

REQUIEM FOR A REGULATOR: THE OFFICE OF THRIFT SUPERVISION'S PERFORMANCE DURING THE FINANCIAL CRISIS*

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We evaluate evidence reflecting the stability of our multi-regulator, charter-competitive system of financial regulation during the financial crisis. Specifically, we compare thrifts to banks, charter-switchers to other thrifts and banks, and bailout recipients to non-bailout recipients to discover if any of these institutions did poorly when compared to their peers during the financial crisis. First, we compare publicly traded thrifts to publicly traded banks during 2008—the critical year of the crisis—and find that thrifts fared only marginally worse than banks, if at all, during that year. This result modestly suggests that the multi-regulator regime, however illogical, did not concentrate instability in a particular industry subject to a weak regulator. Second, to evaluate the impact of competition for charters, we compare thrift and bank performance to those institutions that chose to switch regulators immediately before and during the financial crisis. We find no significant differences in returns among either institutions that converted their federal bank charters to federal thrift charters, or institutions that converted federal thrift charters to bank charters, although our samples of these institutions are small. Third, we examine the bailout propensity of these charter-switchers. Our results suggest that although institutions switching to thrift charters were big enough to receive bailout money from the government, they did not. Conversely, we find that institutions switching away from thrift charters received more bailout money than their size would suggest. Our final finding may suggest some (possibly misplaced) dissatisfaction with the performance of the federal thrift regulator among federal government

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officials, which may have contributed to the decision to eliminate it in the Dodd-Frank Financial Reform Act passed in the wake of the crisis.

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“The conversion to a savings-bank charter better aligns the regulatory supervision of the company with our strategic objectives.” Angelo Mozilo, CEO, Countrywide Financial Corporation, after switching regulators from the Office of the Comptroller of the Currency to the Office of Thrift Supervision in 2005.¹

“By the end of 2006, Countrywide’s underwriting guidelines were as wide as they had ever been, and Countrywide was writing riskier and riskier loans.” SEC v. Mozilo, Complaint.²

INTRODUCTION

After the financial crisis decimated the financial industry, a measure of blame was apportioned to its regulators. They were obligated to ensure the safety and soundness of their charges after all, and the failure of some of the largest financial institutions in the country seemed to take them entirely by surprise. Some thought that this failure could be ascribed to design flaws in the American financial regulatory system, which features multiple regulators, some charged with very similar tasks.³ These

1. Connie Bruck, *Angelo’s Ashes: The Man Who Became the Face of the Financial Crisis*, NEW YORKER, June 29, 2009, at 46, 52–53.

2. Complaint at 3, SEC v. Mozilo, No. CV 09-03994 (C.D. Cal. June 4, 2009), available at <http://www.sec.gov/litigation/complaints/2009/comp21068.pdf>.

3. See Henry N. Butler & Jonathan R. Macey, *The Myth of Competition in the Dual Banking System*, 73 CORNELL L. REV. 677, 677 (1988) (describing the characteristics of the dual banking system).

regulators competed with one another to attract financial institutions and the supervisory fees they generate to their various regulatory aegis.⁴ Moreover, financial institutions were permitted to choose their regulator and, if they tired of one, to switch their charter so that they could be regulated by another.

Both Congress and the executive branch concluded that the structure of this system contributed to the failure of regulators to identify the weaknesses in financial institutions that devastated some members of the industry during the crisis. They singled out one agency in particular, the Office of Thrift Supervision (“OTS”), for its poor supervision of financial intermediaries such as American International Group (“AIG”), the country’s largest insurance company, and Washington Mutual, the country’s largest thrift, both of which collapsed at a high cost to the government.⁵ Both institutions held thrift charters, placing them under the oversight of the OTS.⁶ Congressman Barney Frank characterized the

4. See *id.* at 683–84 (describing the conventional rationale for competition among different regulators).

5. AIG was the largest such insurance failure. William K. Sjostrom, Jr., *The AIG Bailout*, 66 WASH. & LEE L. REV. 943, 944–45 (2009) (“On February 28, 2008, American International Group, Inc. (AIG), then the largest insurance company in the United States, announced 2007 earnings of \$6.20 billion or \$2.39 per share. . . . Less than seven months later, however, AIG was on the verge of bankruptcy and had to be rescued by the United States government through an \$85 billion loan.”). AIG held a thrift charter. *Id.* at 988 (“In fact, since 1999, when AIG organized AIG Federal Savings Bank, it has been subject to [OTS] regulation, examination, supervision, and reporting requirements.”). The failure of Washington Mutual, also chartered as a thrift, was the largest thrift or bank failure in U.S. history. Ari Levy & Elizabeth Hester, *WaMu Assets Sold to JPMorgan in Record Bank Failure*, BLOOMBERG (Sept. 26, 2008), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aVA8ErWOAjml>.

6. At least up until now, comprehensive treatments of the thrift industry and its regulator, outside of practice guides, have been rare. For a discussion of the structure of the OTS following passage of the Financial Institutions Reform Recovery and Enforcement Act of 1989 (“FIRREA”), see Michael P. Malloy, *Double, Double Toil and Trouble: Bank Regulatory Policy at Mid-Decade*, 63 FORDHAM L. REV. 2031, 2036–38 (1995) (describing the duties and powers of the director of the OTS). The Stanford Law and Policy Review dedicated a symposium to this question as the savings and loan (“S&L”) crisis of the 1980s, which rocked the thrift industry, was beginning to abate. See generally Charles E. Schumer & J. Brian Graham, *The Unfinished Business of FIRREA*, 2 STAN. L. & POL’Y REV. 68 (1990) (analyzing the causes of the 1980s S&L crisis and recommending ways to improve FIRREA); M. Danny Wall, *The Future of the Thrift Industry*, 2 STAN. L. & POL’Y REV. 132 (1990) (describing the challenges and future opportunities for the thrift industry). Other treatments of the thrift industry, in the aftermath of the S&L crisis, discuss attempts by regulatory agencies to enter into binding agreements with thrifts. See Howell E. Jackson, *The Expanding Obligations of Financial Holding Companies*, 107 HARV. L. REV. 507, 523–28 (1994) (describing the efforts of federal regulators to require thrift holding companies to commit to capital maintenance plans); see also Alan R. Burch, *Purchasing the Right to Govern: Winstar and the Need to Reconceptualize the Law of Regulatory Agreements*, 88 KY. L.J. 245, 375–77 (2000) (discussing thrift litigation in light of the Supreme Court’s decision in *United States v. Winstar Corp.*, 518 U.S. 839 (1996)); Jonathan R. Macey, *Winstar*,

supervision provided by that office as worse than the policing provided by meter maids;⁷ two successive treasury secretaries called for its elimination during the crisis;⁸ and Congress, in the Dodd-Frank Financial Reform Act, elected to close the institution.⁹

But in fact, the evidence that the OTS was the bad actor of financial supervision during the crisis is mixed. Publicly traded thrifts did not do significantly worse than publicly traded banks during the crisis, if their adjusted stock returns over the course of the crisis are compared, nor did the few institutions that went charter shopping, either to or from the OTS, fall short by this measure. And rather than being lax regulators, the OTS and its co-regulator, the Federal Deposit Insurance Corporation (“FDIC”), were criticized for being overhasty in closing Washington Mutual and selling it, at a fire sale price, to JPMorgan Chase. When it did make mistakes of laxity, such as when it missed clues that pointed to systemic weaknesses in the financial system, its record was no worse than that of other agencies responsible for financial regulation during this period.¹⁰ If anything, rather than being the poor supervisor of a motley group of risk-taking institutions, the OTS did an average job overseeing a sleepy and declining part of our financial sector, comprised of firms with relatively few assets, low risk, and low systemic significance to our financial system.

Why, then, was the OTS singled out as a particularly bad regulator and closed by the Dodd-Frank Act? Industry experts claim that its disappearance was a long time in coming, as the sorts of institutions it supervised had grown increasingly indistinct from banks and as the sector had shrunk in importance.¹¹ Furthermore, the reasons for a separate

Bureaucracy and Public Choice, 6 SUP. CT. ECON. REV. 173, 185–86 (1998) (discussing some of the litigation against the OTS that arose from these plans); Sarah M. Graves, Note, “Winstar Wars”—*Revenge of the Thrift: A Viable Model to Right a Decade of Wrongs*, 36 PUB. CONT. L.J. 361, 374–83 (2007) (analyzing the standard for damages in post-*Winstar* cases).

7. Brady Dennis, *Born in a Previous Crisis, OTS Faces Extinction*, WASH. POST, June 18, 2009, at A15.

8. U.S. DEP’T OF THE TREASURY, THE DEPARTMENT OF THE TREASURY BLUEPRINT FOR A MODERNIZED FINANCIAL REGULATORY STRUCTURE 8 (2008), available at <http://www.treasury.gov/press-center/press-releases/Documents/Blueprint.pdf>.

9. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 313, 124 Stat. 1376, 1523 (2010) (codified at 12 U.S.C.A. § 5413 (West Supp. 2011)).

10. In this sense, of course, the OTS was hardly unique among federal regulators, many of whom have been indicted for their laxity and incompetence. As Richard Posner has observed, “[m]arkets were believed to be self-regulating, so the Securities and Exchange Commission could go to sleep. And go to sleep it did.” RICHARD A. POSNER, A FAILURE OF CAPITALISM: THE CRISIS OF ’08 AND THE DESCENT INTO DEPRESSION 248 (2009).

11. See Binyamin Appelbaum, *Onetime Cop, Out of Business*, N.Y. TIMES, July 14, 2010, at B1.

regulator of similar institutions often seemed to be more a product of historical accident than sensible regulatory design.¹²

If the OTS's separate regulatory ambit served a functional purpose, it was probably because it fostered an element of competition among regulators, much like the U.S. corporate law system currently allows states to compete for corporate charters. While the OTS regulated thrifts, other agencies supervised banks, bank holding companies, credit unions, and other bank-like institutions.¹³ All of these regulators permitted financial institutions to change regulators if they wished, thereby taking their supervisory fees elsewhere and directly affecting agency bottom lines.¹⁴

Because such systems of regulatory competition are familiar in American corporate law and increasingly ubiquitous as both business and finance has globalized, it is worth considering whether the existence of the OTS led to a regulatory race to the bottom or whether it led to a race to the top. In this Article, we provide some evidence of the qualities and deficiencies of that administrative structure by examining the performance of the thrift industry during the financial crisis. Comparing the thrift and banking industries, and understanding how the regulatory environment led to legal differences between what thrifts and banks were permitted to do with respect to their business models, in particular, helps to answer three questions:

- (1) Did thrifts perform badly during the financial crisis relative to banks, as measured by stock returns?
- (2) Did financial institutions that switched regulators when the housing bubble burst perform badly during the crisis, as measured by stock returns?
- (3) Were thrifts, banks, or charter-switching institutions particularly likely to require government bailouts as the crisis deepened?

We employ a traditional event study methodology to answer these questions by focusing primarily on short-term stock returns around

12. See Lawrence A. Cunningham & David Zaring, *The Three or Four Approaches to Financial Regulation: A Cautionary Analysis Against Exuberance in Crisis Response*, 78 GEO. WASH. L. REV. 39, 52–56 (2009) (describing the events that gave rise to the creation of the OTS).

13. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-02-302, SEC OPERATIONS: INCREASED WORKLOAD CREATES CHALLENGES 29 n.34 (2002) (describing the funding mechanisms of the various banking regulators).

14. The budget incentives could matter more for regulators like the Office of the Comptroller of the Currency ("OCC") and the OTS than for others such as the Federal Reserve, which makes money not only through examinations, but also in various other capacities as a central banker.

significant news revelation events during the financial crisis. This design provides some evidence of the merits and deficiencies of financial regulatory competition and of the performance of a particular regulator and industry during the financial crisis. Specifically, we evaluate how the thrift industry fared during the 2008 calendar year crisis relative to the bank industry and to those institutions that switched their charters from one regulator to the other during the housing bubble.

Using raw returns, we find that, despite the criticism of the agency, OTS-regulated thrifts in general performed only marginally worse than banks during the financial crisis. The difference in performance becomes statistically insignificant after returns are adjusted for common factors known to be associated with stock returns, including risk, book-to-market ratio, size, and momentum. Moreover, we find that these thrifts were less risky than the banks supervised by the Office of the Comptroller of the Currency (“OCC”), a finding that, to be clear, may be due to the quality of the OTS’s supervision but also may be due to the size, scale, and nature of the thrift industry. Additionally, thrifts were bailed out at the same rate as banks, controlling for the factors identified above.

However, we find that those banks invited by the OTS to join the thrift industry received disproportionately less bailout money after controlling for size. Conversely, institutions that switched their charters away from the OTS received more bailout money than would be predicted by their size. This finding may suggest that, as a matter of political economy, the regulators in charge of the bailouts were suspicious of thrift switchers, the way the thrift regulator had encouraged those switchers, or both. But as a descriptive matter, it is worth noting that financial intermediaries did not switch their charter between the OTS and the OCC often—we find less than ten examples of these sorts of switchers between 2004 and 2009. This five-year period included both the height of the housing bubble and the subsequent onset of the financial crisis and therefore, perhaps, provided strong incentives for aggressive financial institutions to choose a regulator that would be receptive to their business model.¹⁵

Our results modestly defend the performance of the OTS and the multi-regulator model long embraced by the United States. The results do not strongly indict the permissive approach to charter switching adopted by the regulators, although they do not definitively vindicate that approach

15. It may be the case, in other words, that the institutions that switched their charter to the OTS during the period of our study did so only because they preferred being regulated by the OTS, rather than because they preferred the business model legislatively required of thrifts. Because the differences between the bank and thrift charters dissipated over time, non-thrifts could pursue that model without any legal deficiency or cost.

either.¹⁶ Finally, our results suggest that the bailouts designed to remediate the crisis did not always go to the most risky and relatively large financial institutions. If those large, risky institutions had recently switched their charter to the OTS, the government, despite permitting the switch, was unlikely to offer them bailouts, even as it bailed out other banks and thrifts of similar size. Despite the thrift industry's relatively adequate performance during the financial crisis, the Treasury Department, which administered the bailouts, may have lost patience with troubled thrifts who switched regulators—though our relatively small sample makes definitive conclusions difficult. This action may nonetheless be seen as consistent with its efforts to close the office, which came to fruition in the Dodd-Frank Act.

We begin with an overview of the traditional legal differences between thrift charters and bank charters.¹⁷ We describe how those differences had largely disappeared by the onset of the 2008 financial crisis, with the exception of the Qualified Thrift Lender (“QTL”) test, which mandated thrifts participate in the housing and consumer debt markets.¹⁸ We also offer a short overview of some of the criticisms levied against the agency during the crisis.

Then, we describe our data, beginning with the construction of four indexes: (1) publicly traded and federally regulated thrifts, (2) publicly traded and federally regulated banks, (3) publicly traded banks that opted to switch to a thrift charter after 2004, and (4) publicly traded thrifts that opted to switch to a bank charter after 2004. We evaluate how these indexes performed relative to the market during a series of relevant events throughout the financial crisis, both by measuring equally weighted raw returns and by measuring adjusted returns, and we find no significant difference in adjusted returns. And although they appeared to have been

16. Although, it is possible that structuring some charter switches—such as abandoning a bank holding company structure (which would remove an institution from the purview of Federal Reserve regulation) or switching from a credit union to a different corporate form (credit unions are mutually owned, while most banks and thrifts are stock companies)—would be transactionally more difficult than switching from a bank to thrift or vice versa. See Harold O. Fried et al., *The Impact of Mergers on Credit Union Service Provision*, 23 J. BANKING & FIN. 367, 368 (1999) (describing the differences between credit unions and thrifts).

17. Several studies criticize the limitations on financial intermediaries' ability to participate in a full range of financial markets. See, e.g., James R. Barth et al., *Financial Regulation and Performance: Cross-Country Evidence* 4–6 (World Bank Dev. Research Grp., Working Paper No. 2037, 1999) (finding that countries that restricted their banks from participating in a range of activities were more likely to undergo financial crises).

18. 12 U.S.C.A. § 1467a(m) (West 2010). Essentially, the QTL test requires that sixty-five percent of the assets of a thrift consist of mortgage-related assets and credit card loans. *Id.* Thrifts may also originate student loans. *Id.*

prime candidates to receive bailouts, we find that none of the charter-switchers to the OTS received any Troubled Asset Relief Program (“TARP”) money—a surprising outcome in light of the size of these institutions. Conversely, the institutions that switched away from the OTS received more TARP money than would be predicted by their size. It is important to note that, due to a very limited sample size, our evidence with respect to the charter-switching institutions should be viewed as primarily descriptive in nature.

We conclude with an analysis of some of the implications of these results. Overall, it is not clear that supervision by the OTS contributed to the relatively poor performance of thrift institutions during the financial crisis. After controlling for risk, there are not significant differences between the return performance of financial institutions that opted into the OTS regulatory regime shortly before the financial crisis (charter-switchers). However, we do find significant differences in the likelihood of firms receiving bailout funds. Institutions that opted into the OTS regime were less likely to receive bailout funds, while institutions that opted out of the OTS regime (reverse-switchers) were more likely to receive bailout funds. However, due to relatively small sample sizes, the results should be interpreted with caution. Our most cautious conclusions, then, are that it may be that the case against the OTS was overstated, and yet it is possible that a degree of frustration with the agency led bailout regulators to eschew bailouts to banks that switched to become thrifts during the financial bubble and subsequent housing crisis.

I. BACKGROUND AND PRIOR LITERATURE

Many commentators and policymakers have concluded that the multi-regulator American system of financial supervision is complicated and ineffective.¹⁹ Because of its disaggregation, it has been accused of being ill-

19. See, e.g., GRP. OF THIRTY, *THE STRUCTURE OF FINANCIAL SUPERVISION: APPROACHES AND CHALLENGES IN A GLOBAL MARKETPLACE* 35 (2008), available at http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/us_fsi_banking_G30%20Final%20Report%2010-3-08.pdf; U.S. DEP’T OF THE TREASURY, *REQUIRING STRONG SUPERVISION AND REGULATION OF ALL FINANCIAL FIRMS* 3 (2009), available at http://www.treasury.gov/initiatives/Documents/requiring_strong_supervision_reg_finfirm.pdf; David Zaring, Comm. on Capital Mkts. Regulation, *Chapter 7: Facilitating International Regulatory Cooperation*, in *THE GLOBAL FINANCIAL CRISIS: A PLAN FOR REGULATORY REFORM* 211, 212–17 (R. Glenn Hubbard et al. eds., 2009), available at [http://www.capmktreg.org/pdfs/TGFC-CCMR_Report_\(5-26-09\).pdf](http://www.capmktreg.org/pdfs/TGFC-CCMR_Report_(5-26-09).pdf). The complications arise in the number of federal financial regulators, of which the OTS is but one of five. The Federal Deposit Insurance Corporation (“FDIC”) insures most financial institutions, including thrifts, while the Office of the Comptroller of the Currency (“OCC”) regulates nationally chartered banks, and members of the Federal Reserve System and other bank holding companies the

suited for identifying and responding to systemic risk.²⁰ The combination of fee dependence on the part of the regulators and the ability of regulated institutions to credibly threaten to switch charters is thought by detractors to create a capture-ready environment, in which agencies become beholden to the industries that underwrite their budgets.²¹

There is, on the other hand, a broad literature suggesting that competition among regulators can be salutary. Scholars who subscribe to it point to state competition for corporate law charters as an example of the benefits of this competition,²² although few have yet argued that the regulation of financial institutions enjoys similar benefits.²³ Charter competition in corporate law is thought to offer an exit to corporations saddled with onerous legal rules and to encourage states to develop efficient levels of oversight. In this view, the competition for laws is supposed to offer the benefits that competition offers in other markets: innovation, attention to the needs of the consumer of the product, efficiency gains, and the like.

The director of the OTS, John Reich, suggested another benefit to disaggregated regulation by arguing that multiple agencies create good regulation from cooperation, as opposed to competition, with something of

Federal Reserve Board regulates. States also charter their own banks and thrifts, and the National Credit Union Administration (“NCUA”) oversees federally chartered credit unions.

20. Financial institutions are subject to bank runs and panics that do not always observe distinctions between banks and bank-like institutions such as thrifts. *See generally* CHARLES P. KINDLEBERGER & ROBERT ALIBER, *MANIAS, PANICS AND CRASHES: A HISTORY OF FINANCIAL CRISES* (5th ed. 2005) (providing an overview of how mismanagement has led to financial disasters over the centuries). Often, these bank runs are countered by system-wide bailouts by the government (as was the case in the housing crises of the 1980s and 2008) or the private sector (as was the case in the panic of 1907 and the bailout of the Long Term Capital Management hedge fund in 1998). *See id.* at 203–04, 209.

21. *See* Butler & Macey, *supra* note 3, at 689–90 (exploring the theory of agency capture by the banking industry).

22. *See* Larry E. Ribstein & Erin Ann O’Hara, *Corporations and the Market for Law*, 2008 U. ILL. L. REV. 661, 665 (arguing that there is a general market for laws that is influenced by political and economic incentives); Roberta Romano, *Is Regulatory Competition a Problem or Irrelevant for Corporate Governance?*, 21 OXFORD REV. ECON. POL’Y 212, 212–31 (2005) (arguing for regulatory competition); Ralph K. Winter, Jr., *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 J. LEGAL STUD. 251, 254–58 (1977) (describing how Delaware corporation law has changed because of competition among the states for charters).

23. Financial regulators are concerned with the safety and soundness of the institutions they regulate (and think about the possibility that they must spend taxpayer dollars on a bailout of failed financial institutions), reflecting a somewhat broader view of the charter’s purpose than is the case for state corporate law, which only authorizes corporations to maximize shareholder value and minimize agency costs.

a bow to the wisdom of crowds and Condorcet's jury theorem.²⁴ "We make each other better agencies," he has claimed.²⁵ "It's always better when there are more people at the policymaking table than a consolidation situation where one person, one agency director, is in charge without input from other agency heads."²⁶ In this view, the benefits of disaggregated regulation lie in regulation by committee, with all the advantages that such considered decision-making processes offer.²⁷

The competition for, or perhaps cooperation over, charters has been an evolving feature of American financial regulation. During the last forty years, charter competition was facilitated by the willingness of the financial regulators to permit charter switches, as, for example, the OTS's how-to regulations demonstrate.²⁸ The agency devoted an entire chapter in its handbook, Conversion of Bank or Credit Union to a Federal Charter, to facilitate the process of switching charters.²⁹ Invitations to switch charters were not uncommon, and they were often accepted, sometimes to the OTS's detriment. From 1998 to 2008, the OTS lost a net forty-five institutions as more thrifts converted to banks than vice versa.³⁰ Some of these financial institutions left the federal system altogether; between 2000 and 2008, at least thirty gave up their federal charters for state charters.³¹

The OTS, to be sure, was not simply a charter-switching opportunity; for financial institutions to be regulated by it, they had to—at least to a

24. JAMES SUROWIECKI, *THE WISDOM OF CROWDS: WHY THE MANY ARE SMARTER THAN THE FEW AND HOW COLLECTIVE WISDOM SHAPES BUSINESS, ECONOMIES, SOCIETIES, AND NATIONS* 125, 166 (2004).

25. Cheyenne Hopkins, *Wamu Vanishes, So May OTS and the Thrift Charter*, AM. BANKER, Sept. 29, 2008, at 5.

26. *Id.*

27. Reich's view is a useful corrective to those considering how closely financial regulation approximates true competition for corporate charters. *See, e.g.*, Kenneth E. Scott, *The Dual Banking System: A Model of Competition in Regulation*, 30 STAN. L. REV. 1, 1–50 (1978). While financial regulators do take charters away from one another, they also coordinate policy. We note this, but we leave it aside for much of what follows. We presume that if these regulators agree to supervise financial institutions identically, there should be no difference in the performance of the agencies during the crisis; if they agree to supervise these institutions differently (or if congressional requirements contribute to differential supervision), then a competition-like regime would result. Thus, we assume that differences in regulatory supervision would be observed by market participants and that stock returns during the financial crisis would reflect such observed regulatory differences.

28. *See* 12 C.F.R. § 5.24(f) (2010).

29. OFFICE OF THRIFT SUPERVISION, APPLICATIONS HANDBOOK § 430 (2001), available at <http://files.ots.treas.gov/425023.pdf>.

30. Jessica Holzer, *U.S. Thrift Charter May Be Hard to Kill*, WALL ST. J., June 25, 2009, <http://online.wsj.com/article/BT-CO-20090625-706073.html>.

31. Binyamin Appelbaum, *By Switching Their Charters, Banks Skirt Supervision*, WASH. POST, Jan. 22, 2009, at A1.

degree—subscribe to its mission. The OTS required (as Congress demanded) that financial institutions chartered under its auspices devote sixty-five percent of their loans to home and consumer finance.³² The concentration of thrift assets in home loans that resulted from this lending requirement appeared to be disastrous for thrifts during the financial crisis, which began after the collapse of a housing bubble. “[F]ive of the seven biggest [financial institution] failures [in 2007 and 2008] were OTS-regulated thrifts.”³³ Another bank that had switched its charter in 2005 to become a thrift, Countrywide Financial Corporation, avoided failure only because of an emergency merger with Bank of America, which thereafter required its own large bailout to survive.³⁴ And the largest bailout during the crisis—that of AIG, an insurance company whose financial products unit held a thrift charter—was also linked to the OTS.³⁵

The financial crisis provides an opportunity to evaluate the merits of the choose-your-regulator system that was in place throughout the period, and basing such an inquiry on the housing-centric thrift industry offers a look at how that regulatory regime performed.

II. LEGAL EVOLUTION OF THE THRIFT REGULATORY REGIME

Thrifts began as unique financial institutions with their own regulator, their own charter, and, critically, their own unique lending requirements. But by the last financial crisis, the differences between thrift and bank

32. Many commentators have criticized what they see as a misguided national housing policy. They observe that the United States has tried, through a variety of mechanisms—including the home ownership tax credit, the creation of government-sponsored enterprises to pool mortgages, and the creation of a separate regulator dedicated to financial institutions committed to home lending—to bolster home ownership beyond where it would lie in a less regulated market, with, they argue, deleterious effects. *See, e.g.*, Karl E. Case & Robert J. Shiller, *Is There a Bubble in the Housing Market?*, BROOKINGS PAPERS ON ECON. ACTIVITY, Fall 2003, at 299, 341 (concluding, based on an analysis of housing data, that there was evidence of a housing bubble in the early 2000s); Eric Posner, *Paying Loan Servicers to Modify Loans*, THE VOLOKH CONSPIRACY (Feb. 4, 2009, 5:01 PM), http://volokh.com/archives/archive_2009_02_01-2009_02_07.shtml#1233788467 (discussing loan modification services in the aftermath of the collapse of the housing bubble).

33. *Consumer Protections in Financial Services: Past Problems, Future Solutions: Hearing Before the S. Comm. on Banking, Hous., and Urban Affairs*, 111th Cong. 19 (2009) (prepared statement of Patricia A. McCoy, George J. and Helen M. England Professor of Law, University of Connecticut School of Law), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1367977.

34. Gregory J. Wilcox, *Valley Lender Is Key Mortgage Meltdown Culprit: Former Countrywide Tops List for Making Risky, Subprime Home Loans*, DAILY NEWS (L.A.), May 9, 2009, at A1 (stating that “top subprime lenders,” of whom Countrywide was the most egregious example, “were owned or backed by giant banks now collecting billions of dollars in federal bailout money”).

35. *See supra* note 5.

regulation had largely disappeared. The result was that while thrifts and banks had operated in different markets for many years, by the turn of the century those differences had eroded, and financial institutions therefore had a largely, but not entirely, untrammelled choice between regulators, one that would not force them to choose a different business if they switched.

At first, many thrifts were organized mutually rather than as stock companies, and all were committed to home lending.³⁶ All thrifts were chartered at the state level.³⁷ The Great Depression caused a number of thrift failures, leading to a partial federalization of thrift oversight.³⁸ Amid a number of other New Deal-era reforms of financial regulation, Congress created the Federal Home Loan Bank Board (“FHLBB”) to supervise thrifts that elected to be chartered at the federal level.³⁹ FHLBB-chartered thrifts were also required to participate in an FDIC-like insurance fund that was administered for many years by the FHLBB and eventually ceded to the FDIC after the 1980s savings and loan (“S&L”) crisis.⁴⁰ And they were subject to a number of restrictions on the type of banking in which they could participate, including the taking of demand deposits and the making of commercial loans.⁴¹ Finally, these thrifts had to meet the QTL test, which required them to offer home mortgages or other forms of consumer credit.⁴²

Thrift regulation evolved over the post-Depression years to offer financial institutions some benefits that the bank charter could not, including unlimited interstate branching, strong federal regulatory preemption, relatively relaxed holding company oversight, and, for some

36. *E.g.*, PATRICIA A. MCCOY, *BANKING LAW MANUAL: FEDERAL REGULATION OF FINANCIAL HOLDING COMPANIES, BANKS AND THRIFTS* § 3.02 (2d ed. 2003).

37. *E.g.*, DAVID L. MASON, *FROM BUILDINGS AND LOANS TO BAIL-OUTS: A HISTORY OF THE AMERICAN SAVINGS AND LOAN INDUSTRY, 1831–1995*, at 69–74 (2004).

38. *Id.* at 69.

39. John J. McDonald, Jr., *Similarities Between the Savings & Loan Crisis and Today’s Current Financial Crisis: What the Past Can Tell Us About the Future*, 76 *DEF. COUNS. J.* 470, 471 (2009).

40. The crisis led to the failure of a huge number of thrifts, and it resulted in proposed legislation to abolish the thrift regulator—instead it was reformed and renamed, as the OTS. For a discussion of the special bankruptcy powers of federal regulators, see Christopher T. Curtis, *The Takings Clause and Regulatory Takeovers of Banks and Thrifts*, 27 *HARV. J. ON LEGIS.* 367, 367–68 (1990) (focusing on the constitutionality of resolution authority); David Zaring, *A Lack of Resolution*, 60 *EMORY L.J.* 97, 109–13 (2010). For an account that focuses on the S&L crisis, see generally Peter P. Swire, *Bank Insolvency Law Now That It Matters Again*, 42 *DUKE L.J.* 469 (1992) (providing a synthesis of the reasons for bank insolvency laws).

41. For a brief discussion of these limitations, see Robert F. Weber, *New Governance, Financial Regulation, and Challenges to Legitimacy: The Example of the Internal Models Approach to Capital Adequacy Regulation*, 62 *ADMIN. L. REV.* 783, 840 (2010).

42. *See supra* note 18 and accompanying text (discussing the requirements of the QTL test).

fortunate non-financial institutions and insurance companies, the so-called unitary thrift charter (“UTC”).⁴³ The UTC allowed parent companies to run single thrifts without meeting any of the usual thrift holding company requirements. Next, we briefly review the differences between thrifts and banks and describe the evolution of each of them.

Banking Services: Thrifts engaged in different, or at least radically more limited, banking than did banks before the deregulation enacted by the 1982 Garn-St Germain Depository Institutions Act.⁴⁴ That statute—passed in part to help thrifts out of the emerging S&L crisis by permitting them to engage in new lines of business—removed the limitations on the taking of demand deposits and the making of commercial loans.⁴⁵ After 1982, thrifts could offer almost any of the services that banks could, provided they met the QTL test.

Branching: For many years, state law prohibited most banks from branching across state lines.⁴⁶ Federally chartered thrifts, however, were always entitled to branch, and state anti-branching laws were preempted by the Depression-era statute governing federally chartered thrifts, the Home Owners’ Loan Act (“HOLA”).⁴⁷ During this period, and especially after 1982, financial institutions interested in building a national market of retail depositors were incentivized to choose thrift charters, which permitted interstate branching, over bank charters, which were subject to state anti-branching laws in the vast majority of states.⁴⁸

Preemption: The option to branch across state lines was a function of the strong federal preemption powers contained in the HOLA and, less obviously, contained in the statutes authorizing issuance of a federal bank charter.⁴⁹ The OTS promulgated regulations providing for “the plenary and

43. See *infra* notes 53–54 and accompanying text (discussing the way the UTC charter worked).

44. Garn-St Germain Depository Institutions Act of 1982, Pub. L. No. 97-320, 96 Stat. 1469 (codified as amended in scattered sections of 12, 15, 20, 22, and 42 U.S.C.).

45. Jonathan R. Macey & Maureen O’Hara, *Regulation and Scholarship: Constant Companions or Occasional Bedfellows?*, 26 YALE J. ON REG. 89, 115 n.115 (2009).

46. Jith Jayaratne & Philip E. Strahan, *The Finance-Growth Nexus: Evidence from Bank Branch Deregulation*, 111 Q.J. ECON. 639, 642 (1996).

47. Home Owners’ Loan Act, Pub. L. No. 73-43, 48 Stat. 128 (1933) (codified as amended at 12 U.S.C. §§ 1461–1470 (2006)).

48. See Joyce A. Hughes, *Bank and Thrift Intrastate Branching*, 11 ANN. REV. BANKING L. 335, 342 (1992).

49. The difference between the HOLA and the National Banking Act, as a matter of preemption doctrine, is that the former arguably provided for “field” preemption, while the latter provided for “conflict” preemption. The field preemption view was first stated in *California v. Coast Federal Savings & Loan Ass’n*, 98 F. Supp. 311, 318 (S.D. Cal. 1951). The Supreme Court has not explicitly endorsed field preemption, but it has not yet permitted a state effort to regulate a federal thrift to survive. In cases such as *Fidelity Federal Savings & Loan Ass’n v. de la Cuesta*,

exclusive authority of the [OTS] to regulate all aspects of the operations of Federal savings associations This exercise of the Office's authority is preemptive of any state law purporting to address the subject of the operations of a Federal savings association."⁵⁰ As one influential district court opinion put it, "[n]ot only does the Act of Congress which authorizes the creation, operation and supervision of federal savings and loan associations . . . embrace the entire field, but the comprehensive rules and regulations adopted by the Board clearly meet the test of covering the subject matter of the statute."⁵¹ Courts, including the Supreme Court, regularly precluded state regulators from interfering with the lending practices of federally chartered thrifts.⁵² Thrifts accordingly enjoyed less state supervision than did federally chartered banks, which were subject to state regulation wherever federal regulation did not directly conflict.

Thrift Holding Companies and the UTC: Finally, thrift holding companies were subject to less robust federal supervision than were bank holding companies.⁵³ The apogee of this difference arose in the so-called UTC, which provided that holding companies owning a single thrift were exempt from even the minimal requirements of thrift holding company supervision.⁵⁴ The passage of a series of otherwise technical reforms in 1996 opened a window for non-thrifts and non-banks to take advantage of the UTC.⁵⁵ During this period, a number of large conglomerates—such as insurance companies, investment banks, auto companies, and even exotic firms such as a department store and a casket manufacturer—did so.⁵⁶

458 U.S. 141, 161 (1982) (finding a California due-on-sale regulation to be preempted by federal regulation of thrifts and noting that HOLA contains "broad language" with no express limits on the authority of the FHLBB "to regulate the lending practices of federal savings and loans"), the Court implied that the preemption regime of the HOLA was, at the least, very broad.

50. 12 C.F.R. § 545.2 (2010).

51. *Coast Fed. Sav. & Loan Ass'n*, 98 F. Supp. at 318.

52. *See, e.g., Fidelity Fed. Sav. & Loan Ass'n*, 458 U.S. at 159 (holding that federal law preempted California state regulations on federal savings and loans).

53. Thrift holding companies were not subject to the same activities restrictions as bank holding companies. A thrift could affiliate with non-financial companies, provided their business did not threaten the thrift's safety and soundness. For a discussion of the unitary thrift charter, see James M. Cain & John J. Fahey, *Banks and Insurance Companies—Together in the New Millennium*, 55 BUS. LAW. 1409, 1411 (2000); Ira L. Tannenbaum, *The Unitary Thrift Holding Company and the Thrift Charter After the Gramm-Leach-Bliley Act*, BANKING POL'Y REP., Dec. 20, 1999, at 1, 11–12.

54. *See* Tannenbaum, *supra* note 53, at 11–12.

55. For a discussion of this process, see Elizabeth R. Schiltz, *The Amazing, Elastic, Ever-Expanding Exportation Doctrine and Its Effect on Predatory Lending Regulation*, 88 MINN. L. REV. 518, 603–04 (2004); Arthur E. Wilmarth, Jr., *Wal-Mart and the Separation of Banking and Commerce*, 39 CONN. L. REV. 1539, 1579 n.234, 1584–85 & nn.263–65 (2007).

56. *See* Schiltz, *supra* note 55, at 603–04 (describing a surge of companies buying thrifts after the Gramm-Leach-Bliley Act was passed in 1999).

The End of the Unique Attributes of the Thrift Charter: Over the course of the last twenty years, however, the unique advantages and restrictions of the thrift charter were either competed away by other banking regulators or taken away by Congress.⁵⁷

First, in the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, Congress amended the limitations on interstate branching by banks, making such branching essentially as easy as branching via thrifts.⁵⁸

Second, the OCC adopted a wide-ranging preemption regime—one that extended the old conflict preemption rules to something that looked very much like the field preemption of state regulation of banks adopted by the OTS.⁵⁹ In *Watters v. Wachovia Bank*,⁶⁰ the Supreme Court deferred to the OCC's broad new preemption regulations, holding that the OCC's regulations preempted state licensing and registration requirements for operation subsidiaries of OCC-chartered banks.⁶¹ Accordingly, although the OTS touted the strong preemption regime offered by the thrift charter until its end, the preemption differences had become increasingly hard for outside observers to perceive.⁶²

Third, although it never equalized bank and thrift holding company supervision entirely, Congress took away the window during which non-financial companies could take control of single thrifts. It closed the UTC loophole via the Gramm-Leach-Bliley Act in 1999,⁶³ denying holding companies the right to purchase or operate thrifts without first converting to

57. This convergence may have been prompted by the S&L crisis of the 1980s, which soured some influential legislators on the value of the federal thrift charter. Indeed, the thrift charter survived a 1990s effort to eliminate it that was led by the then chairman of the House Financial Services Committee, Jim Leach. Jacqueline Fitzgerald, *Budget Office Report: No Longer Need a Separate Thrift Industry, Study Says*, CHI. TRIBUNE, June 17, 1997, http://articles.chicagotribune.com/1997-06-17/business/9706170181_1_separate-thrift-industry-federal-thrift-charter-chairman-jim-leach (“The bill, offered by committee Chairman Jim Leach (R-Iowa), would abolish the federal thrift charter and treat state-chartered thrifts, or savings and loans, as banks.”).

58. Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, Pub. L. No. 103-328, § 201(a), 108 Stat. 2338, 2368 (codified as amended at 12 U.S.C. § 1821(d)(14) (2006)).

59. See 12 C.F.R. § 7.4006 (2010).

60. 550 U.S. 1 (2007).

61. *Id.* at 21. *But see* Cuomo v. Clearing House Ass'n, 129 S. Ct. 2710, 2721 (2009) (finding that the enforcement of state fair lending laws was not preempted by OCC regulations).

62. See Adam J. Levitin, *Hydraulic Regulation: Regulating Credit Markets Upstream*, 26 YALE J. ON REG. 143, 167–69 (2009) (discussing the race to the bottom in which the OTS matched the OCC's changes). See generally OFFICE OF THRIFT SUPERVISION, ANNUAL REPORT: SUPERVISING THROUGH THE ECONOMIC CRISIS (2008), available at http://www.ots.treas.gov/_files/482008.pdf (discussing the OTS's supervision during the financial crisis).

63. Pub. L. No. 106-102, 113 Stat. 1338 (1999) (codified in scattered sections of 12 and 15 U.S.C.).

thrift holding companies.⁶⁴ Existing unitary thrifts were grandfathered in and were thus permitted to retain their single thrifts.⁶⁵

Fourth, thrifts were permitted in 1982 to do much of the work of banks, including taking demand deposits and making commercial loans.⁶⁶

Conclusion: By 2005, the remaining value of the thrift charter lay largely in the relationship between the regulator and any financial institution willing to commit to the home and consumer loan model that the QTL test required of the thrifts. Banks and thrifts had the same capital requirements, the same community lending requirements, and, as we have observed, the four differences between the bank and thrift charters that the OTS and outside observers had claimed as the basis for its distinctiveness had largely disappeared.

Any institution that met the QTL test, in other words, could choose to be regulated by the OTS or by the OCC. The OTS's distinctiveness to these institutions may have lain in its expertise in evaluating housing loans, but it could also have been the case that the OTS, the smallest of the financial regulators and dependent, like all of them, on fees from charter holders, was regulating with a particularly light touch. Indeed, observers concluded that the agency had grown especially close to the financial industry.⁶⁷

Plenty of anecdotal reasons suggested that regulatory capture was the only thing distinguishing the OTS's supervision from bank supervision. For example, when the troubled financial institution Countrywide considered trading in its bank charter for a thrift charter, the OTS lobbied Countrywide to make the switch.⁶⁸ "The OTS is a little more relaxed," one thrift executive told a trade publication, and a bank lobbyist suggested that, when

64. § 401, 113 Stat. at 1435 (codified at 12 U.S.C. § 1467a(c)(9) (2006)). As a political matter, this meant that much of the political support for the continued existence of the thrift charter came from these alternative institutions, which valued their ability to connect with retail depositors through their thrift subsidiaries.

65. *Id.*

66. See Lissa Lamkin Broome, *The Influence of Enhanced Thrift Institution Powers on Commercial Bank Market Expansion*, 67 N.C. L. REV. 795, 796 (1989) ("Following the enactment of the Monetary Control Act of 1980 and the Garn-St Germain Act of 1982, all federally insured thrift institutions (state and federally chartered) may offer NOW accounts—the functional equivalent of interest-bearing checking accounts—to consumer customers. These acts also authorized federally chartered thrift institutions to devote a portion of their assets to loans other than home mortgage loans, including nonresidential real estate loans, nonmortgage consumer loans, and commercial loans, and to offer non-interest bearing checking accounts to commercial loan customers.").

67. See, e.g., Senator Ted Kaufman, *Captive Regulators Contributed to Oil and Financial Disasters*, HUFFINGTON POST (July 27, 2010, 6:02 PM), http://www.huffingtonpost.com/sen-ted-kaufman/captive-regulators-contri_b_661352.html ("OTS was captured to such a great degree that it lobbied other regulators to weaken nontraditional mortgage regulation.").

68. Bruck, *supra* note 1, at 53.

it comes to home mortgages, “[t]he other agencies don’t understand these products as well, so they are less comfortable leaving some of the management issues to the judgment of the examiner in the field.”⁶⁹ Why this sort of apparent distinctiveness was a good thing remains unclear. The thrift regulator “‘lived through the calls for the elimination of OTS’ for ‘pretty much all 20 years of OTS’s existence.’”⁷⁰ Those calls reached an apogee during the 2008 financial crisis, when the Obama administration concluded that a separate thrift regulator destabilized the financial system and proposed eliminating the charter. “Eliminating the thrift charter is one of the most important steps toward a more prudent, efficient financial regulatory system,” the government announced in materials accompanying proposed financial reform legislation that it sent to Capitol Hill.⁷¹ Congressman Barney Frank said in 2009, “We are going to abolish, I hope, the Office of Thrift Supervision. . . . AIG and some others that were theoretically regulated by the OTS, that was like being regulated by the meter maid.”⁷² Frank’s hopes were eventually realized in the Dodd-Frank Act, which abolished the OTS.⁷³

In our view, the evolving nature of thrift supervision at the federal level offers an opportunity to evaluate the consequences of the multi-regulator model during a crisis and to evaluate the consequences of regulator-shopping. We do not assume that the ability to switch charters is necessarily bad, of course, but its merits are less obvious than they may be in corporate law.⁷⁴

We accordingly test the following hypotheses:

69. Barbara A. Rehm, *Countrywide to Drop Bank Charter in Favor of OTS*, AM. BANKER, Nov. 10, 2006, at 1.

70. Dennis, *supra* note 7. Indeed, this sort of criticism preceded the creation of the agency. The OTS was created out of the ashes of a predecessor agency, the FHLBB, that had overseen the last housing crisis during the S&L collapse of the 1980s. See Financial Institutions Reform, Recovery, and Enforcement Act of 1989, Pub. L. No. 101-73, §§ 401–405, 103 Stat. 183, 354–63 (codified at 12 U.S.C. § 1437 (2006)) (abolishing the FHLBB and creating the OTS); Jonathan R. Macey & Geoffrey P. Miller, *Kaye, Scholer, FIRREA, and the Desirability of Early Closure: A View of the Kaye, Scholer Case from the Perspective of Bank Regulatory Policy*, 66 S. CAL. L. REV. 1115, 1136 (1993) (“[T]he FHLBB was viewed as a failed administrative agency, corrupt at worst and at best riddled with conflicts of interest and wholly captured by the industry it was supposed to regulate. For this reason the FHLBB was abolished and its functions were divided among the FDIC and two newly created entities, the Resolution Trust Corporation and the OTS.”).

71. U.S. DEP’T OF THE TREASURY, *supra* note 19, at 3.

72. Dennis, *supra* note 7.

73. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 313, 124 Stat. 1376, 1523 (2010) (codified at 12 U.S.C.A. § 5413 (West Supp. 2011)).

74. See Butler & Macey, *supra* note 3, at 686–88 (describing the difficulties of switching charters).

Hypothesis 1 (“H1”): Publicly traded financial institutions that changed their regulator to the OTS during and after the housing bubble had lower stock returns than did publicly traded institutions that did not, controlling for other variables during the crisis.

Hypothesis 2 (“H2”): Financial institutions that were encouraged by their charter to participate in home lending (i.e., thrifts) had lower stock returns during the financial crisis.

Hypothesis 3 (“H3”): Financial institutions that changed their regulator *to* the OTS during and after the housing bubble were more likely to receive bailouts during the financial crisis.

Hypothesis 4 (“H4”): Financial institutions that changed their regulator *from* the OTS during and after the housing bubble were more likely to receive bailouts during the financial crisis.

Hypothesis 5 (“H5”): Financial institutions that were encouraged by their charter to participate in home lending (i.e., thrifts) were more likely to receive bailouts during the financial crisis.

III. EMPIRICAL STUDY

A. *Introduction*

To test our hypotheses, we construct four non-overlapping indexes of federally regulated financial institutions. The first index consists of publicly traded banks regulated by the OCC; the second index consists of publicly traded thrifts; the third index consists of publicly traded, OCC-chartered institutions that switched their charter to the OTS after 2004; and the fourth index consists of publicly traded financial institutions that switched their charter from the OTS after 2004. By looking at these four indexes, we determine how OTS-regulated institutions fared when compared to their OCC-regulated counterparts, expecting differences either because of the QTL requirements (the requirement that thrifts participate more actively in the housing lending market than banks) or because of a different quality of oversight.

The separation of thrifts that recently opted into the OTS regulatory system is designed to isolate the regulatory effects to the greatest extent possible because all thrifts are subject to the same QTL requirements, and they are thus likely to have relatively similar business models. On the other hand, the interpretation of results for the institutions that switched from the

OTS is more ambiguous because these institutions could have been seeking either a new regulator or seeking to avoid the QTL requirements.

As suggested earlier, we found that the thrift industry performed worse than the bank industry, but when returns were adjusted by the standard four-factor model utilized in finance studies, the difference disappeared.⁷⁵ Although some of the individual developments of the crisis resulted in significantly different returns for banks and thrifts, our indexes performed similarly overall. Our small number of charter-switchers also performed similarly, although those that switched to the OTS in the last five years had comparatively high risk profiles. These switchers received surprisingly different levels of bailout funds than did the banks or thrifts. We discuss our findings in more detail below.⁷⁶

B. Data

We create our bank and thrift indexes from a list of publicly traded companies taken from the Center for Research in Security Prices (“CRSP”)⁷⁷ as of December 31, 2004, and we narrow this list to financial institutions using standard industrial classification (“SIC”) codes, which roughly identify banks, thrifts, and various other financial institutions.⁷⁸ We further narrow this list to holders of federal OTS charters by comparing the included publicly traded institutions to those listed on the FDIC’s institution directory,⁷⁹ allowing us to identify the charter held by the thrift as of December 31, 2004, and, if any, the holding company of the institution at that time.

We compare the list of remaining financial institutions to the New York Federal Reserve’s banking research database that identifies OCC

75. The four factors are beta (systematic risk), size, book-to-market ratio, and momentum. *E.g.*, Mark M. Carhart, *On Persistence in Mutual Fund Performance*, 52 J. FIN. 57, 61 (1997).

76. In addition to the event studies described, we investigated whether the change from one regulator to another affected the stock price of our switchers. Identifying the point at which the market would learn of the switch was not easy (applications to switch were not announced, nor did the press cover such applications, and even the 8-K record was ambiguous), but the stock prices for the switching institutions at the date of the switch suggested neither an embrace nor a rejection of the decision.

77. *Wharton Research Data Services*, THE WHARTON SCH. OF THE UNIV. OF PA., <http://wrds-web.wharton.upenn.edu/wrds/> (last visited May 4, 2011).

78. *Division of Corporation Finance: Standard Industrial Classification (SIC) Code List*, U.S. SEC. & EXCH. COMM’N, <http://www.sec.gov/info/edgar/siccodes.htm> (last visited May 4, 2011). The requirement for all institutions to have publicly listed common stock at the end of 2004 also eliminates potentially confounding effects due to abnormal returns from initial public offerings. *See, e.g.*, Tim Loughran & Jay R. Ritter, *The New Issues Puzzle*, 50 J. FIN. 23, 23–52 (1995) (discussing the implications of this approach).

79. *Institution Directory*, FED. DEPOSIT INS. CORP., <http://www2.fdic.gov/IDASP/> (last visited May 4, 2011).

charter holders and links publicly traded bank and bank holding companies to their identifiers in CRSP.⁸⁰ We also obtain data on which financial institutions received bailout money from the federal government via ProPublica's TARP database.⁸¹ After matching to CRSP, we identify 359 publicly traded banks and bank holding companies as of July 2007. By the end of the sample period, this number falls to 319 due to mergers, acquisitions, and other types of delisting.

To find the institutions that switched their charters, we consult the institution's history as provided in the FDIC database and identify all companies that had a thrift charter in a year-end report that had a non-thrift charter in a previous report (or vice versa).⁸² Thus, through the FDIC's institutional history data, we identify all companies that switched their charters. This group consists of five institutions that switched charters to become thrifts as of July 2007, including a pair of relatively large ones, BB&T and Countrywide.⁸³ By the end of the sample period, the collection is reduced to four firms due to Countrywide's acquisition by Bank of America. We find only two firms with sufficient stock return data that switched away from the OTS.

Finally, we develop an index of sixty thrifts, current as of July 2007, by identifying thrift listings in Yahoo! Finance⁸⁴ and Google Finance⁸⁵ and subsequently comparing that index to the FDIC's 2004 institutional directory—a process that revealed which of the publicly traded thrifts listed on both websites were federally chartered as of 2004.⁸⁶ By the end of the sample period, this group falls to fifty-six.

We utilize this sample to form the four aforementioned indexes of financial institutions during the subprime crisis period. The four indexes consist of (1) financial institutions that switched from a bank charter to a federal thrift charter (Charter-Switchers); (2) financial institutions that switched from a thrift charter to a bank charter (Reverse-Switchers); (3) all other federal thrift-chartered institutions (Other Thrifts); and (4) all other federally chartered banks (Banks).

80. *Banking Research Datasets*, FED. RESERVE BANK OF N.Y., http://www.newyorkfed.org/research/banking_research/datasets.html (last visited May 4, 2011).

81. *Eye on the Bailout: Bailout Recipients*, PROPUBLICA, <http://bailout.propublica.org/list/index> (last visited May 4, 2011).

82. *Institution Directory*, *supra* note 79.

83. One other financial institution converted to a thrift charter but delisted simultaneously with its conversion, and we thus exclude this firm from our tests.

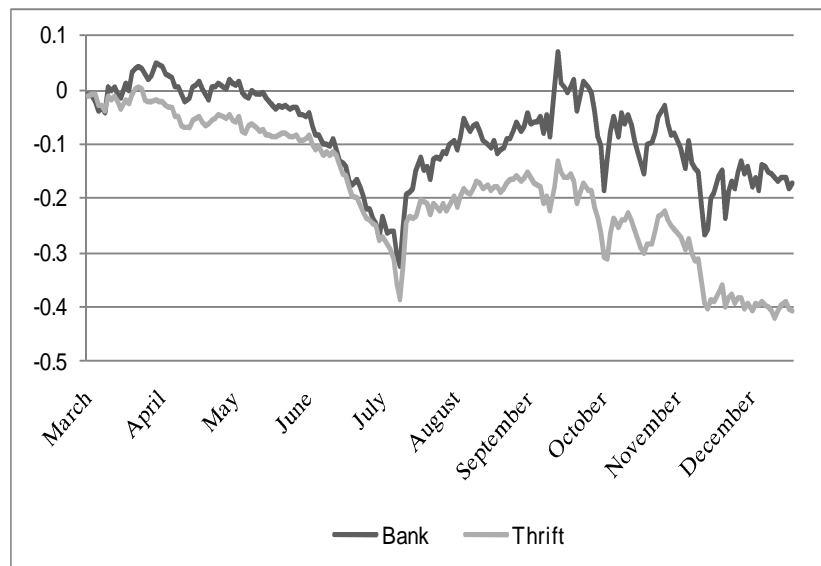
84. YAHOO! FINANCE, <http://finance.yahoo.com> (last visited May 4, 2011).

85. GOOGLE FINANCE, <http://www.google.com/finance> (last visited May 4, 2011).

86. We excluded credit unions that switched over to thrift charters from our list. Credit unions are not publicly traded, so they are not amenable to an event study analysis.

To provide a baseline for the financial crisis timeline, Figure 1 provides the cumulative stock returns for Other Thrifts (labeled “Thrifts” in the figure) and Banks between March and December 2008. We do not include Charter-Switchers or Reverse-Switchers due to the noisy nature (high variance) of their returns, attributable to the small number of firms in each group. Overall, the performance of Other Thrifts was marginally worse than that of Banks, as is evidenced by a one-sided p-value of 0.081. However, the economic difference is relatively large, with a difference in returns over the period of roughly twenty percentage points. The lack of strong statistical significance, however, indicates that the returns series is relatively noisy and that the difference in returns could be due to chance. We explore this more fully below by utilizing shorter-window returns and examining returns adjusted for other factors known to be associated with stock returns.

Figure 1: Cumulative Raw Returns for Thrifts and Banks⁸⁷



C. Event Study

We define major events based on a timeline developed by the Federal Reserve Bank of New York.⁸⁸ This timeline includes major market events,

87. This figure charts the cumulative raw returns for Banks and Other Thrifts (labeled “Thrift” in the figure) over the financial crisis period, March to December 2008.

government responses, and Federal Reserve monetary policy changes.⁸⁹ Many of these events are very close in time or overlap with each other, illustrating the difficulty with conducting a clean event study for the financial crisis.⁹⁰ We distinguish major events based on the expected investor perception of the news on thrifts. Thus, we delineate those events with negative news for thrifts (and thus negative expected returns) from those events for which the news for thrifts is either positive or ambiguous. Most of these negative news events would also have negative implications for banks, but our study is designed to examine how the different charters fared during the financial crisis, so we utilize the Banks index return primarily as a benchmark for the Charter-Switchers and Other Thrifts.

While the Federal Reserve timeline of the subprime crisis includes several precursor events, starting in June 2007, we begin our analysis with the Bear Stearns liquidity crisis in March 2008, which led to the first major financial institution failure. We consider this the first significant negative event due to its implications regarding the marketability of subprime-related assets, in which Bear Stearns and many thrifts were heavily invested; it is also offered by many as the starting bell for the crisis. Other negative events potentially affecting thrifts include Bank of America's purchase of Countrywide (a thrift) in June 2008, which essentially amounted to a thrift failure based on subprime lending; an immense quarterly loss by Lehman Brothers in June 2008; the IndyMac Mortgage Services (a thrift) failure and subsequent takeover in July 2008; the closure of Washington Mutual and the failure of its initial bailout plan in the House of Representatives in September 2008; and the release of the Term Asset-Backed Loan Facility ("TALF") details, which precluded financial institutions from taking advantage of central bank liquidity for housing-related assets, followed by the subsequent downgrade of large banks by Standard & Poor's in December 2008.

Positive or ambiguous events include the announcement that Bear Stearns would receive a higher acquisition price than JP Morgan Chase's original offer in March 2008; a series of events including the federal takeovers of Freddie Mac and Fannie Mae, the Lehman Brothers bankruptcy, and the short-selling ban on financial institutions' stock in

88. *Timelines of Policy Responses to the Global Financial Crisis*, FED. RESERVE BANK OF N.Y., http://www.newyorkfed.org/research/global_economy/policy_responses.html (last visited May 4, 2011).

89. *Id.*

90. The timeline includes more than one hundred discrete events, many of which occurred within three days of one another, thereby presenting challenges for the utilization of the traditional three-day window for return measurement around major events. *Id.*

September 2008 (which, we think, impacted thrifts in both positive and negative ways, making the cumulative event an ambiguous one); the Wells Fargo counteroffer and eventual purchase approval of Wachovia Bank in October 2008; and the agreed-upon capital injections, increase in FDIC insurance, and update of the Tier 1 capital definition in October 2008.

Table 1 summarizes the events categorized above as well as the raw returns around these events. Return measurement periods include the three-day window, centered on the first trading day on which the relevant news was available,⁹¹ unless events cannot be cleanly separated.⁹² When events cannot be cleanly separated in such three-day windows, we group events into slightly longer windows and cumulate returns over these longer periods. All index returns for Charter-Switchers, Other Thrifts, and Banks are also equal-weighted.⁹³

As shown in Table 1, Charter-Switchers and Reverse-Switchers have lower returns than Banks and Other Thrifts, coincident with five of the six negative news events (Charter-Switchers have lower returns for all six events). Over the twenty trading days coincident with the negative news events, Charter-Switchers have cumulative raw returns of -37.2%, compared to -37.8% for Reverse-Switchers, -13.0% for Other Thrifts, and -12.0% for Banks. Thus, it appears that the stocks of Charter-Switchers and Reverse-Switchers were hit much harder by the negative news related to the subprime crisis than either Other Thrifts or Banks. Around the positive or ambiguous events, Charter-Switchers have cumulative returns of 9.2%, compared to 4.2% for Reverse-Switchers, -0.7% for Other Thrifts, and 6.9% for Banks. Thus, the lower returns experienced by Charter-Switchers and Reverse-Switchers over the negative news events cannot be attributed

91. Prior studies used similar approaches to examine the effect of the Sarbanes-Oxley Act on firms. See generally Kate Litvak, *The Effect of the Sarbanes-Oxley Act on Non-US Companies Cross-Listed in the US*, 13 J. CORP. FIN. 195 (2007) (utilizing fourteen event windows); Ivy Xiyang Zhang, *Economic Consequences of the Sarbanes-Oxley Act of 2002*, 44 J. ACCT. & ECON. 74 (2007) (investigating stock price reactions to Sarbanes-Oxley events).

92. The use of such three-day windows is common in the accounting and finance literatures because prices both lead and lag major news events. See William H. Beaver, *Perspectives on Recent Capital Market Research*, 77 ACCT. REV. 453, 457, 460 (2002). For example, a study that examined a major financial crisis in 1987, brought about by substantial write-offs of debt from lesser-developed countries, utilized such three-day windows. John A. Elliott et al., *The Evaluation by the Financial Markets of Changes in Bank Loan Loss Reserve Levels*, 66 ACCT. REV. 847, 847, 854–55 (1991).

93. We utilize CRSP returns, including delisting returns where available. When a delisting return is not available and a firm delists for performance-related reasons, delisting returns of -30% are assumed for NYSE/AMEX firms. Tyler Shumway, *The Delisting Bias in CRSP Data*, 52 J. FIN. 327, 331, 336 (1997). Delisting returns of -55% are used for NASDAQ firms. Tyler Shumway & Vincent A. Warther, *The Delisting Bias in CRSP's Nasdaq Data and Its Implications for the Size Effect*, 54 J. FIN. 2361, 2361–62 (1999).

simply to lower returns overall during the subprime crisis. However, these returns do not control for risk and other factors known to be correlated with stock returns. We further explore this outcome next.

*Table 1: Event Dates and Cumulative Raw Returns*⁹⁴

Negative News	Dates	No. Days	Charter-Switcher Returns	Reverse-Switcher Returns	Other Thrift Returns	Bank Returns
Bear Stearns "bank run"	Mar. 12–Mar. 14	3	-4.9%	-6.7%	-0.9%	-1.5%
Countrywide sale to Bank of America	June 4–June 6	3	-7.3%	-7.5%	-0.8%	-2.0%
Lehman 2Q loss of \$2.8B	June 13–June 17	3	-2.3%	-2.3%	-0.6%	-1.1%
IndyMac takeover	July 10–July 14	3	-8.0%	-9.8%	-7.6%	-3.9%
Wash. Mutual closure; Citi/Wachovia discussions; Bailout voted down	Sept. 24–Sept. 30	5	-2.6%	-1.9%	-2.4%	-1.7%
TALF details released; Large banks downgraded	Dec. 19–Dec. 23	3	-12.0%	-9.6%	-0.8%	-1.9%
Total negative		20	-37.2%	-37.8%	-13.0%	-12.0%
Positive/Ambiguous News						
Bear Stearns price increase	Mar. 20–Mar. 25	3	8.2%	8.6%	3.1%	4.4%
Freddie/Fannie takeover; Lehman bankruptcy; Short sales banned	Sept. 5–Sept. 22	12	22.0%	20.0%	9.1%	1.7%
Wells Fargo acquires Wachovia; House passes revised plan	Oct. 2–Oct. 13	8	-22.0%	-30.4%	-8.0%	-7.9%

94. This Table provides the event date window details from the Federal Reserve timeline, the number of trading days during the period (per CRSP), and the raw cumulative returns for each index of financial institutions (Charter-Switchers, Reverse-Switchers, Other Thrifts, and Banks). Returns are equal-weighted for each financial institution index.

Capital injections agreed upon; FDIC insurance increase; Tier 1 capital definition	Oct. 14–Oct. 17	4	1.0%	6.0%	2.4%	1.4%
Total positive/ambiguous		27	9.2%	4.2%	-0.7%	6.9%

One advantage of using relatively short-window returns periods is that the specification of the return model is less important because short-window returns are expected to be near zero.⁹⁵ However, we also investigate potential differences in risk by estimating a capital asset pricing model (“CAPM”) regression for the index returns of Charter-Switchers, Reverse-Switchers, Other Thrifts, and Banks:

$$\text{Model 1: } \text{Index Return}_t - \text{RF}_t = \beta_0 + \beta_1(\text{Market Return}_t - \text{RF}_t) + \varepsilon_t$$

This model is estimated utilizing 168 trading days, spanning July 2007 to February 2008. We select this timeframe because it ends approximately two weeks prior to the first major event we study, but it also contains some indications of the impending subprime problem.⁹⁶

For our purposes, the CAPM is convenient because it yields one summary measure of exposure to market risk, the β_1 coefficient, that is easily comparable across the four indexes. However, because the CAPM does not explain stock returns well,⁹⁷ we utilize the CAPM results only for this simple measure of risk, and we instead estimate the four-factor model common in the finance literature to adjust stock returns.⁹⁸

Table 2 presents results from estimates of Model 1. The β_1 coefficients are 1.541 for Charter-Switchers, 1.424 for Reverse-Switchers, 0.475 for Other Thrifts, and 0.775 for Banks. In other words, the returns of Banks were similar to the market index return (as indicated by a coefficient relatively close to one), while Charter-Switchers and Reverse-Switchers had relatively higher risk (as indicated by a coefficient significantly greater than one), and Other Thrifts had relatively lower risk (as indicated by a coefficient significantly lower than one). Notably, even though Charter-

95. See Eugene F. Fama, *Market Efficiency, Long-Term Returns, and Behavioral Finance*, 49 J. FIN. ECON. 283, 283 (1998).

96. See *Timelines of Policy Responses to the Global Financial Crisis*, supra note 88.

97. E.g., Eugene F. Fama & Kenneth R. French, *The Cross-Section of Expected Stock Returns*, 47 J. FIN. 427, 427 (1992).

98. As noted earlier, the four factors are beta (systematic risk), size, book-to-market ratio, and momentum. E.g., Carhart, supra note 75, at 61. These factors explain a significant amount of the variation in stock return patterns. See *id.*

Switchers and Other Thrifts were both subject to the QTL test, the estimate of systematic risk for the Charter-Switchers is more than three times that of Other Thrifts.

The broad market index may not be an ideal benchmark because numerous other factors are also correlated with stock returns. Thus, we also estimate a four-factor model common in the finance literature:

$$\text{Model 2: } \text{Index Return}_t - RF_t = \beta_0 + \beta_1(\text{Market Return}_t - RF_t) + \beta_2SMB + \beta_3HML + \beta_4UMD + \varepsilon_t$$

Results from estimating Model 2 are similar in magnitude to those of Model 1 with respect to the β_1 coefficient: 1.402 for Charter-Switchers, 1.333 for Reverse-Switchers, 0.430 for Other Thrifts, and 0.713 for Banks. Again, this suggests that Charter-Switchers and Reverse-Switchers were substantially riskier than Banks, while Other Thrifts were less risky. Other factor loadings are presented in Table 2; however, the explanatory power (the amount of variation in returns explained by the relevant factors, as measured by the adjusted r-squared) of Model 2 is much higher than that of Model 1. For example, Model 2 has an adjusted r-squared of 0.774 versus 0.527 for Model 1. We therefore utilize the Model 2 results to measure abnormal returns, as this model appears to capture the relevance of economic news more completely than market returns.

Table 2: Asset Pricing Models⁹⁹

<i>Results from Model 1 (Capital Asset Pricing Model)</i>				
	Charter-Switchers	Reverse-Switchers	Other Thrifts	Banks
Intercept	-0.001 (0.77)	-0.002** (1.98)	-0.001* (1.82)	-0.001 (1.09)
Market Return	1.541*** (13.69)	1.424*** (16.15)	0.475*** (11.05)	0.775*** (17.59)
Adjusted R ²	0.527	0.609	0.420	0.649
n	168	168	168	168

<i>Results from Model 2 (Four-Factor Model)</i>				
	Charter-Switchers	Reverse-Switchers	Other Thrifts	Banks
Intercept	0.000 (0.83)	-0.001 (1.39)	-0.000 (0.71)	0.000 (1.26)
Market Return	1.402*** (17.74)	1.333*** (21.31)	0.430*** (12.84)	0.713*** (32.34)
SMB	0.693*** (3.05)	-0.610*** (3.40)	0.355*** (3.69)	0.655*** (10.35)
HML	0.878*** (2.84)	0.536** (2.19)	0.382*** (2.92)	0.496*** (5.75)
UMD	-1.108*** (8.49)	-1.075*** (10.41)	-0.318*** (5.75)	-0.385*** (10.56)
Adjusted R ²	0.774	0.809	0.658	0.915
n	168	168	168	168

Similar to Figure 1, Figure 2 plots the relative performance of Banks and Other Thrifts (labeled “Thrifts” in the figure) over the financial crisis. The relatively large return difference is greatly attenuated, although the one-sided p-value of 0.116 indicates that the difference is, again, only marginally significant.

99. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively. This Table provides results from estimations of Model 1 and Model 2:

Model 1: $Index\ Return_t - RF_t = \beta_0 + \beta_1(Market\ Return_t - RF_t) + \varepsilon_t$

Model 2: $Index\ Return_t - RF_t = \beta_0 + \beta_1(Market\ Return_t - RF_t) + \beta_2SMB + \beta_3HML + \beta_4UMD + \varepsilon_t$

Index Return refers to the return of the equal-weighted index for the relevant set of financial institutions (Charter-Switchers, Reverse-Switchers, Other Thrifts, or Banks). *Market Return*, *RF* (Risk Free Rate), *SMB*, *HML*, and *UMD* are taken from the Fama-French Factors dataset available on Wharton Research Data Services. Absolute values of t-statistics are in parentheses below coefficient estimates.

Figure 2: Cumulative Adjusted Returns for Thrifts and Banks¹⁰⁰

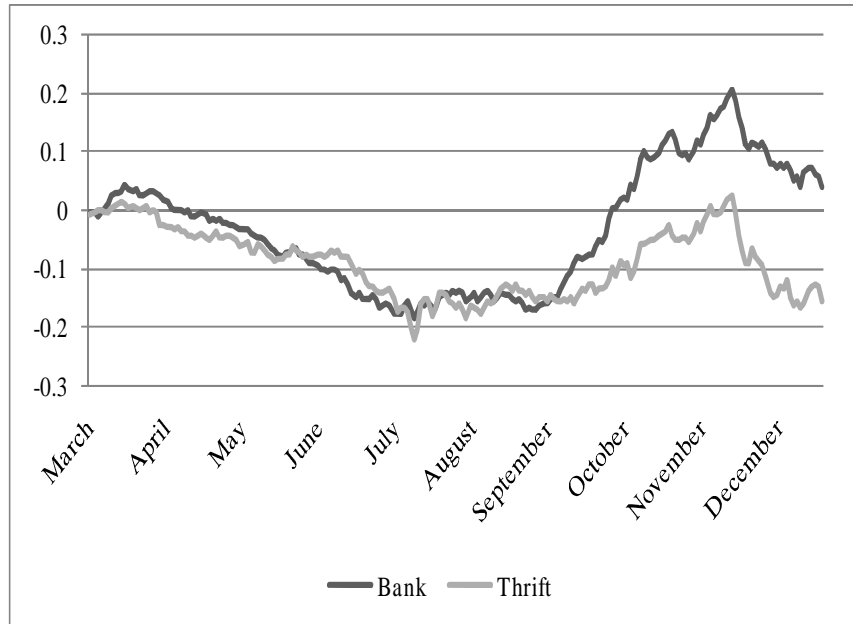


Table 3 presents abnormal returns around relevant events, utilizing the results from Model 2 as a benchmark. After controlling for risk, the returns experienced by all institutions were insignificantly different from zero for negative news events. Only Banks experienced statistically significant abnormal positive returns for the positive or ambiguous events. However, it seems strange that the recent Charter-Switchers had such a dramatically different risk profile than Other Thrifts.

The negative returns for Charter-Switchers are most concentrated at two events. The first event is the distressed sale of Countrywide to Bank of America, and the second event is the release of TALF program details, which coincided with the downgrade of several large banks by Standard and Poor's. These events seem particularly relevant with respect to thrift institutions, lending credence to the potential regulatory effect. The sale of Countrywide was a clear indicator of the level of distress in thrifts significantly involved in subprime lending, and the release of TALF program details likely did not help thrifts as much as banks due to the high

100. This figure charts the cumulative adjusted returns for Banks and Other Thrifts (labeled "Thrift" in the figure) over the financial crisis period, March to December 2008. See *supra* Table 2 and accompanying text (discussing the four-factor model utilized to adjust returns).

credit ratings required for asset-backed securities to be eligible for the program and the initial inapplicability of the program to collateralized mortgage-backed securities. TALF was designed to increase liquidity in some securitization markets. As the Federal Reserve announced in December 2008, “only certain newly issued, highly rated ABS collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration” were initially eligible under the program, and while thrifts could participate in these markets, their exposure here was more limited than their exposure to housing markets.¹⁰¹

There is no substantial difference over the positive or ambiguous news events overall. We do not explore these events in detail because most provide conflicting news, making predictions difficult *ex ante*. Of potential interest, however, is the event window of twelve business days from September 5, 2008, to September 22, 2008, that yields positive abnormal returns of 20.5% for the Charter-Switchers and 22.9% for Reverse-Switchers, compared to abnormal returns of 1.4% for the Other Thrifts and 7.8% for Banks. As numerous events overlap during this timeframe, we do not explore this finding further but merely note it.

101. Press Release, Bd. of Governors of the Fed. Reserve Sys. (Dec. 19, 2008), *available at* <http://www.federalreserve.gov/monetarypolicy/20081219b.htm>.

Table 3: Cumulative Adjusted Returns Around Significant News Events¹⁰²

<u>Negative News</u>	Dates	No. Days	Charter-Switcher Returns	Reverse-Switcher Returns	Other Thrift Returns	Bank Returns
Bear Stearns “bank run”	Mar. 12–Mar. 14	3	0.5%	0.3%	0.8%	0.5%
Countrywide sale to Bank of America	June 4–June 6	3	-4.4%	-2.8%	0.2%	-1.1%
Lehman 2Q loss of \$2.8B	June 13–June 17	3	-3.4%	-1.7%	-0.9%	-2.1%
IndyMac takeover	July 10–July 14	3	4.0%	2.1%	-3.5%	0.9%
Wash. Mutual closure; Citi/Wachovia discussions; Bailout voted down	Sept. 24–Sept. 30	5	3.9%	1.2%	0.3%	2.4%
TALF details released; Large banks downgraded	Dec. 19–Dec. 23	3	-4.3%	-1.3%	1.7%	1.3%
Total negative (t-statistic)		20	-3.6% (0.30)	-2.1% (0.22)	-1.4% (0.30)	1.9% (0.40)
<u>Positive/ Ambiguous News</u>						
Bear Sterns price increase	Mar. 20–Mar. 25	3	-3.3%	-0.6%	-0.3%	-1.0%
Freddie/Fannie takeover; Lehman bankruptcy; Short sales banned	Sept. 5–Sept. 22	12	20.5%	22.9%	1.4%	7.8%
Wells Fargo acquires Wachovia; House passes revised plan	Oct. 2–Oct. 13	8	5.8%	-3.9%	1.5%	5.0%

102. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively. This Table provides the event date window details from the Federal Reserve timeline, the number of trading days during the period (per CRSP), and the abnormal returns for equal-weighted indexes of Charter-Switchers and Other Thrifts based on Model 2 as detailed in Table 2. Bootstrap p-values are reported below the returns for each event.

Capital injections agreed; FDIC insurance increase; Tier 1 capital definition	Oct. 14– Oct. 17	4	9.2%	14.2%	5.0%	5.5%
Total positive/ambiguous		27	32.2% (1.43)	32.6% (1.52)	7.6% (1.45)	17.3%*** (3.37)

Thus far, the results are consistent with Charter-Switchers being higher risk but experiencing lower adjusted returns during the subprime crisis. We next examine whether Charter-Switchers differ from other financial institutions in terms of the bailout funds received under TARP. To do so, we obtain a list of all financial institutions that received bailout funds from ProPublica and match this list with our initial data set for all firms remaining on September 30, 2008, immediately before the bailout was passed by Congress. We then set to zero the bailout received for any financial institution that does not appear on the bailout list.

We estimate the following model to determine whether Charter-Switchers are different from other institutions with respect to bailout funds:

$$\text{Model 3: } TARP_i = \beta_0 + \beta_1 \text{Size}_i + \beta_2 \text{Thrift}_i + \beta_3 \text{Charter-Switcher}_i + \beta_4 \text{Reverse-Switcher}_i + \varepsilon_i$$

In this model, $TARP$ is the natural logarithm of (one plus bailout funds to the firm in millions of dollars), and $Size$ is the natural logarithm of a firm's market value of equity on September 30, 2008. We log-transform these variables to minimize scale differences between institutions. $Thrift$ is an indicator variable equal to one for a thrift institution that is not a Charter-Switcher and equal to zero otherwise; $Charter-Switcher$ is an indicator variable equal to one if a firm is a Charter-Switcher (changed its regulator to the OTS) and equal to zero otherwise; and $Reverse-Switcher$ is an indicator variable equal to one if the institution changes its regulator from the OTS and equal to zero otherwise.

We expect the coefficient on $Size$ to be positive because significant discussion at the time of the bailout involved the idea that firms bailed out were "too big to fail." We have no expectation with respect to the $Thrift$ variable because these firms were generally smaller than Banks, and we do not know if the size effect alone will be sufficient to predict bailout behavior. We expect the $Charter-Switcher$ variable to be negative because these firms were higher risk, likely making them worse bailout candidates compared to other firms.

Table 4 presents results for this model. As expected, the β_1 coefficient (on *Size*) is positive and highly significant, consistent with the “too big to fail” theory. The β_2 coefficient (on *Thrift*) is statistically insignificant. Interestingly, the β_3 coefficient (on *Charter-Switcher*) is negative and significant. This is consistent with Charter-Switchers having a lower likelihood of receiving bailout funds compared to other institutions. In fact, examining the data reveals that *none* of the four remaining Charter-Switchers received any bailout funds, while roughly forty percent of Banks and thirty percent of Other Thrifts received funds.¹⁰³ Also of interest is the positive and significant coefficient for *Reverse-Switchers*, indicating that those institutions received relatively more TARP funds than would be predicted by size alone. We acknowledge that, due to the limited sample size for Charter-Switchers and Reverse-Switchers, these results should be interpreted with caution, but they may be consistent with the Treasury Department tiring of charter-switchers and the OTS in general.

103. The fact that none of the charter-switching institutions received TARP funds prevents estimation of a Tobit model because there is no variation in positive funds through which the model could be estimated.

Table 4: Bailout Fund Receipt¹⁰⁴

Intercept	-0.496 (1.38)
Size	0.435*** (6.83)
Thrift	-0.396 (1.26)
Charter-Switcher	-2.696** (2.48)
Reverse-Switcher	5.520*** (3.54)
Adjusted R ²	0.148
n	385

CONCLUSION

We examined thrift, bank, and bank-to-thrift (charter-switcher) performance during the financial crisis as a study of the American policy permitting financial institutions to choose their preferred regulator. This Article served as a simple test of the OTS, the most criticized regulator during the crisis, and it served as a way of evaluating whether choice of charter affected the decision to bail out particular institutions.

We developed five hypotheses. We found evidence inconsistent with H1, our hypothesis that financial institutions which changed their regulator to the OTS during and after the housing bubble performed badly during the financial crisis, relative to other institutions. Although our sample was not large, these institutions were risky, but after controlling for risk, they did not underperform during the crisis.

We found marginal support for H2, our hypothesis that thrifts, institutions generally encouraged by their charter to participate in home lending, performed badly during the financial crisis. Thrifts had low

104. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively. This Table provides results from estimation of Model 3:

$$\text{Model 3: } TARP_i = \beta_0 + \beta_1 \text{Size}_i + \beta_2 \text{Thrift}_i + \beta_3 \text{Charter-Switcher}_i + \varepsilon_i$$

In this model, *TARP* is the natural logarithm of bailout funds in millions of dollars; *Size* is the natural logarithm of firm market value of equity on September 30, 2008; *Thrift* is an indicator variable equal to one for a thrift institution that is not a Charter-Switcher and zero otherwise; *Charter-Switcher* is an indicator variable equal to one if a firm is a Charter-Switcher (switched to OTS supervision) and zero otherwise, and *Reverse-Switcher* is an indicator variable equal to one if the firm switched away from the OTS's supervision and zero otherwise. Absolute values of t-statistics are in parentheses below coefficient estimates.

historical levels of risk relative to banks, and they had marginally lower risk-adjusted returns. They were not, however, as risky as banks—an interesting finding given the exposure of the thrifts to the housing market. But these results should not be overstated because thrift performance was not significantly different from that of banks.

Our results from H1 and H2 combine to bring the merits of permitting charter-shopping by financial institutions into question. The performance of charter-switching institutions was not, after controlling for the higher risk of these institutions, significantly worse than other thrifts. Thus, any relative underperformance of thrifts appears to be, in general, more due to the business model (e.g., the QTL test) than to the regulator. However, this conclusion depends somewhat on the proper view of risk and why the charter-switchers held the OTS charters when they had significantly higher systematic risk than other thrifts. Although this could be attributable to the quality of supervision by the OTS, it could also be attributable to other factors, such as the smaller size of thrifts relative to banks—a possibility consistent with the fact that thrifts were permitted to fail during the crisis (even large ones), while banks were more likely to receive early TARP money (especially large ones).

We found evidence inconsistent with H3, our hypothesis that charter-switchers were particularly likely to receive bailouts during the financial crisis. Although the charter-switchers were of a size that should have entitled them to bailout money, they did not receive it. This may indicate that charter-switchers were distinctive, and it may also indicate that the government, though permitting these institutions to shop for a regulator, concluded that they were not entitled to the kind of TARP money that other financial institutions received. It is possible that the government soured on these institutions.

We found evidence consistent with H4, our hypothesis that institutions that switched their charters away from the OTS were particularly likely to receive bailouts during the financial crisis. It appears that these institutions received preferential treatment with respect to TARP funds. Again, however, it must be noted that our findings with respect to H3 and H4 involve small sample sizes and should be interpreted with caution.

We found no evidence supporting H5, our hypothesis that thrifts were particularly likely to require bailouts during the financial crisis. Controlling for size, thrifts received bailouts from the government to the same degree as banks.

Although our study is not definitive, it raises the question as to why financial institutions should be able to shop for regulators. Although regulatory competition can, in some circumstances, have value,¹⁰⁵ our small sample of thrifts and banks that switched their charters had high levels of risk for their returns. It is not clear that charter switching benefitted these shareholders, and those institutions that switched to thrifts were not bailed out, as the other institutions were. Our study also represents a small measure of vindication for the OTS, which oversaw a thrift industry that underperformed banks marginally—the sort of underperformance that would not seem to call for the regulatory death penalty.

We close by acknowledging some limitations of our event study, which draws some of its conclusions from a small number of charter-switchers, and it is thus limited to an important degree already. But like most event studies, our results cannot fully capture the social costs or benefits of the choice of charter regime.¹⁰⁶ Our investigation of changes in security prices offers some evidence as to the *private* implications of the performance of thrifts and banks, but it cannot tell us everything we would like to know about the larger consequences of the choice of charter debate. Some of the costs of regulatory failure, including the costs of the choice to bail out failing institutions or not, may not be captured by the share prices of the institutions.¹⁰⁷

105. See Cunningham & Zaring, *supra* note 12, at 100 (including “the application of divided government to financial regulation” and incentives “to engage in experimentation”).

106. See ROSS L. WATTS & JEROLD L. ZIMMERMAN, *POSITIVE ACCOUNTING THEORY* 3 (1986); Zhang, *supra* note 91, at 77.

107. Moreover, this Article is subject to some of the inherent limitations of event studies. See Richard Leftwich, *Evidence of the Impact of Mandatory Changes in Accounting Principles on Corporate Loan Agreements*, 3 J. ACCT. & ECON. 3, 9–10 (1981). It is difficult, especially over the course of a crisis like that affecting the economy in 2008, to disentangle all contemporaneous news from that news, incorporated into stock prices, attributable to the impact of the events we studied here. In addition to the possibility that the difference is explicable on the basis of unobserved variance, we cannot discount the possibility that investors expected charter-switchers to perform better than banks or thrifts during the crisis and were surprised when they did not do so (though these sorts of alternative hypotheses are an issue in many event studies).

