[Fordham Journal of Corporate & Financial Law](https://ir.lawnet.fordham.edu/jcfl)

Volume 16 | Issue 3 Article 2

2011

Non-Recourse, No Down Payment And The Mortgage Meltdown: Lessons From Undercapitalization

Dov Solomon

Odelia Minnes

Recommended Citation

Dov Solomon and Odelia Minnes, *Non-Recourse, No Down Payment And The Mortgage Meltdown: Lessons From Undercapitalization*, 16 Fordham J. Corp. & Fin. L. 529 (2011).
Available at: https://ir.lawnet.fordham.edu/jcfl/vol16/iss3/2

Non-Recourse, No Down Payment And The Mortgage Meltdown: Lessons From Undercapitalization

Cover Page Footnote

∗ Visiting Research Scholar, University of Michigan Law School; Assistant Professor, Academic Center of Law & Business, Ramat Gan; Adjunct Lecturer, Bar-Ilan University, Faculty of Law; PhD (Law), MBA (Finance), LLB, Bar-Ilan University. ∗∗ Visiting Scholar, University of Pennsylvania Law School (2008-2009); PhD candidate, LLB, Bar-Ilan University, Faculty of Law. We would like to thank Adi Ayal, Robert Barsky, Abraham Bell, Miriam Bitton, David Hahn, Assaf Hamdani, Moshe Har Shemesh, Vikramaditya Khanna, Shalom Lerner, Richard Lieb, Yair Listokin, Ronald Mann, Gideon Parchomovsky, Lea Paserman-Jozefov, Arie Reich, David Skeel, Stefan F. Tucker and the participants in the research seminar at the University of Michigan Law School, the Osgood's Hall Law School's Annual Graduate Law Student's Conference, the Association for Law, Property, and Society Second Annual Conference at Georgetown Law Center and the Law Faculty seminar at the Academic Center of Law & Business for helpful comments and discussions. Dov Solomon gratefully acknowledges financial support from the Michigan Grotius Research Fellowship, University of Michigan Law School; the Schupf Foundation Award; and Bar-Ilan University.

NON-RECOURSE, NO DOWN PAYMENT AND THE MORTGAGE MELTDOWN: LESSONS FROM UNDERCAPITALIZATION

Dov Solomon[*]
Odelia Minnes[**]

ABSTRACT

The recent global financial crisis, sparked by developments in the American mortgage market, provides a timely opportunity for a thorough analysis of the standard model for financing home purchases. The United States residential mortgage market has two prominent aspects: first, a significant part of mortgages are *de facto* non-recourse loans that allow the borrower to limit his liability solely to the collateral securing the loan; second, residential mortgages confer the aforementioned advantage on borrowers while requiring merely a minimal down payment, or no down payment at all. This article examines the implications of each of these aspects, as well as the interplay between them. The findings of this examination lead to the novel insight that a non-recourse mortgage with no initial down payment resembles the case of corporate undercapitalization. Utilizing legal analysis and remedies applied in the case of corporate undercapitalization lends

---

[*] Visiting Research Scholar, University of Michigan Law School; Assistant Professor, Academic Center of Law & Business, Ramat Gan; Adjunct Lecturer, Bar-Ilan University, Faculty of Law; PhD (Law), MBA (Finance), LLB, Bar-Ilan University.

[**] Visiting Scholar, University of Pennsylvania Law School (2008-2009); PhD candidate, LLB, Bar-Ilan University, Faculty of Law. We would like to thank Adi Ayal, Robert Barsky, Abraham Bell, Miriam Bitton, David Hahn, Assaf Hamdani, Moshe Har Shemesh, Vikramaditya Khanna, Shalom Lerner, Richard Lieb, Yair Listokin, Ronald Mann, Gideon Parchomovsky, Lea Paserman-Jozefov, Arie Reich, David Skeel, Stefan F. Tucker and the participants in the research seminar at the University of Michigan Law School, the Osgood's Hall Law School's Annual Graduate Law Student's Conference, the Association for Law, Property, and Society Second Annual Conference at Georgetown Law Center and the Law Faculty seminar at the Academic Center of Law & Business for helpful comments and discussions. Dov Solomon gratefully acknowledges financial support from the Michigan Grotius Research Fellowship, University of Michigan Law School; the Schupf Foundation Award; and Bar-Ilan University.

insight into creating mortgage arrangements that properly balance the competing interests of the various players in the home ownership credit market.

TABLE OF CONTENTS

I. INTRODUCTION

The recent global financial crisis that emerged from the American mortgage market meltdown provides a timely opportunity for a thorough review of home purchase financing. This article investigates the legislative and practical mortgage arrangements that played a substantial role in the creation of the housing boom and bust.

The American residential mortgage market has two basic features, both of which are examined in Part II of this article. First, a large portion of mortgages, mainly due to states' foreclosure rules, are *de facto* non-recourse loans, meaning they are solely secured by collateralized assets and impose no personal liability on the borrowers.[1] Non-recourse loans produce a unique risk allocation between the parties. This is particularly seen when the real estate market falls and, correspondingly, the value of the collateralized asset drops far below the outstanding balance on the mortgage.[2] In such a case, the borrower has a strong incentive to stop paying the loan and "walk away" from his home even though he may be able to afford his current mortgage payments.[3] By leaving his house for the lender, the borrower discharges the loan.

The second basic feature of the residential mortgage market is that lenders allow borrowers to contribute very minimal down payments on their mortgage. The relaxation of credit standards is manifested most

---

1. *See The Economic Stimulus and Sustained Economic Growth: Hearing Before the H. Democratic Steering & Policy Comm.* 111th Cong. 3 (2009) (statement of Martin Feldstein), *available at* http://www.nber.org/feldstein/EconomicStimulusandEconomicGrowthStatement.html (". . . [M]ortgages loans are generally non-recourse loans. . . . This 'no recourse' character of mortgages is unique to the United States.").

2. The situation in which the home's current market value drops below the outstanding balance on the mortgage is referred to as negative equity or "underwater".

3. Media coverage has shown high concern over the increasing phenomena of homeowners walking away from their homes. *See, e.g.*, Nicole Gelinas, *The Rise of the Mortgage 'Walkers'*, WALL ST. J., Feb. 8, 2008, at A17, *available at* http://online.wsj.com/article/SB120243369715152501.html?mod=rss_Today's_Most_Popular; Barbara Kiviat, *Walking Away From Your Mortgage*, TIME, June 19, 2008, *available at* http://www.time.com/time/magazine/article/0,9171,1816472,00.html; Ruth Simon & James R. Hagerty, *One in Four Borrowers Is Underwater*, WALL ST. J., Nov. 24, 2009, at A1, *available at* http://online.wsj.com/article_email/SB125903489722661849-lMyQjAxMDI5NTI5NDAyMzQ0Wj.html; David Streitfeld, *When Debtors Decide to Default*, N.Y. TIMES, July 25, 2009, at 6, *available at* http://www.nytimes.com/2009/07/26/weekinreview/26streitfeld.html.

dramatically by lenders who allow borrowers to forego down payments entirely,[4] which is commonly attributed to the prosperity of the securitization market.[5]

Part III of this article examines the implications of both of these features, as well as the interplay between them. It establishes that the financing of home purchases through non-recourse mortgages with no initial down payments directly contributed to the creation of a price bubble in the real estate market by generating an imbalanced risk allocation. The availability of relatively riskless and convenient financing increased demand for housing and created an artificial appreciation in real estate market prices.[6] This was followed by a steep decrease in prices catalyzed by homeowners walking away from their homes. These features played an important role in the events leading to the continuing meltdown, but have yet to be properly analyzed.

Next, Part IV of this article highlights the parallels between non-recourse mortgages with no down payments and undercapitalization of a corporation by its shareholders. This interdisciplinary comparison is unique and useful, as it may lead to a better understanding of problematic features. Undercapitalization and non-recourse mortgages, combined with the lack of down payment requirements, are financing

---

4. *See* Joshua Rosner, *Housing in the New Millennium: A Home Without Equity is Just a Rental with Debt* 1 (2001), *available at* http://ssrn.com/abstract=1162456.

5. *See, e.g.*, *Legislative and Regulatory Options for Minimizing and Mitigating Mortgage Foreclosures: Hearing Before the H. Comm. on Fin. Servs.*, 110th Cong. 74 (2007) (statement of Ben S. Bernanke, Chairman, Bd. of Governors, Fed. Reserve Sys.) [hereinafter *Mortgage Foreclosure Hearing*]; Benjamin J. Keys et al., *Did Securitization Lead to Lax Screening? Evidence from Subprime Loans* (EFA 2008 Athens Meetings Paper, 2008), *available at* http://ssrn.com/abstract=1093137; Luc A. Laeven et al., *Credit Booms and Lending Standards: Evidence from the Subprime Mortgage Market* 1-37 (IMF, Working Paper No. 08/106, 2008), *available at* http://ssrn.com/abstract=1153728; Atif R. Mian & Amir Sufi, *The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis* (2008), *available at* http://ssrn.com/abstract=1072304.

6. *See* Christopher J. Mayer et al., *The Rise in Mortgage Defaults* 23 (Fed. Reserve Bd., Fin. & Econ. Discussion Series, Paper No. 2008-59, 2008), *available at* http://www.federalreserve.gov/pubs/FEDS/2008/200859/200859pap.pdf (finding that as underwriting standards loosened, more new borrowers entered the market, thereby increasing the demand for housing and, by extension, house prices); Andrey D. Pavlov & Susan M. Wachter, *Underpriced Lending and Real Estate Markets* (2006), *available at* http://ssrn.com/abstract=980298 (finding that easy access to low-cost financing stimulates demand and drives up prices above the fundamental values of the underlying properties).

methods that may induce inefficient behavior by creating incentives to act while limiting the liability for those actions. Both the shareholder and the borrower in these situations have an opportunity to engage in a risky behavior while knowing that their actions will primarily, if not entirely, impact someone else. In effect, this creates an externalities problem.

Drawing on insights from the case of corporate undercapitalization, Part V of this article proposes two alternative ways of administering residential mortgages. While these solutions resemble those already utilized in the case of corporate undercapitalization, they also incorporate the unique characteristics of home purchase financing. Notably, each proposal addresses a different phase in the mortgage lifecycle. The first proposal tackles the *ex ante* phase of the mortgage lifecycle by requiring a minimum down payment from the borrower who seeks a non-recourse mortgage. The second proposal is an *ex post* solution designed to impose limited personal liability on a borrower who initially put no money down. These proposals aim to create a system that forces borrowers to internalize the risks associated with their actions in order to minimize the probability of borrowers taking out loans with prior knowledge that they may have difficulty repaying them. They also moderate the borrower's incentives to walk away from his home if real estate market prices decline in the future.

II. THE AMERICAN HOME MORTGAGE MARKET

The United States residential mortgage market is characterized by two prevalent features. First, a significant part of mortgages are *de facto* non-recourse loans that allow the borrower to limit his liability solely to the collateral securing the loan. Second, residential mortgages confer the aforementioned advantage on borrowers while requiring merely a minimal down payment, or no down payment at all. This Part examines the implications of each of these aspects, as well as the interplay between them.

A. NON-RECOURSE MORTGAGES

A non-recourse mortgage is secured by a pledge of collateral, which is typically the real estate asset purchased with the mortgage. Several states' foreclosure laws have anti-deficiency judgment legislation forbidding the lender to seek recourse from the borrower. Non-recourse mortgages are particularly interesting because they produce a unique risk allocation between the mortgagor and the mortgagee that is deeply affected by the market value of the collateralized asset.

1. Legislation

The prevalence of the non-recourse feature in the American home mortgage market is primarily a result of states' foreclosure rules. Approximately ten to twenty states, including foreclosure hot spots such as California and Arizona,[7] have anti-deficiency judgment legislation, also known as "non-recourse laws."[8] Non-recourse laws limit a lender's remedy to foreclosure and deprive him of the right to sue the borrower personally for any deficiency arising from the difference between the foreclosure sale price and the outstanding balance of the mortgage.[9]

For the most part, contemporary anti-deficiency laws represent the

---

7. California and Arizona lead the top ten list for home sales. *See Arizona, California Markets Lead Top Ten List for Home Sales* (Oct. 27, 2009), http://www.upi.com/Business_News/Real-Estate/2009/10/27/Arizona-California-Markets-Lead-Top-Ten-List-for-Home-Sales/3731256654866/.

8. *See* Oren Bar-Gill, *The Law, Economics and Psychology of Subprime Mortgage Contracts*, 94 CORNELL L. REV. 1073, 1113 (2009); CONG. OVERSIGHT PANEL, OCTOBER OVERSIGHT REPORT: AN ASSESSMENT OF FORECLOSURE MITIGATION EFFORTS AFTER SIX MONTHS 157-58 (2009), *available at* http://cop.senate.gov/reports/library/report-100909-cop.cfm [hereinafter OCTOBER OVERSIGHT REPORT]. It is quite a difficult task to estimate exactly how many states have anti-deficiency laws, as foreclosure rules vary greatly from state to state. Therefore, scholars disagree on the number and identity of non-recourse states. *See* Todd J. Zywicki & Joseph D. Adamson, *The Law and Economics of Subprime Lending*, 80 U. COLO. L. REV. 1, 30 n.134 (2009) (estimating that approximately fifteen to twenty states, including many large states, have anti-deficiency laws); Andra C. Ghent & Marianna Kudlyak, *Recourse and Residential Mortgage Default: Theory and Evidence from U.S. States* (Fed. Reserve Bank of Richmond, Working Paper No. 09-10, 2009), *available at* http://ssrn.com/abstract=1432437 (classifying eleven states as non-recourse states); Ron Harris, *Recourse and Non-Recourse Mortgages: Foreclosure, Bankruptcy, Policy* (2010), *available at* http://ssrn.com/abstract=1591524 (stating that ten to fifteen states are considered non-recourse states). A full list of state foreclosure laws in the United States is available at http://www.foreclosurelaw.org/. Some Canadian provinces, such as Alberta, have also enacted anti-deficiency judgment laws. *See generally* Lawrence D. Jones, *Deficiency Judgments and the Exercise of the Default Option in Home Mortgage Loans*, 36 J. L. & ECON. 115 (1993).

9. Zywicki & Adamson, *supra* note 8, at 30-31.

vestiges of debt-relief legislation enacted in the 1930s.[10] During the Great Depression of the 1930s, the real estate market experienced tremendous declines in value and there were few buyers at any price.[11] Foreclosing mortgagees made nominal bids at their foreclosure sales, acquired the borrower's property for far less than the mortgage debt, and then obtained deficiency judgments for nearly the full amount of the debt.[12] This led to a general perception that deficiencies based on "distressed," rather than "fundamental," market values were inequitable and contributed to the severity of the depression.[13] The prevalence of this view resulted in a proliferation of state anti-deficiency judgment legislation.[14]

Most state anti-deficiency laws fall into one or more of the following categories: (1) laws that prohibit the recovery of any deficiency under a loan secured by residential real estate; (2) laws that prohibit any deficiency when the mortgage or deed of trust is "purchase money;" (3) laws that prohibit the recovery of any deficiency following a non-judicial foreclosure by power of sale; and (4) laws that limit the deficiency to the difference between the loan balance owing and the greater of the foreclosure sale price or the fair market value of the property.[15] In *Honeyman v. Jacobs*[16] and *Gelfert v. National City Bank*,[17] the U.S. Supreme Court affirmed states' authority to intervene in mortgage contracts through the enactment of such laws. However, scholars and policymakers have harshly criticized anti-deficiency laws.[18]

---

10. For an economic analysis of debt-relief legislation, *see generally* Michael H. Schill, *An Economic Analysis of Mortgagor Protection Laws*, 77 VA. L. REV. 489 (1991).

11. 2 MICHAEL T. MADISON ET AL., THE LAW OF REAL ESTATE FINANCING § 12:69 (rev. ed. 2009).

12. *Id*.

13. Jones, *supra* note 8, at 115 n.6.

14. *See* GRANT S. NELSON & DALE A. WHITMAN, REAL ESTATE FINANCE LAW § 8.3 (5th ed. 2007).

15. The last category of anti-deficiency laws does not deprive the lender entirely of the right of recourse. Reflecting the lack of uniformity in this area, some states employ more than one of these categories, while some states combine two or more categories in the same law. *See* 2 MADISON, supra note 11, § 12:69 - § 12:72.

16. 306 U.S. 539, 543 (1939).

17. 313 U.S. 221, 231 (1941).

18. Congressman Jeb Hensarling claimed that "homeowners have become aware of the economic implications arising from applicable 'anti-deficiency' and 'single-action' laws and other rules adopted in many states that permit, if not indirectly encourage,

Most of the critiques of these laws examine them from an *ex post* perspective, finding that they create high costs that are passed on to borrowers without generating any substantial benefits for them.[19]

Even in states that lack non-recourse legislation, homeowners do not always face the risk of a deficiency judgment. Some public authorities, such as the Federal Housing Administration ("FHA"), have long-standing policies of substantial forbearance and waiver of deficiencies.[20] Because it is often costly and time-consuming to pursue a defaulting borrower, deficiency judgments may be rare in practice, even in the private sector.[21] This is particularly true in states where lenders are overwhelmed with foreclosures.[22] Moreover, borrowers may be judgment-proof because of a general lack of other assets, especially if the borrower made little or no down payment because of an absence of

homeowners to avoid their contractual mortgage obligations." *See* OCTOBER OVERSIGHT REPORT, *supra* note 8, at 157.

19. *See, e.g.*, Mark Meador, *The Effects of Mortgage Laws on Home Mortgage Rates*, 34 J. ECON. & BUS. 143, 146 (1982) (finding that the existence of an anti-deficiency law increases the interest rate charged on loans secured by newly constructed homes by 13.87 basis points, and for loans secured by existing homes, Meador estimates that anti-deficiency laws increase the interest rate by 22.65 basis points); Susan E. Woodward, *A Study of Closing Costs for FHA Mortgages*, 2008 U.S. DEP'T OF HOUS. & URBAN DEV. 50-52, *available at* http://www.huduser.org/Publications/pdf/FHA_closing_cost.pdf (finding that the nonrecourse legal regime raises costs to borrowers by $550 per $100,000 of loan amount); Brent W. Ambrose & Anthony B. Sanders, *Legal Restrictions in Personal Loan Markets*, 30 J. REAL ESTATE FIN. & ECON. 133, 149 (2005) (finding that borrowers in states that prohibit deficiency judgments pay higher credit costs on high LTV mortgages by about 33 basis points). *But see* Schill, *supra* note 10.

20. *See* John Mixon, *Fannie Mae/Freddie Mac Home Mortgage Documents Interpreted as Nonrecourse Debt (with Poetic Comments Lifted from Carl Sandburg)*, 45 CAL. W. L. REV. 35, 39-40 (2008); Jones, *supra* note 8, at 118; *see also* Ghent & Kudlyak, *supra* note 8, at 3.

21. Steven Wechsler, *Through the Looking Glass: Foreclosure by Sale as De Facto Strict Foreclosure: An Empirical Study of Mortgage Foreclosure and Subsequent Resale*, 70 CORNELL L. REV. 850, 878 (1985) (finding that "of the ninety-four studied cases in which the foreclosure sale left a deficiency amount, the mortgagee obtained a deficiency judgment in only one case, and in that case the judgment was not satisfied"); Vikas Bajaj, *Mortgage Holders Find It Hard to Walk Away from Their Homes*, N.Y. TIMES, May 10, 2008, at C1, *available at* http://www.nytimes.com/2008/05/10/business/10housing.html?pagewanted=1&_r=1.

22. Brent T. White, *Underwater and Not Walking Away: Shame, Fear and the Social Management of the Housing Crisis*, 45 WAKE FOREST L. REV. 971, 985 (2010).

funds.[23] Therefore, filing an action for deficiency often is not cost effective for the lender, and mortgages consequently become *de facto* non-recourse loans.[24]

2. Theory

A non-recourse mortgage is a mortgage secured solely by a pledge of collateral, which is typically the real estate asset purchased with the mortgage. This structure allows the borrower to avoid personal liability on the mortgage. Traditionally, personal liability of the mortgagor was essential to the classical common law mortgage.[25] However, modern legal systems acknowledge the possibility of a mortgage without a mortgagor's personal liability for the debt.[26] If a borrower defaults, the lender is limited to repayment only by foreclosure of the mortgage. Even if the foreclosure sale yields only a fraction of the total outstanding mortgage, the lender is not able to sue the borrower personally for repayment from the borrower's unsecured personal assets and future income. Moreover, the borrower has no obligation to pay the deficiency even in circumstances where he has the financial ability to make the payment.

Non-recourse mortgages produce a unique risk allocation between the mortgagor and the mortgagee that is deeply affected by the market value of the collateralized asset.[27] When the price of the real estate asset rises and its current market value is higher than the outstanding balance on the mortgage, the borrower has an incentive to continue paying the lender. However, when the real estate market falls and the value of the asset drops far below the present value of mortgage payments, i.e. the

---

23. Zywicki & Adamson, *supra* note 8, at 30.

24. Bar-Gill, *supra* note 8, at 1113.

25. GEORGE E. OSBORNE, HANDBOOK ON THE LAW OF MORTGAGES 156-157 (2d ed. 1970).

26. *See* RESTATEMENT (THIRD) OF PROP.: MORTGAGES § 1.1 (1997) ("A mortgage is a conveyance or retention of an interest in real property as security for performance of an obligation. A mortgage is enforceable whether or not any person is personally liable for that performance."); NELSON & WHITMAN, *supra* note 14, § 2.1.

27. Non-recourse mortgage is a method by which lenders indirectly invest in the real estate market while trying to predict future fluctuations. This type of loan is offered by lenders based on estimations regarding the future value of the asset. In situations where the value of the asset eventually declined, the lender's estimation was incorrect, and it was not able to predict what would happen next.

borrower is "underwater," the borrower has a strong incentive to stop paying the loan, leave the asset to the lender[28] and become a renter.[29] By merely sending the keys of his home to the lender, the borrower discharges the loan and is no longer liable for the debt. This phenomenon is known as a "strategic default."[30]

The risk allocation between the parties in a non-recourse mortgage is markedly different from the risk allocation between the parties in a mortgage arrangement that provides the lender with a right of recourse against the borrower.[31] Notably, in a period of falling real estate market prices, a borrower with a recourse mortgage is less likely to stop paying the loan and walk away from his home because after foreclosure he still will be liable for the difference between the full amount of the debt and the foreclosure sale proceeds. If those sale proceeds do not satisfy the mortgage obligation, the lender may obtain a deficiency judgment for the balance. Therefore, the defaulting borrower faces the risk of losing personal assets if the lender comes after him with a deficiency judgment.[32] Thus, it makes more sense for a borrower to try to meet

---

28. *See, e.g.,* John M. Quigley & Robert Van Order, *Explicit Tests of Contingent Claims Models of Mortgage Default*, 11 J. REAL ESTATE FIN. & ECON. 99, 106 (1995) (indicating that negative equity is strongly associated with higher default rates); *see also,* Adam J. Levitin, *Resolving the Foreclosure Crisis: Modification of Mortgages in Bankruptcy*, 2009 WIS. L. REV. 565, 639-640 (arguing that in the case of non-recourse mortgage, walking away is an attractive option for a homeowner with negative equity who can find a better rental deal elsewhere).

29. Theoretically, the borrower may prefer to buy a new house. But walking away from his current home and declining to repay the mortgage will affect his credit score, and most, if not all, financial institutions will refuse to grant him a new loan until his credit score improves. Thus, if the borrower would like to buy a new house, he needs to get a new mortgage before he would default on his current mortgage and cause damage to his credit score. Therefore, in most of these situations, the borrower will be inclined to rent a different house, rather than buying one. *See* Levitin, *supra* note 28, at 640 & 655 n.265.

30. *See* Kenneth R. Harney, *Homeowners Who 'Strategically Default' on Loans a Growing Problem*, L.A. TIMES, Sept. 20, 2009, *available at* http://www.latimes.com/classified/realestate/news/la-fi-harney20-2009sep20,0,2560658.story (identifying the characteristics and debt management behavior of strategic defaulters).

31. The customary mortgage arrangement in many jurisdictions throughout the world includes the lender's right of recourse to the borrower. *See* Harris, *supra* note 8, at 13 (arguing that in most countries, including Japan, Australia, Canada, Israel and European Countries, recourse loans are the common practice).

32. The personal assets of the borrower that the lender is able to put his hands on through a deficiency judgment include the borrower's future income. *See also* 11

mortgage payments to prevent foreclosure, as opposed to defaulting, paying rent for a new house, and still repaying the outstanding debt on the foreclosed mortgage. Having personal liability for the debt, a borrower with a recourse mortgage bears much greater risks than a borrower with a non-recourse mortgage. Empirical studies have confirmed that the default rate on residential mortgages in states that allow lenders recourse to the borrowers is much lower than the default rate in non-recourse states.[33] The lower default rate results from the deterrent effect of recourse, which stems from the lender's ability to pursue a defaulting borrower with a deficiency judgment.[34]

The decision of a borrower to default on a non-recourse mortgage is analogous to an implicit option written by the lender and held by the borrower.[35] Default may be viewed as a *put option* that gives the borrower the right to terminate his mortgage obligation by transferring the collateral property to the lender.[36] The borrower's exercise of the

---

U.S.C. § 1322(a)(1) (2006) (stating that the debtor in a chapter 13 case will file a plan under which he will provide for the submission of all or a portion of his future earnings or income).

33. *See* Jones, *supra* note 8 (analyzing data from two Canadian provinces: Alberta, which does not permit deficiency judgments, and British Columbia, which permits deficiency judgments, and finding that defaults in Alberta are more likely to be due to deliberate defaults than because of trigger events in the borrower' lives); Ghent & Kudlyak, *supra* note 8 (comparing defaults in states with and without non-recourse mortgages, the researchers find that a borrower with negative equity is more likely to default in a non-recourse state); Zubin Jelveh, *When Banks Can't Go After Defaulters*, NEW REPUBLIC, July 13, 2009, *available at* http://www.tnr.com/blog/the-stash/when-banks-cant-go-after-defaulters (finding that the correlation between price declines and foreclosures is much stronger in non-recourse states than in recourse ones).

34. Analyzing the deterrent effect of recourse on residential mortgage default probability, Ghent and Kudlyak find that the magnitude of the deterrent effect of the lender's ability to go after a borrower is closely tied to the borrower's wealth and that deterrent effect increases with borrowers who have more assets to protect. *See* Ghent & Kudlyak, *supra* note 8, at 24-25.

35. An option represents a contingent claim that will be exercised under certain states of the economy but not otherwise. *See* Yongheng Deng et al., Mortgage Terminations, *Heterogeneity and the Exercise of Mortgage Options*, 68 ECONOMETRICA 275 (2000).

36. A different way of terminating the mortgage early is by prepayment. Prepayment occurs when the loan is paid in full prior to maturity. It may be viewed as a *call option* that allows the borrower to buy back the remaining mortgage payments from the lender at the prevailing mortgage rate. For a recent review of literature dealing with mortgage termination risk, *see* Michael LaCour-Little, *Review Articles: Mortgage*

embedded put option in a non-recourse mortgage is a virtual selling of the collateralized house to the lender at the amount of the outstanding loan. Option theory, as applied to the behavior of homeowners with mortgages, predicts that mortgage default will be exercised if the put option is "in-the-money" by some specific amount, i.e. negative homeowner equity.[37]

Although negative equity is a strong incentive for strategic default, several economic and non-economic factors may also play a role.[38] As far as the primary residence is concerned, walking away from the property involves pecuniary and non-pecuniary relocation costs, such as difficulty in renting or buying a new home, moving expenses, change of school for any children in the household, and loss of social relationships in the community (unless one can relocate around the corner).[39] Additionally, a mortgage default will appear on the borrower's credit history and likely will ruin his credit score, thereby negatively impacting his future ability to borrow and engage in various financial activities.[40] Individuals may have moral considerations that affect their willingness to default. Some individuals may perceive default as unethical or irresponsible and thus something to avoid if not at all costs, then at some

---

Termination Risk: *A Review* of the *Recent Literature*, 16 J. REAL ESTATE LITERATURE 297 (2008).

37. *See* Deng et al., *supra* note 35, at 284.

38. *See* Levitin, *supra* note 28, at 638.

39. To add to these costs, there is some specificity in the housing stock. Most people remodel their house to fit their needs. After this remodeling they are likely to pay a premium for their house in respect to a similar house with the same general characteristics. *See* Luigi Guiso et al., *The Determinants of Attitudes Towards Strategic Default of Mortgages* (NBER, Working Paper No. w15145 and CEPR Discussion, Paper No. DP7352, 2009), *available at* http://www.kellogg.northwestern.edu/faculty/sapienza/htm/Guiso_Sapienza_Zingales_StrategicDefault.pdf.

40. *See* Bajaj, *supra* note 21. Foreclosure of a mortgage may cause an immediate hit to the borrower's rating score of 140 to 150 points on a Vantage scale, plus a negative mark on the credit bureau files for up to seven years. *See* Kenneth R. Harney, *Delinquency and Credit Scores*, WASH. POST, Sept. 12, 2009, *available at* http://www.washingtonpost.com/wp-yn/content/article/2009/09/10/AR2009091004532.html. While the actual financial cost of having a poor credit score for a few years may be hard to quantify, it is not likely to be significant when compared to the savings from walking away from a seriously significantly underwater mortgage. *See* White, *supra* note 22, at 983-985. Moreover, in light of the widespread nature of defaults and foreclosures in the current crisis, future lenders may discount the impact of this adverse event in comparison to prior eras. *See* Zywicki & Adamson, *supra* note 8, at 32.

significant cost.[41] Finally, even "amoral" people may choose not to default, even if it is in their narrow economic interest, because of the social costs associated with this decision. For example, defaulting strategically on a mortgage may lead to social stigma.[42]

Empirical evidence indicates that a strong correlation exists between the size of a borrower's negative equity and the propensity of homeowners to walk away from their homes and mortgages. Given the aforementioned considerations that make default unappealing, borrowers are unlikely to default when the portion of negative equity in their home is small. However, when the portion of negative equity increases, the borrower's readiness to default on the mortgage is significantly higher.[43]

B. No Down Payment Requirement

Traditionally, homebuyers were required to put "down" a significant amount of money as payment for a home. In order to reduce the risk of potential default, lenders in the American mortgage market customarily required borrowers to put down a minimum down payment of 20% of a home's total value.[44] Such a requirement created a so-called "equity cushion," which was meant to absorb the initial losses resulting from a decline in home prices. Specifically, this financing arrangement sought to prevent homeowner equity from becoming negative, so that default would never be an "in-the-money" option.[45]

However, the requirement that homebuyers make significant down payments was eliminated in the 1990s.[46] At around the same time, lenders began offering loans with high loan-to-value ("LTV") ratios,

---

41. Guiso et al., *supra* note 39, at 6.

42. *Id*. at 7.

43. *See id.* at 9 (finding, when assessing the propensity of American households who have negative equity in their home to default strategically, that the willingness to default is clearly increasing over the relative value of the equity shortfall, with only 4.7% of the people willing to default when the shortfall is 10% of the value of the house and 11.4% when this is between 40% and 50%. Moreover, not only the relative value, but also the absolute value matters. Per given relative value of a shortfall, roughly 7% more households are willing to default when the shortfall is $100,000 instead of $50,000).

44. *See* Bar-Gill, *supra* note 8, at 1076.

45. *See* White, *supra* note 22, at 1008.

46. *See* Rosner, *supra* note 4, at 7-8 (describing the relaxation of credit standards in the 1990s, including the drastic reduction of minimum down payment levels from 20% to 0%).

thus enabling prospective homeowners to borrow up to the full purchase price of a house.[47] Higher LTV ratios at origination correlate with higher probabilities of negative equity and default at the termination of the mortgage.[48] Lenders, however, failed to appreciate the impact of positive equity on lowering the risk of mortgage default rates.[49]

To be sure, no-money-down loans surged in popularity in the 2000s. In many cases, home purchases became highly leveraged transactions with borrowers taking out a second mortgage without having to put any money down.[50] The median[51] combined LTV ratio for subprime purchase loans (including first and second mortgages) increased from 90 percent in 2003, to 100 percent from 2005 to 2007. These statistical figures suggest that during the latter stages of the housing bubble, approximately half of borrowers with subprime mortgages did not put any money down on their respective home purchases.[52]

The relaxation of credit standards, as evidenced by lenders tacitly

---

47. The elimination of the down payment requirement has made homeownership accessible to Americans who previously were forced to rent because of insufficient funds. According to the Federal Deposit Insurance Corporation, for example, American homeownership rates stood at 68.9% in 2005 as compared to 63.9% two decades earlier. *See* Greg Griffin et al., *No money down: A High-Risk Gamble*, Denver Post, Sept. 17, 2006, *available at* http://www.denverpost.com/ci_4347686; *see also* U.S. Census Bureau, *Housing Vacancies and Homeownership: Historical Tables*, tbl. 14, http://www.census.gov/hhes/www/housing/hvs/historic/index.html (last visited Oct. 6, 2010) (compiling homeownership rates for the U.S. from 1965 to the present).

48. *See, e.g.*, Deng et al., *supra* note 35. *See also* Griffin, et al., *supra* note 47 (reporting that more than half of all foreclosures on home purchases in August 2006 involved no-down-payment loans).

49. *See* White, *supra* note 22, at 1008.

50. Within the home lending industry, second mortgages are commonly referred to as "piggyback" mortgages. The share of subprime originations with a piggyback rose from 7% to 28% in the years spanning 2003 through 2006, whereas the share of Alt-A mortgages with a piggyback rose from 12% to 42% during the same period. *See* Mayer et al., *supra* note 6, at 6.

51. In the field of statistics, the median represents the middle numerical value in a distribution set.

52. *See* Mayer et al., *supra* note 6, at 6*; see also* Tomoeh Murakami Tse, *Down Payments' Downward Trend*, WASH. POST, Jan. 21, 2006, at F1, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2006/01/20/AR2006012000803.html (explaining that from August 2004 through July 2005 more than four out of every ten first-time homebuyers financed their purchases with no-down-payment loans).

encouraging borrowers to take out no-money-down loans, can be attributed to a host of factors.[53] Most markedly, the burgeoning securitization market permitted lenders to assign to third- and fourth-parties the default risks associated with mortgages.[54] Under this complex assignment process, parties could neither foresee nor insulate themselves from the effects of the ensuing subprime mortgage crisis.[55]

Securitization is one of the most important financial tools in a modern economy.[56] It enables a company, the "originator," to use its assets that produce a predictable cash flow to achieve interim financing for its business activity.[57] The securitization process is based on separating specific receivables from the originator's other assets and selling them to a Special Purpose Vehicle ("SPV"). The SPV finances the purchase of the receivables by issuing Asset-Backed Securities ("ABS") (i.e., securities that are backed by the receivables).[58] The cash flow produced by the securitized receivables is used as the source of funds to pay the investors in the ABS.[59]

The practice of securitization emerged from the sale of securities

---

53. Arguably, one such factor was the intense competition amongst banks. *See generally* Jacob A. Bikker et al., *Misspecification in the Panzar-Rosse Model: Assessing Competition in the Banking Industry*, (De Nederlandsche Bank, Working Paper No. 114, 2006), *available at* http://www.dnb.nl/binaries/Working%20Paper%20114-2006_tcm46-146771.pdf (exploring competition in the banking sector).

54. *See Mortgage Foreclosure Hearing*, *supra* note 5; Mian & Sufi, *supra* note 5; Keys et al., *supra* note 5; Laeven et al., *supra* note 5.

55. For a discussion of how the complexity in modern financial markets acts as a catalyst of market failure, *see* Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. 211 (2009).

56. Lynn M. LoPucki, *The Death of Liability*, 106 YALE L.J. 1, 24 (1996); Thomas E. Plank, *Bankruptcy Professionals, Debtor Dominance, and the Future of Bankruptcy: A Review and a Rhapsody on a Theme*, 18 BANKR. DEV. J. 337, 362 (2002) (reviewing DAVID A. SKEEL, JR., DEBT'S DOMINION: A HISTORY OF BANKRUPTCY IN AMERICA (2001)); Edward M. Iacobucci & Ralph A. Winter, *Asset Securitization and Asymmetric Information*, 34 J. LEGAL STUD. 161, 162 (2005).

57. Steven L. Schwarcz, *The Alchemy of Asset Securitization*, 1 STAN. J.L. BUS. & FIN. 133, 135 (1994); The Comm. on Bankr. & Corp. Reorganization of the Ass'n of the Bar of the City of N.Y., *Structured Financing Techniques*, 50 BUS. LAW. 527, 529 (1995); Robert Stark, *Viewing the LTV Steel ABS Opinion in its Proper Context*, 27 J. CORP. L. 211, 213 (2002).

58. Iacobucci & Winter, *supra* note 56, at 164.

59. Joseph C. Shenker & Anthony J. Colletta, *Asset Securitization: Evolution, Current Issues and New Frontiers*, 69 TEX. L. REV. 1369, 1376 (1991).

backed by residential mortgages.[60] Banks usually sell their mortgages to SPVs that issue Residential Mortgage-Backed Securities ("RMBS") to the public.[61] In fact, nowadays, most subprime mortgages in the United States are securitized.[62]

The mortgage market is often divided into primary and secondary markets. In the primary market, loan applications are submitted, interest rates are quoted, applications are underwritten, property is appraised, and transactions are closed. The securitization process transforms non-liquidated residential mortgages that originate in the primary market into RMBS that can be traded in the secondary market and realized at a specific market value. After selling the mortgages to the SPVs, the banks that originated the mortgages in the primary market do not participate in the trade between investors in the secondary market. Rather, RMBS investors continuously trade amongst themselves. Thus, the secondary mortgage market makes it possible to bypass the financial institution's mediation process.[63]

The process of mortgage securitization permits lenders to detach themselves from the potential default risks attached to the mortgages they created by assigning these risks to the RMBS investors. Furthermore, these loans are securitized as part of a pool of assets, such that the risk associated with each individual loan is not separately and thoroughly examined.[64] Because lenders are detached from the outcomes of their lending practices, they are able to position themselves to offer subprime mortgages[65] with the knowledge that they will not bear the loss of any default that may occur.[66] This structure shifts default risk

---

60. For a historical overview of the development of the mortgage-backed securities market in the United States, *see id*. at 1383-88.

61. Jennifer E. Bethel et al., *Legal and Economic Issues in Litigation Arising from the 2007-2008 Credit Crisis*, *in* PRUDENT LENDING RESTORED: SECURITIZATION AFTER THE MORTGAGE MELTDOWN 163, 163-235 (Yasuyuki Fuchita, Richard J. Herring & Robert E. Litan eds., 2009).

62. Kathleen C. Engel & Patricia A. McCoy, *Turning a Blind Eye: Wall Street Finance of Predatory Lending*, 75 FORDHAM L. REV. 2039, 2040 (2007).

63. *See* Andrew R. Berman, *"Once a Mortgage, Always a Mortgage" – The Use (and Misuse of) Mezzanine Loans and Preferred Equity Investments*, 11 STAN. J.L. BUS. & FIN. 76, 77-78 (2005).

64. *See* Schwarcz, *supra* note 55, at 229 n.98.

65. For empirical study which observes a higher growth of securitization in areas with higher rate of subprime borrowers, *see* Mian & Sufi, *supra* note 5.

66. Even though in the process of providing credit enhancements the lender (through an affiliate) often buys securities in the subordinated tranches, and, therefore,

to the investors in the capital market and the economy as a whole.

III. THE MORTGAGE MELTDOWN

After highlighting two distinctive features of the American residential mortgage market, non-recourse loans and no-down-payment requirements, we move on to examine how these features contributed to the creation of the recent housing boom and bust. Indeed, scholars have begun to analyze each of these features separately and recognize the independent role each played in the mortgage meltdown.[67] This article goes beyond those analyses and focuses on the negative consequences and legal implications that resulted from the *combination* of these two features.

Our claim is that customary mortgage arrangements directly contributed to the creation of the price bubble in the real estate market by generating an imbalanced risk allocation. Financing home purchases through non-recourse mortgages, combined with the practice of not requiring an initial down payment, insufficiently deterred borrowers

---

supposedly retains the riskiest securities, outside investors (principally real estate investment trusts, hedge funds, and overseas investors) buy many of these so-called "residuals" (some at the time of offering and others through later secondary market resales). In addition, lenders can resell their subprime residuals to outside investors through bonds known as "Collateralized Debt Obligations" (CDOs). A central purpose of residuals is to force lenders to retain the bulk of the credit risk they create. However, when lenders with subprime residuals shift them off their books through CDOs, they are able to escape the market discipline that residuals were meant to exert. *See* Engel & McCoy, *supra* note 62, at 2065-68.

67. *See* Mayer et al., *supra* note 6, at 16 ("The rise in combined loan-to-value ratios suggests that lower down payments and an increased use of second liens could have been important contributors to the mortgage crisis."); Martin Feldstein, *How to Save an 'Underwater' Mortgage*, WALL ST. J., Aug. 7, 2009, *available at* http://online.wsj.com/article/SB10001424052970204908604574330883957532854.html ("No-recourse mortgages increase foreclosures, resulting in more properties being thrown on the market, and lead to an excess decline in house prices."); Harris, *supra* note 8, at 2-3 ("More scholars now realize that this feature plays an important role in the unfolding of the subprime crisis . . . . It seems that the prevalence of non-recourse mortgages leads to more foreclosures, a slump in home prices, losses to lenders and holders of mortgage-backed-securities (MBS), and has spurred the economic crisis."); Kris Gerardi et al., *Did Nonrecourse Mortgages Cause the Mortgage Crisis?*, FED. RESERVE BANK OF ATLANTA, Feb. 18, 2010, http://realestateresearch.frbatlanta.org/rer/2010/02/did-nonrecourse-mortgages-cause-the-mortgage-crisis.html.

from taking loans while being indifferent in regards to their ability to fulfill their terms. This mortgage practice created a moral hazard on the part of borrowers and encouraged irresponsible borrowing, the counterpart to irresponsible lending.[68] The described situation, in which there is a dual lack of liability both *ex ante* (no down-payment) as well as *ex-post* (non-recourse), produced inefficient results and externalities. With no personal equity at stake and no exposure to personal liability, the demand for real estate, along with real estate market prices, increased.[69] Thus, price appreciation had almost nothing to do with the assets themselves and was quite artificial.[70] Rather, it was more attributable to the availability of relatively riskless and overly convenient funding options.

When borrowers could not pay their debts because the original loans they received were unaffordable,[71] lenders were forced to take control of the assets and sell them to recover from the default.[72] The vast increase in the number of foreclosed homes on the market spawned a decline in real estate prices.[73] While home prices were dropping, many

68. Ankoor Jain & Cally Jordan, *Diversity and Resilience: Lessons from the Financial Crisis*, 32 U.N.S.W.L.J. 416, 440 (2009); Schill, *supra* note 10, at 534.

69. The New York Federal Reserve has a plan to provide non-recourse loans as an incentive to the borrowers. *See* Steve Waldman, *Non-Recourse Loans: Positively Counterproductive*, SEEKING ALPHA (Feb. 22, 2009), http://seekingalpha.com/article/121916-non-recourse-loans-positively-counterproductive. From this policy, one can understand that non-recourse loans are perceived as borrower-friendly loans.

70. *See* Pavlov & Wachter, *supra* note 6.

71. Some borrowers were unable to cope with the increase in monthly payments that occurred when the interest rates on their adjustable-rate mortgages automatically reset. *See* Feldstein, *supra* note 67.

72. *See* James R. Hagerty, *Defaults Rise on Home Mortgages Insured by FHA*, WALL ST. J., Mar. 31, 2009, at A2, *available at* http://online.wsj.com/article_email/SB123840821794969275-lMyQjAxMDI5MzM4MDQzMDA4Wj.html. In the end of February 2009, the Federal Housing Administration (FHA) reported that 7.5% of the loans it insured (which are now approximately one third of the loans) were seriously delinquent. This term refers to loans that are 90 days or more overdue, in the foreclosure process or in bankruptcy. To note, FHA insured loans are available in loans with a down payment as small as 3.5% of the home's value. *Id.*

73. For a nationwide study that shows the impact of foreclosure sales on home prices, *see* Press Release, Lender Processing Services, LPS Releases Study That Demonstrates Impact of Foreclosure Sales on Home Prices (Sept. 3, 2009), *available at* http://www.lpsvcs.com/NewsRoom/Pages/20090903.aspx. *See also* CONG. OVERSIGHT PANEL, THE FORECLOSURE CRISIS: WORKING TOWARD A SOLUTION 9 (2009), *available at* http://cop.senate.gov/reports/library/report-030609-cop.cfm [hereinafter CONG.

borrowers who had not been required to make an initial down payment at origination found themselves with substantial negative equity in their homes.[74] Ultimately, the borrower's incentive to care for his property decreased substantially.[75] Homeowners with substantial negative equity reasoned that any money they might have invested in their properties, such as money for basic repairs, did not substantially add to their equity; rather it was a value that accrued to the lenders in terms of increased collateral value. Therefore, homeowners were less willing to invest in maintenance and improvements for their properties, which further decreased property values in a vicious circle.[76]

Moreover, the steep decline in housing prices increased both the number of homeowners with negative equity and the measure of that negative equity. Consequently, it was rational for an increased number of homeowners with substantial negative equity to default on their

OVERSIGHT PANEL REPORT]. A single foreclosure can depress the eighty closest neighbors' property values by nearly $5,000. When multiple foreclosures happen on a block or in a neighborhood, the effect is exponential. *Id.*

74. For data showing that the proportion of American borrowers who had negative equity in their homes in the third quarter of 2009 swelled to about 23%, *see* Press Release, First American Core Logic, The Negative Equity Report: State-by-State Estimates for U.S. Single-Family Residential Properties (Nov. 24, 2009), *available at* http://www.facorelogic.com/newsroom/marketstudies/negative-equity-report.jsp. According to this report, nearly 10.7 million residential properties with mortgages were in negative equity as of September 2009. An additional 2.3 million mortgages were approaching negative equity, meaning they had less than 5% equity. Together, negative equity and near negative equity mortgages account for nearly 28% of all residential properties with a mortgage nationwide. *Id.* *See also* GLOBAL MKTS. RESEARCH, DROWNING IN DEBT – A LOOK AT "UNDERWATER" HOMEOWNERS 2 (2009), *available at* http://www.sacbee.com/static/weblogs/real_estate/Deutsche%20research%20on%20underwater%20mortgages%208-5-09.pdf (estimating that 14 million American homeowners had negative equity as of the end of the first quarter of 2009, and projecting that 25 million homeowners will have negative equity by the first quarter of 2011).

75. Levitin, *supra* note 28, at 640. Even when the homeowner's equity is positive, his incentives to maintain his house are decreased in a non-recourse state. Because the lender cannot pursue the borrower's non-housing wealth, the borrower has less to lose in the event of a default, so he has diminished incentives to reduce the likelihood that the market value of the house would fall below the mortgage balance. *See* John Harding et al., *Deficiency Judgments and Borrower Maintenance: Theory and Evidence*, 9 J. HOUS. ECON. 267 (2000).

76. OCTOBER OVERSIGHT REPORT, *supra* note 8, at 11.

mortgages[77] and walk away from their houses.[78] Borrowers stopped paying off their loans when their home equity was negative, even if they did not have cash flow problems.[79] They simply sent their house keys to the lenders who then had to sell the homes to recover from the defaults. The increasing supply of homes for sale in a falling market drove down home prices even further, resulting in the continuous tailspin of American housing prices since 2006.[80]

It follows, then, that mortgage lending practices induced negative results both *ex ante* and *ex post*. They induced negative results *ex ante* by creating incentives for borrowers to commit to loan agreements that they might not be able to fulfill. Additionally, they induced negative results *ex post* by making the option to walk away from one's home an attractive alternative for borrowers with negative equity, even when they might have been able to afford their current mortgage payments. Notably, these results are not to be blamed solely on the subprime borrowers, as the incentives described might very well have influenced borrowers who would not have otherwise been considered risky.[81]

---

77. *See* CONG. OVERSIGHT PANEL REPORT, *supra* note 73, at 23-30 (identifying negative equity as the single best predictor of mortgage default); Jain & Jordan, *supra* note 68 ("In a time of falling house prices and negative equity, it is only logical for homeowners to walk away from their houses (and their mortgage payments) and send the keys back to the lender.").

78. For the high concern over the increasing phenomena of homeowners walking away from their homes, *see supra* note 3.

79. Guiso et al., *supra* note 39 (finding that 26% of the existing defaults are strategic and asserting that a non-negligible portion of mortgage defaults in the United States are in fact strategic). *Compare* Ghent & Kudlyak, *supra* note 8 (finding that in non-recourse states, borrowers default strategically by dumping homes that are worth far less than what they owe, even if they can afford the mortgage payments due), *with* Christopher L. Foote et al., *Negative Equity and Foreclosure: Theory and Evidence*, 64 J. URB. ECON. 234 (2008) (concluding, based on their analysis of Massachusetts data, that negative equity is a necessary but not a sufficient condition for default; however, Massachusetts is a recourse state and the borrower's decision to default in recourse states is substantially less sensitive to negative equity than in non-recourse states).

80. House prices in the United States rose at an average annual rate of 11% from 2000 through 2005, stagnated, and then fell at an average annual rate of 10% from mid-2006. *See* Mayer et al., *supra* note 6, at 21.

81. Stan Liebowitz, *New Evidence on the Foreclosure Crisis: Zero Money Down, Not Subprime Loans, Led to the Mortgage Meltdown*, WALL ST. J., July 3 2009, at A13, *available at* http://online.wsj.com/article/SB124657539489189043.html ("[T]he focus on subprimes ignores the widely available industry facts (reported by the Mortgage Bankers Association) that 51% of all foreclosed homes had prime loans, not subprime,

IV. UNDERCAPITALIZATION

This part shifts our discussion to the issue of corporate undercapitalization and highlights its parallels with the previously discussed residential mortgage issues. It examines the case of undercapitalization and the legal remedies available when such undercapitalization occurs.

Before delving into undercapitalization, it is important to discuss the concept of shareholders' limited liability for corporate debts,[82] one of corporate law's fundamental principles.[83] This principle flows from the legal structure of the corporate entity, which separates the company, the legal entity, from its shareholders, who act as independent entities. As a separate entity, the company carries its own obligations and possesses its own rights. Under the limited liability rule, a shareholder risks only the value of her investment in the corporation.[84] Thus, in the event that the company fails, the shareholder has no personal obligation to pay the corporate debts if the corporation cannot satisfy them.[85]

Legal treatises on corporate law identify limited liability as a basic principle on which the business world is founded.[86] The principle is justified by the claim that it encourages entrepreneurship and business activities,[87] which, in turn, increase the total level of societal welfare.[88]

---

and that the foreclosure rate for prime loans grew by 488% compared to a growth rate of 200% for subprime foreclosures.").

82. *See* Merrick Dodd, *The Evolution of Limited Liability in American Industry: Massachusetts*, 61 HARV. L. REV. 1351 (1948).

83. *See*, *e.g.*, United Elec., Radio & Mach. Workers v. 163 Pleasant St. Corp., 960 F.2d 1080, 1091 (1st Cir. 1992) (". . . a pillar of corporate law.").

84. *See* Smith Setzer & Sons, Inc. v. S.C. Procurement Review Panel, 20 F.3d 1311, 1317 (4th Cir. 1994) ("[T]he shareholders of a corporation limit their exposure to direct personal liability to the value of their shares.").

85. *See* Henry G. Manne, *Our Two Corporation Systems: Law and Economics*, 53 VA. L. REV. 259, 262 (1967); Richard A. Posner, *The Rights of Creditors of Affiliated Corporations*, 43 U. CHI. L. REV. 499, 502 (1976) (explaining the effect of limited liability as well as disadvantages unlimited liability might create).

86. Easterbrook & Fischel explain that limited liability rule was designed to contend with the problem of the separation between ownership and control in publicly held companies. Frank H. Easterbrook & Daniel R. Fischel, *Limited Liability and the Corporation*, 52 U. CHI. L. REV. 89, 93-97 (1985).

87. *See* Manne, *supra* note 85 (claiming that without limited liability, publicly held corporations could not exist).

This effect results from the expectations for high gain at considerably low risks.[89] Additionally, limited liability reduces the costs associated with agency problems that arise from the division between ownership and control.[90]

Nevertheless, it should be noted that limited liability does generate some negative side-effects that are particularly relevant to corporate undercapitalization. The most prominent negative effect is that limited liability enables shareholders to externalize the company's risk onto third parties, i.e. the company's creditors.[91] This ability to externalize the company's risk presents problems for those creditors who cannot protect themselves in advance, which is further explored in our discussion of corporate undercapitalization.[92]

A. WHAT IS CORPORATE UNDERCAPITALIZATION?

The term "corporate undercapitalization" refers to a situation in which the company's equity is not reasonable when compared to the obligations and risks it undertakes during its corporate activities.[93] From the shareholder's perspective, undercapitalization limits her potential loss and personal exposure in the event of a company's failure. At the same time, from the creditor's perspective, undercapitalization exposes him to a higher degree of risk.

88. *See* Robert B. Thompson, *Unpacking Limited Liability: Direct and Vicarious Liability of Corporate Participants for Torts of Enterprise*, 47 VAND. L. REV. 1, 23 (1994).

89. *See* David W. Leebron, *Limited Liability, Tort Victims, and Creditors*, 91 COLUM. L. REV. 1565, 1570-74 (1991) (demonstrating how the limited liability rule has a positive effect on the choice to invest in certain projects).

90. *See* FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 41 (1991).

91. *See* J. William Callison, *Rationalizing Limited Liability and Veil Piercing*, 58 BUS. LAW. 1063, 1070 (2003).

92. This problem induced the scholar's proposals not to apply a limited liability rule on tort creditors. *See* Henry Hansmann & Reinier H. Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879, 1894-1909 (1991).

93. *See* Harvey Gelb, *Piercing the Corporate Veil – The Undercapitalization Factor*, 59 CHI.-KENT L. REV. 1, 3 (1982). In some cases, although the obligations of a company are not so high per se, the risks involved in the business are high such that the equity invested should also be high. That may be the case with a pharmaceutical company, gas or oil companies, etc. In these types of companies, the chances of mass failure due to the activity involved might be higher than in other companies.

A shareholder can undercapitalize a company in one of two ways. Under the first method, the shareholder chooses to invest very little, or sometimes nothing at all, in the company. The second method occurs when the shareholder transfers money to the company in the form of an owner's loan.[94] The following sections will explain the effects of these actions on the company's creditors and shareholders.

1. Not Investing or Investing Very Little

When a shareholder invests little or nothing in the company, the impact on the creditors is quite obvious: the less money the company has, the less there is to pay to creditors in the end. While the shareholder, as an owner in the company, earns the right to profit from the company's activities, very few, if any, of the risks associated with those activities inure to her detriment. In sum, under this method, the shareholder will profit if the company succeeds, but will not lose if the company fails.

2. Investing Money as an Owner's Loan

In the second method of undercapitalizing, a more complicated situation is created. In this scenario, the shareholder chooses to risk something from her own pocket, not by investing equity in the company, but, rather, by lending money to the company. However, if the shareholder does risk something, how is such a loan considered an undercapitalization method? The answer to this question lies in both bankruptcy and corporate law.

Bankruptcy law deals with circumstances involving insolvency, which is defined as a situation where there are not enough assets to cover all obligations.[95] This means that not all legitimate claims will be paid in-full. To deal with this scenario, bankruptcy law prioritizes entities that have a right to get paid from an estate. Generally, the law identifies three main groups of claimants:[96] secured creditors,[97] who are

---

94. *See* 18A AM. JUR. 2d *Corporations* § 636 (2010).

95. *See* 11 U.S.C. § 101(32) (2006).

96. There are also administrative costs which will be paid separately after the secured creditors' claims.

97. Secured creditors are creditors that have a lien or a security right on the company's assets.

supposed to get paid first; general creditors;[98] and, lastly, shareholders.[99] Corporate law states that shareholders have residual claims on the company's assets, i.e., they will get paid only after the rest of the claims against the company have been fulfilled.[100] Since shareholders are ranked as the lowest group of claimants, they practically never get paid in bankruptcy.[101]

However, when a shareholder transfers money to the company in the form of a loan, the shareholder is treated as an ordinary creditor, thus assuming a dual role in the company as both a shareholder and a creditor. As a shareholder, she holds the right to the company's gains shall it succeed. As a creditor, in some cases, she will be ranked among the general creditors, while in other cases she will be placed in the secured creditors group. A shareholder may obtain secured status when the company secures some of its assets on behalf of her against the loan taken. Either way, the shareholder is ranked higher (in some cases, much higher) than she would have been if instead she had invested the money as equity. Though the shareholder is investing money in the company,[102] she is doing so by issuing credit and, thus, exposes herself to a much lower risk than what she would have had she invested it as equity. Thus, the case of secured lending enables the shareholder to

---

98. General creditors can be contractual creditors, tort creditors, etc.

99. *See* 11 U.S.C. § 726(a)(6) ("[P]roperty of the estate shall be distributed . . . sixth, to the debtor."). According to the Code, the debtor is the last who gets paid from the debtor's assets, namely, the residual claimant. In liquidation, since the company disappears when the procedure is over, the residual claimants are its shareholders.

100. *See* Frank H. Easterbrook & Daniel R. Fischel, *Voting in Corporate Law*, 26 J. L. & ECON. 395, 403-04 (1983).

101. It should be noted, though, that in reorganization cases the shareholders are usually being paid at least a small amount. That is because of the requirement that each class of stakeholders approve the reorganization plan, so that the plan will be confirmed by the court. Since the shareholders are a separate class, it is necessary that they approve the plan. *See* 11 U.S.C. § 1122. For that to be accomplished, they should get something in return. Many commentators have criticized this feature of the law. *See, e.g.*, Barry E. Adler, *Bankruptcy and Risk Allocation*, 77 CORNELL L. REV. 439, 446-54 (1992). On the other hand, there is the option of a "cramdown", which means the plan will be forced upon the non-consenting class by the court in certain circumstances. *See* Bankruptcy Code § 1129(b)(1)-(2).

102. This type of undercapitalization is supposedly no different than the other type, in which the shareholder does not invest anything or invests very little in the corporation. But the importance of clarifying these two methods derives from the complexity of this undercapitalization method in which money is in fact being delivered from the shareholder to the corporation.

transfer money with the lowest risk possible.

In both circumstances of undercapitalization, the shareholder puts herself in a position in which she still has the possibility of future profits should the company succeed. The probability of her being financially penalized if the company does not succeed is much smaller. The question remains: Does the lower risk represent a problematic situation that needs to be addressed? This question will be discussed in the next part.

B. The Problem with Undercapitalization

As previously discussed, the limited liability rule enables shareholders to externalize the company's risk onto third parties. This negative implication of limited liability is further complicated by the agency problems that are inseparable from the company's activities. Corporations face three types of agency problems: those between shareholders and management;[103] those between shareholders and creditors; and those between the shareholders themselves.[104] Our discussion concerns the second type of agency problem that focuses on the relation between shareholders and creditors of the company. Since shareholders have a lot to gain and only a limited probability of loss,[105] they may decide to act for the company in ways that are not economically efficient,[106] given the outcome in the case of default will be imposed on the creditors.[107] Thus, the limited liability rule enables

103. *See generally* Eugene E. Fama, *Agency Problems and the Theory of the Firm*, 88(2) J. POL. ECON. 288 (1980).

104. The latter usually refers to problems which arise when there are both controlling and minority shareholders. This is especially true with a public company where the public is usually the minority shareholder, since it represents a large and widely dispersed group of shareholders.

105. This is one of the basic agency problems that arise during the firm's activity. *See* the seminal work in this area: Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

106. In some cases the shareholders themselves are also the management, and therefore they hold virtually all decision-making authority. This may occur in a small and private company such as a family-owned one. It may also occur in a public corporation with a controlling shareholder who, *de facto*, decides for the company through the management. Even in cases where none of these apply, still the shareholders may play an important role, for the law often grants them decision power.

107. *See* WILLIAM A. KLEIN & JOHN C. COFFEE, JR., BUSINESS ORGANIZATION AND FINANCE: LEGAL AND ECONOMIC PRINCIPLES 256-59 (7th ed. 2000); Clifford W. Smith,

shareholders to externalize the risks associated with the company's activities and driven by their own decision-making. From the shareholder's point of view, it is beneficial to take these risks even if they outweigh probable return because she will enjoy all of the gain while avoiding most of the loss.

Undercapitalization of a company through one of the aforementioned methods intensifies this risky-venture phenomenon. More specifically, the shareholder has even less chance of losing money because she has invested nothing (or almost nothing) in the first place. This creates distorted incentives because a personal investment might have encouraged the shareholder to act with some restraint and prevent her from making irresponsible decisions. Thus, corporate undercapitalization incentivizes the shareholder to use her position in the corporation to create an option for future profits at the expense of other parties involved.

To be sure, the corporate laws of many jurisdictions around the world do not obligate shareholders to invest in the company when it is founded.[108] In other words, the corporate laws do not mandate a minimal equity investment in order for one to become a shareholder.[109] Thus, one could argue that viewing undercapitalization as problematic does not reconcile with corporate laws permitting the shareholder to decide whether and in what amount to invest. How can we grant her the freedom to decide for herself and then penalize her for doing just that? Though this argument sounds appealing, we contend that it does not address the issue correctly. We posit that the lack of a minimum investment requirement means that *ex post* intervention should be very limited but does not mean that the shareholder's conduct is unreviewable.

Applying a unified standard requiring an equity investment may result in inefficiency and damage to entrepreneurship. Every company requires the flexibility to craft a capital structure suited to its unique

---

Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117, 118-19 (1979); George G. Triantis, *Secured Debt Under Conditions of Imperfect Information*, 21 J. LEGAL STUD. 225, 237-38 (1992).

108. That is, for example, the Israeli Law. *See* Companies Act, 5759-1999, SH No. 189 § 8, that does not require minimum equity investment as a prerequisite for a company's registration.

109. Obviously, after the company has been founded, a person will usually have to purchase his right to become a shareholder, either from the other shareholders or the company itself.

business needs. Thus, the lack of a minimum investment requirement does not mean that money should not be invested, nor does it indicate that it is always appropriate to not make an initial contribution. Instead, it creates a flexible regime that accommodates the unique financing needs of all corporations. For example, requiring a minimum equity investment in companies with very low risks would create financial barriers to entry. However, some minimum contribution may be useful for particularly risky ventures that may cause other parties to suffer losses.

Moreover, third parties can assess the financial structure of a company before engaging in a business relationship with it. The company's certificate of incorporation and bylaws contain details regarding its equity capital[110] and are open for review by the public, including creditors. Therefore, if a creditor decides to lend to a company that lacks a reasonable balance between its equity and the risks or obligations it undertakes, one could assume that the creditor willfully took on the default risk because the potential return justified it. Thus, one might question why we should view undercapitalization as problematic *ex post*, when the creditor made a well-informed decision before entering into the relationship with the company. Three explanations to this question exist.

First, not all creditors *choose* to engage in a relationship with the company.[111] In some cases, the relationship is not contract-based and so does not involve free will and consent. For example, that is the case when referring to governmental or municipal authorities. These authorities do not check the details regarding each entity they're involved with when it comes to their administrative and legal responsibilities.[112] Therefore, they cannot be viewed as *choosing* to take on the risk entailed in dealing with an undercapitalized company. In other cases, the creditors may have been forced to enter into the relationship, such as when creditors have tort claims against the

110. The certificate of incorporation contains these details. *See, e.g.*, DEL. CODE ANN. tit. 8, § 102(a)(4) (2010).

111. *See* Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 VA. L. REV. 1887, 1897-99 (1994); James H. Scott, Jr., *Bankruptcy, Secured Debt, and Optimal Capital Structure*, 32 J. FIN. 1, 2-3 (1977); Paul M. Shupack, *Solving the Puzzle of Secured Transactions*, 41 RUTGERS L. REV. 1067, 1094-95 (1989).

112. This is unlike their status in situations in which they are contractual parties, where they should be treated as voluntary creditors like other entities.

company,[113] or where criminal offenses are involved.

Second, even creditors that have contracts with the company do not necessarily check whether the company has sufficient equity capital. These creditors are usually referred to as "non-adjustable" creditors.[114] There are two types of non-adjustable creditors.[115] The first type is the general creditor who is owed a relatively small amount of money and therefore chooses not to verify the company's information before (or during) the relationship. A general creditor is normally an unsophisticated one for whom the cost of getting the information is too high to justify the information's negligible value.[116] The second type of creditor is sophisticated but has fixed terms in his contract with the company, and therefore cannot adjust to new situations.[117] For these types of creditors, the claim that the creditor anticipated anything in advance and willfully entered into the relationship with the company does not seem valid.

Third, this argument is based on the premise that nothing changes between the time when the creditor and the company formed their relationship and the time of bankruptcy. Even if we focus on contractual creditors who are fully aware of the company's financial background, there is no guarantee that the company's financial situation will remain the same until the creditors complete their business with the company. Things may change from the point when the contract was sealed until the point when the undercapitalization factor suddenly assumes great relevance.[118]

---

113. *See* Robert E. Dye, Note, *Inadequate Capitalization as a Basis for Shareholder Liability: The California Approach and a Recommendation*, 45 S. CAL. L. REV. 823, 836 (1972) (viewing the impact of undercapitalization as greater when it comes to tort creditors as compared to contract ones).

114. *See* Lucian Arye Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857, 887 (1996).

115. *Id*. at 885-91.

116. One may argue that an *ex post* intervention is not required because these creditors make an affirmative choice with respect to analyzing risks. But the claim is that inefficient results might be created due to the non-adjusting creditors' characteristics (quite similar to non-voluntary creditors). Their inability to precisely calculate the risks does not necessarily represent an informed decision but, rather, an inevitable one that may result in a non-optimal outcome.

117. This might be the case when a new shareholder gets in the company, but, instead of investing in it, he decides to lend to it.

118. The stockholders have the right to change the certificates of incorporation, including provisions referring to the company's capital stock, such as their number, per

In sum, corporate undercapitalization raises questions as to the circumstances under which legal intervention is needed, as well as the appropriate methods of such intervention.

C. LEGAL REMEDIES IN UNDERCAPITALIZATION

There are two main remedies that are used in the case of corporate undercapitalization. The first remedy applies mainly to the situation in which the shareholder makes no, or almost no, investment in the company. The second remedy applies in the case where the shareholder invests in the company through loans rather than capital equity.

1. Piercing the Corporate Veil

The first remedy for corporate undercapitalization, piercing the corporate veil,[119] removes the legal separation between the corporation and the shareholder and obligates the shareholder to repay the corporation's debts.[120] Piercing the corporate veil is considered one of the most extreme remedies in corporate law because its application contravenes the fundamental limited liability rule.[121] Therefore, the remedy is applied under extremely limited circumstances and certainly not on a routine basis.[122]

One situation in which piercing the corporate veil might be applied is severe undercapitalization,[123] when the shareholder does not

---

value, designations etc. *See* DEL. CODE ANN. tit. 8, § 242(a)(3) (2010).

119. On this remedy *see generally*: David H. Barber, *Piercing the Corporate Veil*, 17 WILLAMETTE L. REV. 371 (1981).

120. To note, veil piercing may be used against other controlling persons in the corporation such as directors and officers. *See generally*, Robert C. Clark, *The Duties of the Corporate Debtor to its Creditors*, 90 HARV. L. REV. 505 (1977).

121. For a short description of veil piercing and the situation in which it will be applied according to courts in several U.S. states, *see* Fredric J. Bendremer, *Delaware LLCs and Veil Piercing: Limited Liability Has Its Limitations*, 10 FORDHAM J. CORP. & FIN. L. 385, 389-91 (2005).

122. It is interesting to note that the tendency to pierce the veil is higher when it comes to a holding company undercapitalizing its subsidiary. *See, e.g.*, Nilsson, Robbins, Dalgarn, Berliner, Carson & Wrust v. Louisiana Hydrolec, 854 F.2d 1538, 1543-44 (9th Cir. 1988).

123. *See* Robert B. Thompson, *Piercing the Corporate Veil: An Empirical Study*, 76 CORNELL L. REV. 1036 (1991) (presenting through an empirical study that undercapitalization is present in more than 18% of contract cases involving piercing the

contribute anything to the corporation in the form of equity,[124] or contributes an extremely[125] small amount.[126] Courts evaluate whether a company was undercapitalized by the conditions that existed at the time it was allegedly undercapitalized. The eventual collapse of the company is not a relevant factor in determining whether the financing was sufficient.[127] Instead, some factors considered in the determination include the company's specific circumstances, the type of business it engages in and the type of market in which it operates.[128]

However, courts differ in how they consider undercapitalization in their decision to pierce a corporation's veil. Some courts consider undercapitalization as merely one of several important factors to consider before deciding whether to use the remedy.[129] Other courts

veil and 73% of the cases in which the veil was eventually pierced). On the reason for using the tool of piercing the veil in these circumstances, *see* Ian Ayres, *Making a Difference: The Contractual Contributions of Easterbrook and Fischel*, 59 U. CHI. L. REV. 1391, 1397-98 (1992) (justifying the use of piercing the veil in undercapitalized companies by viewing it as a penalty that will create an incentive for the firms to disclose as much information regarding their equity as possible in the preliminary stages of contracting).

124. Knowingly operating a business while it is undercapitalized will sometimes be considered as inequitable, since it enables the shareholders to escape personal liability for the corporation's debt. *See,* WILLIAM MEADE FLETCHER, FLETCHER CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS 648 (Callaghan 1931).

125. *See*, Cascade Energy & Metals Corp. v. Banks, 896 F.2d 1557, 1576 (10th Cir. 1990), cert. denied, 483 U.S. 849 (1990).

126. *See*, *e.g.*, Minton v. Cavaney, 364 P.2d 473 (Cal. 1961); William P. Hackney & Tracey G. Benson, *Shareholder Liability for Inadequate Capital*, 43 U. PITT. L. REV. 837, 859 (1982).

127. *See* Evans v. Multicon Constr. Corp., 574 N.E.2d 395, 398 (Mass. App. Ct. 1991); Birbara v. Locke, 99 F.3d 1233, 1241 (5th Cir.1996).

128. The shareholder's behavior will be measured considering all the factors relevant to the corporation's activity. While the shareholder's investment might have been made initially, and was reasonable at that time, his behavior in later stages of the corporation's life may be taken into consideration as well. If the corporation later engaged in more risky activity or if his financial condition deteriorated and it needed extra funds that the shareholder was willing to supply only as a shareholder's loan, it might influence his case negatively. The court will examine the situation according to the shareholder's position in the company and the role he played. *See also*, Stephen M. Bainbridge, *Abolishing Veil Piercing*, 26 J. CORP. L. 479, 507 (2001) ("Minority shareholders who do not actively participate in the corporation's business or management are rarely held liable on a veil piercing theory.").

129. *See*, *e.g.*, Harris v. Curtis, 87 Cal. Rptr. 614, 617-19 (Cal. Dist. Ct. App. 1970) ("Evidence of inadequate capitalization is, at best, merely a factor to be considered by

view undercapitalization as a necessary condition before piercing the corporate veil, but also require the presence of additional conditions.[130] Such courts reason that the desire to avoid personal responsibility is a legitimate reason to incorporate in the first place, and so will not be regarded as the sole basis for veil piercing.[131] Additionally, courts sometimes address piercing the corporate veil as an "alter-ego doctrine."[132] This doctrine holds that the veil is pierced when the identity of the company and its shareholders are the same, such that their identities cannot be separated due to their unity in interests. The enforcement of limited liability in these situations inevitably results in injustice.[133]

2. Subordination

The second remedy for corporate undercapitalization, the doctrine of subordination, is applied in situations where a shareholder invests money into the company as debt and not as capital equity. Subordination downgrades the collection priority of debt owed to the shareholder.[134] The court does not allow the shareholder to enjoy privileges she had previously tried to acquire as a regular (or even a secured) creditor. Instead, the shareholder receives payment only after the creditors are paid in full. This doctrine aims to reverse the damage

---

the trial court in deciding whether or not to pierce the corporate veil."); Arnold v. Browne, 103 Cal. Rptr. 775, 783 (Cal. Dist. Ct. App. 1972) ("To be sure, it is an important factor, but no case has been cited, nor have any been found, where it has been held that this factor alone *requires* invoking the equitable doctrine prayed for in the instant case.").

130. *See* Walkousky v. Carlton, 223 N.E.2d 6 (N.Y. 1966).

131. *See* Brunswick Corp. v. Waxman, 459 F. Supp. 1222 (E.D.N.Y. 1978), *aff'd*, 599 F.2d 34 (2nd Cir. 1979); Billy v. Consol. Mach. Tool Corp., 412 N.E.2d 934, 941 (N.Y. 1980). These cases dealt with veil piercing between sister-companies. Nevertheless, since the court is stricter in these sorts of cases, as previously mentioned, this rule will likely be applied in regular situations as well. *But see* Rutherford B. Campbell, *Limited Liability for Corporate Shareholders: Myth or Matter-of-Fact*, 63 KY. L.J. 23, 53 (1975) (holding that in all cases of undercapitalization, the result should be veil piercing).

132. The Canadian doctrine is similar in this aspect. *See* Anil Hargovan & Jason Harris, *Piercing the Corporate Veil in Canada: A Comparative Analysis*, 28(2) COMP. LAW. 58 (2007).

133. *See In re* Sheridan, 187 B.R. 611, 614 (N.D. Ill. 1995).

134. 11 U.S.C § 510(c) (2006).

to the creditors created by the shareholder's loan, which otherwise would have forced creditors to share the total recovered proceeds with an additional claimant.

The court imposes the doctrine either when the shareholder's action causes inequitable damages to the general creditors, or when the shareholder herself obtains an unfair advantage.[135] One of the most fundamental situations in which this doctrine is applied is in the case of corporate undercapitalization.[136] Still, some courts have ruled that undercapitalization alone is not a sufficient basis for subordination.[137] Such rulings most likely relate to the assumption that creditors should be aware of the company's financial structure before deciding to do business with the company.[138]

The doctrine of re-characterization provides an alternative approach through which courts can re-characterize shareholders' loans as an equity investment in the company.[139] This doctrine analyzes the loan features to determine whether the loan was issued in similar terms as in the credit market or perhaps was an investment disguised as a loan to upgrade the shareholder's collection priority. If a court finds that the loan was in fact a scheme to disguise the shareholder's investment, it re-characterizes the loan as equity capital that the shareholder invested into the company. While in subordination the shareholder is still regarded as a creditor when it comes to the specific debt she is owed, and will be paid before the other shareholders will (yet after the general creditors), under the doctrine of re-characterization, the shareholder loses her status as creditor. So the amount the shareholder "lent" the company is paid to her pro-rata along with the rest of the shareholder's claims. In contrast to subordination, re-characterization not only treats the money transfer

---

135. *See* Taylor v. Standard Gas & Elec. Co., 306 U.S. 307, 324 (1939); Pepper v. Litton, 308 U.S. 295, 307-08 (1939).

136. *In re* Mobile Steel Co., 563 F.2d 692, 702 (5th Cir. 1977). This ruling was the first to examine thoroughly the subordination doctrine, the guidelines to its application and when it would be applied. The doctrine was legislated later. *See* 11 U.S.C. § 510(c).

137. *See In re* Lifschultz Fast Freight, 132 F.3d 339, 345 (7th Cir. 1997); *In re* Herby's Foods Inc., 2 F.3d 128, 132 (5th Cir. 1993); *In re* Fabricators, Inc. 926 F.2d 1458, 1469 (5th Cir. 1991).

138. *See supra* Part IV.C.

139. *See, e.g.*, David A. Skeel, Jr. & Georg Krause-Vilmar, *Recharacterization and the Nonhindrance of Creditors*, 7 EUR. BUS. ORG. L. REV. 259 (2006).

as equity, but further establishes that it was originally intended to be treated as such.[140]

Though the differences between subordination and re-characterization are notable, they are more rhetorical than practical. When these dilemmas arise in bankruptcy, the exact positioning of the shareholder's priority usually does not matter. As stated, the general creditors themselves are almost never paid in full.[141] So even if the shareholder is placed between them and the other shareholders, it does not help her recover more money because the absolute priority rule demands that each group be paid in full before the inferior group begins to receive payment. Since there is usually not enough money to cover all of the obligations owed to the general creditors, the lower ranked shareholder gets nothing regardless of her exact priority placement.

3. Differences Between Piercing the Corporate Veil and Subordination

There are two main differences between the doctrines of veil piercing and subordination. First, piercing the corporate veil is not limited in sum. Theoretically, the shareholder can be personally obligated to pay the entire debt of the company that cannot otherwise be satisfied. On the other hand, subordination, even though it may be referred to as *de facto* piercing the corporate veil, is limited to the amount of money the shareholder transferred to the company. Second, subordination does not affect the size of the pie, just the way it is divided between the different parties involved. Contrastingly, when the corporate veil is pierced, the pie gets bigger as creditors can seek satisfaction beyond the corporation's assets and from the corporation's shareholders.

140. *See generally id.* (examining the difference and resemblance between the two doctrines, and their application).

141. *See, e.g.*, Lynn M. LoPucki, *A General Theory of the Dynamics of the State Remedies/Bankruptcy System*, 1982 WIS. L. REV. 311, 311 (presenting empirical research stating that in 80% of chapter 7 cases no money was left for the general creditor's claims in the end of the procedure; in the remaining 20%, general creditors were paid in average 4.5% of their claims).

D. Comparisons Between the Residential Mortgage Market and Corporate Undercapitalization

As previously explained, the nature of the American residential mortgage market is predominately shaped by the combination of non-recourse loans and a very minimal down payment requirement. Strikingly, the interplay of these features resembles the case of corporate undercapitalization. Both financing methods result in inefficiency by encouraging irresponsible conduct. Moreover, both the borrower and the shareholder in these situations have the incentive to act in a risky way, knowing that the consequences of their conduct will be borne mainly, if not entirely, by someone else.

In our opinion, it can even be said that the borrower is in a better position than the shareholder who issues credit to the company. The shareholder, though limiting her risk and upgrading her position, is likely to lose *some* of her money in the event the company eventually fails. On the other hand, the borrower, who is not obligated to pay anything from his pocket, may risk nothing at all. The risk of losing the purchased asset is indeed a risk, but it is questionable whether a property that was not paid for initially could be considered a real loss. At a minimum, something not purchased with the borrower's own money is less valuable to him than something for which he paid. Nevertheless, in both cases, someone has the ability to act in a way that affects others, with enhanced risk that those actions will be inefficient due to distorted risk allocation.

Although the impact of corporate undercapitalization on third parties is relatively apparent, the impact of a mortgage default on third parties is less obvious. In the case of a defaulted company, several parties will ultimately compete among themselves to recover from the corporation's assets. In a residential mortgage, however the mortgage is a private arrangement that supposedly involves only two parties: the lender and the borrower. Supposedly, the lender and the borrower can decide for themselves which arrangement suits them best in their contractual relations. Since the potential damage to other parties is apparently much lower, why should there be any legal or regulatory intervention?

Even though the direct consequences of residential mortgage lending on third parties may be less apparent, we argue in this article that they are still a very real possibility. As the recent global financial crisis shows, so-called "private" financial practices may have major negative impacts on third parties that are not direct participants of the transaction, and may eventually cause economy-wide catastrophe. Even though it seems that the risks lie solely on the contractual parties, they actually may roll over to other parties as a result of sophisticated financial techniques such as securitization.[142] The complex structures of such financial instruments make it prohibitively difficult to predict and evaluate these risks.[143] Moreover, they inhibit our ability to identify the parties that need protection. Thus, in the end, it appears that not only does the behavior of the direct parties influence others, but the complicated situation also does not give the third parties the opportunity to protect themselves.[144]

A notable distinction between residential mortgage practices and corporate undercapitalization is the ease with which one can identify a sinister motive behind the actor's behavior. When a shareholder undercapitalizes a company, the problematic nature of her behavior is relatively easy to pinpoint. Her agenda is obvious – she wants to participate in a game without jeopardizing anything of her own. Even when the court looks for other factors before granting a remedy, undercapitalization itself is interpreted as a negative behavior because it allows the shareholder to place all the risks associated with the company on the creditor's shoulders. Contrastingly, the agenda of a mortgage borrower is not as straightforward. While it is admittedly a negative action for the borrower to commit "strategic default" *ex post*,[145] the

142. *See supra* Part II.B.

143. AMERICAN SECURITIZATION FORUM, RESTORING CONFIDENCE IN THE SECURITIZATION MARKETS 5 (2008), http://www.sifma.org. ("The level of complexity of products developed during the height of the market boom . . . exceeded the analytical and risk management capabilities of even some of the most sophisticated market participants.").

144. *See* Lois R. Lupica, *Asset Securitization: The Unsecured Creditor's Perspective*, 76 TEX. L. REV. 595, 632-33 (1998) (discussing the difficulty for third parties to defend themselves from the effects of using complicated financing techniques like securitization).

145. *See*, e.g., Secretary of the Treasury Henry Paulson who declared in a televised speech: "let me emphasize, any homeowner who can afford his mortgage payment but chooses to walk away from an underwater property is simply a speculator – and one who is not honoring his obligations." Secretary Henry M. Paulson, Jr., U.S. Housing and Mortgage Market Update before the National Association of Business Economists (Mar. 3, 2008) *available at* http://www.ustreas.gov/press/releases/hp856.htm. *See also* *Fox Business: Some Homeowners Who Can't Pay Choosing to Just Walk Away* (Fox Business television broadcast Feb. 19, 2009), *available at* http://www.foxbusiness.com/

borrower is not to blame for the *ex ante* situation of being able to take a non-recourse mortgage without putting money down. Accordingly, our article focuses on the borrower's actions in the early phase of the mortgage lifecycle, when he takes the mortgage offered to him. With regard to the *ex ante* phase, it seems that the borrower, even one who strategically defaults, is not specifically responsible for the inefficiency that may be eventually produced. As previously explained, the overall mortgage lending practice itself encourages this very behavior that in turn has the potential of causing market failure. Thus, a borrower's fault in the process is much vaguer than that of a shareholder who undercapitalizes a company.

Though this may be true, we believe that it is not relevant whether the borrower is to blame. The only thing that matters is whether the current state of mortgage lending practices *enhances* the chance of a future failure. Thus, our aim in this article is to explore the incentives produced by current mortgage lending practices. If the incentives are distorted, then they must be modified to minimize the risks of failure.

To that end, we next propose potential modifications that resemble the remedies used in corporate undercapitalization. Corporate undercapitalization remedies have valid application in the mortgage

---

video/index.html?playerId=videolandingpage&streamingFormat=FLASH&referralObject=3644995&referralPlaylistId=1292d14d0e3afdcf0b31500afefb92724c08f046 ("Seems obscene. Everyone else in the country is trying to pay their mortgages and trying to get things done. They realize in many cases they are underwater that their mortgage is worth more than their home. If you have obnoxious kids, walk away from your kids. Seems weird. Doesn't it? … I know you are not looking at the ethics of this; you are a good and savvy businessman. Do you find it even a tinge offensive that we are moving away from personal responsibility? If we can't hack it we bail out of it… And you know when you enter into an agreement and everyone just throws up the keys and says you know it's really tough this month, it's gonna be tough next month, declining real estate values, we are just going to quit. Can you imagine if we all did that going into World War II? The Japanese just kicked our butts at Pearl Harbor, the odds are overwhelming, the Germans have just taken over Europe, and we just quit. What would happen if we all quit? Let's just cease and desist."). *But see* White, *supra* note 22. White claims that even when a borrower strategically walks away from his home, he should not be considered as acting in a negative way because he is simply complying with the terms of the mortgage agreement, including the contractual right to default and transfer ownership of the home to the lender. *Id.* Indeed, the shareholder complies with the law (or the judicial agreement applied by it) as well when she undercapitalizes a company. Still, the courts view it almost as abusing her right to choose how much to invest in the company.

context because both corporate law's basic principle of limited liability for shareholders and the American real estate market's current financing practices seek to encourage business and entrepreneurship. This is accomplished by decreasing the entrepreneur's risks, whether he is a shareholder or a real estate purchaser.[146] However, with benefits of entrepreneurship also come potential negative externalities. As we saw earlier, corporate law has developed the doctrines of piercing the corporate veil and subordination to deal with the external harms undercapitalization causes. The solutions we present next do the same for residential mortgages while balancing the need to protect the market and the desire to avoid too much intervention.

V. HOME MORTGAGE ARRANGEMENTS: PROPOSED SOLUTIONS

As previously emphasized, current residential mortgage practices allow contracting parties to externalize default risks onto third parties.[147] Among the parties affected are investors in mortgage-backed securities,[148] the lender's creditors, and, ultimately, the economy as a whole, as the foreclosure epidemic drives down real estate prices.[149] The discussion about undercapitalization and its comparison to mortgage lending practice assists us in finding useful solutions to minimize negative externalization.

We do not support the "piercing the veil" method in the case of home purchase financing. As shown, the remedy of piercing the corporate veil is considered extreme and applied in a rather limited way. Moreover, applying the doctrine in the mortgage context would render

---

146. Home ownership has been long encouraged by the United States government. Buying a home is viewed as key to achieving the "American Dream". *See* A. Mechele Dickerson, *The Myth of Home Ownership and Why Home Ownership Is Not Always a Good Thing*, 84 IND. L.J. 189, 189 (2009).

147. *See* John Harding, Thomas J. Micelli & C.F. Sirmans, *Do Owners Take Better Care of Their Housing Than Renters?*, 28 REAL ESTATE ECON. 663 (2000) (pointing to the externalities which are created in non-recourse mortgages).

148. Investors in mortgage-backed securities have seen their investment's market value decline both because of direct losses from default on mortgages collateralizing their investment and because of the general decline in housing values.

149. The costs of foreclosure spill over from the parties to the transaction to the neighborhood, larger community, and even the economy as a whole. *See* CONG. OVERSIGHT PANEL REPORT, *supra* note 73, at 9-11.

the borrower fully liable for the mortgage payments in the case of default, thus jeopardizing the borrower's entire personal assets. Although this type of remedy may be appropriate in some undercapitalization cases, it is not appropriate in a home mortgage case. It is not a good solution from an *ex ante* perspective because it will practically dissolve the entire non-recourse loans practice, even in cases where such an arrangement makes good economic sense. Additionally, it can be problematic *ex post* because it interferes with the private arrangement between the parties. Furthermore, the borrower's role in producing the negative results is more limited than that of a shareholder, as previously discussed. Obliging the borrower to pay in full for results that were not entirely his fault creates a different distorted risk allocation.

Rather, we can attain desirable reform without any radical steps that may deprive the parties of the basic freedom of contract. We propose two alternative mortgage arrangements, one that applies *ex ante* and one that applies *ex post*. The first requires a minimum down payment from the borrower in a non-recourse mortgage. The second imposes limited personal liability on the borrower when he initially did not put money down. Like the remedies applied in the case of corporate undercapitalization, both of these proposals aim to make the borrower internalize *some* of the risks created by his actions.

A. MINIMUM DOWN PAYMENT REQUIREMENT

Our first proposal requires a small, but meaningful, down payment from the borrower when borrowing money through a non-recourse mortgage. Modern American credit practices do not obligate the borrower to pay a meaningful amount of the purchase price from his own pocket. This prevents the borrower from internalizing his action and causes most of the risks associated with a potential default to be borne by someone besides the borrower.

Our proposed down payment requirement will be calculated as a certain percentage of the purchase price of the property.[150] Requiring

---

150. In practice, some lenders begin to require substantial down payments as a lesson from the mortgage meltdown. *See* Amy Hoak, *100% More Difficult: First-Time Home Buyers Struggle to Find Down-Payment Money*, MARKETWATCH (Mar. 9, 2008), http://www.marketwatch.com/news/story/first-time-home-buyers-struggle-find/story.aspx?guid=%7B4BF19BC0-C4EE-4107-ACFC-F6524E878D5A%7D.

the borrower to contribute a meaningful portion of the purchase price to receive a non-recourse loan will lead to more reasonable risk allocation between the parties. This requirement will positively influence the borrower's actions when deciding whether to purchase real estate. We previously explained that the absence of a down payment requirement in current financing practices directly contributed to the price bubble in the real estate market. The availability of relatively riskless and convenient funding options increased the demand for housing and created an artificial appreciation in real estate market prices. When the borrower does not need to pay anything from his pocket, he is more likely to purchase the asset even though its price is higher than its real value. However, when the borrower pays a meaningful part of the purchase price from his own pocket, he will be much more reluctant to pay more than the real value of the property. Therefore, requiring borrowers to put down a substantial amount of money when purchasing homes minimizes their incentive to purchase homes at prices higher than their real value.[151]

Furthermore, requiring the borrower to put a meaningful sum of money down to get a non-recourse mortgage will diminish the probability of later being "underwater". It also seems that the option to leave the real estate asset to the lender will become much less appealing to the borrower since his initial investment will be lost along with the asset.[152]

B. BORROWER'S LIMITED LIABILITY

Our second proposal deals with the "non-recourse" aspect of current mortgage financing practices. This proposal continues to permit parties the option of a non-recourse mortgage while now requiring that the borrower with a non-recourse mortgage be held personally responsible for at least some of the debt in the case of default.[153]

---

151. Liebowitz, *supra* note 81 ("If substantial down payments had been required, the housing price bubble would certainly have been smaller, if it occurred at all . . . ").

152. Lenders' mortgage default risk models have shown a strong relationship between initial loan-to-value (LTV) and default rates. Herzog and Earley's study was among the first to validate the important role of the initial LTV ratio in influencing default. *See* JOHN P. HERZOG & JAMES S. EARLEY, HOME MORTGAGE DELINQUENCY AND FORECLOSURE (1970). For newer studies, *see* Quigley & Van Order, *supra* note 28, *and* Deng et al., *supra* note 35.

153. The money the borrower had already managed to pay off from the loan through

It is important to note that the borrower would not be able to escape his personal liability by discharging the remaining unsecured balance of the mortgage loan in bankruptcy. To the extent the borrower has substantial non-exempt assets, filing for bankruptcy appears to be a less attractive strategy because Chapter 7 of the Bankruptcy Code requires the borrower to give up all of his non-exempt assets.[154] Furthermore, since the 2005 Bankruptcy Reform, the borrower can file under Chapter 7 only if his current monthly income is below the state median or if he otherwise meets the means test.[155] If he makes more than the state median and does not meet the means test, then he is forced to file under Chapter 13 of the Bankruptcy Code. Under Chapter 13, the borrower is required to propose a repayment plan and repay part of his unsecured debts over a period of three to five years through his future income.[156]

Given that the borrower cannot escape personal liability, our proposal has two advantages. First, it enables the borrower to purchase a real estate asset without paying a significant amount of money up front. This advantage is particularly important when the borrower either has no savings and therefore *does not have the ability* to put money down but has a stable source of income,[157] or when the borrower *prefers* to buy

---

his monthly payments will be subtracted from his limited liability obligation. For example, if the borrower's limited liability is up to 40% of the loan taken, and the borrower had already paid off 30% of the loan, he will be liable only to the remaining 10%. *See generally* RESTATEMENT (THIRD) OF PROP.: MORTGAGES, *supra* note 26, § 1.1.

154. Exempt assets are defined by federal and state law. On exemptions and the conditions to exempt certain assets, *see* 11 U.S.C. § 522 (2006).

155. *See id.* § 707(b)(6)-(7). These changes were enacted through the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA). BAPCPA was meant to deal with the problem of debtors using bankruptcy procedures as a way to avoid paying debts, while they actually have the ability to repay them. *But see*, Jean Braucher, *A Fresh Start for Personal Bankruptcy Reform: The Need for Simplification and a Single Portal*, 55 AM. UNIV. L. REV. 1295, 1305-1315 (2006) (describing the problems with the legislation); Elijah M. Alper, *Opportunistic Informal Bankruptcy: How BAPCPA May Fail to Make Wealthy Debtors Pay Up*, 107 COLUM. L. REV. 1908, 1910-1911 (2007).

156. *See* 11 U.S.C. § 1321 (2006) ("The debtor shall file a plan."); 11 U.S.C. § 1322(d) (2006) (explaining the repayment period may vary according to the debtor's income).

157. Even if the borrower does not have savings and sources of income now, but has the potential to earn high salary later, the lender may rely on that and offer him this type of mortgage arrangement. This may happen when the borrower is, for example, a medical school student. When he finishes his degree, he will probably have a stable

without down payment because his money may yield a higher return when invested elsewhere. In these situations the borrower may have good economic reasons for choosing to purchase a property without contributing a down payment.

Second, this proposal generates a more reasonable risk allocation, while not depriving the parties of their right to choose their own agreement. Here, the mortgage agreement basically has two parts: one part contains a recourse loan while the other part contains a non-recourse loan.[158] This discourages borrowers from taking loans while knowing that they may not be able to pay them off. Additionally, exposing borrowers to some personal liability upon default encourages them to avoid default. Therefore, exposing the borrower to the risk of paying the debt from his personal assets positively impacts his actions. Although our proposed mortgage contract is admittedly more complex, it minimizes the problems created by the current mortgage arrangements.

C. Recap of Proposals

In this part we presented two proposals that seek to make the borrower internalize some of the costs associated with a residential mortgage default. The proposals focus on the improper risk allocation generated by current mortgage financing practices[159] and take into account the many other parties, beyond the lender and the borrower, that may be impacted by the so-called bilateral agreement. Additionally, placing some of the risks on the borrower does not necessarily eliminate the lender's risks. Rather, it forces the borrower and the lender to act

source of high income, so he might be a good investment for the lender.

158. *See* Reg'l Fed. Sav. Bank v. Margolis, 835 F. Supp. 356, 357 (E.D. Mich. 1993) (explaining that mortgagors are liable for 30% of debt); Birkenfeld v. Cocalis, 29 A.2d 902, 902 (N.J. Ct. Err. & App. 1943); Wells v. Flynn, 184 N.W. 389, 390 (Iowa 1921). A mortgage may be recourse as to some obligations and non-recourse as to others, depending on its terms. *See* Fed. Home Loan Mortg. Corp. v. Inland Indus, Inc., 869 F. Supp. 99, 101 (D. Mass. 1994) (holding that the mortgagor was liable for amounts unrelated to principal and interest).

159. In light of the recent home ownership crisis, some scholars criticize the United States policy that idealizes the importance of home buying. They question whether the "American Dream" of home ownership remains a goal worth pursuing. *See* Dickerson, *supra* note 146, at 1. This criticism may support our proposals to impose somewhat greater burdens on home buyers.

collaboratively in a way that generates a more efficient economic outcome. Thus, the proposed mortgage arrangements would create a system that better balances the competing interests of the different parties involved.

Additionally, having the option to choose between two alternative arrangements creates a mortgage lending system that is able to efficiently handle different types of borrowers. When individuals are able to pay some of the money upfront, they may prefer the first mortgage arrangement that does not expose them to personal liability. If they cannot put money down or for some reason prefer not to do so, they may choose the second mortgage arrangement that introduces some limited personal liability.

VI. CONCLUSION

In this article, we investigated the practical and legal perspectives of the American mortgage market, which played a substantial role in the recent housing boom and bust. As described, the residential mortgage market has two prominent features that led to this result. First, state foreclosure rules led to the predominance of *de facto* non-recourse loans. Second, borrowers were not obliged to contribute a substantial down payment or were not required to contribute a down payment at all. This article examined the implications of these practices and argued that they directly contributed to the creation of the price bubble in the real estate market by generating an imbalanced risk allocation.

Moreover, we found that the combination of these financing features closely resembled the case of corporate undercapitalization. Shareholders, like non-recourse mortgages borrowers, enjoy limited liability and, thus, risk only the equity capital they invested in the corporation. When almost no equity is invested, the shareholder hardly risks anything of her own, very much like a non-recourse mortgage borrower with one hundred percent financing.

Drawing on lessons from corporate law's remedies for undercapitalization, while incorporating the special characteristics of home purchase financing, we proposed two alternative solutions to create a more balanced risk allocation between the parties in a mortgage agreement. Each of these solutions addresses a different aspect of current residential mortgage practices. The first proposal requires a substantial down payment by the borrower for receiving a non-recourse mortgage. In the second proposal, when the borrower initially did not put money down, he is held personally liable to pay some portion of the debt to the lender in the case of default. These proposals aptly modify the incentive structure of the lender-borrower relationship in the residential mortgage market.