2014

The Fannie and Freddie Bailouts through the Corporate Lens

Adam Badawi

Anthony Casey

Follow this and additional works at: https://chicagounbound.uchicago.edu/housing_law_and_policy

Part of the Law Commons

Chicago Unbound includes both works in progress and final versions of articles. Please be aware that a more recent version of this article may be available on Chicago Unbound, SSRN or elsewhere.

Recommended Citation


This Working Paper is brought to you for free and open access by the Working Papers at Chicago Unbound. It has been accepted for inclusion in Kreisman Working Paper Series in Housing Law and Policy by an authorized administrator of Chicago Unbound. For more information, please contact unbound@law.uchicago.edu.
The Fannie and Freddie Bailouts through the Corporate Lens

Adam B. Badawi and Anthony J. Casey

THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO

March 2014

This paper can be downloaded without charge at:
The University of Chicago, Institute for Law and Economics Working Paper Series Index:
http://www.law.uchicago.edu/lawecon/index.html
and at the Social Science Research Network Electronic Paper Collection.
The Fannie and Freddie Bailouts through the Corporate Lens

Adam B. Badawi* and Anthony J. Casey**

ABSTRACT

In August of 2012, the Department of Treasury redirected the profits of Fannie Mae and Freddie Mac away from common shareholders and into the Treasury. Those shareholders have filed multiple lawsuits challenging this action. The complaints allege, among other claims, that the decision to wipe out equity violated the principles of corporate law. In this Essay—prepared for a symposium on the Future of Fannie and Freddie—we analyze that argument. We ask whether the shareholders of an ordinary public company could assert a similar claim under these circumstances. Those circumstances involve a lender of last resort converting a debt-like instrument to an equity-like instrument as means to protect its interests and the interests of other creditors. Indeed, our analysis of the financials of Fannie Mae and Freddie Mac shows that they were easily characterized as insolvent in August of 2012. Because bankruptcy law and corporate law permit the directors of a firm to take actions to protect creditors when a firm approaches insolvency, the only relevant question is whether equity had any worth at the time of Treasury’s 2012 action. Just as there is no right to wipe out positive equity value, there is no obligation to force creditors to bear the full cost of risky gambles that might create it value where it does not otherwise exist. And in 2012, the creditors of Fannie and Freddie were bearing significant risk as the obligations of those entities mounted. We argue that the merits of any claim the shareholders can bring, therefore, turn entirely on the value of equity in August of 2012. We then conduct a basic valuation of the common stock of Fannie and Freddie and find that, under any reality-based scenario, the substantial obligations owed to Treasury and the implausibility of never-ending growth in housing markets rendered the shares worthless. To the degree that the private market analogy is apt, the shareholders’ corporate claims should, thus, fail.

* Associate Professor, Washington University in St. Louis, School of Law.
** Assistant Professor, The University of Chicago Law School. The Jerome F. Kutak Faculty Fund provided research support. We would like to thank Cheryl Block, M. Todd Henderson, Dan Keating, Ron Levin, David Skeel, and participants at the “Future of Fannie and Freddie” Conference at NYU School of Law for helpful comments.
Introduction

In 2012, the United States Treasury effectively took ownership of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation – more commonly referred to, respectively, as Fannie Mae and Freddie Mac (hereinafter the “Entities”). This takeover did not occur overnight. Rather it was the culmination of a four-year bailout program. As the financial crisis was unfolding in the summer and fall of 2008, the federal government initiated several measures to prevent a full collapse of the Entities and the mortgage market more generally. The Entities were put into conservatorship and the government committed to injecting capital into the Entities. The centerpiece of this capital injection was a pair of Preferred Stock Purchase Agreements (“the PSPAs”) between Treasury and the Entities. Through those agreements Treasury became the senior preferred shareholder of each entity. Those agreements – at least in theory – preserved the existing shareholders positions as residual owners. But four years later, Treasury and the Entities (through the government-appointed conservator) amended the agreement to create a net income sweep. That sweep ensured that all equity junior to Treasury’s senior preferred shares would receive no future value – regardless of the performance of the Entities.

Sustained criticism of this decision has come from across the political spectrum. Gretchen Morgenstern calls the decision “punitive.” 1 Richard Epstein argues that the sweep is an “unconstitutional money grab.” 2 The government’s behavior has been labeled “astonishingly duplicitous” by David Skeel. 3 Even Ralph Nader has complained to the Treasury about the “abuse of Fannie Mae and Freddie Mac common stockholders.” 4

While wiping out equity has generated this political controversy, it is consistent with what often happens to stockholders of distressed companies. Indeed that is the more likely outcome when a corporation is sold or reorganized under Chapter 11 of the Bankruptcy Code. 5 There remains little doubt that the Entities were highly distressed at the time of the PSPAs and Amendments. While procedurally suspect, these actions thus did not substantively violate the

---

3 David Skeel, “Now Uncle Sam is Ripping Off Fannie and Freddie,” WALL ST. J., February 27, 2014.
norms of corporate law and finance that would apply to private companies in the same position. To the contrary, in the private context there may have been no action available that would have legally allocated any future interest in the Entities to the (junior) preferred \(^6\) and common shareholders.\(^7\)

Corporate law grants wide leeway to distressed firms when it comes to protecting their creditors. Indeed, the bankruptcy process would be highly problematic and often impossible if directors had to privilege shareholders above all other parties when insolvency threatens. The chorus of objectors claiming otherwise has ignored both the enormous risk facing all creditors of the Entities and the freedom that corporate law grants to limit this risk. Departing from established principles, they have implicitly suggested that a remote possibility of creating value for equity justifies (or even requires) imposing extreme risk on creditors even when the net value of that proposition is negative.

While corporate governance sometimes permits favoring debt over equity,\(^8\) bankruptcy law often requires it.\(^9\) Given the financial state of the Entities, actions favoring equity would have likely destroyed total value in the name of redistributing wealth from creditors to equity. Fannie Mae and Freddie Mac, respectively, had $3 trillion and $2 trillion in liabilities and no equity cushion. Creditors had expressed concern. They were bearing the risk of an organization that had little chance of creating value for equity. In the private context, there would have been

\(^6\) After 2008, Treasury had Senior Preferred shares. The other preferred shares were junior to Treasury but senior to common shares. We refer to those as “(junior) preferred shares.”

\(^7\) This essay does not explore the possibility that the government could have cut a check directly to the common shareholders. A subsidy or ex post insurance payment for equity holders would essentially be an additional bailout maneuver. The considerations behind that course of action are purely political and have nothing to do with the legal rights between the Entities and their stakeholders.

\(^8\) “Directors routinely make decisions that unambiguously favor creditors and other investors at the expense of the holders of common stock.” Douglas G. Baird & M. Todd Henderson, Other People’s Money, 60 STAN. L. REV. 1309, 1316 (2008). Professors Baird and Henderson highlight the most glaring example: the filing of a bankruptcy petition that destroys the future option value of equity holders. \textit{Id}. While few have questioned the directors’ authority to do so, those who champion a shareholder-only view of directors’ duties have yet to provide a coherent justification for exceptions such as the bankruptcy petition. \textit{Id}. at 1312 n.18; see also N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla, 930 A.2d 92, 99–101 (Del. 2007) (“When a corporation is \textit{insolvent}, however, its creditors take the place of the shareholders as the residual beneficiaries of any increase in value. Consequently, the creditors of an \textit{insolvent} corporation have standing to maintain derivative claims against directors on behalf of the corporation for breaches of fiduciary duties.”); Credit Lyonnais Bank Nederland, N.V. v. Pathe Commc’ns Corps., Civ. A. No. 12150, 1991 Del. Ch. LEXIS 215, at *108-09 (Del. Ch. Dec. 30, 1991); Vincent S. J. Buccola, \textit{Beyond Insolvency}, 62 KAN. L. REV. 1, 3 n.5 (“The duty to creditors serves, in other words, as a shield to protect managers from liability to shareholders but not as a sword for creditors to assert wrongdoing.”).

\(^9\) \textit{See}, for example, the adequate protection requirements of 11 U.S.C. §§ 362-64 (2012).
pressure to file for bankruptcy to liquidate the assets and eliminate the risk to creditors. And once in bankruptcy, the directors would have been entirely barred from taking actions to benefit equity at the expense of creditors.

Moreover, any redistribution of value to equity – beyond constituting a breach of duty and potential ground for a fraudulent conveyance claim – would produce a violation of the Absolute Priority Rule that governs analogous private transactions. If equity is worth nothing, a company can be restructured or liquidated. When that happens, equity cannot be paid a cent until every creditor is paid in full. The same is true among layers of shareholders. Net assets must be paid in order of investment priorities. Common and preferred junior shareholders get nothing until senior preferred shareholders are paid in full. If there is not enough value to pay the shareholders, they have no remedy. That is the bargain they struck. Thus, under current law and custom any distribution of value to equity in August 2012 would have – like the Government’s actions in the Chrysler bankruptcy – violated this rule of Absolute Priority.

In this essay, we examine the 2008 and 2012 restructuring transactions. We approach these transactions as corporate governance and bankruptcy lawyers rather than public policy advocates. Through that lens we demonstrate that equity’s claims on Fannie and Freddie turn entirely on the valuation of the Entities as of August 2012. We explain that the substance of Treasury’s and the Entities’ actions – in September 2008 and August 2012 – were generally in line with acceptable actions of creditors and debtors involved in restructuring distressed corporations in Chapter 11 bankruptcy or in out-of-court reorganizations.

---

10 This assumes there is a payment and liquidation preference as there was in the case of the Treasury’s preferred stock in the Entities.


12 Epstein, supra note 7.

13 For the most part, we pass over the other amendments that occurred between 2008 and 2012. Those amendments increased Treasury’s commitment and expanded the liquidity support it provided to the Entities. Without those amendments, the Entities would have been unable to fund operations long before 2012.
Of course, the government’s actions are complicated by the fact that they were acting as both conservator (and director) and creditor.¹⁴ That conflict does require a showing of entire fairness from the government. But the entire fairness analysis must be mindful of the context of the transactions. If a shareholder receives more protection than it would in the absence of a conflicted transaction, the transaction will be entirely fair. That was the case in 2008. The 2008 transaction occurred during a potential meltdown when Treasury was the *only* available lender for the Entities. Without Treasury’s loan, equity was certain to be wiped out. In that context, the transaction is entirely fair. Indeed, in much less extreme situations, distressed debtors often must submit to harsh deals that adversely affect shareholders. Similarly, if directors take the only available course of action in light of their duties to all stakeholders, that action will be entirely fair. That was the case in 2012. While circumstances were not as dire for the 2012 transaction, the Entities were in a precarious financial position. The risk to the creditors of the Entities was substantial and was growing each day. Given the duties that directors have to not destroy value of the corporate enterprise as a whole, even by the high standards of entire fairness, the Amendments were consistent with the fiduciary duties that were owed at the time. To demonstrate this point, we conclude with a basic valuation of equity and show that under any reality-based scenario, it is unlikely that equity had positive value.

I. Background

The Entities are a hybrid between public institutions and private companies – often referred to as Government Sponsored Entities.¹⁵ The purpose behind them was essentially to provide liquidity to the mortgage market. “They purchase mortgages, guarantee them, and package them in mortgage-backed securities (MBSs), which they either keep as investments or sell to institutional investors.”¹⁶ Investors buy the MBSs and thus provide the liquidity to the mortgage market. Those investors become general creditors of the Entities. That guarantee only has value if the Entities can cover payment defaults on the underlying mortgages. To do that they must be

---

¹⁴ For the purposes of this essay, we assume that it is true that the conservator had a conflict of interest. This is far from clear. Other participants in the symposium have addressed this question more closely.
¹⁶ *Id.*
solvent or – as was widely inferred – the Federal Government has to back the guarantee. That inference was tested by the recent financial crisis.

In September of 2008, the Entities were in steep decline. Each entity was experiencing its fifth consecutive quarter of losses. Fannie had lost at least $9 billion in that time, Freddie had lost at least $4 billion, and things were rapidly deteriorating. We now know that the Entities were at the beginning of the worst quarter in their histories. In the third quarter of 2008, Fannie would report losses of $28.994 billion and Freddie would report losses of $25.295 billion. Faced with these historic losses and a rapidly declining housing market, the outlook for the Entities was bleak.

Without government intervention, the Entities would have defaulted on their guaranty obligations and more generally on obligations to all creditors. That default would have created a feedback loop leading to the liquidation of the Entities and, as many believe, the complete collapse of the U.S. real estate market. After default, the Entities’ guaranties and any other debt issuances would not have been attractive. The Entities’ resulting inability to raise funds would have led to further defaults by the Entities. Meanwhile, those defaults would cause a reduction in liquidity in the general mortgage market. That would lead to more borrower defaults in the mortgage market as potential buyers of distressed properties would be unable to get mortgages, leaving more underwater borrowers to default. Those defaults would then increase the debt owed by the Entities leading to further defaults, leading to a continuous cycle. In response, the Entities were placed into conservatorship, and simultaneously entered into senior preferred stock agreements with Treasury. Under the PSPAs, Treasury promised to provide up to $100 billion to each entity. That amount was subsequently doubled. This move provided a clear but limited guarantee to those

---

17 See Fannie and Freddie 10Ks and 10Qs for 2007 and 2008.
20 Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement between U.S. Dep’t of Treasury and Fed. Nat’l Mortg. Ass’n (May 6, 2009) [hereinafter Fannie Mae First Amendment], available at http://www.sec.gov/Archives/edgar/data/310522/000095013309001520/w73633exv4w21.htm; Amendment to
who held MBSs and other debt in the Entities. The limit was later amended in 2009 to provide an unlimited guarantee through the end of 2012. Treasury’s investment was structured as senior preferred stock, placing it senior in priority to all other equity but junior to all debt. Treasury was also granted warrants to purchase 79.9% of the common equity in the Entities.

The preferred stock provided Treasury with a liquidation preference equal to the amount of funds that had been drawn from Treasury’s commitment. By the end of 2012, the combined liquidation preference for the Entities was $189.4 billion. Treasury also accrued a quarterly dividend at an annual rate of 10% of the outstanding liquidation preference. If there was any quarter where the dividend was not paid in cash, the rate would increase to 12%. When not paid, the amount of the dividend would be added to the liquidation preference, thus increasing the amount owed on future dividends. These dividends did not reduce the liquidation preference and thus functioned like interest on the principal investment.


The structure allowed for the Entities to draw on the limit and prohibited Treasury from shutting down the fund. Thus, the Entities could incur losses up to the level of Treasury’s commitment before any loss hit the creditors.

The amended formula allowed the draws from Treasury to be increased by any extra amount necessary to ensure that the net value of the Entities assets was equal to its liabilities through the end of 2012. Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement between U.S. Dep’t of Treasury and Fed. Nat’l Mortg. Ass’n (Dec. 24, 2009) [hereinafter Fannie Mae Second Amendment], available at http://www.sec.gov/Archives/edgar/data/310522/000095012309073866/f71241exv10w1.htm; Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement between U.S. Dep’t of Treasury and Fed. Home Loan Mortg. Corp. (Dec. 24, 2009) [hereinafter Freddie Mac Second Amendment], available at http://www.sec.gov/Archives/edgar/data/1026214/000102621409000023/f71076exv10w6.htm.

Preferred stock usually has some equity-like features, such as voting rights, and some debt-like features such as a right to periodic defined payments. One prominent definition in tax law states that preferred stock is “stock which, in relation to other classes of stock outstanding, enjoys certain limited rights and privileges ... but does not participate in corporate growth to any significant extent.” See Treas. Reg. § 1.305-5(a) (as amended in 1995).

Fannie’s liquidation preference was $117.1 billion. Fannie Mae Preferred Stock Certificate, supra note 20, § 2(c) (Sept. 7, 2008) [hereinafter Fannie Mae Preferred Stock Certificate], available at http://www.sec.gov/Archives/edgar/data/310522/000095012309073866/f71241exv10w1.htm.
Perhaps most importantly for valuation purposes, the agreements provided that the liquidation preference and, in turn, the dividend obligation could not be paid down incrementally. That is to say that once the liquidation preference had hit $189.4 billion the Entities could not reduce the dividend obligation until they had paid repaid the full $189.4 billion. This created a ratchet effect where the dividend obligation could go up but not down prior to final repayment. It operated similar to no-call, make-whole, and other provisions often seen in other debt instruments.

The agreements also prohibited each entity from incurring any obligation that would increase its aggregate indebtedness to above 110% of its existing indebtedness beginning on June 30, 2008 and prohibited the incurrence of any obligation that was subordinate to any other indebtedness. As a functional matter, this meant that all future operations had to be funded by earnings, funds drawn from Treasury’s commitment, or loans approved by Treasury and potentially other creditors. Finally, the GSEs were required to shrink their investment portfolios by 10% a year starting in 2010 until they fell below $250 billion.

Four years later the Entities had experienced record losses. Fannie’s losses for the years 2008 through 2011 were $58.707 billion, $72.022 billion, $14.018 billion, and $16.855 billion, respectively. In that time, it only had one profitable quarter – $65 million in the fourth quarter of 2010. By August of 2012, it appeared that things were getting better. The Entities had just experienced two quarters of profit. But most of that profit had been used to pay the quarterly dividend. In fact, the second quarter of 2012 was the first quarter where the Entities had earned enough to pay the dividend without taking a further draw on Treasury’s commitment. There was still massive risk for creditors. The Entities’ debt had ballooned to around $5 trillion.

---

28 Fannie Mae PSPA, supra note 19 §§ 1 and 2.5 and Fannie Mae Preferred Stock Certificate, supra note 25 §3; Freddie Mac PSPA, supra note 19, §§ 1 and 2.5 and Freddie Mac Preferred Stock Certificate supra note 25§ 3.
29 See, e.g., In re AMR Corporation, 730 F.3d 88 (2nd Cir. 2013) (discussing the effects of make-whole and no-call provisions).
30 Fannie Mae PSPA, supra note 15, § 5.5; Freddie Mac PSPA, supra note 15, § 5.5. The limit was amended in May 2009 to be 120% of the mortgage assets allowed under the PSPAs other provisions. Fannie Mae First Amendment, supra note 16, § 7; Freddie Mac First Amendment, supra note 16, § 7.
31 Fannie Mae PSPA, supra note 15, § 5.7; Freddie Mac PSPA, supra note 15, § 5.7.
36 Id. at F-133; Fannie Mae 2010 10-K, supra note 27, at F-139; Fannie Mae 2009 10-K, supra note 26, at F-131; Fannie Mae 2008 10-K, supra note 25, at F-133.
Meanwhile Treasury’s commitment after 2012 was limited to $200 billion – most of which had already been drawn upon.

At that time Treasury and the Entities (through the conservator) negotiated an amendment to the PSPA. With the stated goal of ending “the circular practice” of paying dividends to the Treasury with funds drawn on Treasury’s commitment, that amendment replaced the 10% dividend with a net income sweep. It shifted the risk and benefit of future performance to Treasury, whose commitment remained in place, while operations would swiftly be reduced. If the Entities were unprofitable, no dividend accrued. Treasury would cover initial losses, and its commitment to fund up to the limit remained open. If the Entities were profitable, the sweep was equal to their net worth over a set amount. That set amount started at $3 billion and was scheduled to decline by $600 million a year. The agreement also accelerated the reduction in the Entities’ investment portfolio so that they would hit $250 billion by 2018. Together these provisions essentially created an orderly liquidation plan for paying off creditors in full and provided the residual value to Treasury thereby limiting the magnitude of risk faced by Treasury and creditors, and wiping out all other equity holders.

II. The Private Market Analogy

The focus on the political aspects of the transactions highlights how unique the Amendments are. Indeed, it is hard to find analogies to the restructuring of federally chartered companies where Treasury acts as the primary creditor and equity is in public hands. We believe that it is more productive to analyze the transactions as a primary creditor converting a debt-like instrument to an equity-like instrument in a way that wipes out other shareholders. The analysis of these types of problems is a staple of corporate and restructuring law. If we look at the issue through this lens, it becomes clear that characterizing the Amendments as actionable breach of fiduciary duty would amount to a tectonic shift in the law that governs corporate debt – perhaps

37 The structure of the PSPAs, as amended in December 2009, was such that Treasury would bear all losses through the end of 2012. After that, the $200 billion per entity limit would be in effect and creditors would bear any additional losses. Fannie Mae Second Amendment, supra note 18; Freddie Mac Second Amendment, supra note 18.
even suggesting that the vast majority of corporate bankruptcy filings are violations of fiduciary
duties.\textsuperscript{39}

\textbf{a. The Legal Protection of Creditors}

The appropriate course of action for a board of directors obtaining emergency financing or
reorganizing a debtor’s capital structure can only be determined by looking at the risk facing
each level of investors. It is not enough to say that equity is entitled to value simply because
there are good states of the world where they might recover. The directors must assess what risk
the corporation would have to take to make those states of the world possible. The directors
must be aware of who will lose and how much they will lose when the good states of the world
do not materialize.

The more risk that operations shift to creditors, the more creditors will be concerned. This is
the classic problem of risk shifting.\textsuperscript{40} Creditors often insert covenants demanding equity
cushions and performance metrics to prevent excessive risk shifting.\textsuperscript{41} In the absence of those
covenants, we must rely on the implied covenant of good faith of the directors, the directors’
ultimate duty to maximize the value of the corporate enterprise, and laws of fraudulent
conveyance to protect creditors.\textsuperscript{42}

Corporate law recognizes this problem in the rules that govern fiduciary duties when a firm is
in the zone of insolvency.\textsuperscript{43} When the firm is solvent, it is easy to say that the duty to the
corporation and the duty to the shareholders are usually identical.\textsuperscript{44} The directors look out for
the shareholders subject to contractual duties they owe to other constituents. But when the firm
enters the zone of insolvency, the duty to the corporation as a whole may no longer look the
same as the duty to the shareholders. In this situation, conflicts between creditors and

\textsuperscript{39} Cf. Baird & Henderson, \textit{supra} note 4 (noting the conflict between a shareholder centric view of fiduciary duties
and world where directors are allowed to file bankruptcy petitions).

\textsuperscript{40} See Michael C. Jensen & William H. Meckling, \textit{Theory of the Firm: Managerial Behavior, Agency Costs and

\textsuperscript{41} Covenants that restrict dividends or share repurchases are examples of provisions that can protect the
equity cushion. By keeping cash in the firm, the covenants help to ensure that there will be assets available
to satisfy creditor claims.

\textsuperscript{42} “[C]reditors are afforded protection through contractual agreements, fraud and fraudulent conveyance law,
IMPLIED covenants of good faith and fair dealing, bankruptcy law, general commercial law and other sources of

\textsuperscript{43} Baird & Henderson, \textit{supra} note 4, at 1324-25.

\textsuperscript{44} \textit{Gheewalla}, 930 A.2d at 99–101.
shareholders are inevitable and directors must resolve those conflicts.\textsuperscript{45} In making these choices, directors must keep in mind that, when a firm is in the zone of insolvency, it is the creditors rather than the shareholders that are the residual owners.\textsuperscript{46} Corporate law recognizes this fact by allowing creditors of an insolvent firm to assert rights that are typically only available to shareholders.\textsuperscript{47} Namely, creditors may be able to sue directors derivatively for taking actions that are not for the benefit of the corporation as a whole.\textsuperscript{48} By granting these types of rights to the creditors of distressed firms, corporate law helps to ensure that a distressed debtor cannot bestow value on shareholders through negative value projects that come at the expense of creditors.\textsuperscript{49}

Creditors and the law worry about the risk shifting in these cases because every day that a loan remains open the creditor bears some risk. While debt is less risky than equity, it is not risk free – even for a stable and solvent debtor. To assess the magnitude of the risk on that debt, creditors look at factors that include the nature of the debtor’s business, the volatility of its earnings, and other measures of financial stability such as the level of equity cushion. As a debtor approaches insolvency, the risk to debt increases. Creditors address this by demanding covenants that impose debt to equity or earnings to fixed charge ratios. The law also more generally imposes default rules that require the director to make efforts to maximize the value of the corporation and not just the value to shareholders (at the expense of creditors) when the corporation enters the zone of insolvency. These rules may come from the directors’ duty to the corporation as a whole, the implied covenant of good faith, or fraudulent conveyance laws.\textsuperscript{50}

\textbf{b. Were the Entities in the Zone of Insolvency?}

\textsuperscript{45} Credit Lyonnais, 1991 WL 277613.
\textsuperscript{46} Gheewalla, 930 A.2d at 99–101.
\textsuperscript{47} Id.
\textsuperscript{48} Id. at 99-102.
\textsuperscript{49} Defining the precise scope of the duty to the corporation has been a difficult endeavor for courts. Baird & Henderson, \textit{supra} note 4. Others argue, though, that this hand wringing has been “much ado about little.” Stephen M. Bainbridge, \textit{Much Ado About Little? Directors’ Fiduciary Duties in the Vicinity of Insolvency}, 1 J. BUS. & TECH. L. 335, 336, 359 (2007). Creditors are protected by their contracts and the implied covenants of good faith. Moreover, and perhaps most importantly, creditors are protected by the law of fraudulent conveyances. See Buccola, \textit{supra} note 4. The upshot is that – call it a breach of fiduciary duty or a fraudulent conveyance – directors face significant legal impediments to any attempt to enrich the shareholders of an insolvent firm in a manner that harms creditors.
\textsuperscript{50} See \textit{supra} notes 42 and 42.
We emphasize the springing nature of the board’s duties to creditors because it matters for determining whether the Amendments were legally problematic. From a purely doctrinal view, the duties are, of course, neither springing nor shifting. The courts talk in terms of a duty to the corporation as a whole, and note that the change is merely in the beneficiary of that duty. But as a practical matter, the duty to maximize corporate value begins to look more like a duty to creditors the closer a firm gets to insolvency. As broad as the protections of the business judgment rule are, they will only begin to encompass actions that harm shareholders when it is plausible that actions favoring shareholders will be value destroying. Again, that plausibility becomes stronger as the company nears insolvency and equity has little skin left in the game.

In this section, we detail what courts have said about when the board’s duties shift to creditors, and we analyze whether the financial status of the Entities triggered that shift at the time they entered into the Amendments. This analysis shows that the Entities were within the zone of insolvency or were outright insolvent during September of 2008 and August of 2012.

Insolvency has no finite boundaries. Most would agree, however, that a firm is insolvent when either its liabilities exceed its assets (balance sheet insolvency) or when it can no longer pay its debt obligations as they become due (cash flow insolvency). The moment of cash flow insolvency is usually easy to identify as the firm will default on a payment. Balance sheet insolvency is equally straightforward but can sometimes be manipulated through accounting tricks. Identifying when a firm is in the vicinity of either definition of insolvency can sometimes be a challenge. Neither is difficult, however, to identify here.

With balance sheet insolvency is, a firm with negative shareholder equity value is insolvent. But even a firm with positive value can be in the zone of insolvency such that its directors must consider the best interests of stakeholders other than equity. A firm with an insignificant equity value and an enormous debt burden is in the zone of insolvency. While it may be difficult to define insignificant equity or enormous debt with exact ratios, that sort of precision is unnecessary here. Applying the most favorable assumptions to Fannie and Freddie

---

51 Gheewalla, 930 A.2d at 101-02 (“The corporation's insolvency makes the creditors the principal constituency injured by any fiduciary breaches that diminish the firm's value.”).
53 Pereira v. Cogan, No. 00 CIV. 619(RWS), 2001 WL 243537, at *9 (S.D.N.Y. Mar. 8, 2001). Moreover, the firm’s inability to borrow on collateral makes it likely that the firm will meet the requirements for cash-flow insolvency.
in June of 2008, the best either firm reported was a debt burden that was around 20 times its equity value – at a time when the firms were losing value rapidly. Once directors have that kind of evidence of approaching insolvency, duties to shareholders are no longer their sole concern.

As for cash flow insolvency, neither firm defaulted on payments. That, however, is only because of the agreements with Treasury. The rapid devaluation in 2008 would have made it reasonable for any director to assume that the day of reckoning was not far away. The 2008 Amendments occurred at a time when the Entities were quickly deteriorating. In the second half of 2008 Freddie Mac experienced a loss of about $43.7 billion as its equity dropped in net value from $12.948 billion\(^{55}\) to negative $30.731 billion.\(^{56}\) That $43.7 billion loss does not take into account the amount of debt incurred to Treasury through the preferred stock. When that amount is included, the actual loss is $58.5 billion.\(^{57}\) Things played out similarly for Fannie Mae. It lost about $56.54 billion in the second half of 2008, beginning with equity of $41.226 billion\(^{58}\) and ending with a negative value for equity of $15.314 billion.\(^{59}\) Fannie Mae lost an additional $1 billion through debt incurred to Treasury. While the full extent of fourth quarter losses was not known and likely not predicted in September 2008, massive losses in value had already occurred and Freddie Mac’s negative net worth rendered it insolvent. Fannie Mae apparently had positive value at the time of the Amendments, but the rate of decline over the first nine months of 2008 and the initial signs of the financial crisis suggested that the firm would imminently be in the red. The massive losses would have to be covered somehow, and absent a lender that was willing to pump billions of dollars of unsecured debt, funding would be impossible to secure. Moreover, existing creditors had to be incredibly concerned about the risks facing their assets, and presumably searched for some way to call a default, or exit before things deteriorated further.

By the end of the third quarter of 2012, Freddie Mac had debt of nearly $2 trillion. The book value of its senior preferred equity, Treasury’s shares, was $4 billion. That number would have had to increase by a multiple of 16 before any other shares had positive value. If one treats

\(^{57}\) Id. As an accounting matter, the draws on Treasury’s commitment are treated as a capital infusion so that every deficit in net value was erased in the subsequent quarter and replaced with an offsetting value added to the Senior Preferred Stock. From the view of the (junior) preferred and common stock, the decline was a real loss of asset value.
Treasury as a creditor in determining the value of other equity – as one certainly should for these purposes – the value of Freddie Mac as a firm was negative $68 billion. For the preferred and common shareholders to recover anything, Freddie had to somehow earn $68 billion, more money than Freddie had earned in the 19 years preceding the financial crisis (1988 to 2006) combined. If, on the other hand, Freddie lost merely $4 billion (which had taken less than a week during some periods in 2008 and 2009), Treasury would be wiped out. Treasury’s remaining commitment meant they would bear the next $80 billion in losses as well. After that, every additional dollar of loss would come out of the other creditors’ pockets. Fannie’s position was even more extreme. Fannie had liabilities of more than $3.2 trillion and its senior preferred equity had a book value of only $2.4 billion. Fannie had to earn more than $114 billion before its commons shares would be worth anything – well more than it had earned in the 27 years preceding the financial crisis combined.

Thus, equity bore no risk from maintaining the status quo. Even Treasury’s risk was capped. The bulk of the losses from a major decline would come from the other creditors, who did not stand to capture any potential upside. That belonged entirely to Treasury and the shareholders. On top of the balance sheet risk, the continuing fragility of the real estate market should caution against risk-free projections of growth.

c. Treasury’s Actions Through the Corporate Lens

The analysis thus far shows that the financial status of the Entities was sufficiently bleak to trigger the duty to a corporation as a whole. Directors’ actions adverse to shareholders would have been more easily protected against claims of a breach of fiduciary duty if those actions increased the value of the firm as a whole. As we have emphasized, when equity’s real value is negative, the duty to maximize the value of the corporation (and not to fraudulently distribute value to the shareholders) is the practical equivalent of a duty to creditors.

---

60 To be exact, all losses in 2012 would come out of Treasury’s pocket under the 2009 amendment. Losses after 2012 that were above the funding commitment would come out of the value for creditors. See supra note 31.
61 Fannie Mae 2012 10-K, supra note 19, at F-3.
62 See Gheewalla, 930 A.2d at 101-02. When equity’s value is negative, it is technically impossible to construct a scenario where a positive value project runs to the benefit (in expectation) of shareholders at the expense of creditors. This is because the value of the assets in a well-functioning market should include the value of future projects. Thus the risk adjusted value of the best projects that can be undertaken with those assets produces a value that is less than the liabilities of the firm. Only by shifting to very risky projects that destroy total value can
From that perspective, Treasury’s actions are fairly consistent with what we would expect from a private creditor of a distressed debtor. In August of 2008, the Entities faced a massive liquidity crunch. Treasury was incurring record losses and the future looked bleak. While the Entities had portfolios of assets that might return to value when the crisis abated, their whole businesses would collapse absent new financing.

This is a common state of a debtor looking for distressed debt investors. Sometimes the debtor is able to negotiate financing as part of an out-of-court restructuring. But often it is required to file for bankruptcy to reorganize the company’s capital structure. Similarly, a debtor can sometimes reorganize while protecting equity, while other times equity gets wiped out. Few believers in market-based economies would suggest that equity has an absolute right to a positive return on its investment. Equity’s investment is junior to all other investors. At some point, the investment and priority rights of senior investors must be protected. It is not difficult to find examples of court sanctioned reorganization paths – in and out of bankruptcy – that wipe equity out even when more shareholder friendly options were available.

expected value be created for shareholders. Of course one might argue (and equity does argue it in its lawsuit) that the balance sheet numbers do not capture the true value of the assets. Our valuation analysis below suggests that this is not likely and rests upon unrealistic assumptions about the future of the housing market.

63 Some participants at the symposium suggested that the government had given an absolute guaranty to shareholders. This, of course, would have created the mythical risk-free investment. The claim is strange. After all, an implicit guarantee to creditors (which the government appears to be making good on) would have created massive value for the shareholders. The interest they have to pay creditors on guaranteed investments is much smaller. The Entities can then turn around and invest that money and earn a higher return for shareholders while the government bears the risk. All of that means the shareholders could expand the operations at a lower cost of credit and thus multiply the return on their investments. That creates a subsidy by reducing the cost of capital and increasing the return on investment for equity. To guarantee equity on top of that creates a second subsidy. The first subsidy allows the Entities to borrow money at a risk-free rate and invest in risky projects. If they lose the money they borrowed, the government subsidizes that. The second subsidy would provide that when the Entities lose more money than they borrowed the government would subsidize that as well. This would create an incentive for the Entities to take on the riskiest investments they could find in the market.

64 For example, in Blackmore Partners L.P. v. Link Energy L.L.C the Delaware Chancery Court dismissed a case alleging that directors breached their fiduciary duty by entering a transaction that left equityholders with no value. The court reasoned, “Link was insolvent, teetering on the brink of bankruptcy. At any moment, the provider of its chief credit facility could have forced it into default. Business prospects were declining, reducing daily the amount of consideration the company could hope for in any non-bankruptcy alternative. Finally, no better transaction was available.” Blackmore Partners, L.P. v. Link Energy LLC, Civ. A. No. 454-N, 2005 WL 2709639 (Del. Ch. Oct. 14, 2005). The court went to conclude, “The fact that Unit holders were left with nothing at the end, given a context in which the chief alternative substantiated by evidence was an equally barren bankruptcy proceeding, does not suffice to rebut the presumption that the directors were acting in the good faith exercise of their fiduciary duties, or to establish a clasim of waste.” Id.; see also Odyssey Partners, L.P. v.
Often, major stakeholders agree to a reorganization plan at the moment of the bankruptcy filing. This type of reorganization is known as a pre-packaged bankruptcy. These plans can take many different forms. They may convert debt to equity, bring in new money and new ownership, or, as they often do, wipe out equity entirely. The legality of that wipe out is uncontroversial. One thing a plan cannot do, however, is violate the Absolute Priority Rule. That rule says the value of the company at the time of the bankruptcy must be distributed to senior investors first. Equity, the bottom of the investment ladder, can only recover after all other investors have been paid in full. This treats reorganization like liquidation.

As a matter of policy and theory, the Absolute Priority Rule is controversial. For example, one might want to protect the option value that equity holders have in the potential upside of an enterprise. Remember, the bargain that equity strikes in exchange for low priority is that it enjoys the residual upside. Imagine that the Entities do not get reorganized and the real estate industry rebounds in 5 years and starts producing a certain return of $17.22 billion dollars in perpetuity? The shareholders would recover value in the event that such a miracle actually occurs. No matter how remote the possibility, why shouldn’t the shareholders retain their bargained for chance at winning the lottery? One of us has suggested elsewhere that perhaps they should – at least to the extent that the lottery ticket has a non-negligible probability of paying out.

---

Fleming Cos., Inc., 735 A.2d 386 (Del. Ch. 1999); see also Baird & Henderson, supra note 4, at 1325 (examining the various dynamics where boards are allowed, and even required, to act in favor of constituencies other than shareholders).

65 See Baird & Henderson, supra note 4, at 1320 n.57 (“[I]n a perfectly standard prepackaged bankruptcy in which equity is wiped out, the directors approve a course of conduct that cannot possibly be in the shareholders’ interests, yet no one suggests approving the filing of such a bankruptcy petition constitutes a violation of their fiduciary duties.”).


69 See Casey, supra note 7.

70 Of course, no investments provide perfectly certain returns, especially not mortgage backed securities.

71 Casey, supra note 7, at 763 n.16; see also Anthony J. Casey, Statement to the American Bankruptcy Institute Commission to Study the Reform of Chapter 11 (Nov. 7, 2013), available at http://commission.abi.org/sites/default/files/statements/07nov2013/Anthony-J-Casey.pdf (noting the practical and
While those arguments may have merit and those representing equity here may be in favor of such a rule, it is emphatically not the current state of the law. Under current law, as Richard Epstein has pointed out, option value must be destroyed and senior investors must get paid in full before junior investors retain any value:

It is absolutely critical to follow these priority rules inside bankruptcy in order to allow creditors to price risk outside of bankruptcy. Upsetting this fixed hierarchy among creditors is just an illegal taking of property from one group of creditors for the benefit of another, which should be struck down on both statutory and constitutional grounds.\(^{72}\)

That means the existing law requires that equity gets nothing when it has negative value.

What does this tell us about the September 2008 transaction? Bankruptcy was not a statutory option. Neither was private restructuring. Instead, the Entities were placed in a conservatorship and took on loans from Treasury. We can view this through one of three lenses – but they all produce the same outcome.\(^{73}\)

a. Market transaction

As a purely market transaction, the PSPA looks entirely fine. The company was in a zone of insolvency. The fiduciary duties of the board, as we have recounted, ran to the company as a whole. The directors had a duty to maximize the value of the estate. Most importantly, the Entities could not take on negative value projects that benefitted shareholders at a risk to senior investors.

The problem for the directors was that doing nothing was just such a project. The company had a strong likelihood of collapse. The only reason to turn down financing would be the hope that the financial crisis would be quick and transient. Equity would have been saved if things played out that way. That was a lottery ticket that directors could not (consistent with their theoretical problems with the Absolute Priority Rule, and proposing reforms that preserve the option value of junior investors).

\(^{72}\) Epstein, supra note 7.

\(^{73}\) The three lenses we use are from the corporate and bankruptcy contexts. We do not examine other mechanisms that can be used to liquidate failing firms, such as the process the FDIC uses to shut down troubled banks. The statutory and regulatory issues involved in that system place it beyond the scope of our article. Nevertheless, it is worth noting that the current FDIC framework prohibits favoring equity over more senior interests. See Cheryl D. Block, A Continuum Approach to Systemic Risk and Too-Big-To-Fail, 6 BROOK. J. OF CORP., FIN. & COM. L. 289, 346-47 (2013).
fiduciary duties) force the creditors to finance. So they took the only loan they could get. And they took it on the only terms that were offered.

The only plausible objection to taking the financing is that the transaction amounted to self-dealing. But corporate law does not prohibit self-dealing; it just holds conflicted transactions to a higher standard. There is no violation of the duty of loyalty as long as the transaction is entirely fair. And an entire fairness inquiry must be mindful of both the context of the transaction and to whom the directors owe duties at that time.

As for context, the prospects for finding financing in September of 2008 were dire. The market for $100 billion unsecured investments in mortgage guaranty companies that were bleeding cash had only one participant. In a private transaction, that participant would drive an incredibly hard bargain and might have demanded even more onerous terms than Treasury did. Any application of the standard of entire fairness—which requires a fair price and fair dealing—by a business savvy court would be mindful of that alternative. Moreover, failure to take the loan once it had been offered would likely have breached duties owed to their creditors and shareholders alike.

b. Standard reorganization

One might instead view the transaction as analogous to Chapter 11 reorganization. Indeed, any suggestion that the conservator’s actions here violate some duty might suggest that any bankruptcy filing that favors creditors over equity is problematic. Most bankruptcy filings, however, do just that. In bankruptcy, the transaction looks like a DIP loan. When a debtor in distress uses bankruptcy to reorganize, it will usually need to have financing lined up prior to filing. This is known as debtor-in-possession (DIP) financing. The standards for getting a DIP loan approved are often high when they subordinate secured creditors or include other extraordinary provisions. In those cases, the loans must be absolutely necessary. Unsecured

74 MODEL BUS. CORP. ACT. § 8.61(b)(3) (2013); see, e.g., Weinberger v. UOP, Inc., 457 A.2d 701, 710 (Del. 1983) (“When directors . . . are on both sides of a transaction, they are required to demonstrate their utmost good faith and the most scrupulous inherent fairness of the bargain.”).
75 DEL. CODE ANN. tit. 8, § 144 (2013); see also Weinberger, 457 A.2d at 710.
76 Baird & Henderson, supra note 4, at 1316.
77 Baird & Rasmussen, supra note 1, at 692.
debt is scrutinized less closely. And the code does not even include any specific requirements when a debtor incurs debt that will be junior to every other creditor’s claim.

Under any standard, this loan would pass muster. Again, the terms of the loan were not extraordinary – but the size of the loan was. The closest comparison is the Lyondell DIP loan from early 2009. At $8.5 billion dollars, it was the largest DIP loan in history. Lyondell was able to obtain a loan where other debtors could not. The market had dried up in the second half of 2008. Not surprisingly, the terms of the loan were extremely onerous. The loan was secured by super-priority liens in all assets of the company. The fees and interest rate suggested a 20% annual return for investors. But on top of that, every dollar of participation in the loan entitled the participating banks to roll up a dollar of prepetition debt. Thus, the banks that participated in the DIP loan got super priority on that loan as well as on their pre-petition loans. This implies a return much greater than 20%. Roll-ups are considered an extraordinary term. Some courts do not allow them under any circumstances. Others only allow them if the loan after a showing that certain requirements are met. The Vanguard test considers the following necessary: a showing that (1) without the loan the company will fail, (2) there is no alternative financing available, (3) the lender won’t take better terms, (4) and the loan is in creditors’ best interest. Other courts consider the Farmland factors: (1) the financing was an exercise of sound and reasonable business judgment, (2) the financing was in the best interest of the estate and its creditors, (3) the transaction was necessary to preserve the assets of the estate and for the continued operation of the business, (4) the transaction was “fair, reasonable, and adequate, given the circumstances of the debtor/borrower and the proposed lender,” and (5) was

---

79 The levels of scrutiny are provided in 11 U.S.C. § 364(b) (2012).
81 See, e.g., Jeffrey McCracken & Paul Glader, ‘DIP’ Loans are Scarce, Complicating Bankruptcies, WALL ST. J., Oct. 17, 2008, at C1, available at http://online.wsj.com/news/articles/SB122421475294443955. See also Lyondell Transcript, supra note 71, at 740 (characterizing the statement that it was difficult to obtain financing as “a massive understatement.”).
84 Vanguard, 31 B.R. at 367 (emphasis added).
negotiated in good faith and at arm’s length.\(^{85}\) The Lyondell loan was approved by the court.\(^{86}\) As the judge put it, “In any event, by reason of present market conditions, as disappointing as the pricing terms are, I find the provisions reasonable here and now.\(^{87}\)

Treasury’s loan to the Entities contained no security agreement, a 10% rate of return, and no roll up. In bankruptcy, the loan would not need to comply with any of these tests. It would be subject only to business judgment. Even so, the terms easily meet all factors of the *Vanguard* test and all but the last of the *Farmland* factors.\(^{88}\) Nothing in either test requires equity’s interests to be protected at the expense of any other stakeholder. It is quite the opposite. But even equity’s best interest would have been served by the 2008 loan. The alternative was a collapse and shut down. With the loan, equity was able to retain some chance of obtaining value in the future. Of course there were the warrants for 79.9% of equity. Those were considered commitment fees. Our intuition is that those warrants were a reasonable fee considering that the value of the underlying shares was essentially zero and considering the 7% fees approved by the court in *Lyondell* and other cases as well as the general sentiment that few DIP loans – much less $100 billion subordinated unsecured DIP loans – were available at any price.\(^{89}\)

c. Pre-packaged bankruptcy plan

Finally, one might compare the transaction to a pre-packaged bankruptcy plan. From that perspective, Treasury’s commitment looks like exit financing that was inserted between the creditors and equity. But that does not change the inquiry much. The equity holders retained 100% of their shares subject to dilution through Treasury’s exercise of its warrants. One might be tempted to say that the question turns entirely on the value of the company. But that was unlikely to be true in 2008. If equity had value before the Treasury commitment, it had the same or greater value after the Treasury commitment. If equity was out of the money, it was still out

---

\(^{85}\) See *Lyondell DIP Financing Order*, *supra* note 71 (citing *Farmland Indus.*, 294 B.R. 855).

\(^{86}\) See *Lyondell DIP Financing Order*, *supra* note 71, and *Lyondell Transcript*, *supra* note 71. A similar result was reached in *In re Aleris Int. Inc.*, No. 09-10478. (BLS), 2010 WL 3492664 (Bankr. D. Del. May 13, 2010). The court approved a $1.1 billion DIP loan with a dollar-for-dollar toll up. Similar to the situation we are examining, the bankruptcy resulted in the DIP lenders owning the company.

\(^{87}\) *Lyondell Transcript*, *supra* note 71, at 740.

\(^{88}\) If the transaction lacked arm’s length negotiation, it would be subject to entire fairness review. *Weinberger v. UOP*, Inc., 457 A.2d 701, 710 (Del. 1983).

\(^{89}\) We are bracketing the massive value that the Federal Reserve provided by purchasing mortgage backed securities from Fannie and Freddie, the Government’s implicit guarantee of all debt incurred by Fannie and Freddie (both existing and future), and Treasury’s additional purchases of debt in the Entities.
of the money by the same amount. By retaining its shares, it retained the option value on future performance. The liquidity injected certainly made success more likely. In accounting terms, a company that borrows $100 billion in cash credits cash for $100 billion and liabilities for $100 billion. The only way that equity lost value from the reorganization standpoint would be if (1) their shares had net positive value before the commitment and (2) the terms of the PSPA were mispriced and thus transferred value to the Government. Compared to other bankruptcy financings in 2008 and 2009, it does not seem that 10% for $100 billion in subordinated unsecured funds was a bad deal.

Looking to 2012, things are only slightly more complicated. Again, the transaction might be viewed as a private market financing agreement. Here the value of the company and the risks it faces are of paramount importance. If the company was not in a zone of insolvency, then the transaction may have amounted to the directors breaching their fiduciary duties to shareholders. But this breach would not be due to self-dealing. Rather, the issue would be over whether or not the directors favored creditors over shareholders. That is beyond the power of the board of a completely solvent company.

That said, a director could reasonably believe that the Entities were in the zone of insolvency. Fannie and Freddie had each incurred four straight years of record losses followed by two quarters of profit. Assuming away any problems with the profit estimates, that is still not a promising company. Moreover, the Entities were incurring yearly dividends of nearly $20 billion dollars and had been able to fund the quarterly obligations for the dividends out of profits only once.

On top of that, there was a $180 billion gap between the current state and a state where equity recovers. As we show below, even under optimistic assumptions, shareholders below Treasury were unlikely to see a dime.

As noted above and at the symposium, in the zone of insolvency the directors had an explicit duty to maximize the value of the corporation. At some point, they could not force the creditors to bear risk for negative value projects that benefit equity. Directors offered a restructuring (in or out of bankruptcy) that protects creditors and winds the company down in an orderly fashion would be hard pressed to justify maintaining a status quo that seeks an unlikely profit for shareholders by shifting so much risk to creditors.
Critics have ignored that the creditors were in a very risky position. Every day that the Entities continued to exist they faced the risk of a decline in the residential real estate market. The creditors’ positions could have been significantly reduced or eliminated altogether. Debtors with $5 trillion in liabilities and no equity cushion are being run at the expense of creditors. A mere 1% decrease in asset value (or increase in liabilities) would have meant a $45 billion loss to the Entities’ creditors. If anything similar to the collapse of 2008 occurred, the damage to those creditors would have been dramatic.

Indeed, the only protection the creditors enjoyed was a $4.9 billion cushion (of preferred equity) financed by Treasury, meaning that the first $4.9 billion in losses would run to the senior preferred shareholder (Treasury) and all other losses would run to the creditors. No losses from any risky project would run to equity because it had no value. With such a small cushion those creditors were bearing enormous risk.

As with the 2008 Transactions, the most viable objection to the 2012 transactions posits impermissible self-dealing. But convincing a court that the deals were not entirely fair would be a challenge. As discussed above, the Entities would need to show that the price they received was fair and that the process they used to arrive at that price was fair. As courts emphasize, the “preponderant” element in this inquiry is the price. The best measure of fair price is what others might be willing to pay. In instances where there are competing bidders, it is easy enough to tell what a fair price might be, but seeking other financing was not an option for the Entities. That makes an evaluation more speculative, but courts perform this type of analysis routinely.

The deal that Treasury struck with the Entities in 2012 resembles a classic debt-for-equity swap. This deal could have been negotiated in the market or implemented as part of a bankruptcy plan. Treasury had the right to collect 10% dividends on the amounts advanced to the Entities into the future. Through the 2012 Amendments, Treasury gave up those dividends in exchange for the right to collect a portion of the Entities’ quarterly net income, and an agreement to wind down the Entities themselves. For entire fairness purposes, the relevant comparison is to what another market participant would have been willing to take in order to eliminate the burden

---

90 The 2009 amendments provide that Treasury would bear all losses through the end of 2012. Fannie Mae First Amendment and Freddie Mac First Amendment, supra note 19.

of the future dividend payments and the obligation to repay Treasury’s principal. The concern is that, by way of self-dealing, the Entities would take too low a price to extinguish this burden.

The analysis we develop in the next section allows us to provide an estimate of whether Entities’ future net income would cover its obligations to Treasury. Even when we make generous assumptions about that net income, we do not find any plausible scenario where the Entities’ income would meet that burden. This is true for both Fannie and Freddie. To put it another way, at the time of the 2012 Amendments, it looks like Treasury overpaid and did so in a way that benefited the other creditors and caused no harm to equity.

This analysis shows that the price paid by the Entities was sufficiently high to survive the fair price element of an entire fairness analysis. As mentioned above, courts view price as the “preponderant concern” when they analyze whether self-dealing is permissible or not. But fair dealing is also part of the entire fairness inquiry. What to do when the price is fair but the process is not poses a bit of a doctrinal puzzle for courts. If a court determines that there has been a breach of fiduciary duty but the price is fair, damages are likely to be zero. But if there is presumptively no breach when the price is fair, why even bother looking for fair dealing? Current trends suggest that, where price is fair, courts will ignore process defects and conclude that the transaction is entirely fair.

A recent case that bears important similarities to the Fannie and Freddie deals is emblematic of that trend. In re Trados Inc. Securities Litigation involved a deal to sell the company where management received a payout pursuant to change-of-control provisions in their contracts, preferred shareholders got the remainder of the consideration, and common equity got nothing.

---

92 We explain the details of our analysis more thoroughly in Section III, infra. We base the calculations of the value of the dividends on the assumption that there will be no further draws from Treasury and we apply a discount rate of five percent. We calculate the value of the dividend and the value of the expected cash flow until 2025, which we view as a reasonable date for windup of the Entities. We calculate a net present value of $67.2 billion for the Freddie dividends and $110.0 billion for the Fannie dividends. We are generous when it comes to cash flow. We project out 2012 profits and we assume that the Entities will be able to release all of their loan loss reserves. We expect, however, that profitability will decline by ten percent a year due to the mandated reduction in loan portfolios of the Entities. The net present value of the cash flow, which discounts cash flows for ten years, is $63.8 billion for Freddie and $75.6 for Fannie.

93 See, e.g., In re Trados Inc. S’holder Litig., 73 A.3d 17, 33 (Del. Ch. 2013).


95 In re Trados Inc. S’holder Litig., 73 A.3d 17, 33 (Del. Ch. 2013).
During the ensuing challenge, the court determined that the process followed by the company was not fair. Nevertheless, there was no violation of entire fairness because the liquidation preference of the preferred stockholders exceeded even common equity’s estimate of the discounted cash flow value of the company. The price was thus fair and the failure to follow appropriate process irrelevant. So while there is little evidence of the process that lead to the Amendments, it does not matter if equity has no value. We explore the question of whether the equity of the Entities had value more fully in the next section.

III. Basic Valuation

The analysis thus far shows that, as matters of corporate and bankruptcy law, the claims of the shareholders are thin. To be viable at all, equity would have to show that the value (in August 2012) of the Entities’ assets and future income would exceed their debt and obligations to creditors generally and to Treasury under PSPA. In this section, we analyze whether equity had value at the time of the 2012 Amendments.96 As a first cut, we grant an assumption pressed by the strongest critics of the government’s actions: that the record profits of 2012 should be projected *ad infinitum*. Even with that heroic assumption, a basic projection of those revenues shows that it is unlikely that the equity of either Fannie Mae or Freddie Mac had any value in August of 2012.97 For equity to have value, we would have to expect sustained growth that goes above and beyond the record earnings of 2012. This scenario requires faith that there will be endless growth in housing prices. Given the tumult and pain caused by that belief, we should know better.

---

96 This is unquestionably the correct time to gauge the value of equity. As courts have long emphasized, decisions made under distressed circumstances should not be evaluated with the benefit of hindsight. See Robert J. Stark, Jack F. Williams, Anders J. Maxwell, *Market Value, Expert Opinion, and the Adjudicated Value of Distressed Businesses*, 68 Bus. Law. 1039, 1054 (2013) (explaining that reorganization “requires valuation as of the anticipated plan effective date.”); *see also* Mellon Bank, N.A. v. Official Committee of Unsecured Creditors (In re R.M.L., Inc.), 92 F.3d 139, 156 (3d Cir. 1996) (stating that, when a court must evaluate whether a transfer was fraudulent, the court should look “at the circumstances as they appeared to the debtor and determine whether the debtor's belief that a future event would occur was reasonable.”).

To value equity, we must first establish a time horizon. Unlike a standard valuation, when one does not know when the business will terminate, Treasury had a goal of winding down the Entities.\footnote{The goal of winding down the Entities was a component of the 2008 agreement, which required a ten-percent reduction in the investment portfolios of Fannie and Freddie. See Press Release, U.S. Dept. of the Treasury, Treasury Department Announces Further Steps to Expedite Wind Down of Fannie Mae and Freddie Mac (August 17, 2012), available at http://www.treasury.gov/press-center/press-releases/Pages/tg1684.aspx. The 2012 PSPA increased that amount to fifteen percent.} Consistent with that goal, we use a ten-year time frame.\footnote{There are tradeoffs to using different time horizons. If one uses a short window the Entities will not have to pay as many dividends to Treasury, but they will also have less time to accumulate reserves to pay off the liquidation priority. A longer window poses the opposite problem. There is more time to accumulate reserves, but the Entities must pay dividends for a longer period of time.} We assume that, at the time of wind down, any assets would first be used to pay off Treasury’s liquidation priority. Any remainder would then be distributed to other creditors, including shareholders. At an absolute minimum, any projection must show that the Entities would have had enough assets to pay off the liquidation preference for the shareholders’ claims to have any merit.

The obligations of Fannie and Freddie to Treasury were substantial. Both Entities had a fixed obligation to pay 10% of the amount they had each accepted from Treasury every year. As noted earlier, the Entities were not permitted to pay down the liquidation preference. We can, accordingly, treat the related dividends as a fixed obligation in every remaining year of the Entities’ operation. For Freddie Mac, that dividend requirement was on the order of $7.23 billion per year and Fannie Mae had to pay Treasury roughly $11.7 billion per year.\footnote{See Fannie Mae 2012 10-K and Freddie Mac 2012.10-K.} The central question is, therefore, whether the future earnings of Fannie and Freddie would be sufficient to cover these obligations with enough left over to pay off the liquidation priority.

The earnings of the Entities depend crucially on the health of the U.S. housing market. When prices decline, the number of defaults increases and that has a detrimental effect on the finances of Fannie and Freddie. Moreover, if the Entities begin to dispose of their assets as part of a plan to wind down, the state of the housing market will naturally affect the prices they get for those assets.\footnote{Another mechanism for winding down the Entities was an increase in the guarantee fees that they charge.} In 2012, it was far from clear that the housing market would recover from the financial crisis. A report from Moody’s issued on August 13, 2012, called claims of improvement in the housing market a “highly debated subject.”\footnote{Moody’s, Fannie Mae and Freddie Mac’s Return to Profitability is Fleeting 1 (Aug. 13, 2012). As Moody’s explained: “It remains an open question whether the housing market is turning for the better. Fannie Mae reported a}
the direction of the housing market in 2012, we believe that projecting the full-year, sustainable, Entities’ 2012 earnings until wind down is generous. For Fannie and Freddie to earn at this level, housing prices would likely have had to increase in a sustained way over this ten-year time frame.

The Entities earned substantial amounts in 2012. Freddie Mac reported net income of $10.9 billion and Fannie Mae reported $17.2 billion in net income. But once one breaks those earnings down into their sustainable and unsustainable components, the numbers are less impressive. About ten percent of Freddie Mac’s earnings ($1.5 billion) were from a one-time tax settlement. More troubling, a substantial amount of the earnings for both companies was attributable to a decrease in loss reserves. When the Entities report income from interest on their loan portfolios they must offset an amount for the losses they expect from defaults on the loans. As one would expect, the provisions for credit losses ballooned during the financial crisis. As the housing market improved in 2012, the Entities began to cut back sharply on their provisions for losses.

But the ability to increase earnings through a decrease in credit loss provisions cannot continue forever. To put the point more bluntly, this aspect of the Entities’ earnings is a finite resource that is not a source of real revenue. The same Moody’s report quoted above estimated that Fannie’s benefit from releasing its reserves would top out at $34.7 billion, while Freddie would be able to release $19.2 billion. Indeed, Moody’s viewed the 2012 earnings of the Entities as substantially inflated due to this effect of credit provisioning. These circumstances produced a telling prediction: “once the benefit of reserve release runs its course, we believe the government sponsored enterprises’ (GSEs) ultimate path remains unchanged: they will deplete their capital bases because the dividends they’ll be paying on their preferred securities will be

---

104 Moody’s, Fannie Mae and Freddie Mac’s Return to Profitability is Fleeting 1 (Aug. 13, 2012). Moody’s assumes that the provisions for losses will eventually decline to their ten-year average as of 2012.
greater than their earnings.”

In other words, the reserves set aside for credit losses would be depleted and, at that point, the profitability of the Entities would be less substantial.

To account for the impact of these credit loss provisions, we assume that profits will fall once the Entities’ release of loss reserves reaches the remaining benefit projected by Moody’s (34.7 billion for Fannie and 19.2 billion for Freddie). To provide a sense of how sensitive the valuation is to this parameter, we vary the percentage of profits that are attributable to the release of reserves. As that percentage increases, the likelihood of the Entities being able to pay back Treasury shrinks because their future real earnings are insufficient to cover their liability.

With these assumptions in place, the valuation is relatively straightforward. We examine whether the initial assets of Fannie and Freddie as of 2012, combined with its earnings over a ten-year period, would provide enough to pay their dividend each year and, in year ten, whether the Entities would have sufficient assets to pay off Treasury’s liquidation preference. If there is any positive value, we then assume that stockholders would be entitled to 20.1% of the discounted value of that excess amount. They only get that amount because, as discussed earlier, Treasury held warrants for 79.9% of the Entities’ common stock.

The initial assets of each company have two components: the relatively insubstantial net worth of each entity at the end of the second quarter of 2012, and the large tax benefit that both Entities could expect to reclaim if their earnings improved. These tax assets reflected previous losses that could, in theory, be used to reduce future taxes. Because auditors thought that future earnings would not materialize, the Entities had to write off the value of those assets. An expectation of future earnings would allow Fannie to reclaim its 50.6 billion tax asset and Freddie could reclaim a tax asset of 28.6 billion.

We begin our projections with Freddie Mac. The net worth of Freddie in the third quarter of 2012 was 4.9 billion, which we add to its tax asset of 28.6 billion. The net income of Freddie in 2012, taking out the one-time tax benefit of 1.5 billion, was 9.4 billion. If we

---

105 Id.
106 We assume a modest discount rate of five percent.
107 See supra text accompanying notes 16-19.
108 Press Release, Freddie Mac, Freddie Mac Reports Net Income of $2.9 billion, Comprehensive Income of $5.6 billion for Third Quarter 2012, 3 (Nov. 6, 2012), available at http://www.freddiemac.com/investors/er/pdf/2012er-3q12_release.pdf. As explained above this “net worth” belonged entirely to Treasury as a preferred shareholder. If we treat Treasury as a creditor and the preferred shares as debt, the entities have negative net worth.
assume that Freddie would make this amount in every year between 2013 and 2022, there would not be enough assets remaining in 2022 to pay off Treasury’s liquidation preference. Or, to put it another way, equity would be worthless. This is the case even if we assume that none of Freddie’s future profits would be attributable to the release of loss reserves. As the Moody’s report above suggests, that assumption is very optimistic and likely overstates the likelihood of profits because a fair portion of Freddie’s 2012 earnings were attributable to the release of reserves.

Even if one makes the assumption that earnings would grow, things still look bleak for equity. With a five percent annual growth rate in earnings and an expectation that only 20 percent of earnings would be attributable to the release of loan loss reserves, Freddie would still be unable to pay off Treasury after ten years. Once again, only the most optimistic assumptions produce an analysis that shows equity having any real value. For example, with an eight percent annual rate of earnings growth and twenty-five percent of earnings attributable to the release of loss reserves, the discounted value of equity share would be roughly $1.26 billion.

The projections for Fannie Mae are not quite as dire, but it is still difficult to come up with a believable scenario where equity has value. Fannie had a net worth of $2.4 billion in the third quarter of 2012 and its tax asset amounted to $50.6 billion. Assuming that its then-record 2012 earnings of $17.2 billion would continue for ten years, Fannie would not have sufficient assets to pay back Treasury in 2022. That is assuming that none of the earnings are due to the release of loss reserves. Unlike the case for Freddie, if one assumes five percent growth in earnings and that 25% of earnings are attributable to the release of loss reserves, the valuation shows some value for equity. With those parameters, the projection is that the discounted value of equity would be in the range of $1.9 billion. But again, we must emphasize that this outcome is the best possible scenario for equity. In the middle of 2012, the future of housing was uncertain and there was a stated desire by Treasury and Congress to wind down Fannie and Freddie. Thus, the only way to arrive at a value of $1.9 billion is to adopt assumptions of

---

110 While that number may appear large in absolute terms, it’s dwarfed relative to the size of Fannie’s portfolio and liabilities. See, e.g., Fannie Mae 2012 10-K.
sustained growth in both housing prices and in the profits of the Entities that stretch credulity beyond its breaking point.

Conclusion

Of course there may be other objections to the propriety of the government’s action. Politically, it may be distasteful. One might question why the government would insist on payments to certain equity holders when it bailed out the automobile industry but made no effort to distribute value to equity holders of the Entities. Professor Henderson made this point salient with his presentation at the symposium. Similarly, one might object to the government selectively acting as a private market participant. Finally, one might think the world is better off if Fannie and Freddie continue operation in their current form.

Those are political objections. The legal questions are more straightforward. For equity to prevail in its claim against the government, it needs to show that it was entitled to some right that was violated. If they claim a taking, they need to identify the property that was taken. If they claim a violation of fiduciary duty, they need to identify the duty that was violated and the damages that resulted. Their ability to do so turns on the value of Fannie and Freddie as of August 2012. If the companies were worth less than their debts plus their obligations under the senior preferred shareholders, then they had no property to be taken and suffered no damages from any breach of duty. If the companies were worth more, that value is the potential recovery for preferred shareholders to go after. Any deviations from these principles will suggest that government involvement in private markets is subject to special treatment. While the Chrysler bankruptcy provides precedent for this exceptional course of action, it is a dangerous path to tread. With good reason, the Chrysler bankruptcy has been almost universally criticized on those grounds.111

In light of the unfortunate (and illegal) payments that were transferred to junior investors in the Chrysler bankruptcy, those who value the rule of law should take comfort that the Government abstained from repeating such action here. Had they done so (and if the courts require them to do so) it would further entrench the Chrysler precedent for similar maneuvers in the future. It may also distort corporate governance and finance law in other unpredictable ways.

111 Epstein, supra note 7. But see Baird, supra note 1.
Readers with comments should address them to:

Professor Anthony J. Casey
anthony.casey@gmail.com
<table>
<thead>
<tr>
<th>Paper Number</th>
<th>Title</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>David A. Weisbach, Should Environmental Taxes Be Precautionary?</td>
<td>June 2012</td>
</tr>
<tr>
<td>602</td>
<td>Saul Levmore, Harmonization, Preferences, and the Calculus of Consent</td>
<td>June 2012</td>
</tr>
<tr>
<td>603</td>
<td>David S. Evans, Excessive Litigation by Business Users of Free Platform</td>
<td>June 2012</td>
</tr>
<tr>
<td>604</td>
<td>Ariel Porat, Mistake under the Common European Sales Law</td>
<td>June 2012</td>
</tr>
<tr>
<td>605</td>
<td>Stephen J. Choi, Mitu Gulati, and Eric A. Posner, The Dynamics of Con</td>
<td>June 2012</td>
</tr>
<tr>
<td>608</td>
<td>Lior Jacob Strahilevitz, Absolute Preferences and Relative Preferences</td>
<td>July 2012</td>
</tr>
<tr>
<td>609</td>
<td>Eric A. Posner and Alan O. Sykes, International Law and the Limits of</td>
<td>July 2012</td>
</tr>
<tr>
<td>610</td>
<td>M. Todd Henderson and Frederick Tung, Reverse Regulatory Arbitrage:</td>
<td>August 2012</td>
</tr>
<tr>
<td>611</td>
<td>Joseph Isenbergh, Cliff Schmiff,</td>
<td>August 2012</td>
</tr>
<tr>
<td>612</td>
<td>Tom Ginsburg and James Melton, Does De Jure Judicial Independence</td>
<td>August 2012</td>
</tr>
<tr>
<td>613</td>
<td>M. Todd Henderson, Voice versus Exit in Health Care Policy</td>
<td>September 2012</td>
</tr>
<tr>
<td>615</td>
<td>William H. J. Hubbard, Another Look at the Eurobarometer Surveys</td>
<td>September 2012</td>
</tr>
<tr>
<td>616</td>
<td>Lee Anne Fennell, Resource Access Costs</td>
<td>September 2012</td>
</tr>
<tr>
<td>617</td>
<td>Ariel Porat, Negligence Liability for Non-Negligent Behavior</td>
<td>November 2012</td>
</tr>
<tr>
<td>618</td>
<td>William A. Birdthistle and M. Todd Henderson, Becoming the Fifth</td>
<td>November 2012</td>
</tr>
<tr>
<td>619</td>
<td>David S. Evans and Elisa V. Mariscal, The Role of Keyword Advertisi</td>
<td>November 2012</td>
</tr>
<tr>
<td>620</td>
<td>Rosa M. Abrantes-Metz and David S. Evans, Replacing the LIBOR with a</td>
<td>November 2012</td>
</tr>
<tr>
<td>621</td>
<td>Reid Thompson and David Weisbach, Attributes of Ownership</td>
<td>November 2012</td>
</tr>
<tr>
<td>626</td>
<td>David S. Evans, Economics of Vertical Restraints for Multi-Sided</td>
<td>January 2013</td>
</tr>
<tr>
<td>627</td>
<td>David S. Evans, Attention to Rivalry among Online Platforms and Its</td>
<td>January 2013</td>
</tr>
<tr>
<td>628</td>
<td>Omri Ben-Shahar, Arbitration Access to Justice: Economic Analysis</td>
<td>January 2013</td>
</tr>
<tr>
<td>629</td>
<td>M. Todd Henderson, Can Lawyers Stay in the Driver’s Seat?,</td>
<td>January 2013</td>
</tr>
<tr>
<td>631</td>
<td>Randal C. Picker, Access and the Public Domain</td>
<td>February 2013</td>
</tr>
<tr>
<td>632</td>
<td>Adam B. Cox and Thomas J. Miles, Policing Immigration</td>
<td>February 2013</td>
</tr>
<tr>
<td>633</td>
<td>Anup Malani and Jonathan S. Masur, Raising the Stakes in Patent Cases</td>
<td>February 2013</td>
</tr>
<tr>
<td>634</td>
<td>Ariel Porat and Lior Strahilevitz, Personalizing Default Rules and</td>
<td>February 2013</td>
</tr>
<tr>
<td>635</td>
<td>Douglas G. Baird and Anthony J. Casey, Bankruptcy Step Zero</td>
<td>February 2013</td>
</tr>
<tr>
<td>636</td>
<td>Oren Bar-Gill and Omri Ben-Shahar, No Contract?</td>
<td>March 2013</td>
</tr>
<tr>
<td>637</td>
<td>Lior Jacob Strahilevitz, Toward a Positive Theory of Privacy Law</td>
<td>March 2013</td>
</tr>
<tr>
<td>638</td>
<td>M. Todd Henderson, Self-Regulation for the Mortgage Industry</td>
<td>March 2013</td>
</tr>
<tr>
<td>639</td>
<td>Lisa Bernstein, Merchant Law in a Modern Economy</td>
<td>April 2013</td>
</tr>
<tr>
<td>640</td>
<td>Omri Ben-Shahar, Regulation through Boilerplate: An Apologia</td>
<td>April 2013</td>
</tr>
</tbody>
</table>
674. Tom Ginsburg and Thomas J. Miles, The Teaching/Research Tradeoff in Law: Data from the Right Tail, February 2014
676. Nuno Garoupa and Tom Ginsburg, Judicial Roles in Nonjudicial Functions, February 2014
681. Yun-chien Chang and Lee Anne Fennell, Partition and Revelation, April 2014
682. Tom Ginsburg and James Melton, Does the Constitutional Amendment Rule Matter at All? Amendment Cultures and the Challenges of Measuring Amendment Difficulty, May 2014