were scheduled to begin only after the refunding prohibition had passed. If the sinking fund allowed some of the bonds to be called before the refunding clause's term expired, so that the clause's prohibition against early retirement would not protect bondholders against some early redemptions for the sinking fund, the sinking fund provision was “inconsistent.”

also tallied and sub-divided based on the existence or lack of a sinking fund. Table 6 provides these counts, with all breakdowns also computed as percentages of the total number of bonds in the set for that time period.

Table 6 shows that, in this survey, use of the refunding clause fell steeply after *ADM* in 1983; refunding clauses were found in approximately 30% of the pre-*ADM* sample, but only in about 4% of the post-*ADM* sample.<sup>162</sup> This observation does not support the reputation explanation, but does not necessarily disprove the hypothesis either. Table 6 also illustrates a massive drop in issuers' use of callable bonds without the refunding clause, which made up approximately 70% of the pre-*ADM* sample but only about 21% of the post-*ADM* sample. In the later data, non-callable debt makes large gains, leaping from zero observations in the pre-*ADM* data to composing 75% of the post-*ADM* bonds.<sup>163</sup> At the same time, this survey suggests that sinking funds fell into disfavor: A total of just over 82% of the pre-*ADM* bonds had sinking funds,<sup>164</sup> while only about 4% of the post-*ADM* bonds did.<sup>165</sup> All of these changes suggest that more factors, beyond just the legal decision in *ADM*, were shifting during this time; future research could productively tease out these different strands.

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162 Note that this observation creates a tension with the Coffee and Klein suggestion cited above, *supra* note 33, that "investors like Morgan Stanley continued to accept the same language in obligations issued after the [*ADM*] decision." Coffee & Klein, *supra* note 33, at 1254 n.136.

163 This decreased popularity of callable debt in more recent times accords with Kish's observation of relatively fewer bonds with calls in the 1987-1996 period, as opposed to the 1977-1986 period. Kish, *supra* note 34, at 83 n.8.

164 The pre-*ADM* estimate here accords with Smith and Warner's report that 82% of public bond issues in the years 1963 to 1965 had sinking funds. Smith & Warner, *supra* note 101, at 131.

165 The observations here on sinking funds do not line up perfectly with Allen, Lamy, and Thompson's characterizations of their data on the presence of sinking funds relative to call protection and refunding protection. See Allen et al., *supra* note 34, at 40, 41 & Exhibit 2. This may be due to differences in data set size or time covered.

**Table 6: Breakdowns of Provisions in the Surveyed Bonds**

Set and Subset Description <sup>a</sup>	Number of Bonds	Percentage of Bonds Issued in the Time Period
<b>Issued Before <i>ADM</i></b>	<b>67</b>	<b>100.0%</b>
<b>(Before August 19, 1983)</b>		
<i>Callable, Without Refunding Clauses</i>	47	70.1%
With Sinking Fund	35	52.2%
Without Sinking Fund	12	17.9%
<i>Callable, With Refunding Clauses</i>	20	29.9%
With Sinking Fund	20	29.9%
Consistent Sinking Fund	12	17.9%
Inconsistent Sinking Fund	8	11.9%
Without Sinking Fund	0	0.0%
<i>Non-Callable</i>	0	0.0%
With Sinking Fund	0	0.0%
Without Sinking Fund	0	0.0%
<b>Issued After <i>ADM</i></b>	<b>56</b>	<b>100.0%</b>
<b>(After August 19, 1983)</b>		
<i>Callable, Without Refunding Clauses</i>	12	21.4%
With Sinking Fund	1	1.8%
Without Sinking Fund	11	19.6%
<i>Callable, With Refunding Clauses</i>	2	3.6%
With Sinking Fund	1	1.8%
Consistent Sinking Fund	1	1.8%
Inconsistent Sinking Fund	0	0.0%
Without Sinking Fund	1	1.8%
<i>Non-Callable</i>	42	75.0%
With Sinking Fund	0	0.0%
Without Sinking Fund	42 <sup>b</sup>	75.0%
<b>TOTAL NUMBER OF BONDS:</b>	<b>123</b>	

<sup>a</sup> For explanations of these sets and subsets, see text.

<sup>b</sup> This count includes two bonds for which no sinking fund information is provided.

Source: MOODY'S 1982, *supra* note 148; MOODY'S 1992, *supra* note 35; author's own calculations.

One major factor that could have swamped the impact of the *ADM* decision is the change in interest rates that took place over this period. The

current observations are insufficient for an analysis of interest rate impacts,<sup>166</sup> but some intuition can be gleaned from the overall trend in interest rates, as seen in the Federal Reserve's H.15 historical interest rate release data on 10-year treasury rates, interest rates for corporate bonds rated Aaa by Moody's, and interest rates for Baa-rated corporate debt.<sup>167</sup> Figure 1 charts these three Federal Reserve data series from 1961 through 1992. As Figure 1 shows, the late 1970s were a time of historically high interest rates, and *ADM* was decided as rates were dropping sharply. As the cost of attaching a call generally decreases with lower interest rates,<sup>168</sup> the value of calls in new issues may very well have been falling over the post-*ADM* period.<sup>169</sup> The lower value of calls may have led managers to seek fewer calls in new issues, or when they did, the fact that the calls were becoming cheaper relative to the late 1970s might have led managers to be less concerned with cost containment measures such as refunding prohibitions.

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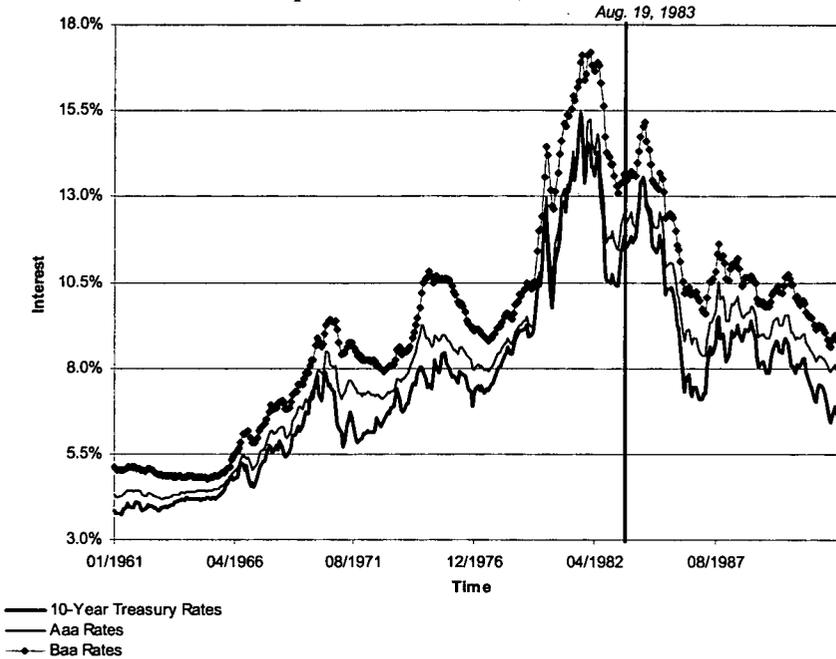
166 The number of bonds is too small, given the dispersion of the bonds over issuance times and maturities, not to mention differences in industry and credit factors, to conduct any meaningful analysis.

167 Federal Reserve Statistical Release, Board of Governors of the Federal Reserve System, H.15 Selected Interest Rates, Historical Data, <http://www.federalreserve.gov/Releases/h15/data.htm> (last visited May 24, 2004). Figure 1 uses the monthly frequency of the Treasury constant maturities, nominal, 10-year series, and the Moody's seasoned Aaa and Baa series. While it is unclear from the Federal Reserve release what treasury benchmark the corporate series are built on top of, Figure 1 suggests that use of the 10-year Treasury rate for comparison is reasonable. Note, however, that subtracting the 10-year Treasury rate from the Aaa series results in seven observations of negative spreads (out of a total of 384 observations used here).

168 See Kish, *supra* note 34, at 78, 83 n.3. Note that call valuation can, however, become complicated.

169 Given that the decision to exercise a call is related to the remaining value retained when not exercising the option, King and Mauer's evidence of "an explosion of call activity in the 1986-94 period" that "coincided with a sharp decrease in interest rates in 1986," and the inverse relationships they find between number of calls and interest rates, as well as the number of calls and yield volatility, King & Mauer, *supra* note 56, at 407, 408 & tbl.1, 409 fig.1, all suggest that the values of bond calls as open options were falling in the late 1980s. Others have noted the fall in value of call protection, as opposed to refunding protection, after 1986. See WILSON & FABOZZI, *supra* note 6, at 182.

**Figure 1: 10-Year Treasury Rates, Aaa Corporate Bond Rates, and Baa Corporate Bond Rates, 1961-1992<sup>a</sup>**



<sup>a</sup> Data frequency is monthly. See *supra* note 167 for explanation of data series.

Source: Federal Reserve Statistical Release, *supra* note 167.

Besides the fall in interest rates, it may also be that other possibilities came about which made the self-enforced, reputation-driven refunding clause less appealing in comparison.<sup>170</sup> Perhaps the decrease in sinking funds is related to the increase in non-callable debt. Maybe issuers were willing to give up some flexibility (being unable to call debt) to gain other flexibility by freeing up cash that would otherwise have been locked up in sinking funds. Meanwhile, investors might be willing to gain protection against issuer calls that take bond market gains, at the risk of allowing increased issuer appropriations of bondholder wealth by other means.<sup>171</sup> This particular suggested trade-off may be too simple,<sup>172</sup> and some empirical evidence seems

170 The emergence of make-whole calls is not a viable explanation for the drop off in use of the refunding clause, as make-whole calls were not introduced into the public market until over a decade later. Mann & Powers, *supra* note 72, at 535.

171 One possible way that sinking funds help bondholders is to rein in the costs of dividend constraints—since dividend constraints push companies to invest rather than pay out dividends, they can create pressure to invest in unprofitable projects; sinking funds create an outlet for payments that reduces the odds of dividend constraints forcing such poor investment choices. Smith & Warner, *supra* note 101, at 131. Smith and Warner also give other possible benefits of sinking funds as well. *Id.*

172 See Kish, *supra* note 34, at 81 (discussing how sinking funds have conflicting factors, some of which benefit investors while others work against them).

to be to the contrary.<sup>173</sup> Nevertheless, the observation remains that the use of calls and the use of sinking funds both appear to have changed drastically during this period, and these changes, conceivably paired with other factors not observed in the current survey, may have evolved to solve the problem originally targeted by the refunding clause. This alternative may have competitively edged out the refunding clause even if the posited reputation mechanism existed. This could be the case if the refunding clause's efficacy had been supported by the tandem of the reputation mechanism together with some probability of legal enforceability, and—once *ADM* reduced the probability of legal success—the reputation mechanism was simply not powerful enough when standing alone.

These initial empirical observations help to focus future research by suggesting a number of avenues to explore.<sup>174</sup> Future inquiries on the issuer side of the market should not rely only on the survey approach taken in this Note's preliminary investigations. Rather, future studies should focus on isolating those companies that did continue to use the refunding clause,<sup>175</sup> and examining the circumstances surrounding their employment of the provision—were these companies frequent issuers, and what interest rates were attached to those bonds? Were the companies that continued to use the clause centered in any specific industries which might have peculiar characteristics?<sup>176</sup> As noted above,<sup>177</sup> interest rates were likely to have been an important driver of changes in bond covenants during this particular time, so empirical study of the impact of falling rates on the value of calls could be beneficial in shedding light on that alternative explanation for the decrease in use of refunding protection.<sup>178</sup> Furthermore, such a study might consider how the general decrease in interest

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173 Kish's regression estimates suggest that the existence of a sinking fund increases bond yields, just as a call does. *Id.* at 82, 87 tbl.2. This would suggest that removing calls and sinking funds both work in favor of investors, and thus would not arise as a bargain where both the issuer and investor are compromising. However, Kish's sinking fund estimates are mostly statistically insignificant. *Id.*

174 Another mystery, aside from the topic of this Note, is reconciling the work linking agency costs to callable debt, see Bodie & Taggart, *Investment Opportunities*, *supra* note 63; Barnea et al., *supra* note 65; Thatcher, *supra* note 61, with the observed drop in callable debt issuance. If bond calls are tied to agency costs, then the observations here of the lessened use of callable bonds require an explanation of some sort of change in agency costs over this time.

175 Of the thirty companies surveyed here, those companies were North American Coal Corp. (which used a refunding clause in its 12.375% senior subordinated debentures of Hyster-Yale Materials Handling, Inc., issued in 1989) and Atlantic Richfield Company (which used the clause in its 9.35% ARCO Chemical bonds issued in 1989). In addition, the companies listed in the Appendix continued to use refunding clauses.

176 The average length of refunding restrictions on the bonds in Kish's 1980-1986 dataset was roughly the same across the industrial, financial, and utility sectors. Kish, *supra* note 34, at 79. This may suggest that there was not great sector variation in use of the refunding clause; however, note that Kish's sample only extended to 1986 and thus does not cover a large part of the period in question here. More importantly, even if different sectors provided protection for the same amount of time on average, this still does not imply that the frequency or distribution of use by each sector was the same.

177 See *supra* text accompanying notes 166-169.

178 This would also help illuminate the causes behind the observed drop in use of callable bonds generally.

rates was spread over industries, and if there was any relationship between this and the types of companies that continued to use refunding clauses. A pricing study might also distinguish between the discounting hypothesis and the reputation hypothesis by revealing whether price impacts were widespread or issuer-specific.<sup>179</sup> Finally, in-depth empirical study of other developments in bond structuring would be useful to determine whether other means evolved to supplant the refunding clause in policing the division of benefits between bondholders and shareholders.

#### IV. Conclusion

Surprising the markets with publicly available information is an event that itself is surprising. Yet on the surface, that was apparently what occurred when ADM called its 16% debentures in 1983, eight years before the expiration of refunding protection. The resulting drop in bond prices triggered a lawsuit against ADM by the large, sophisticated investment bank Morgan Stanley. ADM prevailed, a legal result which was not shocking given an existing precedent. Also, there had been other cases where issuers had been allowed to retire bonds at special prices despite the presence of refunding clauses. It is particularly curious that the *ADM* litigation arose at all, and that some bonds continued to have refunding clauses even after *ADM* was decided.

This Note articulates a number of reasons that explain the *ADM* episode. One possibility is that bond indentures are simply irrelevant for investors, being either ignored or the victim of a rational decision to focus resources on issues other than understanding legal details. Two other possibilities exist that conflict less with notions of efficient capital markets and ascribe more rationality to the market's behavior. First, investors could have internalized the information about refunding clauses' legal weaknesses to reassess the prohibitions' total value, discounting the value of the measures accordingly. The value of the provision would not be zero after the *Franklin* precedent, or even after *ADM*, and thus the credit offered by some rational investors might still lead certain issuers to include refunding clauses. Second, the refunding clause might be a division of benefits that is too fine for legal policing, but is enforced by extra-judicial, reputational means. The clause may be a signal by issuers that they might call their bonds for legitimate business reasons, but will not do so only to take gains from interest rate movements away from bondholders. Investors credit issuers for this pledge with lower yields at issuance. Issuer defections result in erosion of an issuer's overall reputation and such issuers are penalized by the infliction of higher costs when raising debt in the future. Upon an event that reveals the weakness of refunding clauses, the discounting hypothesis suggests that widespread, cross-issuer devaluations of debt with the clauses are

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179 See *supra* note 57 and accompanying text; *supra* text accompanying notes 108-109, 129-136.

likely to result, while the reputation hypothesis would be more consistent with issuer-specific devaluations, triggered by suspicious actions.

This Note also makes some initial empirical observations that suggest certain directions for future investigation. Consideration of investors reveals that sophisticated institutional investors compose a large proportion of bond buyers, suggesting that the conditions do exist on the investor side of the market to make enforcement of implicit bargains possible. These observations also suggest that future research should inquire into the makeup of the institutional subset of bond buyers, probing whether there are dominant players and how the actions of one investor might influence others. Such research would also be usefully supplemented with more formal modeling of the reputation and retaliation mechanism. Observations of the issuer side of the market were less supportive; a survey of bond covenants showed a large drop in the use of refunding clauses after *ADM*, even though the reputation hypothesis would suggest that the legal decision should not reduce the clause's utility so sharply. These preliminary observations also expose, however, a large change in the use of callable bonds in general, as well as big declines in sinking fund usage. These changes, along with the background of falling interest rates during the period studied, strongly suggest that many other factors could have been at play. The initial survey performed here points the way to more fruitful empirical studies. Future work should concentrate on bonds issued after *ADM* that still used refunding clauses, exploring the characteristics of those issuers; pricing studies and further exploration of innovations in bond covenants would also elucidate the issue by helping to control for, and isolate, other simultaneous changes in the bond market.

The argument presented here suggests that refunding clauses may return if interest rates were to rise sharply. Although today there exist possible alternatives, such as make-whole calls,<sup>180</sup> it is not clear that such alternatives would dominate. The refunding clause can provide issuers with more flexibility than a make-whole call, which is generally priced to be so punitive that the literal right to force an investor to surrender a bond at the make-whole price is

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180 It is beyond the scope of this Note to analyze whether make-whole calls can substitute for and serve the same functions as the calls with refunding protection that are the subject of this Note. It suffices to note initially that "the make-whole call provision, unlike a fixed-price call provision, is not structured as a refunding vehicle. Rather, the make-whole call provision is structured to enable a firm to retire debt should circumstances arise, without relying exclusively on a tender offer." Mann & Powers, *supra* note 72, at 544. These authors argue "that the appropriate way to characterize a make-whole call provision is as a cap on the price of a successful tender offer." *Id.* at 553.

To the extent that legitimate business purposes, of the type that would underlie a non-offending call of bonds with a refunding clause, could be attained by a capped tender offer, it may be possible to construe a make-whole call as an alternative to a call with refunding protection. The make-whole call, however, has the crucial distinction of having a floating call price, which is generally expected to be higher than market price, *see id.* at 536, 538. These distinctions would have to be further investigated before more conclusive comparisons of make-whole calls and calls with refunding protection could be made. For more on the mechanics and benefits of make-wholes, *see id.* at 537-38; WILSON & FABOZZI, *supra* note 6, at 219 n.10.

not particularly powerful—if it were, there would not be the level of offering yields that lead to an issuer attitude of make-whole calls as “costless.”<sup>181</sup> If rates rise such that issuers need valuable tools, they should expect to pay for them, and the refunding clause may yet reemerge as an attractive intermediate cost option.

More generally, additional research into the power of legal agreements outside of the legal system may better inform our understandings of the complex and varied outcomes that markets produce. As Fleischer has urged, “when academics read and interpret contracts, we should try to account fully not just for the explicit terms of the contract, but for the informal understandings and institutional considerations, like reputation, that help explain behavior.”<sup>182</sup> Not only must researchers be aware of the non-legal milieu that surrounds and adds to legal considerations, but also of the ways in which legal elements can themselves serve as crucial components within extrajudicial systems. Brooks has developed one example of this phenomenon, with the argument that residential racial covenants have served as informal guides, helping to perpetuate racial segregation despite being legally unenforceable.<sup>183</sup> The reputation hypothesis elaborated in this Note continues the work in this vein, exploring the ways that legal provisions might operate as conventions between repeat players. The general idea that conventional legal devices might be intertwined with extra-legal processes so as to function beyond the traditional notions of law is a powerful one, which if further investigated might lead to new and unexpected understandings of familiar legal constructs.

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181 Mann & Powers, *supra* note 72, at 552. *But see id.* at 553 (noting the conflict between empirical findings of make-whole calls being priced and CFOs’ opinions).

182 Victor Fleischer, *Fickle Investors, Reputation, and the Clientele Effect in Venture Capital Funds*, 40 WILLAMETTE L. REV. 813, 820 (2004). Fleischer’s statement arises in an argument for taking reputation into account as an additional penalty on top of the contractually stipulated penalty found in venture capital financing agreements. *Id.* at 813-20.

183 See Richard R. W. Brooks, *Covenants & Conventions* (Northwestern Law & Econ. Research Paper Series, Research Paper No. 02-8, 2002) (discussing the value placed on residential racial covenants in Chicago, despite being legally unenforceable, as a result of violent enforcement, the covenants’ facilitation of coordination, and the role of covenants as a commitment mechanism in a prisoner’s dilemma setting), available at <http://ssrn.com/abstract=353723>.

## Appendix

**Examples of Bonds Issued After *ADM*, with Refunding Clauses**

Company	Description	Coupon	Issue Date	Due Date	Citation <sup>a</sup>
Anheuser-Busch Companies, Inc.	Debenture	8.625%	12/1/86	12/1/16	Vol. 1, 931
Anheuser-Busch Companies, Inc.	Debenture	10.000%	7/5/88	7/1/18	Vol. 1, 932
Brunswick Corp.	Debenture	9.875%	6/1/86	6/1/16	Vol. 1, 1034
Capital Cities/ABC Finance Co. Inc. <sup>b</sup>	Debenture	8.750%	2/11/86	3/15/16	Vol. 1, 2713-14
Caterpillar Inc.	Debenture	10.125%	6/1/87	6/1/17	Vol. 1, 1045-46
Eaton Corp.	Debenture	8.500%	8/15/86	1/15/17	Vol. 1, 212-13
Emhart Corp. <sup>c</sup>	Debenture	9.250%	8/15/86	8/25/16	Vol. 1, 995
Hershey Foods Corp.	Debenture	9.125%	11/18/86	11/15/16	Vol. 1, 1222
Ralston-Purina Co.	Debenture	9.500%	6/4/86	6/1/16	Vol. 2, 6160
Ralston-Purina Co.	Debenture	9.375%	7/1/86	7/1/16	Vol. 2, 6160
Ralston-Purina Co.	Debenture	10.450%	1/15/88	1/15/18	Vol. 2, 6160
Time Warner, Inc. <sup>d</sup>	Debenture	8.750%	3/27/87	4/1/17	Vol. 2, 6381
Unisys Corp.	Senior Debenture	9.750%	8/26/86	9/15/16	Vol. 2, 6434
Viacom, Inc. <sup>e</sup>	Senior Subordinated Notes	11.800%	7/28/88	7/15/98	Vol. 2, 6481

<sup>a</sup> Volume and page references to MOODY'S 1992, *supra* note 35, for each bond description.

<sup>b</sup> Guaranteed by Capital Cities/ABC Inc.

<sup>c</sup> A Black & Decker Corp. subsidiary.

<sup>d</sup> Issuing entity is Time Inc.

<sup>e</sup> Issuing entity is Viacom International, Inc.

Source: MOODY'S 1992, *supra* note 35.