The Chrysler Effect:
The Impact of the Chrysler Bailout on Borrowing Costs*

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January, 2011

Abstract

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Keywords: Chrysler, bailout, bankruptcy, TARP, government regulation, cost of capital.
JEL Classifications: G10, G14, G18, G31, G32, G33, G34, K2, K22, H5.

* We thank Kenneth Ayotte , Murillo Campello, Asli Demirguc-Kunt, Riz Mokal, Nejat Seyhun, an anonymous referee and participants at the 2010 Conference on Empirical Legal Studies for helpful comments and suggestions. All errors are our own.

Abstract

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I. Introduction

In late 2008 and early 2009, the outgoing Bush and incoming Obama administrations announced a series of steps to assist Chrysler, the struggling automaker, in an extraordinary intervention into private industry. Some charge that the government, in implementing the bailout, impermissibly favored the auto union over Chrysler's secured lenders. As these critics see it, the government attempted to save the politically powerful union by elevating the unsecured claims of organized labor above the secured claims of the lenders, contrary to well-established creditor priorities in bankruptcy. If the critics are correct, the Chrysler bailout could represent an overturning of bankruptcy law in the U.S.

A long-standing principal of bankruptcy law requires that a debtor's secured creditors be repaid, in full, before its unsecured creditors receive anything. However, critics argue that the government structured Chrysler's bankruptcy reorganization so that Chrysler's unsecured creditor, the auto union, got paid before Chrysler's secured creditors were fully repaid. The auto union walked away from the reorganization with $1.5 billion in cash, a $4.6 billion note, and a majority equity stake in the reorganized Chrysler, despite the fact that Chrysler's secured lenders had not been repaid in full. Although they had a $6.9 billion secured claim on Chrysler, the lenders received only $2 billion in the reorganization, or twenty-nine cents on the dollar.

As critics view the Chrysler reorganization, the bankruptcy laws established by Congress were arbitrarily overthrown by an act of the Executive, undermining long-established tenants of debt financing. They believe that, in protecting the interests of taxpayers, the Treasury negotiated aggressively with the secured creditors but, in protecting the interests of organized labor, the Treasury offered the union special treatment.[1] Hence, the critics attack the Chrysler reorganization as a government transfer of value from one group to another based on political considerations in place of

[1] The Treasury negotiated aggressively in the reorganizations, extracting significant concessions. Some felt that "the government was too tough, or too tough with the wrong parties." CONG. OVERSIGHT PANEL, SEPTEMBER OVERSIGHT REPORT: THE USE OF TARP FUNDS IN THE SUPPORT AND REORGANIZATION OF THE DOMESTIC AUTOMOTIVE INDUSTRY 111 (2009) [hereinafter "PANEL REPORT"]. The negotiations reportedly gave rise to "allegations of threats and bullying." PANEL REPORT, *supra*, at n.506 (noting that the panel's staff contacted many of the parties involved in the transactions to substantiate the allegations, but none of the inquiries received a response).

established law. As one participant interpreted the transaction, the assets of retired Indiana policemen (which were invested in Chrysler's secured debt) were given to retired Michigan autoworkers.[2] Critics wonder "why the UAW funds should be favored over other retirement funds, those that invested in Chrysler secured debt."[3] Chrysler's secured creditors argued that the "government is penalizing people … for having funded [their] retirement with … bonds" and that they were "being ignored in negotiations and singled out to bear the greatest share of the cost of restructuring."[4] Others believed that "everything this Treasury touches turns to politics."[5] Chrysler's secured creditors argued that the deal is "overturning the rule of law and practices that have governed our … bankruptcy code for decades."[6] Critics assert that this disregard of creditors' rights represents a precedent-setting distortion of bankruptcy priorities, opening the door to future distributions of assets to favorite political groups.

Critics warn that the Chrysler reorganization will have severe consequences in financial markets, disrupting credit markets and increasing the cost of debt for borrowers. Financial experts such as Warren Buffett have stated that the federal government's actions in the bankruptcy can have "a whole lot of consequences" for deal making.[7] According to Buffett, the government's treatment of Chrysler's secured creditors is "going to disrupt lending practices in the future. If we want to encourage lending in this country, we don't want to say to somebody who lends and gets a secured position that the secured position doesn't mean anything."[8] Buffett's concerns echo those of many debt market participants, who fear that "lenders may be unwilling to back unionized companies."[9] Those participants believe "lenders will have to figure out how to price this risk …. [Either] don't lend money to a company with big legacy liabilities, or demand a

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[2] PANEL REPORT, *supra* note 1, at 52.
[3] Adler (2009) at 6.
[4] Dennis Buckholtz, Op-Ed., *GM Bondholders Are People Like You and Me*, WALL ST. J., May 27, 2009, at A17; *see* also *Statement from Non-TARP Lenders of Chrysler*, WALL ST. J., Apr. 30, 2009.
[5] *Gettelfinger Motors*, WALL ST. J., May 4, 2009, at A14.
[6] *Statement from Non-TARP Lenders of Chrysler*, WALL ST. J., Apr. 30, 2009.
[7] Lou Whiteman, *Buffett Warns of Chrysler Cramdown Ramifications*, THEDEAL.COM, May 5, 2009, *available at* http://thedeal.com/dealscape/2009/05/buffett_warns_of_chrysler_cram.php.
[8] *Id.*
[9] Caroline Salas, *Fund Managers Burned by Obama Now Say They Are Wary*, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a5u0MEwLik7A (May 20, 2009, 18:13 EDT).

much higher rate of interest because you may be leap-frogged in a bankruptcy."[10] A Congressional panel hypothesized that "Treasury's involvement in the Chrysler bankruptcy … is likely to cause investors to reevaluate their risk assessment regarding certain companies with similar characteristics."[11] In other words, if a government bailout distorts creditor priorities, lenders may think twice before making secured loans to firms that might receive a government bailout, due to the risk that junior creditors might leap-frog them when the company experiences financial distress.

Critics distinguish public bailouts from other reorganizations because dealing with the U.S. government is not the same as dealing with private DIP lenders. The Treasury can exert greater influence over the parties than a private lender can. One reason is that "the government [can] accuse a bondholder … of failing to assume some correct proportion of 'shared sacrifice.'"[12] For example, President Obama referred to Chrysler's dissident lenders as "speculators" who were "refusing to sacrifice like everyone else."[13] The U.S. government "has a throw weight that its counterparties cannot match, as there is little in the regular commercial arsenal that can counter a charge of 'unpatriotic' behavior by the President of the United States."[14]

Moreover, some critics fear that the Chrysler bailout is not an isolated, one-time event. Further government interventions using TARP funds have been suggested. For example, a Congressional panel, in its report on the use of TARP funds to support the auto industry, asked Treasury to "provide its legal analysis justifying the use of TARP funds for this purpose. This analysis will inform policymakers' and taxpayers' understanding of the potential for Treasury to use its authority to assist other struggling industries."[15] The panel's report even lays out criteria for further Treasury interventions (in Section D). Hence, critics say the Chrysler bailout demonstrates the federal government's inclination to intervene in private industry when politically motivated. Some market players assert that, with "anything that involves a large number of jobs or

[10] *Id.*
[11] PANEL REPORT, *supra* note 1, at 53.
[12] *Id.* at n.506.
[13] Press Release, Office of the White House Press Secretary, Remarks by the President on the Auto Industry (April 30, 2009), available at http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-Auto-Industry.
[14] PANEL REPORT, *supra* note 1, at n.506.
[15] *Id.* at 5.

affects a large number of people, you can expect to see a Chrysler redux."[16] Because of such possibilities, companies that are public bailout candidates may face higher borrowing costs than companies not at risk of government intervention.

Notwithstanding the criticisms, the Chrysler bailout does have its supporters. Supporters argue that the public assistance to Chrysler was a reluctant intervention by a lender of last resort acting through a clever but legal manipulation of the bankruptcy system. Supporters add that, in any event, the decision to assist Chrysler is an isolated policy choice that should have no ramifications beyond the auto industry. Others point out that priority violations in bankruptcy have become commonplace, especially with the development of the claims trading markets in recent decades, and should cause no alarm.

In other words, the Chrysler bailout has generated an important debate among market participants and academics in bankruptcy and finance. Did the government intervene in Chrysler in a manner that overturns bankruptcy law in the U.S.? This study answers that question by performing an empirical analysis of the bailout's impact on credit markets.

The same question was raised by Congress when it established an oversight panel in connection with TARP to review "the impact of Treasury decisions on the financial markets." The panel sought to examine "whether predictions that the Chrysler decision would result in changes in market behavior or the cost of capital were (1) accurate and (2) measurable."[17] In its report to Congress, the panel concluded that "there is little evidence, empirical or anecdotal," to answer the question. The panel believed that it is "too early and, given the number of variables, perhaps not possible to conclude one way or another as to what effect the government's involvement in the Chrysler bankruptcy will have on the credit markets."[18] We, however, disagree with the panel's conclusion. This study performs the crucial empirical analysis of the government's bailout of Chrysler that the oversight panel did not attempt.

We answer the question empirically by examining the financial market where the effect would be most detectible, the market for bonds of highly unionized companies. If the government, in order to favor organized labor, implemented the Chrysler

[16] Salas, *supra* note 9.
[17] PANEL REPORT, *supra* note 1, at 53.
[18] *Id*.

reorganization in a manner that ignored established lending priorities, investors in other unionized companies should have perceived increased risk. Rational investors would price this increased risk into the debt of the unionized firms. We test this claim empirically.

We find no evidence of a negative reaction to the Chrysler bailout by the bondholders of unionized firms. We thus reject the notion that investors perceived a distortion of bankruptcy priorities in the Chrysler case. To the contrary, we find that bondholders of unionized firms reacted positively to the Chrysler bailout. During the period when the Chrysler bailout was being formulated, adopted, and implemented, bonds of unionized firms exhibited lower yields (i.e., traded at higher prices in the bond markets) than bonds of non-unionized companies. Unionized firms also generated greater returns for their bondholders than non-unionized firms generated for their bondholders. We also find positive abnormal returns for bonds of unionized firms on a key event date relating to the bailout. These results suggest that bondholders interpreted the Chrysler bailout as a signal that the government will stand behind the obligations of unionized firms.

The next section describes the federal government's bailout of Chrysler. Section III presents the hypothesis to be tested. Section IV identifies the related literature. Section V describes the data and the methodologies employed. The empirical results are presented in Section VI. Section VII concludes.

II. The Reorganization of Chrysler

In December, 2008, Chrysler (along with General Motors) was on the brink of insolvency. The automaker could not obtain the financing needed to conduct day-to-day operations. Chrysler, which employed over 55,000 workers, turned to the U.S. government for help. Congress considered legislation that would rescue the automaker, but the legislation failed to pass. President Bush thereupon ordered the United States Department of the Treasury (the "Treasury") to extend a $4 billion loan to Chrysler. To make the loan, the Treasury tapped funds in the Troubled Asset Relief Program

("TARP") enacted by Congress through the Emergency Economic Stabilization Act of 2008 ("EESA")[19] as a way to keep distressed financial institutions from collapsing.

The $4 billion loan was only a bridge loan, however, intended to buy Chrysler a few extra months of breathing room until the incoming Obama administration entered office. The loan required that Chrysler submit to the Obama administration a turn-around plan showing Chrysler's proposed path to becoming a viable, independent entity. On February 17, 2009, Chrysler submitted its proposed plan to the Obama administration. Notably, Chrysler's plan contemplated the eventual full repayment of its outstanding senior secured debt.[20]

On March 30, 2009, the Treasury rejected Chrysler's plan, and gave Chrysler thirty days to propose another arrangement that would eliminate the company's senior secured debt through the use of the bankruptcy code.[21] More particularly, the Treasury announced that Chrysler's revised plan would have to show that Chrysler will take several steps: (i) enter into a partnership with Fiat to bring new management and technology to Chrysler; (ii) enter into a new collective bargaining agreement with the United Auto Workers union (the "UAW"); and (iii) restructure its balance sheet so that it has a sustainable debt burden. The Treasury contemplated that this third step would "require extinguishing the vast majority of Chrysler's outstanding secured debt and all of its unsecured debt and equity."[22] The Treasury stated that the "most effective way for Chrysler to emerge from this restructuring [would be to use] an expedited bankruptcy process as a tool to extinguish liabilities."[23] Treasury told Chrysler's creditors that, instead of reorganizing under a Chapter 11 plan, Chrysler must opt for a "quick and surgical" reorganization. The Treasury envisioned that Chrysler would sell its assets "free and clear" of all interests, under section 363 of the Bankruptcy Code, to a newly created shell corporation that would become the revitalized "Chrysler."[24] Only if these conditions were satisfied would the Treasury provide the billions of dollars of additional

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[19] 12 U.S.C. §§ 5201-5241.
[20] Chrysler Restructuring Plan for Long-Term Viability (February 17, 2009).
[21] Press Release, Office of the White House Press Sec'y, Fact Sheet: Obama Administration New Path to Viability for GM & Chrysler (Mar. 30, 2009), *available at* http://www.whitehouse.gov/assets/documents/Fact_Sheet_GM_Chrysler_FIN.pdf.
[22] *Id.*
[23] *Id.*
[24] Pet.App. 120a-125a.

TARP loans required to finance Chrysler's ongoing operations. Since the TARP-funded loans were the only apparent source of available cash, most of Chrysler's creditors acquiesced to the proposed restructuring plan. A timeline of events is set forth in the Appendix hereto.

Here's how the restructuring worked. Chrysler and its subsidiaries (referred to herein as "Old Chrysler") filed for bankruptcy protection under Chapter 11 of the Bankruptcy Code on April 30, 2009.[25] Instead of then exiting Chapter 11 through a plan of reorganization confirmed by the creditors, the company left bankruptcy through the "side door" of section 363 of the Bankruptcy Code. Section 363 allows a debtor to sell assets to a buyer free and clear of creditor claims. Only weeks after filing for Chapter 11, the majority of Old Chrysler's assets were sold to a newly-formed entity (referred to herein as "New Chrysler") under section 363 of the Code.[26] New Chrysler agreed to assume some of the liabilities of Old Chrysler, most notably the unsecured obligations owed to UAW retirees. But most liabilities remained with Old Chrysler, including the secured liabilities owed to Old Chrysler's lenders. Through this mechanism, critics argue, *the claims of unsecured creditors* (the UAW retirees) *were elevated above the claims of secured creditors*, contrary to established priorities in bankruptcy.

To see this, consider the following. Upon filing Chapter 11, Old Chrysler was indebted to several groups of creditors. First, Old Chrysler owed $6.9 billion to a syndicate of lenders, secured by a first-priority security interest in substantially all of Old Chrysler's assets.[27] Second, Old Chrysler owed $2 billion to Cerberus and Daimer, Old Chrysler's equity holders, secured by a second-priority security interest in Old Chrysler's assets.[28] Third, Old Chrysler owed over $4 billion to the U.S. Treasury pursuant to TARP (and to the Canadian government), secured by a third-priority security interest in Old Chrysler's assets.[29] Fourth, Old Chrysler owed $10 billion, on an unsecured basis, to

[25] *See* Voluntary Petition, *In re* Chrysler LLC, 405 B.R. 84 (Bankr. S.D.N.Y. 2009) (No. 09-50002).
[26] *See In re* Chrysler LLC (*Chrysler I*), 405 B.R. 84, 113 (Bankr. S.D.N.Y. 2009), *aff'd*, 576 F.3d 108 (2d Cir. 2009), *vacated sub nom.* Ind. State Police Pension Trust v. Chrysler LLC, 130 S. Ct. 1015 (2009) (mem.).
[27] *Chrysler I*, 405 B.R. at 89.
[28] *Id*. Chrysler's equity was owned by Cerberus Capital Management, L.P. and its affiliates (80%) and by Daimler AG and its affiliates (20%). *Id*.
[29] *Id.* at 89-90. The government's security interest had third priority in the assets encumbered by the first- and second-priority security interests, and a first-priority security interest in any remaining unencumbered assets.

a trust established to provide healthcare benefits to union retirees (the "UAW Trust"), a voluntary employee benefit association.[30] Unlike the other debt, the obligation to the UAW Trust was not secured. As an unsecured creditor, the UAW Trust was entitled to repayment only after Old Chrysler's secured creditors had been repaid in full. Finally, Old Chrysler owed approximately $5 billion to various trade creditors, as well as billions in warranty and dealer obligations.[31] This indebtedness was also unsecured. Finally, Old Chrysler owed about $5 billion in debtor-in-possession financing (to fund Chrysler's bankruptcy) to the U.S. Treasury and the Canadian government.[32]

The crucial features of the Chrysler reorganization are illustrated in Figure 1. With the approval of the bankruptcy court, Old Chrysler sold substantially all its operating assets to New Chrysler, a newly-formed entity, in exchange for $2 billion in cash from New Chrysler and the assumption of some of Old Chrysler's liabilities (most notably, the obligations owed to the UAW Trust). The $2 billion received by Old Chrysler was distributed to Old Chrysler's first-priority secured lenders, in accordance with bankruptcy's priority rule. Since the first-priority secured lenders were owed $6.9 billion, they received 29 cents on the dollar, leaving no assets for junior secured lenders or for unsecured creditors. Old Chrysler's equity holders also received nothing.

How did New Chrysler, a newly-formed entity, obtain the cash to purchase Old Chrysler's assets? The U.S. Treasury agreed to provide New Chrysler up to $6 billion in

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[30] Application for Immediate Stay of Sale Orders Issued by the Bankruptcy Court at 6, Ind. State Police Pension Trust v. Chrysler LLC, 129 S. Ct. 2275 (2009) (No. 08A1096).

Chrysler's $10 billion commitment to the UAW Trust arose out of a litigation settlement reached in 2008 with the UAW. Pursuant to the settlement, Chrysler was obligated to fund the UAW Trust with cash. According to the Panel Report,

> By the end of the last century, Ford, Chrysler and GM found themselves faced with tens of billions of dollars in employee health obligations. In 2007 and 2008, after it became clear to both the companies and their unions that the state of the American automotive industry made these healthcare obligations unsustainable, the UAW and each of the three companies ultimately entered into an agreement whereby, in exchange for significant upfront payments principally in the form of cash and notes, healthcare obligations for retired union employees would be transferred off the books of the companies and into a trust (an independent entity totally separate from either the union or the automotive companies), the UAW Retiree Medical Benefits Trust, a Voluntary Employees' Beneficiary Association. PANEL REPORT, *supra* note 1, at n.49.

[31] *Chrysler I*, 405 B.R. at 89.

[32] *Id.* at 92. With a priming lien, the debtor-in-possession lenders would have been entitled to repayment ahead of the first-priority secured lenders. However, no priming lien was requested as the debtor-in-possession lenders were the U.S. Treasury and Canada, the sponsors of the bailout.

senior secured loans to fund the asset purchase, as well as its ongoing operations.[33] The Canadian government, in addition, committed to provide financing to New Chrysler's Canadian affiliate. In return, New Chrysler issued an 8% equity stake to the U.S. Treasury and a 2% equity stake to the Canadian government.[34] Up to 35% of the equity in New Chrysler was awarded to Fiat S.p.A. ("Fiat") in return for its provision of technology, distribution systems, and other capabilities to New Chrysler.[35] As part of a collective bargaining agreement with the UAW, New Chrysler granted to the UAW Trust a 55% equity stake, $1.5 billion in cash, and a $4.6 billion unsecured note.[36]

It was an important step for New Chrysler to reach the collective bargaining agreement with the UAW. Covering both active and retired workers, the agreement provides New Chrysler with Old Chrysler's labor force but at a reduced wage structure for active employees and a reduced funding structure for retirees, bringing them more into line with those of foreign auto manufacturers in the U.S.[37] Such an agreement was obtainable, in part, because the UAW wanted to ensure continued employment for its active employees as well as continued funding of the UAW Trust for retirees. UAW retirees have to look exclusively to that UAW Trust for healthcare benefits, and Old Chrysler's obligation to continue funding the UAW Trust is solely a contractual (i.e., voidable) one, not subject to ERISA funding rules.[38] The bankruptcy, consequently, jeopardized the funding commitments that Chrysler had made to the UAW Trust. In place of its $10 billion unsecured claim on Old Chrysler, the UAW Trust agreed to take a $4.6 billion unsecured note from New Chrysler, as well as $1.5 billion in upfront cash

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[33] *Id.*

[34] New Chrysler also assumed $500 million of TARP financing owed by Old Chrysler to the U.S. Treasury and $600 million owed by Old Chrysler to the Canadian government.

[35] Fiat has an initial 20% stake, which increases to up to 35% upon achievement of certain performance metrics. The equity percentages presented above assume Fiat achieves those performance metrics. Initially, 9.85% of the equity in New Chrysler was held by the U.S. Treasury, 2.46% by the Canadian government, 67.69% by the UAW Trust, and 20% by Fiat. *Id.* at 92.

[36] *Id.*

[37] PANEL REPORT, *supra* note 1, at 18-19.

[38] The UAW Trust is a Voluntary Employees' Beneficiary Association (VEBA). VEBAs are tax free entities that pay health, life, or similar benefits. Although subject to the fiduciary requirements of the Employee Retirement Income Security Act of 1974 (ERISA), they are not subject to ERISA funding rules as are qualified retirement plans. Instead, a company's obligation to fund the trust is solely contractual. PANEL REPORT, *supra* note 1, at n.49.

and a 55% equity stake in New Chrysler.[39] As a result, New Chrysler's commitment to fund retiree healthcare benefits is not as burdensome as the one that weighted down its predecessor, while the UAW Trust walks away from the reorganization with a greater payout than it would have received had it remained solely an unsecured creditor of Old Chrysler.

During the bankruptcy proceedings, three Indiana state pension funds objected to Old Chrysler's sale of its assets to New Chrysler and the release of their liens.[40] The Indiana pension funds were among the first-priority secured lenders of Old Chrysler.[41] The dissident pension funds argued that the sale would improperly result in value going to the unsecured creditors before the secured creditors had been paid in full.[42] Specifically, the pension funds pointed out that, according to the terms of the sale documents, an unsecured creditor of Old Chrysler, the UAW Trust, would receive payments (consisting of $1.5 billion in cash from New Chrysler, a 55% equity stake in New Chrysler, and a $4.6 billion note issued by New Chrysler) before Old Chrysler's secured creditors had been paid in full.[43] The Indiana pension funds and the other first-priority secured lenders, receiving $2 billion from the sale on their $6.9 billion claim, would be receiving only twenty-nine cents on the dollar, while the UAW Trust, an unsecured lender, would be receiving payments worth billions of dollars.[44] The Indiana pension funds argued that the sale would violate creditor priorities, making it an illicit sub rosa confirmation plan.[45]

The bankruptcy court, however, disagreed. Key to the court's conclusion was its view that the UAW Trust would not be receiving any payments *on account of its pre-petition claims on Old Chrysler*.[46] Instead, according to the court, the payments to the UAW Trust resulted from independent, arms-length negotiations between the UAW and the buyer (New

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[39] Press Release, Office of the White House Press Sec'y, Obama Administration Auto Restructuring Initiative (Apr. 30, 2009), *available at* http://www.whitehouse.gov/the_press_office/Obama-Administration-Auto-Restructuring-Initiative.

[40] *Chrysler I*, 405 B.R. at 93. The funds consist of two pension funds that are fiduciaries for retirement assets of Indiana police officers and school teachers, and an infrastructure construction fund. Petition for Writ of Certiorari at 4, Ind. State Police Pension Trust v. Chrysler LLC, 130 S. Ct. 1015 (2009) (No. 09-285), 2009 WL 2864378. The three funds together held about $43 million of first-priority secured debt of Chrysler. *Id.* There was more opposition earlier in the restructuring. At one point, 30 funds holding over $1 billion objected to Obama's plan. Salas, *supra* note 9.

[41] *Chrysler I*, 405 B.R. at 93.

[42] *Id.* at 93.

[43] *Id.* at 92.

[44] *Id.* at 93.

[45] *Chrysler I*, 405 B.R. at 95-96.

[46] *Id.* at 99 (emphasis added).

Chrysler), resulting in the UAW Trust providing new value to New Chrysler. The bankruptcy court stated:

> [I]n negotiating with those groups essential to is viability, New Chrysler made certain agreements and provided ownership interests in the new entity, which was neither a diversion of value from the Debtors' assets nor an allocation of the proceeds from the sale of the Debtors' assets. The allocation of ownership interests in the new enterprise is irrelevant to the estates' economic interests.[47]

The bankruptcy court viewed the payments to the UAW Trust as "provided under separately-negotiated agreements with New Chrysler" and not on account of their pre-petition claims on Old Chrysler.[48]

The Indiana state pension funds immediately appealed the bankruptcy court's ruling. The Second Circuit issued a short order ratifying the bankruptcy court's decision and issuing a stay to allow for the U.S. Supreme Court's review. The Supreme Court, however, denied a request for a stay of the bankruptcy reorganization.[49] Upon remand, the Second Circuit affirmed the bankruptcy court's decision.[50] The Second Circuit decided that all consideration paid to the UAW Trust by New Chrysler was in exchange for new value given, not in exchange for the UAW Trust's claim on Old Chrysler.[51] Hence, the court concluded that the transaction was consistent with bankruptcy priority rules and that the asset sale did not constitute a sub rosa confirmation plan.[52]

III. Hypothesis

Critics hypothesize that the Chrysler intervention introduced a new form of risk into credit markets, one that will be priced by the markets, resulting in a higher cost of debt for businesses. Why? Critics claim the federal government intervention in Chrysler

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[47] *Id.*
[48] *Id.*
[49] Ind. State Police Pension Trust v. Chrysler LLC, 129 S. Ct. 2275, 2276 (2009) (per curiam).
[50] *In re Chrysler LLC (Chrysler II), 576 F.3d 108, 119 (2d Cir.), vacated sub nom. Ind. State Police Pension Trust v. Chrysler LLC, 130 S. Ct. 1015 (2009) (mem.).* On September 3, 2009, the Indiana pension funds filed a petition for writ of certiorari to the U.S. Supreme Court to appeal the Second Circuit's decision. Petition for Writ of Certiorari, *supra* note 40. The pension funds no longer sought to block the asset sale as before, but rather sought a greater repayment on the loan. *Id.* at 16-42. The Supreme Court, however, vacated the Second Circuit's ruling and remanded the case to the Second Circuit with instructions to dismiss the appeal as moot. Ind. State Police Pension Trust v. Chrysler LLC, 130 S. Ct. 1015 (2009) (mem.).
[51] *Chrysler II* at 118.
[52] *Id.* at 118 n.9.

overturned creditor priorities under bankruptcy law, generating a fundamental change in how reorganizations will be conducted.[53]

In the critics' view, the Chrysler intervention altered the long-standing absolute priority rule of bankruptcy. The absolute priority rule prevents a junior-priority class of claims from receiving assets from the debtor while a more senior class of claims has not yet been paid in full and objects to the payment.[54] The absolute priority rule results in claimants being paid in order of seniority, with secured creditors ranking ahead of unsecured creditors, who rank ahead of equity holders.

In Chrysler, the UAW Trust, which held an unsecured claim, received billions of dollars of assets while Chrysler's secured creditors had not been paid in full (they received only twenty-nine cents on the dollar). Certain secured creditors objected to those payments to the UAW Trust as a violation of the absolute priority rule, but their objections were dismissed. Critics believe the Chrysler transaction establishes a dangerous precedent, one that validates the disregard of the absolute priority rule of bankruptcy.

In addition to the absolute priority rule, critics believe Chrysler undermines the Bankruptcy Code's rule against "unfair discrimination." The rule against unfair discrimination requires that similarly ranked creditors be paid pro rata.[55] Since the value of the secured creditors' claims exceeded the value of Chrysler's collateral, the secured creditors were deemed to be in part secured creditors (to the extent of the value of the collateral) and in part unsecured creditors (to the extent of their deficiency claim, the amount by which their secured claims exceeded the value of the collateral). Hence, with respect to their deficiency claim, the secured creditors were unsecured, ranking in priority equal to the UAW Trust and other unsecured creditors. Yet the asset sale resulted in cash and securities being paid to the unsecured UAW Trust, while nothing was paid to the

[53] *See* Warburton (2010) for a detailed delineation of arguments made against the Chrysler reorganization. *See also* Roe and Skeel (2010), Adler (2009), and Todd J. Zywicki, *Opinion, Chrysler and the Rule of Law*, Wall St. J. (May 13, 2009).
[54] 11 U.S.C. § 1129(b) (2006).
[55] 11 U.S.C. § 1129(b) (2006). 7 COLLIER ON BANKRUPTCY ¶ 1129.03[3] (Allan N. Resnick & Henry J. Sommer eds., 16th ed. 2009).

secured creditors on their deficiency claim. Chrysler's secured creditors argued that this result constitutes unfair discrimination.[56]

As critics view the Chrysler reorganization, the bankruptcy laws established by Congress were arbitrarily overthrown by an act of the Executive, undermining long-established tenants of debt financing. Critics predict that these violations of creditor protections will have substantial ramifications for the cost of debt. From the critics' perspective, the bailout introduced a new form of risk into the credit markets. If investors agree with the critics, the Chrysler intervention should have resulted in greater borrowing costs for businesses.

This risk to investors should be greatest in companies that are public bailout candidates. The Chrysler bailout, it is argued, established a precedent for future distributions of assets in bankruptcy to favorite political groups. The risk to investors should be most evident in large, industrial firms subject to collective bargaining. The government purportedly jiggered bankruptcy laws with Chrysler in order to favor organized labor. Hence, it is investors in other unionized companies that should perceive the greatest threat to creditor priorities. If the credit market viewed the Chrysler bailout as a violation of creditor priorities, investors should be reluctant to extend credit to unionized firms, or should demand a higher return on their capital, to compensate for the increased risk that junior creditors (organized labor) might leap-frog them when the company experiences financial distress. In other words, the bailout should have had a negative impact on bonds of unionized companies, if the critics' hypothesis is true. If true, we should see bond prices for unionized companies significantly decreasing in response to the Chrysler bailout. Stated equivalently, we should see yields on bonds of unionized companies significantly increasing. That is,

H1(a): During the bailout, bonds of unionized firms should have generated significantly higher yields, relative to bonds of non-unionized firms.

[56] Brief for Appellants Indiana State Pension Trust et al. at 24, *Chrysler II*, 576 F.3d 108 (2d Cir. 2009) (No. 09-2311-bk), 2009 WL 1560029; *Chrysler II*, 576 F.3d at 123.

H1(b): During the bailout, bonds of unionized firms should have generated significantly lower cumulative returns, relative to bonds of non-unionized firms.

On the other hand, supporters of the Chrysler intervention disagree with the critics' predictions. Instead, supporters predict that that bond prices and yields should not change significantly in response to the bailout.

Unlike the critics, the supporters believe the federal government's involvement in the Chrysler bankruptcy occurred in accordance with the Bankruptcy Code, and that no statutory priorities were overturned.[57] Simply put, supporters believe the government was acting as an arms-length participant in a Section 363 asset sale, which has become an increasingly common means to exit bankruptcy. Although TARP money was used to finance the reorganization, the government was nothing more than a debtor-in-possession (DIP) lender in an otherwise typical bankruptcy reorganization. From this viewpoint, the transaction left unaltered established bankruptcy practices and priorities. If the credit market agrees, bonds of unionized companies should not have exhibited any significant change around the Chrysler bailout.

Proponents of the reorganization point out that the payments to the UAW Trust were made by the buyer of Chrysler's assets (New Chrysler) and not by the debtor that was in Chapter 11 (Old Chrysler). More specifically, proponents assert that no payments were made to the UAW Trust on account of the Trust's pre-petition claims on Old Chrysler. Instead, they argue that the payments to the UAW Trust were extracted from New Chrysler, the newly-constituted entity, as the product of a fresh negotiation between the Trust and New Chrysler.[58] This is an important distinction. While the proceeds that the debtor receives in an asset sale must be distributed to its creditors in accordance with the Bankruptcy Code's absolute priority rule, the purchaser of assets is not restrained by

[57] *See* Warburton (2010) for a detailed delineation of arguments made in defense of the Chrysler reorganization. *See also* Morrison (2009) and Lubben (2009).

[58] Critics respond that the asset sale by Old Chrysler did more than merely sell assets for cash. The sale effectively determined which creditors of the Old Chrysler would get paid, and how much they would be paid. Adler (2009) at 3; Roe and Skeel (2010) at 5 and 22. The sale terms fully determined the distribution amount that Old Chrysler's secured creditors would receive from the debtor: the first-priority secured parties' distribution equaled the $2 billion sales proceeds. Moreover, the sale terms provided Old Chrysler's unsecured creditor, the UAW Trust, with $1.5 billion in cash, a promise of an additional $4.6 billion, and substantial equity in New Chrysler. The terms of the 363 sale, hence, fully determined the payments made to Old Chrysler's creditors.

the Code in the price it pays to acquire those assets, in its use of those assets, or in any other manner. Proponents observe that the purchaser is free to strike any deal it can with its own financers, suppliers, labor unions, and other stakeholders. If these stakeholders establish relationships with the purchaser on more favorable terms than "those whose relationships terminated with the bankruptcy estate, this perceived disparity has a clear business reason; i.e., the purchaser needs to maintain these relationships to make its business viable."[59]

For instance, if the purchaser needs to continue ordering from the debtor's suppliers, then those suppliers may be paid by the purchaser even though the suppliers are entitled to nothing from the debtor under Chapter 11. The two transactions are independent; there is no "exchange" of claims against the debtor for payments from the purchaser. This is the case so long as payments from the purchaser are made in exchange for the provision of goods or services to the purchaser. According to supporters of the Chrysler asset sale, the assets were purchased cleanly and appropriately from Old Chrysler by New Chrysler for $2 billion. New Chrysler then, in separate transactions, entered into independent agreements with financers, suppliers, labor, and other stakeholders, some of which happened to involve Old Chrysler's creditors.

Proponents argue that New Chrysler had to negotiate with various constituencies "essential to the new venture, including . . . Chrysler's employees – contributing a skilled workforce with a more competitive cost structure."[60] Since New Chrysler needed skilled workers (and labor peace), proponents believe the UAW had bargaining leverage with New Chrysler, which enabled it to extract continued support for retiree health plans and an ownership stake in New Chrysler. The secured creditors of Old Chrysler lacked similar bargaining power with New Chrysler. Parties with whom New Chrysler must do business going forward (such as the UAW) have leverage in negotiating favorable terms, and nothing in bankruptcy law takes that leverage away. The UAW was able to negotiate directly with New Chrysler in the same way that any company can negotiate, without any restraints imposed by bankruptcy laws.

[59] PANEL REPORT, *supra* note 1, at 48.
[60] Chrysler I, 405 B.R. 84, 99 (Bankr. S.D.N.Y. 2009).

Moreover, proponents observe that the UAW made significant concessions to New Chrysler, including making substantial changes to its contracts in order to improve the profitability of New Chrysler. The secured creditors made no similar concessions. According to proponents, although the disgruntled secured creditors of Old Chrysler were disappointed with what they received in the bankruptcy, and felt that the UAW walked away with generous terms from New Chrysler, that outcome was the product of negotiations which are not within the scope of the bankruptcy laws.

In addition, supporters believe that it is not alarming, or even unusual, that the U.S. Treasury pushed for favorable treatment of certain stakeholders, the UAW retirees. The Treasury was the DIP lender, with the power and influence that role confers in any bankruptcy. As Chrysler's condition deteriorated, the government provided both pre- and post-petition financing. On account of the government's pre-petition claim, it had the rights of a pre-petition creditor entitled only to distributions from the bankruptcy estate in accordance with priority rules under Chapter 11. On account of its post-petition claim, however, the government had power and leverage as a DIP financer.[61] Because no post-petition lender is required to lend to the debtor and because dealing with bankrupt businesses is often regarded as quite risky, the leverage of the DIP lender is extremely high. As a result, DIP lenders routinely use the terms of the new loan to assume control and shape the outcome of the reorganization (for example, by deciding which contracts with suppliers, dealers, labor, etc. it wishes the debtor to assume).[62] At the time Chrysler filed bankruptcy, the capital markets were experiencing a credit freeze and the amount of money needed to reorganize the company was very large. This allowed any DIP financer that stepped forward even more leverage than it may have had under ordinary circumstances, according to supporters.[63]

Because the Treasury played an important role in financing and negotiating the restructuring of Chrysler, proponents argue that it is not surprising that the Treasury exercised its bargaining power as a DIP lender to dictate that the UAW Trust receive special treatment. From this perspective, the Treasury was acting as any other DIP lender

[61] To obtain financing to operate in Chapter 11, debtors arrange for debtor-in-possession (or DIP) financing.
[62] *See* Lubben (2009) at 535; and Miller and Waisman (2004).
[63] This argument also addresses claims of federal government bullying. *See supra* note 1.

would act. Although the involvement of the U.S. Treasury in the reorganization may have been novel, proponents argue that the Treasury's exercise of the DIP lender's power in connection with the asset sale was not. As Professor Lubben stated, one "can debate whether it is wise for the government to bail out the UAW, but it does not implicate the bankruptcy process."[64]

It may also be argued that priority violations are common in bankruptcy and are already factored into bond prices. Prior research shows that priority violations in favor of junior investors over senior investors have been common in bankruptcy.[65] Professors Baird and Bernstein explain, moreover, that these observed deviations from absolute priority do not necessarily flow from manipulation of Chapter 11 (Baird and Bernstein 2006). Rather, they more likely represent rational, voluntary settlements that reflect the uncertainty involved in valuing complex business enterprises in distress. Since Chapter 11 entitles junior investors to insist on an appraisal of the debtor, the outcome of which is uncertain, senior investors may willingly agree to distributions in favor of junior investors as an insurance policy against that uncertainty. That is, valuation uncertainty produces a bargaining dynamic that accounts for observed deviations from absolute priority, not a defect in Chapter 11 that allows junior investors to manipulate the process. Viewed in this light, the Chrysler reorganization does not represent a lack of commitment to the principle of absolute priority.

Moreover, some proponents argue that the Chrysler reorganization is a one-off transaction with no precedential value, due to the unusual circumstances surrounding it. The reorganization required heavy government involvement. Without the government flooding the businesses with cash, proponents believe the creditors might not have agreed to the terms of the reorganization. That is, any priority violation was accompanied by a large cash infusion from the government to help the company stay afloat. The downside to creditors of a priority violation was offset by the benefits of keeping the debtor in operation. Without that aspect, more creditors might have objected to the proposed terms, producing a more traditional and time-intensive reorganization process that may have ended in liquidation and a smaller net recovery by claimants.

[64] Lubben (2009) at 535.
[65] *See* text accompanying *infra* note 70.

Hence, from this perspective, the Chrysler restructuring does not disrupt existing bankruptcy laws or current bankruptcy practices. The government played fairly by the established rules. According to adherents of this view, the critics are bothered by the fact that the government was a major participant in the transaction, and that it chose to favor the union over investors. While critics may object to that decision, supporters say it is a policy question, not a legal one. If market participants view the Chrysler bailout in this manner, bond prices (and yields) of unionized companies should not have exhibited any significant change around the bailout. That is,

H2(a): During the bailout, bonds of unionized firms should not have generated significantly different yields, relative to bonds of non-unionized firms.

H2(b): During the bailout, bonds of unionized firms should not have generated significantly different cumulative returns, relative to bonds of non-unionized firms.

IV. Related Literature

When it established the TARP, Congress created an oversight panel (the "Oversight Panel") to oversee Treasury's administration of the TARP. The Oversight Panel was mandated to review "the impact of Treasury decisions on the financial markets" and, regarding the decision to bail out Chrysler, to "determine whether predictions that the Chrysler decision would result in changes in market behavior or the cost of capital were (1) accurate and (2) measurable."[66] However, after consulting with academics and market participants, the Oversight Panel concluded that "there is little evidence, empirical or anecdotal, to prove or disprove the claim that the Chrysler bankruptcy had any effect on the market."[67] The Oversight Panel decided that it is "too early and, given the number of variables, perhaps not possible to conclude one way or another as to what effect the government's involvement in the Chrysler bankruptcy will have on the credit markets."[68]

[66] PANEL REPORT, *supra* note 1, at 53.
[67] PANEL REPORT, *supra* note 1, at 53.
[68] PANEL REPORT, *supra* note 1, at 53.

Few academic studies are on point, and the existing papers do not shed much light on the issues. There has been some empirical research on priority violations in bankruptcy (Franks and Torous 1989, 1994; Eberhart, Moore and Roenfeldt 1990; Weiss 1990[69], Betker 1995, and Bharath et al. 2007). Studies find that priority violations in favor of equity holders were common in the 1980s, but since the mid-1990s equity-favoring violations have disappeared as a result of greater creditor control of bankruptcy. However, in addition to being outdated, those studies focus on the wrong issue. Those studies focus on the subordination of creditors to equity holders. At issue in Chrysler was the purported subordination of one (senior) class of creditors to another (junior) class of creditors.

Unlike those earlier studies, which treat creditors as a single, unified class, this study examines conflict between senior and junior classes of creditors. That is, we focus on the purported subordination of secured creditors to unsecured, but politically-favored, creditors. This is an important line of inquiry. A secured creditor, which lends to a debtor against collateral, expects to have a lower risk of non-payment than were it an unsecured creditor, and prices the loan accordingly. As a result, violations of established creditor priorities might have substantial ramifications for the availability and cost of credit.

Recently, the law scholarship has turned its attention away from the conflict between creditors and equity holders, focusing instead on the conflict between senior and junior creditors. This interest in inter-creditor conflict coincides with the development of the claim trading market for distressed securities. The law scholarship observes that claims trading has resulted in a traditional, fairly homogenous set of creditors being replaced by a more fluid set of stakeholders, including distressed debt investors with varying motivations and objectives (Baird and Rasmussen 2010, 2003; Ayotte and Morrison 2009; Baird 2009; Levitin 2009; Baird and Bernstein 2006; Miller and Waisman 2004). Law scholars debate whether the claims trading market is beneficial or harmful for the bankruptcy reorganization process and the cost of capital for business. But the literature is mostly theoretical and, as a result, "scholarly treatments have

[69] Weiss looks at the claims of secured creditors, unsecured creditors, and equity holders in bankruptcy from 1979 to 1986, but finds no violations of the secured creditors' priority.

operated with a high level of generality and scant evidentiary basis."[70] Law scholars have seized upon the Chrysler reorganization to continue this debate. While some argue that the Chrysler case "cannot be understood as complying with good bankruptcy practice…" and that it has "potential for disrupting financial markets surrounding troubled companies…" (Roe and Skeel 2010; see also Adler 2009), others see it as "entirely within the mainstream of chapter 11 practice" (Lubben 2009).[71] But again, the debate has proceeded with little empirical evidence. For instance, while Adler (2009) cautions that "one might expect future firms to face a higher cost of capital" as a result of Chrysler, he also states, "I am unaware of empirical support for the claim…." Hence, we contribute to this literature by providing needed empirical evidence.

Our paper also contributes to the literature tracing the effects of government bailouts on the firm (e.g., Jiang, Kim and Zhang 2010; and Faccio, Masulis, and McConnell 2006). Existing studies examine the impact of government bailouts on firm performance. But we examine a different effect. Our study looks at the impact of bailouts on borrowing costs in the credit markets.

Our paper is also related to the empirical literature on moral hazard in financial institutions. While most of that literature examines how the too-big-to-fail status of a bank benefits its stockholders (e.g., Demirgüç-Kunt and Huizinga 2010; Fratianni and Marchionne 2010; Angbazo and Saunders 1997; Black et al. 1997; and O'Hara and Shaw 1990), there have been only a few studies that examine the effects on bondholders (Morgan and Stiroh 2005; Penas and Unal 2004; and Flannery and Sorescu 1996). Our study furthers that literature on moral hazard in credit markets.

While academic research has looked at the role of organized labor within the firm, it has not explored whether government bailouts of unionized firms impact credit markets. Previous research has shown that unionization has an impact on firm operations. For example, labor unions increase worker salaries (e.g., Lewis 1986), reduce firm operating flexibility (e.g., Chen, Kacperczyk, and Ortiz-Molina 2010a), reduce firm profitability and equity values (e.g., Hirsch 1991 and Abowd 1989), and impact corporate investment decisions (e.g., Connolly, Hirsch, and Hirschey 1986). Chen et al. (2010b)

[70] Levitin (2009) at 67.
[71] *See* Warburton (2010) for a summary of arguments on each side of the debate.

finds that firms in more unionized industries have lower bond yields than firms in lesser unionized industries. The authors of that study believe bondholders view unions favorably because they place a check on management, mitigating agency within the firm. But Chen et al. does not examine the role of public support for unionized companies, which is the focus of our paper. While Chen at al. looks at the impact of unions on firm borrowing costs, we examine the impact of government support for unionized firms on borrowing costs.

V. Data and Sample Characteristics

In this section, we briefly describe the data sources and characteristics of the sample used in this study. Firm-level accounting and financial data are obtained from COMPUSTAT and CRSP. Bond trade prices are obtained from the Trade Reporting and Compliance Engine (TRACE) system dataset for the time period January 2008 to December 2009.[72] We follow Bessembinder et al. (2009) by eliminating cancelled, corrected, and commission trades from the data. We merge the remaining bond trades with the Mergent Fixed Income Security Database (FISD), which contains information regarding each bond's rating, time to maturity, coupon payments, and other characteristics. Our sample includes all U.S. corporate bonds listed in FISD that satisfy a set of selection criteria commonly used in the corporate bond literature.[73] We remove all bonds with equity or derivative features (i.e., callable, puttable, and convertible bonds), bonds with warrants, bonds with floating interest rates, and bonds with any credit enhancements. We also eliminate all bonds that have less than one year to maturity or have been issued less than a year ago, and require all bonds to have an assigned rating and SIC code. As we are interested in industrial firms, we remove all financial firms from the sample (SIC codes 6000-6999). So as to not bias our analyses, we also remove from the sample Ford, General Motors and Chrysler, as well as other firms in the auto sector. To compute daily bond returns, we also require bonds to have traded on two

[72] TRACE reports prices for roughly 95% of all corporate bond transactions. The only transaction that are not reported are those that take place in exchanges.

[73] *See*, for instance, Duffee (1999), Collin-Dufresne, Goldstein, and Martin (2001) and Avramov et al. (2006).

consecutive days over the sample period. Our final sample consists of 508 bonds issued by 269 firms.

Bond returns are calculated as:

$$R_t = \frac{P_t + AI_t + C_t}{P_{t-1} + AI_{t-1}}$$

where P_t is the clean price of the bond, AI_t is the accrued interest over one period, and C_t is the coupon payment whenever it is paid (in which case $AI_t = 0$). To remove potential data entry errors, we follow Bessembinder et al. (2006) by requiring that the absolute value of the return be less than 30%. As there are multiple bonds for each firm, company-level returns are computed by value-weighting individual bond returns using their market values.

To identify firms subject to collective bargaining, we review 10-K reports filed with the U.S. Securities and Exchange Commission by the 269 firms in our dataset.[74] We categorize companies as unionized or non-unionized. We define a unionized company as one where 30% or more of its workforce is unionized or covered by a collective bargaining agreement.[75] We are unable find unionization rates for all the firms in our sample. Of the 269 firms in our sample, we are able to find unionization rates for 163 firms. Of the 163 firms, we classify 69 as unionized.

Conceivably, there could be significant differences between unionized and non-unionized companies that might impact our results. Hence, we want to be sure that our results do not reflect differences between the two sets of firms, particularly regarding differences in credit risk. We compute summary statistics for various default measures and financial characteristics of unionized and non-unionized companies. These are the same measures used in Anginer and Yildizhan (2010) and discussed in detail in that paper. These results are summarized in Table 1. Aggregate volatility, *totvol*, is measured

[74] As a robustness check, we also examined industry-level unionization rates, which are obtained from the Union Membership and Coverage Database (Unionstats). This database provides annual industry estimates at the 4-digit SIC level. Results, however, do not substantially differ from the reported results employing firm-level unionization rates. Moreover, there is a 58% correlation between firm- and industry-level unionization rates.

[75] As a robustness check, we also employed alternative methodologies: (i) we used different percentages (20% and 50%) to define a unionized company; and (ii) we sorted companies into, alternatively, three buckets and five buckets, based upon unionization rates. Results, however, do not substantially differ from the reported results employing the 30% unionization definition.

using daily returns over the previous 12 months. o-*score* is the Ohlson (1985) default score.[76] Idiosyncratic volatility, *idiovol*, is calculated relative to the Fama-French 3-factor model.[77] *bm* is the book-to-market ratio. *lme* is the log of market capitalization. *nimtavg* measures profitability and is calculated as a geometrically declining average of past values of the ratio of net income to the market value of total assets. Leverage is measured by *tlmta*, which is the ratio of total liabilities to the market value of total assets. *chs-pd* is the default probability, calculated as in Campbell, Hilscher and Szilagyi (2008).[78] *Merton-DD* is the Merton (1974) distance-to-default measure. The computation of *merton-DD* is described in detail in Anginer and Yildizhan (2010). *Rating* is the S&P 500 rating, where the rating has been converted to numeric values (AAA = 1, …, C = 13). Finally, *maturity* is the average maturity of the bonds for a firm and is measured in years.

Table 1 reports that, along most of the financial characteristics described above, unionized and non-unionized companies are similar. The results indicate that, relative to the non-unionized companies, the unionized companies are slightly larger, are slightly less profitable, and have greater leverage. Bonds of unionized companies have slightly longer maturities. But with respect to other financial and credit risk measures, we do not see statistically significant differences. That is, unionized and non-unionized companies

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[76] O-score is defined as:

$$o\text{-score} = -1.32 - 0.407\log(SIZE) + 6.03\,TLTA - 1.43\,WCTA + 0.076\,CLCA - 1.72\,OENEG - 2.37\,NITA - 1.83\,FUTL + 0.285\,INTWO - 0.521\,CHIN$$

where *SIZE* is total assets divided by the consumer price index, *TLTA* is the ratio of total liabilities to total assets, *CLCA* is the ratio of current liabilities to current assets, *OENEG* is a dummy variable set equal to one if total liabilities exceeds total assets and zero otherwise, *NITA* is the ratio of net income to total assets, *FUTL* is the ratio of funds from operations to total liabilities, *INTWO* is a dummy variable equal to one if net income was negative for the past two years and zero otherwise, and *CHIN* is change in net income over the last quarter: $(NI_t - NI_{t-1})/(|NI_t| + |NI_{t-1}|)$.

[77] We regress daily stock returns from the previous calendar year on the Fama-French 3 factors: $r_t^i = a^i + b_{MKT}^i MKT_t + b_{SMB}^i SMB_t + b_{HML}^i HML_t + e_t^i$. Idiosyncratic volatility is then calculated as the standard deviation of the residuals: $\sqrt{\mathrm{var}(e_t^i)}$.

[78] *chs-pd* is defined as:

$$CHSPD = 1\Big/\left(1 + \exp\left(-9.164 - 20.264\,NIMTAAVG_t + 1.416\,TLMTA_t - 7.129\,EXRETAVG_t + 1.411\,SIGMA_t - 0.045\,RSIZE_t - 2.132\,CASHMTA_t + 0.075\,MB_t - 0.058\,PRICE_t\right)\right)$$

where *NIMTAAVG* is a geometrically declining average of past values of the ratio of net income to the market value of total assets, *TLMTA* is the ratio of total liabilities to the market value of total assets, *EXRETAVG* is a geometrically declining average of monthly log excess stock returns relative to the S&P 500 index, *SIGMA* is the standard deviation of daily stock returns over the previous three months, *RSIZE* is the log of the ratio of market capitalization to the market value of the S&P 500 index, *CASHMTA* is the ratio of cash to the market value of total assets, *MB* is the market-to-book ratio, and *PRICE* is the log of the price per share truncated from above at $15.

are the same in terms of o-score, Merton's distance-to-default measure, and the Campbell-Hilscher-Szilagyi measure of default probability, as well as in terms of aggregate volatility and idiosyncratic volatility. These results suggest that the two set of companies have similar credit-riskiness characteristics.

VI. Results

In this section, we test the critics' prediction that the Chrysler bailout would have a negative impact on bond prices. We first examine yields and returns on corporate bonds over the 2008 and 2009 period. We then conduct an event study of abnormal bond returns on key event dates relating to the Chrysler bailout.

Figure 2 shows the yields on bonds of unionized companies and non-unionized companies. Yields are shown for high yield bonds; since high yield bonds pose a greater risk of non-payment than investment grade bonds, high yield bonds should be more sensitive to government policies.

The yield on bonds of unionized companies tracks the yield on bonds of non-unionized companies during 2008. Yields on both unionized and non-unionized bonds are flat through most of 2008. Yields on both spike in September of 2008, with the collapse of Lehman Brothers and the worsening of the financial crisis.

In early 2009, however, the yields diverge. In March of 2009, there is a second panic in the financial markets, and yields spike on bonds of non-unionized companies. But yields on bonds of unionized companies stay relatively flat. It is during this period (March and April of 2009) that the details of the Chrysler bailout emerge.

Critics of the Chrysler bailout predicted that the bond market for unionized firms would react negatively to the terms of the bailout. That is, their hypothesis predicts that yields on bonds of unionized firms would spike, relative to yields on bonds of non-unionized firms, as the bailout is rolled out. But yields for unionized bonds did not spike. To the contrary, yields on non-unionized bonds spiked relative to yields on unionized bonds during the rollout. And the spread in yields persisted through the remainder of 2009. That is, Figure 2 shows a pattern opposite to the one the critics predicted.

Figure 2 indicates that investors perceived unionized bonds as less risky than non-unionized bonds, from the Chrysler bailout forward. The relative stability of unionized

bond yields is consistent with the notion that the Chrysler intervention led investors to expect public support for unionized companies.

Figure 3 shows cumulative raw returns on bonds of unionized firms versus non-unionized firms over the 2008-09 period. The bonds of unionized firms generated greater cumulative returns than the bonds of non-unionized firms. The difference in cumulative returns over the period amounts to about 30%. An investor that invested $1 in bonds of unionized firms at the start of 2008 would have $1.40 at the end of 2009, but only $1.10 if the investor bought bonds of non-unionized firms instead. Moreover, all of this performance differential is generated during the Chrysler bailout. There is no perceptible differential in returns before the bailout. During 2008, returns are flat for both types of bonds. After Lehman collapses, returns decline for both types of bonds. But the pattern in returns diverges once the bailout comes into the picture, with unionized firms outperforming non-unionized firms in early 2009. The performance differential subsequently remains steady in the second half of 2009.

We also examine cumulative returns on a risk-adjusted basis. Following Bessembinder et al. (2009) we group all bonds into four S&P rating categories, and compute value-weighted returns for all bonds falling into each of the rating groups.[79] We do not further partition by size or time-to-maturity due to the fact that a number of bonds do not trade on a daily basis; thus finer partitions result in small sample sizes within each partition.

Cumulative risk-adjusted returns are shown in Figure 4. Bonds of unionized firms generate greater cumulative risk-adjusted returns over the period. As with raw returns, the difference in cumulative risk-adjusted returns amounts to about 30% over the period studied. An investor that invested $1 in bonds of unionized firms at the start of 2008 would have $1.20 (on a risk-adjusted basis) at the end of 2009, but only $0.90 if the investor bought bonds of non-unionized firms instead. Moreover, all of the performance differential is generated during the bailout. Bonds of unionized and non-unionized firms generate similar cumulative risk-adjusted returns before the Chrysler bailout. It is during the bailout that bonds of unionized firms outperform.

[79] The rating groups are (i) AAA to AA-; (ii) A+ to A-; (iii) BBB+ to BBB-; and (iv) BB+ to C.

Over the period we study, there is no evidence that bond investors were worried about political interference in unionized firms as a consequence of the bailout. To the contrary, investors in unionized firms appear to have benefitted from the Chrysler bailout.

We next undertake an event study of bond returns in order to pinpoint when and how the bailout impacted the credit market. Key event dates relating to the bailout are set forth in the Appendix hereto.

To compute abnormal returns, we use the five-factor bond model developed in Fama and French (1993). This model is an extension of the commonly used three-factor stock return model, which includes factors for the market risk premium (or MKT), firm size (small minus big, or SMB), and value (high minus low, or HML). The bond model adds two additional factors: TERM, which represents the slope of the Treasury yield curve, and DEF, the default premium measured as the difference between the returns on long-term corporate bond indices and long-term Treasuries. Formally, the model developed by Fama and French to estimate expected bond returns is:

$$R_t^i = a^i + b_{MKT}^i MKT_t + b_{SMB}^i SMB_t + b_{HML}^i HML_t + b_{DEF}^i DEF_t + b_{TERM}^i TERM_t + b_{DUMMY}^i DATE\_DUMMY_t + e_t^i$$

To the model, we add a dummy variable, *DATE_DUMMY*, that takes a value of one during a three-day window around the event dates (*t-1, t, t+1*) we study in this paper.[80] The results from these regressions are reported in Table 2 for unionized companies (Panel A), non-unionized companies (Panel B), and the difference between unionized and non-unionized companies (Panel C). The coefficient on the dummy variable represents the abnormal return on the bonds during the event window. It captures the impact of the event on bond returns.

(a) The Bush Administration Approves Use of TARP Funds for Chrysler and GM

December 12, 2008. The Bush administration suggested, on December 12, 2008, that Chrysler and General Motors might be eligible for TARP funds. This announcement reversed Treasury Secretary Paulson's position that TARP funds would be used to help

[80] We find similar results using simply the event dates, and using a five-day window around event dates.

only financial institutions. The administration's announcement was prompted by the Senate's rejection of a legislative bailout package for the auto companies on December 11. That legislation failed in the Senate because Republicans were demanding deep concessions from the labor union as part of any bailout. The legislative failure prompted the Bush administration, on the morning of December 12, to declare that it would be "irresponsible" to let the auto companies fail, and that it would consider using the TARP funds.

Bonds of unionized companies did not respond to this reversal of position by the Bush administration. The coefficient on the date dummy is insignificant for unionized companies (Panel A), indicating that the announcement did not have a significant impact on bond returns for unionized companies. The announcement did not have a significant impact on bond returns for non-unionized companies (Panel B) either. It may be that the possibility of a bailout was still too uncertain. That uncertainty, however, was resolved on December 19.

December 19, 2008. The Bush administration announced, on December 19, 2008, that it would lend Chrysler and GM a combined total of $17.4 billion from TARP funds.

Bonds of unionized companies responded positively to the announcement. Those bonds generated significant positive abnormal returns upon the bailout announcement. The announcement added approximately 0.77% to the daily returns on bonds of unionized companies. Bonds of non-unionized companies, in contrast, exhibited no response. The difference in the abnormal returns on bonds of the two types of companies was a statistically significant one, amounting to 1.27% on a daily basis.

The significant positive impact of the announcement on unionized bond returns is surprising given the announcement's tough treatment of Chrysler's bondholders. The TARP loans required that the auto company meet certain targets, including replacing two-thirds of its debt with stock (as well as using stock instead of cash to fund retiree health care obligations, and establishing wage structures and workplace rules that are more competitive with foreign rivals), though the targets were non-binding. Moreover, the TARP loans would become due if, by March 31, the company failed to extract sufficient concessions from creditors, workers, suppliers, dealers, and other stakeholders to establish long-term viability. And, oversight would fall to the incoming Obama

administration, which was strongly backed by the UAW.[81] In fact, both the UAW and certain members of Congress signaled, on this date, that they would wait for the Obama administration to enter before making concessions in negotiations.

The significant positive impact on unionized bond returns is also surprising given that the loans drained what remained of the first half of the $700 billion TARP funds. To make additional loans to Chrysler or other companies from the TARP funds, the administration would have to approach Congress. While Secretary Paulson, on this date, stated that Congress should release the second $350 billion of TARP funds, he did not formally make that request to Congress, stating that the formal request would happen "in the near future" after consulting with the incoming Obama administration.

(b) Congress Fails to Block Second Half of TARP Funds

Under the TARP legislation passed in October, 2008, Congress was authorized to block the release of the second half of the $700 billion of TARP funds. Congress could block the release only if both the House and Senate voted to do so (though the President could veto any legislation). A resolution of disapproval was submitted to both the House and Senate for a vote, passage of which would block Treasury's access to the remaining TARP funds. Some members of Congress wanted to scrap TARP, some wanted to impose new conditions on any additional funds, and some wanted to dedicate funds to preventing foreclosures. Hence, Treasury's access to the second half of TARP funds for the auto bailout was not a certainty.

January 15, 2009. On this date, the Senate voted 52-42 to defeat a resolution blocking the release of the additional TARP funds. Since both chambers had to pass such a resolution to block the release of the funds, a House vote was consequently rendered moot and access to the remaining funds was assured. However, bond returns did not exhibit a significant response to the vote.

We use January 15, 2009 as the event date, since that date is the date the Senate approved access to the TARP funds. However, events on the prior day were also important. On January 14, 2009, Obama officials gave Senate Republicans assurances they were seeking that the additional TARP funds would be used only for the auto,

[81] Unions spent $52 million to help elect Obama. Salas, *supra* note 9.

banking, and housing industries and not for a broader industrial policy. Such assurances made Congressional support for the auto bailout more likely. Thus, January 14 was an important date. And our event window around January 15 encompasses it. Bond returns, however, were not impacted by the events on January 14 and 15.

(c) The Treasury Issues Results of its Viability Review

In February, 2009, Chrysler submitted to the Treasury its plan to achieve long-term viability. Submission of an acceptable viability plan was a requirement attached to the TARP loans the auto companies received in December.

March 29, 2009. After reviewing the viability plan submitted by Chrysler, the Treasury announced a summary of its findings on March 29, 2009. The Treasury made the following findings:

- Chrysler is not viable as a stand-along company and must merge with Fiat.
- The best chance for success would "require utilizing the bankruptcy code in a quick and surgical way."
- The company will have additional time (30 days) to produce a new, more aggressive viability plan, in order to pursue an alliance with Fiat (or another company) and to gain bigger concessions from stakeholders, particularly creditors and the UAW. If an acceptable plan is not submitted by then, government support will end and bankruptcy will be the likely course.

The findings indicated that Treasury intended to intervene more deeply than expected into the affairs of the auto company.

Bond returns, however, did not respond in a significant manner. Treasury's announcement had an insignificant impact on bonds of unionized and non-unionized companies.

March 30, 2009. Following up on the summary announced the day before, President Obama and the Treasury released more details, including term sheets.

Treasury indicated that Chrysler's survival "at a minimum would require extinguishing the vast majority of Chrysler's outstanding secured debt and all of its unsecured debt and equity." The Treasury, however, did not explicitly mention any cuts for retirees or reductions in Chrysler's legacy costs. According to the media, the announcement surprised some secured creditors, who believed they would fare better

without government intervention. One of the creditors stated, "If you are a secured lender, you expect to come out on top. I hope the government isn't saying it has the right to reshuffle the decks."[82]

Nevertheless, bond returns did not react. Abnormal returns on bonds of unionized and non-unionized companies were not significantly different from zero.

(d) Litigation

During the *Chrysler* bankruptcy proceedings, certain secured first-priority debt holders, three Indiana state pension funds, objected to the proposed reorganization. The funds argued that the scheme would violate the Bankruptcy Code by impermissibly subordinating their interests as secured lenders. They claimed that the sale would violate bankruptcy priority rules by paying unsecured creditors while secured creditors were receiving only 29 cents on the dollar. The funds also argued that the first-lien debt holders could recover more in liquidation, and that Chrysler could sell the assets for more than the $2 billion New Chrysler had offered. The bankruptcy court denied the funds' motion[83] and approved the reorganization. The funds immediately appealed. The Second Circuit issued an order ratifying the bankruptcy court's decision, and issued a stay to allow for review by the U.S. Supreme Court. Although the Supreme Court initially granted a temporary stay, it vacated the stay on the next day.[84] Upon remand, the Second Circuit affirmed[85] the bankruptcy court's decision.[86] The relevant dates are April 30, June 1, June 2, June 5, June 8, June 9, June 10, July 5, and August 5, as set forth in the Appendix.

None of these event dates, however, produces a significant impact on bond returns. The structure of the Chrysler reorganization was challenged but upheld in the bankruptcy court, the Second Circuit, and the U.S. Supreme Court. Yet, none of those

[82] Kate Linebaugh, *Detroit's New Model: Chrysler Plan Trims Fiat's Stake*, WALL ST. J., March 31, 2009.
[83] Order Denying Emergency Motion of the Indiana Pensioners for Stay of Proceedings Pending Determination of Motion to Withdraw the Reference (May 20, 2009), *In Re* Chrysler LLC, S.D.N.Y. (No. 09 B 50002 (AJG)) (online at chap11.epiqsystems.com/docket/docketlist.aspx?pk=1c8f7215-f675-41bf-a79be1b2cb9c18f0&l=1).
[84] Ind. State Police Pension Trust v. Chrysler LLC, 129 S. Ct. 2275, 2276 (2009) (per curiam).
[85] *Chrysler II*, 576 F.3d 108, 127 (2d Cir. 2009).
[86] *Chrysler I*, 405 B.R. 79, 83 (Bankr. S.D.N.Y. 2009).

decisions generated significant abnormal returns on bonds of unionized or non-unionized companies.

In sum, bondholders of unionized firms reacted positively to the announcement that the government would make bridge loans to Chrysler, the step that marked the beginning of the bailout. In contrast, bondholders exhibited no reaction to the specific terms of the bailout that emerged over the subsequent months purportedly favoring the union over secured creditors. Bondholders also shrugged of the court decisions that put a judicial stamp of approval on the arrangement. In other words, the event study results fail to support the argument made by the bailout's critics, that the bailout would be perceived by bondholders as establishing a dangerous precedent for future subordination of creditors in bankruptcy.

VII. Conclusion

Did the Chrysler bailout have negative consequences in the financial markets? Critics claim that the government's intervention in Chrysler was unprecedented. As they see it, the government elevated labor's claims in the established hierarchy of creditors, in violation of the Bankruptcy Code. Critics warn that the government's actions constitute a new form of risk that will be priced by the market, resulting in a higher cost of debt for unionized companies.

We test the critics' claim empirically. In doing so, we conduct an analysis that the TARP Congressional Oversight Panel failed to undertake. In our analysis, we investigate the market where an effect would be most detectible, the market for bonds of highly unionized companies.

We find no evidence of a negative reaction to the bailout by bondholders of unionized firms. In fact, their reaction to the bailout was positive. During the period when the Chrysler bailout was being formulated, adopted, and implemented, bonds of unionized firms exhibited lower yields than bonds of non-unionized companies. Unionized firms also generated greater returns for their bondholders during this period than non-unionized firms generated for their bondholders. Furthermore, bonds of unionized firms generated significant positive abnormal returns upon the commencement of the bailout, yet abnormal returns were not impacted in any significant manner by

subsequent events that purportedly favored the UAW over the secured lenders. That is, we find that bondholders responded positively to the government's decision to assist Chrysler.

The results are consistent with the notion that government bailouts generate moral hazard in financial markets. After the government allowed Lehman Brothers to fail in September of 2008, there was reason for credit markets to doubt whether the government would support troubled firms. Lenders appear to have interpreted the subsequent Chrysler bailout as a signal that the government is now willing to stand behind large, struggling companies, especially those with high unionization rates. While not dispositive of the issue, our results suggest that lenders viewed Chrysler as a signal that large, unionized companies are now too important to fail, and that they now perceive the debt of these companies as less risky than debt of non-unionized companies. If so, the Chrysler bailout could have unfortunate consequences for the economy.

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Figure 1: The Chrysler Reorganization

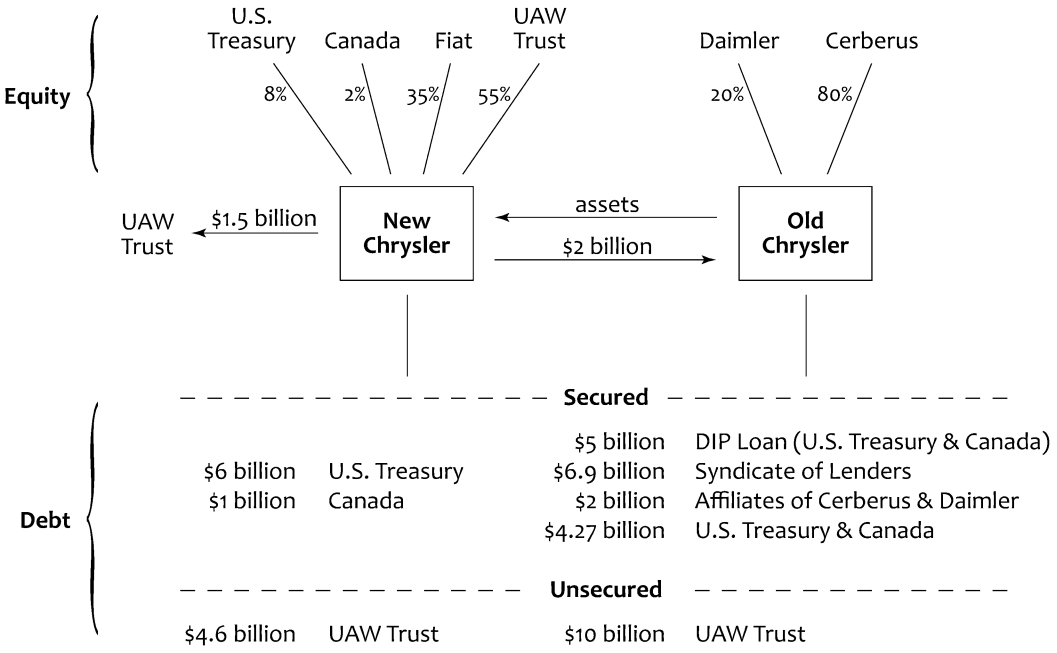

Figure 2: Corporate Yields

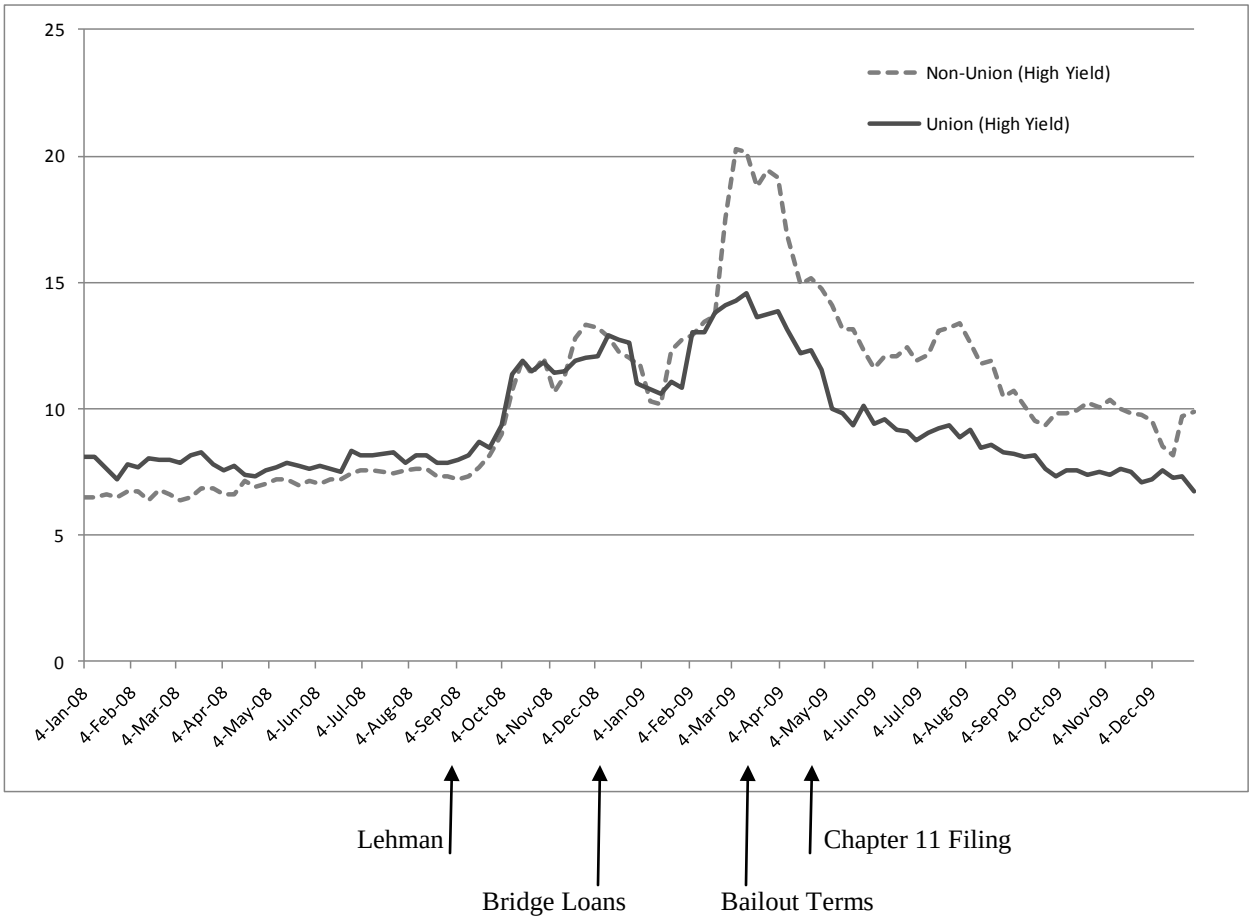

Figure 3: Cumulative Raw Bond Returns

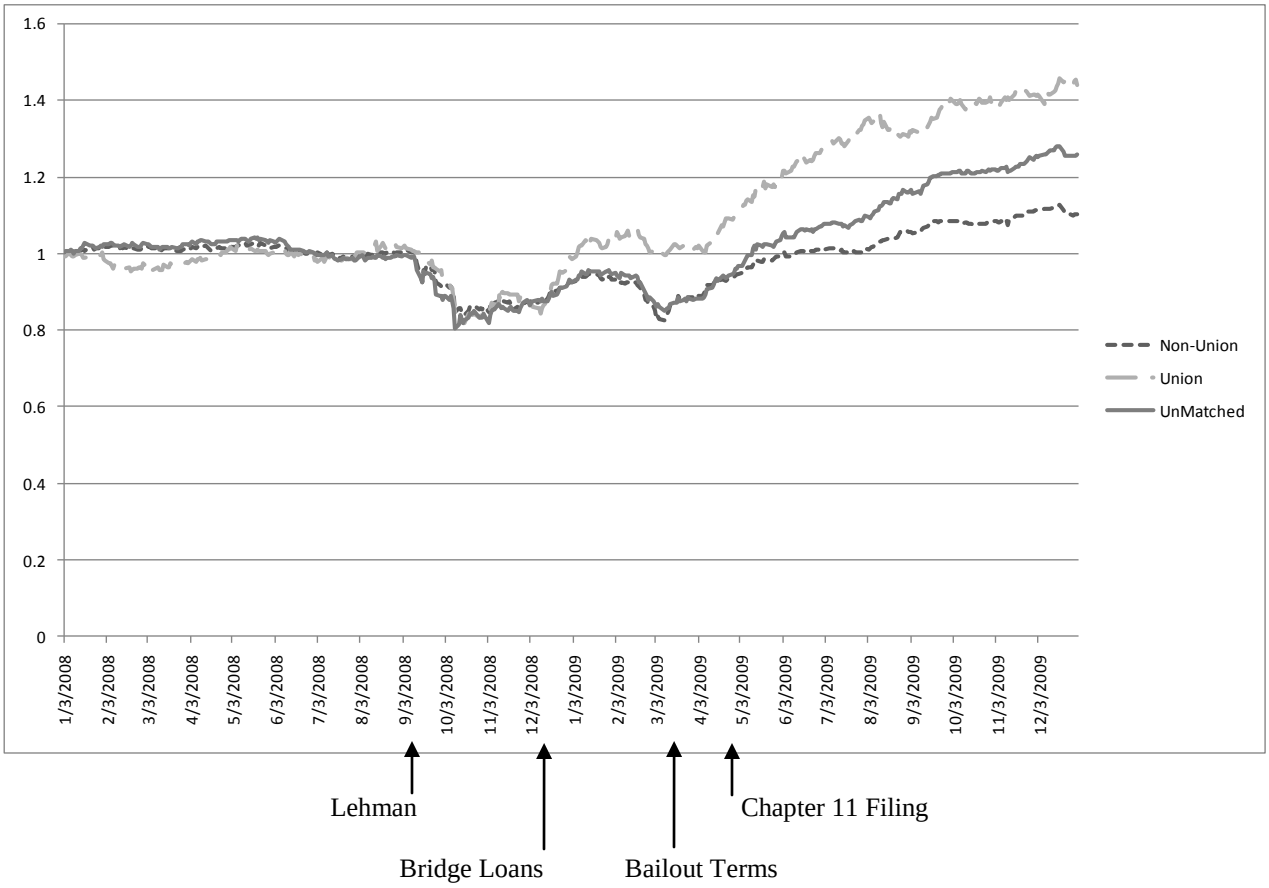

Figure 4: Cumulative Risk-Adjusted Bond Returns

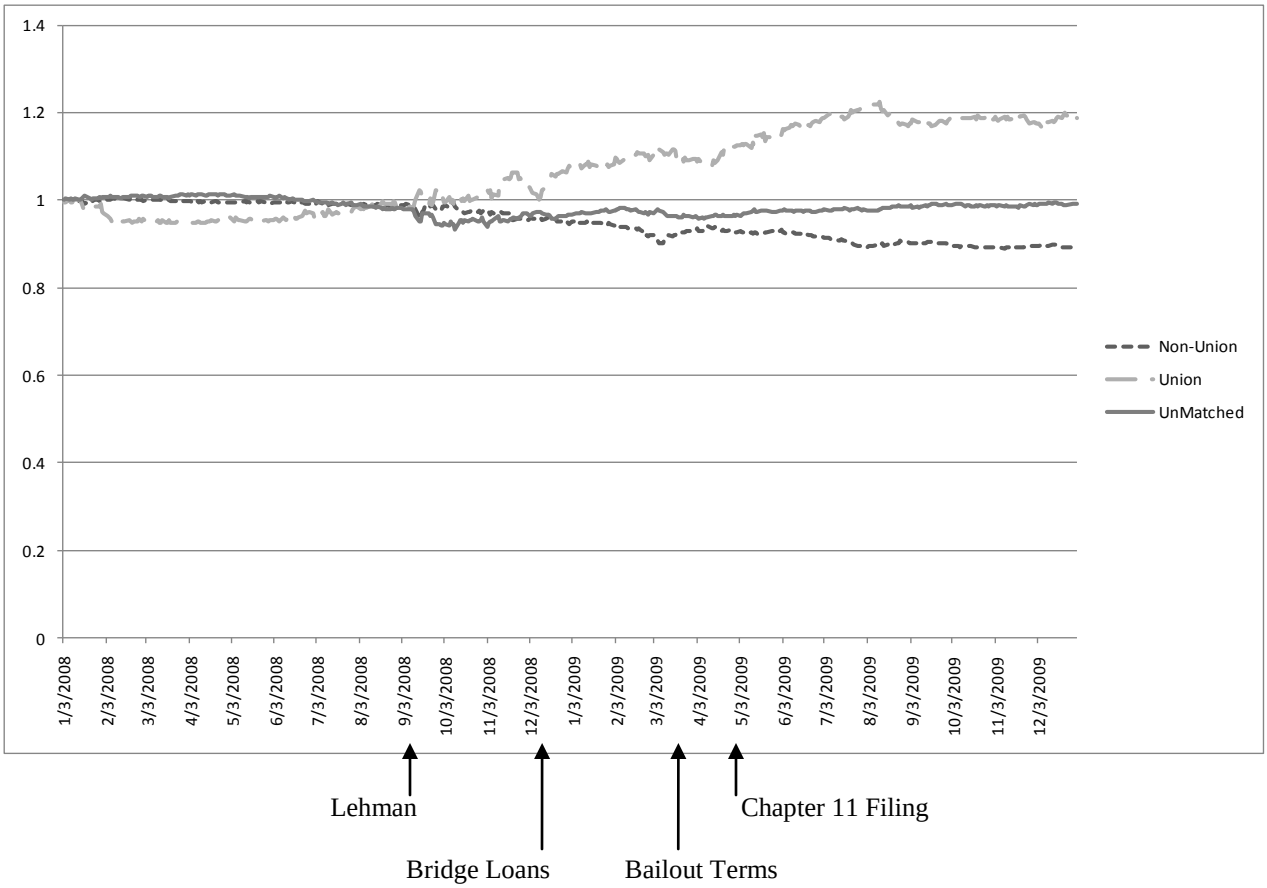

Table 1: Summary Statistics

This table provides summary statistics for various default measures and financial characteristics of unionized, non-unionized and unclassified companies. Aggregate volatility, *totvol*, is measured using daily returns over the previous 12 months. *o-score* is the Ohlson (1985) default score. Idiosyncratic volatility, *idiovol*, is calculated relative to the Fama-French 3-factor model. *bm* is the book-to-market ratio. *lme* is the log of market capitalization. *nimtavg* measures profitability and is calculated as a geometrically declining average of past values of the ratio of net income to the market value of total assets. Leverage is measured by *tlmta,* which is the ratio of total liabilities to the market value of total assets. C*hs-pd* is the default probability, calculated as in Campbell, Hilscher and Szilagyi (2008). *Merton-DD* is the Merton (1974) distance-to-default measure. The computation of *merton-DD* is described in detail in Anginer and Yildizhan (2010). *Rating* is the S&P 500 rating, where the rating has been converted to numeric values (AAA = 1, …, C = 13). *maturity* is the average maturity of the bonds for a firm and is measured in years. Statistical significance at 10%, 5% and 1% is denoted by *, **, and ***, respectively.

	UNION					NON-UNION					UNION - NON-UNION	
Variable	**Mean**	**Std Dev**	**Median**	**25th Pctl**	**75th Pctl**	**Mean**	**Std Dev**	**Median**	**25th Pctl**	**75th Pctl**	**Mean**	**t-stat**
idiovol	0.024	0.018	0.017	0.016	0.027	0.025	0.010	0.023	0.018	0.027	0.000	0.11
bm	1.458	1.109	1.244	0.891	1.417	1.400	1.037	1.125	0.536	1.851	0.058	-0.33
lme	9.489	1.674	9.263	8.036	11.475	9.025	1.519	8.799	8.115	10.425	0.463	-1.79*
merton-DD	8.504	3.176	9.018	6.214	10.832	9.243	4.886	7.967	6.315	10.844	-0.739	1.06
chs-pd	0.001	0.002	0.001	0.000	0.001	0.002	0.002	0.001	0.001	0.002	0.000	1.39
nimtavg	0.009	0.005	0.008	0.006	0.009	0.014	0.008	0.012	0.009	0.019	-0.005	-4.34***
o-score	-2.407	0.664	-2.581	-2.848	-1.865	-2.517	0.868	-2.407	-3.326	-1.868	0.109	-0.84
tlmta	0.614	0.151	0.585	0.479	0.742	0.558	0.219	0.534	0.393	0.761	0.056	-1.74*
totvol	0.036	0.019	0.029	0.027	0.037	0.039	0.014	0.037	0.032	0.044	-0.003	1.15
maturity	11.073	7.238	9.855	4.857	16.230	8.932	5.868	7.205	3.344	13.795	2.141	1.91**
rating	9.570	4.075	9.000	6.000	13.000	8.684	3.030	9.000	7.000	10.000	0.886	-1.65

	UNCLASSIFIED				
Variable	**Mean**	**Std Dev**	**Median**	**25th Pctl**	**75th Pctl**
idiovol	0.025	0.013	0.021	0.017	0.029
mb	1.559	1.054	1.386	0.790	2.266
lme	9.191	1.435	9.242	8.384	9.968
merton-DD	10.188	5.916	8.522	6.757	13.115
chs-pd	0.002	0.004	0.001	0.000	0.001
nimtavg	0.011	0.008	0.012	0.007	0.016
o-score	-3.001	2.474	-2.605	-3.206	-2.321
tlmta	0.510	0.219	0.492	0.323	0.673
totvol	0.038	0.014	0.033	0.027	0.045
maturity	12.878	9.953	12.389	6.938	17.037
rating	9.076	3.751	9.000	7.000	11.000

Table 2: Event Study – Panel A

This table provides the results from the event regressions: $r_t^i - rf_t = a^i + b^i_{MKT} MKT_t + b^i_{SMB} SMB_t + b^i_{HML} HML_t + b^i_{DEF} DEF_t + b^i_{TERM} TERM_t + b^i_{DUMMY} DATE\_DUMMY_t + e^i_t$. Value – weighted excess bond returns ($r_t^i - rf_t$) of a portfolio of unionized (Panel A) and non-unionized companies (Panel B), as well as a portfolio formed by going long unionized and short non-unionized companies (Panel C), are regressed on risk factors and a dummy variable (*DATE_DUMMY*) that takes on a value of one in the three days (*t-1,t,t+1*) around the specified event date. *MKT* is the market risk premium, *SMB* is the size factor, *HML* is the value factor, computed as in Fama and French (1993). *TERM* is the return on long-term treasury bonds minus the return on short-term (three month) treasuries. *DEF* is the return on value-weighted long-term corporate bonds minus the return on long-term treasury bonds. Significance at 10%, 5% and 1% is denoted by *, **, and ***, respectively.

Panel A: Unionized Companies Portfolio Bond Returns

							Date Dummy															
	Intercept	**MKTRF**	**SMB**	**HML**	**DEF**	**TERM**	**12/12/08**	**12/19/08**	**1/15/09**	**3/29/09**	**3/30/09**	**4/30/09**	**6/1/09**	**6/2/09**	**6/5/09**	**6/8/09**	**6/9/09**	**6/10/09**	**7/5/09**	**8/5/09**	**Adj R^2**
Coeff	0.0001	0.0362	-0.0013	0.0183	0.5516	0.1746	0.0077														0.074
t-stat	*0.35*	*1.59*	*-0.03*	*0.4*	*5.29****	*3.49****	*1.50*														
Coeff	0.0001	0.0369	-0.0066	0.0137	0.5451	0.1744		0.0119													0.067
t-stat	*0.35*	*1.61*	*-0.13*	*0.3*	*5.19****	*3.47****		*3.35****													
Coeff	0.0001	0.0358	-0.0032	0.0143	0.5582	0.1775			0.0016												0.063
t-stat	*0.36*	*1.56*	*-0.06*	*0.31*	*5.32****	*3.52****			*0.31*												
Coeff	0.0001	0.0363	-0.0022	0.0133	0.5589	0.1781				0.0011											0.063
t-stat	*0.36*	*1.58*	*-0.04*	*0.29*	*5.33****	*3.54****				*0.18*											
Coeff	0.0001	0.0363	-0.0022	0.0133	0.5589	0.1781					0.0011										0.063
t-stat	*0.36*	*1.58*	*-0.04*	*0.29*	*5.33****	*3.54****					*0.18*										
Coeff	0.0001	0.0361	-0.0022	0.0129	0.5625	0.1781						-0.0012									0.063
t-stat	*0.36*	*1.58*	*-0.04*	*0.28*	*5.32****	*3.54****						*-0.23*									
Coeff	0.0001	0.0358	-0.0032	0.0133	0.5558	0.1772							0.0009								0.063
t-stat	*0.36*	*1.56*	*-0.06*	*0.29*	*5.21****	*3.5****							*0.18*								
Coeff	0.0001	0.0358	-0.0046	0.0140	0.5520	0.1775								0.0021							0.063
t-stat	*0.36*	*1.56*	*-0.09*	*0.31*	*5.19****	*3.52****								*0.41*							
Coeff	0.0001	0.0362	-0.0022	0.0128	0.5587	0.1782									0.0005						0.063
t-stat	*0.36*	*1.58*	*-0.04*	*0.28*	*5.32****	*3.53****									*0.09*						
Coeff	0.0001	0.0364	-0.0017	0.0132	0.5527	0.1782										0.0052					0.065
t-stat	*0.35*	*1.59*	*-0.03*	*0.29*	*5.27****	*3.54****										*1.02*					
Coeff	0.0001	0.0365	-0.0006	0.0129	0.5533	0.1784											0.0058				0.065
t-stat	*0.35*	*1.59*	*-0.01*	*0.28*	*5.28****	*3.55****											*1.14*				
Coeff	0.0001	0.0361	-0.0022	0.0130	0.5581	0.1778												0.0009			0.063
t-stat	*0.36*	*1.57*	*-0.04*	*0.29*	*5.31****	*3.53****												*0.17*			
Coeff	0.0001	0.0356	0.0012	0.0157	0.5625	0.1794													0.0114		0.066
t-stat	*0.36*	*1.56*	*0.02*	*0.35*	*5.37****	*3.57****													*1.29*		
Coeff	0.0001	0.0366	-0.0015	0.0118	0.5576	0.1782														0.0015	0.063
t-stat	*0.36*	*1.59*	*-0.03*	*0.26*	*5.31****	*3.54****														*0.29*	

Table 2: Event Study – Panel B

Panel B: Non-Unionized Companies Portfolio Bond Returns																					
							Date Dummy														
	Intercept	**MKTRF**	**SMB**	**HML**	**DEF**	**TERM**	**12/12/08**	**12/19/08**	**1/15/09**	**3/29/09**	**3/30/09**	**4/30/09**	6/1/09	**6/2/09**	**6/5/09**	**6/8/09**	**6/9/09**	**6/10/09**	**7/5/09**	8/5/09	**Adj R^2**
Coeff	0.0006	0.0548	-0.0570	-0.0539	0.5703	0.2534	0.0054														0.125
t-stat	*0.31*	*2.89****	*-1.38*	*-1.43*	*6.58****	*6.09****	*1.27*														
Coeff	0.0006	0.0554	-0.0600	-0.0533	0.5604	0.2508		0.0000													0.128
t-stat	*0.31*	*2.93****	*-1.45*	*-1.42*	*6.46****	*6.03****		*-0.01*													
Coeff	0.0006	0.0536	-0.0608	-0.0480	0.5661	0.2516			0.0065												0.129
t-stat	*0.3*	*2.83****	*-1.47*	*-1.27*	*6.55****	*6.06****			*1.53*												
Coeff	0.0005	0.0539	-0.0569	-0.0557	0.5723	0.2530				-0.0053											0.127
t-stat	*0.28*	*2.84****	*-1.38*	*-1.48*	*6.61****	*6.09****				*-1.03*											
Coeff	0.0005	0.0539	-0.0569	-0.0557	0.5723	0.2530					-0.0053										0.127
t-stat	*0.28*	*2.84****	*-1.38*	*-1.48*	*6.61****	*6.09****					*-1.03*										
Coeff	0.0007	0.0548	-0.0571	-0.0540	0.5641	0.2531						0.0023									0.125
t-stat	*0.37*	*2.89****	*-1.38*	*-1.44*	*6.46****	*6.09****						*0.53*									
Coeff	0.0006	0.0548	-0.0569	-0.0540	0.5705	0.2534							0.0000								0.125
t-stat	*0.33*	*2.89****	*-1.37*	*-1.43*	*6.48****	*6.07****							*-0.01*								
Coeff	0.0007	0.0551	-0.0543	-0.0551	0.5783	0.2539								-0.0023							0.125
t-stat	*0.35*	*2.91****	*-1.31*	*-1.46*	*6.59****	*6.1****								*-0.54*							
Coeff	0.0004	0.0547	-0.0570	-0.0538	0.5709	0.2531									-0.0005						0.125
t-stat	*0.22*	*2.89****	*-1.38*	*-1.43*	*6.58****	*6.08****									*-0.11*						
Coeff	0.0004	0.0548	-0.0571	-0.0540	0.5715	0.2533										-0.0010					0.125
t-stat	*0.23*	*2.89****	*-1.38*	*-1.44*	*6.59****	*6.09****										*-0.23*					
Coeff	0.0007	0.0546	-0.0578	-0.0539	0.5736	0.2531											-0.0032				0.126
t-stat	*0.37*	*2.88****	*-1.4*	*-1.43*	*6.62****	*6.09****											*-0.75*				
Coeff	0.0007	0.0548	-0.0570	-0.0540	0.5708	0.2534												-0.0004			0.125
t-stat	*0.35*	*2.89****	*-1.38*	*-1.44*	*6.58****	*6.09****												*-0.09*			
Coeff	0.0006	0.0546	-0.0557	-0.0528	0.5715	0.2539													0.0043		0.125
t-stat	*0.33*	*2.88****	*-1.35*	*-1.4*	*6.6****	*6.1****													*0.60*		
Coeff	0.0006	0.0560	-0.0550	-0.0567	0.5659	0.2539														0.0040	0.126
t-stat	*0.3*	*2.95****	*-1.33*	*-1.5*	*6.53****	*6.11****														*0.94*	

Table 2: Event Study – Panel C

Panel C: Unionized - Non-Unionized Portfolio Bond Returns																					
							Date Dummy														
	Intercept	**MKTRF**	**SMB**	**HML**	**DEF**	**TERM**	**12/12/08**	**12/19/08**	**1/15/09**	**3/29/09**	**3/30/09**	**4/30/09**	**6/1/09**	6/2/09	**6/5/09**	**6/8/09**	6/9/09	**6/10/09**	**7/5/09**	**8/5/09**	**Adj R^2**
Coeff	-0.0005	-0.0186	0.0556	0.0722	-0.0187	-0.0788	0.0023														0.0043
t-stat	*-0.7*	*-0.67*	*0.92*	*1.31*	*-0.15*	*-1.3*	*0.37*														
Coeff	-0.0005	-0.0185	0.0534	0.0671	-0.0153	-0.0765		0.0127													-0.004
t-stat	*-0.57*	*-0.66*	*0.88*	*1.22*	*-0.12*	*-1.25*		*2.94****													
Coeff	-0.0005	-0.0178	0.0577	0.0624	-0.0078	-0.0741			-0.0049												-0.0026
t-stat	*-0.48*	*-0.64*	*0.95*	*1.13*	*-0.06*	*-1.21*			*-0.79*												
Coeff	-0.0004	-0.0176	0.0546	0.0690	-0.0134	-0.0749				0.0064											-0.0023
t-stat	*-0.6*	*-0.63*	*0.9*	*1.25*	*-0.11*	*-1.23*				*0.85*											
Coeff	-0.0004	-0.0176	0.0546	0.0690	-0.0134	-0.0749					0.0064										-0.0023
t-stat	*-0.6*	*-0.63*	*0.9*	*1.25*	*-0.11*	*-1.23*					*0.85*										
Coeff	-0.0006	-0.0186	0.0549	0.0669	-0.0016	-0.0749						-0.0034									-0.0033
t-stat	*-0.5*	*-0.67*	*0.91*	*1.21*	*-0.01*	*-1.23*						*-0.55*									
Coeff	-0.0005	-0.0190	0.0537	0.0673	-0.0147	-0.0762							0.0010								-0.0039
t-stat	*-0.55*	*-0.68*	*0.88*	*1.22*	*-0.11*	*-1.25*							*0.16*								
Coeff	-0.0006	-0.0192	0.0497	0.0691	-0.0263	-0.0765								0.0045							-0.0028
t-stat	*-0.6*	*-0.69*	*0.82*	*1.25*	*-0.2*	*-1.25*								*0.71*							
Coeff	-0.0003	-0.0186	0.0549	0.0666	-0.0122	-0.0749									0.0009						-0.0039
t-stat	*-0.55*	*-0.67*	*0.91*	*1.21*	*-0.1*	*-1.23*									*0.15*						
Coeff	-0.0003	-0.0184	0.0554	0.0671	-0.0188	-0.0751										0.0062					-0.0017
t-stat	*-0.62*	*-0.66*	*0.92*	*1.22*	*-0.15*	*-1.23*										*1.00*					
Coeff	-0.0006	-0.0181	0.0572	0.0668	-0.0203	-0.0748											0.0090				0.0007
t-stat	*-0.66*	*-0.65*	*0.95*	*1.21*	*-0.16*	*-1.23*											*1.46*				
Coeff	-0.0006	-0.0188	0.0548	0.0670	-0.0126	-0.0757												0.0013			-0.0038
t-stat	*-0.56*	*-0.68*	*0.91*	*1.21*	*-0.1*	*-1.24*												*0.20*			
Coeff	-0.0005	-0.0190	0.0568	0.0686	-0.0091	-0.0745													0.0070		-0.0030
t-stat	*-0.58*	*-0.68*	*0.94*	*1.24*	*-0.07*	*-1.22*													*0.66*		
Coeff	-0.0005	-0.0194	0.0535	0.0685	-0.0083	-0.0757														-0.0025	-0.0036
t-stat	*-0.51*	*-0.7*	*0.88*	*1.24*	*-0.06*	*-1.24*														*-0.40*	

Appendix: Timeline of Events

October 3, 2008	TARP enacted.
December 11, 2008	Congress rejects auto bailout.
December 12, 2008	Bush Administration suggests TARP might be used for the auto companies, reversing its earlier position.
December 19, 2008	Bush Administration announces the making of bridge loans to the auto companies.
January 14, 2009	Obama gives Republicans assurances they were seeking as a condition to approve second half of TARP funds.
January 15, 2009	Congress approves release of second half of TARP funds.
February 17, 2009	Chrysler submits its viability plan.
March 29, 2009	Treasury announces summary findings of its review of Chrysler viability plan.
March 30, 2009	President Obama and Treasury announce further details of their findings, set forth requirements that Chrysler's viability plan must meet, and give Chrysler 30 days to submit a revised plan.
April 30, 2009	Chrysler files for bankruptcy protection under Chapter 11 of the U.S. Bankruptcy Code.
June 1, 2009	Bankruptcy Court authorizes the sale of Chrysler's assets to New Chrysler under section 363 of the Code. Separately, GM files for bankruptcy protection under Chapter 11.[87]
June 2, 2009	Second Circuit issues a motion for a stay.
June 5, 2009	Second Circuit affirms the June 1 order of the Bankruptcy Court.
June 8, 2009	Supreme Court issues stay.
June 9, 2009	Supreme Court vacates stay.
June 10, 2009	Chrysler's assets are sold to New Chrysler under section 363 of the Code.
July 5, 2009	GM's assets are sold under section 363 of the Code.[88]
August 5, 2009	Second Circuit issues its opinion explaining its June 5 *Chrysler* decision.

[87] Voluntary Petition, *In re* Gen. Motors Corp., 407 B.R. 463 (Bankr. S.D.N.Y. 2009) (No. 09-50026).
[88] *In re* Gen. Motors Corp., 407 B.R. 463, 520 (Bankr. S.D.N.Y. 2009).