The Gramm-Leach-Bliley Act of 1999: A Bridge Too Far? Or Not Far Enough?

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I. INTRODUCTION

The Gramm-Leach-Bliley Act (GLBA) of 1999, also termed the Financial Modernization Act of 1999, was signed into law on November 12, 1999.[1] At the time of its enactment it was hailed by supporters as an important step forward in the removal of the legal barriers between commercial banking and investment banking in the United States—a step that would strengthen both sectors.[2]

A decade later, in the wake of the worst financial crisis since the early 1930s—followed by the worst economic recession since the early 1980s, possibly since even the 1930s—the GLBA has instead been flailed by critics as a major cause of the financial crisis of 2007-2009. These critics often call for a revival of the Glass-Steagall barriers that the GLBA eliminated.[3]

A quite recent manifestation of this anti-GLBA sentiment is the so-called Volcker Rule, which would forbid deposit-taking financial institutions from engaging in proprietary trading for their own accounts or from operating hedge funds or private equity operations.[4]

This Article argues that critics are mistaken in attributing a connection between the GLBA and the financial crisis. In fact, the GLBA had very little, if anything,

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1. Gramm-Leach-Bliley Act, Pub. L. No. 106-102, 113 Stat. 1338 (codified as amended in scattered sections of 15 U.S.C.).

2. *See* James A. Leach, *Introduction: Modernization of Financial Institutions*, 25 J. CORP. L. 681, 684 (2000). A commercial bank is a financial institution that funds itself primarily through deposits and uses those funds to make commercial, industrial, and household loans. An investment bank is a financial institution that does not accept deposits and that underwrites and deals in securities. The distinction between the two types of financial institutions has blurred over the decades, at least partly due to the GLBA. Also, during and after the financial crisis, the media often referred simply to "banks" and "bankers" and did not distinguish between the two categories. Similarly, the term "Wall Street," previously reserved for references to investment banks, is now often used by the media indiscriminately to refer to large financial institutions of both types.

3. *See* Joseph Karl Grant, *What the Financial Services Industry Puts Together Let No Person Put Asunder: How the Financial Services Modernization Act of 1999—the Gramm-Leach-Bliley Act—Contributed to the 2008-2009 American Capital Markets Crisis*, 73 ALB. L. REV. (forthcoming 2010).

4. The Volcker Rule would also place a merger-based cap on the size of financial institutions, so as to discourage their becoming too-big-to-fail.

to do with the financial crisis. Virtually all of the actions that can properly be identified as causes of the crisis could have occurred, and probably would have occurred, even if the GLBA had never been enacted—indeed, even if the original Glass-Steagall barriers had remained wholly intact.[5] Thus, a revival of the Glass-Steagall Act would achieve little, if anything, toward forestalling the kinds of actions that created the crisis or that might create a similar crisis in the future. The same argument applies to an application of the Volcker Rule.

Further, a section of the GLBA erected new barriers to the ability of a nonfinancial firm to own a depository institution. This Article argues that this section is misguided. Thus, in an important sense, the GLBA did not go far enough in breaking down barriers.

The remainder of this Article expands on these ideas. Part II provides some explanation and background on the GLBA. Part III discusses the causes of the financial crisis of 2007-2009 and shows that the GLBA had little, or nothing, to do with that crisis. Part IV addresses the issue of nonfinancial firms owning depository institutions. Section V concludes with forward-looking recommendations for public policy.

II. THE GLBA AND ITS CONTEXT

At the heart of the GLBA was a partial repeal of the Glass-Steagall Act.[6] Thus, to understand the GLBA, it is necessary to understand the Glass-Steagall Act.

A. Enacting Glass-Steagall

In the wake of the stock market crash of 1929, the failure of thousands of commercial banks between 1929 and 1933, and the descent of the United States economy into the Great Depression, Congress saw the need for substantial reform of the banking system, initially embodied in the Banking Act of 1933.[7] Because the securities activities of commercial banks were thought to have contributed to the stock market crash and to the subsequent flood of bank failures, Congress included the Glass-Steagall provisions.[8] In Section 16, commercial banks, and in

5. *See infra* Part II (discussing how subsequent regulatory and judicial interpretations of Glass-Steagall Act eroded some of the apparent barriers of Glass-Steagall).

6. *See* Banking Act of 1933, Pub. L. No. 73-66, 48 Stat. 162 (codified as amended in scattered sections of 12 U.S.C.) (consisting of Sections 16, 20, 21, and 32 of Banking Act of 1933).

7. In addition to the Glass-Steagall provisions, the Banking Act of 1933 also strengthened the safety-and-soundness regulatory system, created the Federal Deposit Insurance Corporation (FDIC) and the system of federal deposit insurance, mandated that interest could not be paid on checking accounts, and gave the Federal Reserve authority to establish ceilings on the interest that could be paid on other kinds of deposits, which subsequently became known as "Regulation Q." Throughout the 1930s, Congress continued to pass legislation that restructured the financial sector and its regulation.

8. The dangers of mixing commercial banking and investment banking were seen as two-fold. First, the investment banking arm of a dual organization might lean on the depository arm to invest in the bonds of a financially weak client of the investment bank, thereby endangering the safety and soundness of the depository. Alternatively, the depository arm might ask the securities arm to underwrite a new securities issuance of a weak

Sections 20 and 32, their holding companies and affiliates, were forbidden to undertake investment banking activities. Also, in Section 21, investment banking companies were forbidden from accepting deposits and thereby acting like commercial banks. In essence, commercial banks, which took in deposits and made business loans, and their holding companies could not underwrite or deal in securities; and investment banks, which underwrote and dealt in securities, could not offer deposits.

The strength of Congress's feeling about the importance of this separation is indicated by the absence of any "grandfathering" of existing mixed arrangements. Those financial firms that embodied both functions were expected to divest (i.e., spinoff or sell) or shut down, one or the other.[9]

B. Some Important Additions

As discussed above, the Glass-Steagall Act restricted bank holding companies from engaging in investment banking. However, few other restrictions were placed on bank holding companies.

The Bank Holding Company Act (BHCA) of 1956 made major changes in this structure.[10] The BHCA was primarily designed to prevent multi-bank holding companies from extending their networks of separately chartered banks across state lines.[11] This prohibition reinforced the policies of the states, all of which at the time prohibited branching across state lines. As part of the BHCA, however, multi-bank bank holding companies were prevented from engaging in activities that were not financial services. In essence, banking was separated from "commerce." By preventing multi-bank bank holding companies from engaging in nonfinancial activities, the BHCA also prevented an industrial or commercial company from buying or merging with a multi-bank bank holding company, and the insurance business was explicitly prohibited from bank holding companies. In 1967, the Savings and Loan Holding Company Act established similar prohibitions for multi-thrift holding companies.[12]

Overlooked by the BHCA of 1956 was a bank holding company that owned only one bank. This loophole was closed in the BHCA Amendments of 1970.[13]

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client, thereby allowing the bank's loan to be repaid at the expense of whoever bought the client's securities. The former action was a problem for the safety and soundness of the commercial bank; the latter action was a problem for the portfolios of the investment bank's customers.

9. Perhaps the most famous of these split-ups was that of J.P. Morgan & Co. ("the House of Morgan"), which split into J.P. Morgan & Co. (a commercial bank) and Morgan-Stanley (an investment bank).

10. Bank Holding Company Act of 1956, Pub. L. No. 84-511, 70 Stat. 133.

11. Unlike the Glass-Steagall Act, the BHCA did "grandfather" existing interstate arrangements.

12. Pub. L. No. 90-255, 82 Stat. 5. The term "thrift" is often used to describe savings and loan institutions and savings banks.

13. *See* Bank Holding Company Act Amendments of 1970, Pub. L. No. 91-607, 84 Stat. 1760. In the following years, Congress neglected to enact a similar extension of restrictions to the single thrift holding company. A unitary thrift holding company was, thus, able to engage in commercial and industrial activities, and, reciprocally, commercial and industrial companies could own thrift institutions. Additionally, unitary thrift holding companies could offer insurance. The GLBA closed off the possibility that any new industrial or commercial company could

C. Erosion of Glass-Steagall

The Glass-Steagall barriers remained intact until the 1970s when expansion initiatives by commercial banks and investment banks—often challenged in the courts or before regulatory agencies, but eventually approved—eroded those barriers. From the commercial banking side, commercial banks began to offer various kinds of securities services to household and business customers (e.g., assistance in stock purchases and sales) and began to offer corporate finance services (e.g., assistance in the private placement of securities issuances, and advice and assistance on mergers, acquisitions, divestitures, capital structures, and financial planning).[14] From the investment banking side, investment banks undertook activities that attracted business from both the assets side and the liabilities side of commercial banks' balance sheets. On the assets side, larger corporations were increasingly encouraged to borrow money through bond issuances in the securities markets rather than through loans from a commercial bank. Mortgage securitization, which began in 1970 with the Government National Mortgage Association (Ginnie Mae), meant that residential mortgages could be financed through the securities markets rather than through the deposits that were gathered by commercial banks and thrifts. On the liabilities side, money market mutual funds (MMMFs), which first came into existence in 1972, offered households a deposit-like instrument that was relatively safe and liquid, but that offered higher interest yields than could regulation-capped bank and thrift deposits.

The 1980s and 1990s brought more incursions from both sides. The deregulation of stock brokerage commission rates in the early 1970s opened the door for discount brokerage services. Banks saw discount brokerage (involving only transactions services, without advice or research for customers) as a permitted product-differentiating strategy for entering the securities brokerage business. Then, in 1987, the Federal Reserve first allowed commercial banks to undertake a limited amount of underwriting of corporate securities, with those limits gradually loosened in the 1990s.[15]

From the investment banking side, MMMFs grew sharply between 1978 and 1982 in response to double-digit interest rates combined with regulatory restrictions on the interest yields that commercial banks and thrifts could pay to depositors.[16] Even after these restrictions were removed in the early 1980s, the

form a unitary thrift holding company after May 4, 1999. *See infra* Parts II.D, IV.

14. *See* Harvey A. Rowen, *The Intersection of the Banking and Securities Industries and Future Deregulation*, *in* THE DEREGULATION OF THE BANKING AND SECURITIES INDUSTRIES 305 (Lawrence G. Goldberg & Lawrence J. White eds., 1979).

15. *See* Jonathan R. Macey, *The Business of Banking: Before and After Gramm-Leach-Bliley*, 25 J. CORP. L. 691, 717-18 (2000) (describing gradual regulatory expansion of banks into corporate underwriting); *see also* James R. Barth, R. Dan Brumbaugh, Jr. & James A. Wilcox, *Policy Watch: The Repeal of Glass-Steagall and the Advent of Broad Banking*, 14 J. ECON. PERSP. 191, 192 (2000) (discussing erosion of Glass-Steagall).

16. LAWRENCE J. WHITE, THE S&L DEBACLE: PUBLIC POLICY LESSONS FOR BANK AND THRIFT REGULATION 69 (1991) (stating MMMFs grew from less than $10 billion in December 1978 to over $235 billion in December

MMMF industry continued to grow. The short-term assets in which MMMFs could invest gradually expanded beyond treasury bills and large-bank certificates of deposit to encompass commercial paper—very short-term bonds that are issued by companies—which moved another lending product away from the assets side of banks' balance sheets and into the securities markets.

Also, in the 1980s and early 1990s, the savings and loan debacle, and the consequent implosion of the thrift industry, opened opportunities for other routes of financing residential mortgages.[17] Partly, commercial banks expanded their mortgage activities. But, more importantly, securitization of residential mortgages by two government sponsored enterprises that focused on residential mortgage finance—the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)—meant that mortgages were increasingly moving off the assets side of bank and thrifts' balance sheets and into the securities markets.[18] Further, the success of securitization for residential mortgages, and the continuing improvements in data processing and telecommunications technologies, led to securitization and the concomitant movement off banks' balance sheets of commercial real estate mortgages, credit card receivables, auto loans, and other consumer loans.

D. The GLBA

Beginning in the 1970s and continuing through the 1990s, the commercial banking industry—in addition to the incursions that were documented above—began lobbying efforts to repeal the Glass-Steagall Act, in whole or in part, so as to gain easier and more direct entry into the securities industry. For the most part, the investment banking industry resisted.[19] The investment banking industry had little interest in entering the commercial banking industry and primarily wanted to protect its turf from incursions.[20]

By the end of the 1990s, however, the investment banking industry saw the handwriting on the wall and largely capitulated.[21] It may have helped that

1982).

17. *Id.* at chs. 4-9.

18. *See* W. Scott Frame & Lawrence J. White, *Fussing and Fuming at Fannie and Freddie: How Much Smoke, How Much Fire?*, 19 J. ECON. PERSP. 159, 168-69 (2005).

19. *See generally* DEREGULATING WALL STREET: COMMERCIAL BANK PENETRATION OF THE CORPORATE SECURITIES MARKET (Ingo Walter ed., 1985); ANTHONY SAUNDERS & INGO WALTER, UNIVERSAL BANKING IN THE UNITED STATES: WHAT COULD WE GAIN? WHAT COULD WE LOSE? (1994); UNIVERSAL BANKING: FINANCIAL SYSTEM DESIGN RECONSIDERED (Anthony Saunders & Ingo Walter eds., 1996); Rowen, *supra* note 14; Bernard Shull & Lawrence J. White, *The Right Corporate Structure for Expanded Bank Activities*, 115 BANKING L.J. 446 (1998) (giving flavor of commercial banking industry pressures and investment banking industry resistance).

20. *See supra* note 13 and accompanying text (discussing unitary thrift company activities). The unitary thrift charter already provided an opportunity for owning a depository institution, as did the industrial loan company charter offered by a few states.

21. *See* Macey, *supra* note 15, at 718-19 (implying investment banks eager to enter commercial banking). Although, at the time, they may have complained about the ability of larger—as measured by the total assets on their balance sheets—commercial banks to "put their balance sheets to use" in attracting clients and about their ability to

empirical academic research—some as early as 1941(!) and continuing through the 1980s and 1990s—increasingly showed that the perception of the harms from the pre-1933 mixing of commercial banking and investment banking, which underlay the passage of the Glass-Steagall Act, had little factual basis.[22] Finally, Citicorp's 1998 acquisition of Travelers Group, which the Federal Reserve approved on an interim basis, provided the immediate impetus for Congress to act.[23]

Congress finally passed the GLBA, and President Clinton signed it into law on November 12, 1999.[24] Although the GLBA covered a number of issues in its 145 pages, the essential features, for the purposes of this Article, are relatively simple.[25] The GLBA repealed Sections 20 and 32 of the Glass-Steagall Act, which had prevented commercial banks from being affiliated with investment banks.[26] After the GLBA's enactment, commercial banks could transform their bank holding companies into financial holding companies, which could engage in investment banking activities through non-bank subsidiaries. National banks may also conduct these activities in separately capitalized subsidiaries of the bank. The GLBA also amended the BHCA to permit financial services companies to engage

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attract low cost funding by attracting deposits, the investment banks were not eager to enter commercial banking themselves. Rather, they did not want competition from commercial banks. After the passage of the GLBA, hundreds of commercial banks formed financial holding companies that allowed them to expand into investment banking and/or insurance. *See infra* Part III (discussing causes of 2007-2009 financial crisis). Until September 2008, no domestically headquartered investment bank had become a financial holding company because to do so would have brought them under the regulatory purview of the Federal Reserve, which they wished to avoid. In September 2008, however, during the wake of the Lehman Brothers bankruptcy and the prospect of creditor runs on other large investment banks, Goldman Sachs and Morgan Stanley eagerly sought the status of financial holding companies. They did this as a way of assuring their creditors that they would be under the aegis of a tough financial regulator—the Federal Reserve—as compared to the Securities and Exchange Commission, which was perceived as a weak regulator. Merrill Lynch effectively did the same by agreeing to be acquired by Bank of America.

22. *See generally* GEORGE J. BENSTON, THE SEPARATION OF COMMERCIAL AND INVESTMENT BANKING: THE GLASS-STEAGALL ACT REVISITED AND RECONSIDERED (1990); W. NELSON PEACH, THE SECURITY AFFILIATES OF NATIONAL BANKS (1941); SAUNDERS & WALTER, *supra* note 19; UNIVERSAL BANKING: FINANCIAL SYSTEM DESIGN RECONSIDERED, *supra* note 19; EUGENE NELSON WHITE, THE REGULATION AND REFORM OF THE AMERICAN BANKING SYSTEM, 1900-1929 (1983); George J. Benston, *The Federal "Safety Net" and the Repeal of the Glass-Steagall Act's Separation of Commercial and Investment Banking*, 2 J. FIN. SERVICES RES. 287 (1989); George J. Benston, *Universal Banking*, 8 J. ECON. PERSP. 121 (1994); Randall S. Kroszner & Raghuram G. Rajan, *Is the Glass-Steagall Act Justified? A Study of the U.S. Experience with Universal Banking Before 1933*, 84 AM. ECON. REV. 810 (1994); Randall S. Kroszner & Raghuram G. Rajan, *Organization Structure and Credibility: Evidence from Commercial Bank Securities Activities Before the Glass-Steagall Act*, 39 J. MONETARY ECON. 475 (1997); Manju Puri, *Commercial Banks in Investment Banking Conflict of Interest or Certification Role?*, 40 J. FIN. ECON. 373 (1996).

23. Travelers Group encompassed a diverse portfolio of insurance operations as well as a major investment bank, Salomon Smith Barney. The Federal Reserve's interim approval required Citicorp to divest any prohibited assets within two to five years.

24. *See* Leach, *supra* note 2, at 684 (delineating reform attempts).

25. *See* Barth, Brumbaugh & Wilcox, *supra* note 15, at 193-96 (summarizing GLBA's major provisions); Leach, *supra* note 2, at 684-89 (summarizing GLBA's purpose and effects); Macey, *supra* note 15, at 709-19 (discussing GLBA's purpose and resulting shift in banking regulation).

26. Sections 16 and 21 were retained, however, so commercial banks themselves cannot undertake investment banking, and investment banks cannot offer deposits.

in insurance through a non-bank subsidiary. Finally, the GLBA prohibits any new acquisition of a unitary thrift holding company by a nonfinancial—a commercial or industrial—company. The GLBA "grandfathered" existing unitary thrift holding companies that were owned by nonfinancial companies, but it prohibited these "grandfathered" holding companies from being sold to another nonfinancial company.

E. Post-GLBA

As discussed in Part II.C above, commercial banks were the most eager to take advantage of the GLBA. Not surprisingly, after the passage of the GLBA, it was commercial banks that formed the financial holding companies that were authorized under the GLBA, so as to undertake investment banking and insurance company activities. Investment banks stayed away.

As of May 10, 2010, there were 526 financial holding companies registered in the United States.[27] Forty-seven of those were formed by large foreign banks with headquarters outside the United States, most of which had never been bound by restrictions like Glass-Steagall and, thus, had been an amalgam of commercial banking and investment banking even before the GLBA. Goldman Sachs and Morgan Stanley each had a financial services company, which they formed only in late 2008 under the duress of the financial crisis.[28] American Express and MetLife also formed financial services companies in early 2009 so as to qualify to receive federal aid under the Troubled Asset Recovery Program (TARP). There were also three small insurance agencies that owned banks, one small investment banking company that owned a bank, a nonprofit insurance company that owned a bank, and a foundation devoted to financial education for children that owned a bank. United States bank holding companies formed the remaining 468 financial holding companies, which amounted to 89% of the total.

III. THE FINANCIAL CRISIS OF 2007-2009: WAS THE GLBA RESPONSIBLE?

As noted previously, critics argue that the GLBA was at least partly responsible for the financial crisis of 2007-2009. This section argues otherwise.

A. The Causes of the Financial Crisis of 2007-2009

At the center of the financial crisis of 2007-2009 was a ten-year national housing bubble that expanded dramatically, and then popped just as dramatically.[29] The bubble had been inflated by increasingly lenient lending

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27. *See* FEDERAL RESERVE BOARD, FINANCIAL HOLDING COMPANIES (May 10, 2010), http://www.federalreserve.gov/generalinfo/fhc (listing bank holding companies electing treatment as financial holding companies).

28. *See supra* note 21 (explaining why Goldman Sachs and Morgan Stanley sought to become financial holding companies in September 2008).

29. *See generally* RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM (Viral V.

standards, which in turn allowed under-qualified households to borrow excessive amounts of money on residential mortgages that could not be repaid unless housing prices continued to rise. These mortgages were often bundled into residential mortgage-backed securities that were blessed with excessively optimistic (high) ratings by credit rating agencies and sold to insufficiently cautious investors. In some instances, the securities became the collateral for additional rounds of securities that were again blessed and sold.

Much of this happened because the participants—from the borrowers and mortgage brokers to the lenders, securities packagers, rating agencies, and ultimate investors—were collectively lulled into the notion that housing prices would only increase. If housing prices would always increase, then even otherwise inappropriate mortgages would not be a problem because the borrower could always refinance the mortgage or repay by selling the house at a profit. Further, intermediaries between the borrower and the investor could all earn handsome fees from the transactions and could comfort themselves with the prevailing rationalization that housing prices would always rise; but, in addition, even if housing prices were to fall, the consequent defaults would be someone else's problem. Then the intermediaries could pocket the money and move on to the next transaction.

This, however, is not the whole story. On the borrowing end, there were clearly some instances of fraud—sometimes committed by the borrower with the connivance of mortgage brokers or lenders and sometimes committed by the mortgage broker in inducing unwitting households to sign and commit to obligations that were patently beyond their capabilities. But fraud, which ought to be prosecuted vigorously when discovered, was again only part of the story.

On the lending and investing end, mortgage finance was occurring in the context of an even wider disregard for risk. Normally cautious banks were making loans to highly leveraged private equity firms and not insisting on the tight controls (e.g., strict covenants in lending agreements) that would have been commonplace a few years earlier. Similarly, cautious bond investors, who earlier had been requiring that high-risk "junk bonds" pay interest rates that were five to six percentage points above treasury bonds of the same maturity, were apparently satisfied with interest rates that were only three to four percentage points above treasuries.

Acharya & Matthew Richardson eds., 2009); Markus K. Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007-2008*, 23 J. ECON. PERSP. 77 (2009); Joshua Coval et al., *The Economics of Structured Finance*, 23 J. ECON. PERSP. 3 (2009); Darrell Duffie, *The Failure Mechanics of Dealer Banks*, 24 J. ECON. PERSP. 51 (2010); Marcin Kacperczyk & Philipp Schnabl, *When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2009*, 24 J. ECON. PERSP. 29 (2010); Arvind Krishnamurthy, *How Debt Markets Have Malfunctioned in the Crisis*, 24 J. ECON. PERSP. 3 (2010); Christian Laux & Christian Leuz, *Did Fair-Value Accounting Contribute to the Financial Crisis?*, 24 J. ECON. PERSP. 93 (2010); Christopher Mayer et al., *The Rise in Mortgage Defaults*, 23 J. ECON. PERSP. 27 (2009); René M. Stulz, *Credit Default Swaps and the Credit Crisis*, 24 J. ECON. PERSP. 73 (2010); Gary B. Gorton, *The Panic of 2007* (Nat'l Bureau of Econ. Research, Working Paper No. 14358), *available at* http://www.nber.org/papers/w14358.

In sum, the combination of a housing boom and a surprising disregard for risk by lenders and investors conspired to create an environment where slipshod practices by "middlemen" remained profitable for too long. When housing prices ceased to rise—as had to happen sooner or later—the house of cards collapsed. Subprime borrowers defaulted when they could not refinance, mortgage securities fell in value, and the mortgage finance system imploded, dragging much of the rest of the financial sector down with it because of the relatively low capital levels and concomitant high leverage of most financial institutions.[30]

The financial institutions that failed, or that required federal assistance through TARP to avoid failing, did so because of their relatively heavy investments in these mortgages and residential mortgage-backed securities. Among the financial institutions that either failed or required TARP assistance were large commercial banks and thrifts, large investment banks, and the two government-sponsored housing enterprises.

B. Does the GLBA Bear Some Responsibility for the Financial Crisis?

As a comparison of the major provisions of the GLBA and the major aspects of the financial crisis makes clear, the GLBA bore little, if any, responsibility for the financial crisis. The financial crisis, at its most fundamental, was caused primarily by large financial institutions—some commercial banks, some investment banks, and the two government-sponsored enterprises—investing too heavily in residential mortgages and residential mortgage-backed securities that subsequently lost value. Because these financial institutions were thinly capitalized or, equivalently, highly leveraged—especially the investment banks and the government sponsored enterprises—they did not have a sufficient cushion to absorb the losses.[31] Some institutions—notably Bear Stearns, Fannie Mae, Freddie Mac, Lehman Brothers, AIG, Washington Mutual, Wachovia, and Merrill Lynch—were insolvent and effectively failed. Other institutions—notably Citigroup, Bank of America (especially after it agreed to absorb Merrill Lynch), Morgan Stanley, and even Goldman Sachs—were close enough to insolvency, with enough uncertainty about the value of their assets, and hence the extent of their capital, that they would surely have been subjected to devastating runs by depositors and non-deposit creditors in the absence of government forbearance and financial aid in late 2008 and the first half of 2009. The failure of these large financial institutions could well have caused a cascade of financial failures throughout the United States economy.

Fundamentally, these financial institutions failed or came close to failure the

30. *See infra* Appendix (providing primer on terms "capital" and "leverage" because terms essential part of understanding financial sector and what went wrong, as well as understanding important parts of what corrections are needed).

31. AIG was a special case in that its problems were caused by selling credit default swaps—effectively, insurance contracts—on MBS without setting aside sufficient reserves to protect itself against losses. In essence, it was selling insurance, but failing to act like a sensible insurance company. It also had insufficient capital.

old-fashioned way. They had insufficient capital to cover their losses. And those losses arose because of investments in mortgage-related securities—not because commercial banks were incurring losses in the underwriting of corporate securities, trading for their own accounts, operating hedge funds or private equity funds, or trading exotic and hard-to-understand financial derivatives.[32]

Would the undiminished operation of the Glass-Steagall Act have forestalled these losses? The short answer must be "No!" Clearly, the five large investment banks (i.e., Bear Stearns, Lehman Brothers, Merrill Lynch, Morgan Stanley, and Goldman Sachs) could have continued doing all of the things that they actually did during the decade of the 2000s, without any hindrance from the Glass-Steagall Act or from the Volcker Rule, which would apply only to depository institutions. And, although the large commercial banks—especially Citigroup—became more involved in investment banking (in their holding companies, of course) during the 2000s, it was not their investment banking activities, such as underwriting and dealing in securities, that did them in. It was their investments in mortgage-related securities—bonds, which have always been permissible investments for commercial banks—that subsequently lost value, combined with insufficient capital, that did them in. The Glass-Steagall Act would not have prevented these investments.

Similarly, had the Volcker Rule been in place, these investments and their subsequent losses would not have been prevented. They were investments; they were not "proprietary trading"; and they were not part of a "hedge fund" or "private equity" arrangement.

Accordingly, a future repeal of the GLBA and the reimposition of the Glass-Steagall Act (or the imposition of the Volcker Rule as a proxy) would not prevent a rerun of the crisis, nor would it prevent similar crises that are driven by poor investments on the part of inadequately capitalized large financial institutions. It would, thus, not even be a case of locking the barn door after the horses have run out. Instead, it would be a case of closing a set of side doors that the horses hardly notice. As will be discussed in Section V, the real closing of the doors on the large financial horses must involve more effective prudential regulation of these large financial institutions.

IV. THE GLBA PLACED GREATER BARRIERS BETWEEN BANKING AND COMMERCE

As mentioned in Section II.D, one provision of the GLBA—Title IV—prevented any new acquisition of a unitary thrift holding company by a commercial or industrial company (after May 4, 1999, six months prior to the final passage of the GLBA). Although it "grandfathered" the existing unitary thrift holding companies that had nonfinancial activities, it prohibited any of those

32. Again, AIG might be considered an exception to all of this. But the credit default swap contracts that AIG was writing were basically insurance arrangements.

existing unitary thrift holding companies from being sold to a nonfinancial company.

There was both a general and a specific reason for this prohibition. The general reason was a longstanding discomfort among policy makers with mixing banking and commerce.[33] This discomfort rests on a number of bases.

First, it is an expression of a longstanding streak of American populism: a fear of large financial institutions and the influence that they could have on American society.[34] This fear carries over to the possibility that, by being affiliated with an industrial or commercial company, a bank's influence would become greater. Second, there is the fear that the affiliated company would gain an unfair advantage in its financing as compared with an enterprise that did not have an affiliation with a bank. Third, there is the fear that the nonfinancial company might become the route whereby funds are drained out of the bank, thereby threatening the bank's safety and soundness. Fourth, there is the fear that the placement of commercial or industrial activities within the bank itself might expose the bank to excessive risks, again threatening its safety and soundness. And, finally, there is the fear that is expressed by smaller banks that the nonfinancial company would use its heft to subsidize the bank, which could then act in a predatory fashion and out-compete incumbent banks (and subsequently raise prices or reduce services).[35]

The specific reason for Title IV in November 1999 was the announced intention of Wal-Mart to enter banking.[36] Wal-Mart's eagerness to enter banking raised all of the traditional fears about the mixing of banking and commerce, plus the special fears that surrounded Wal-Mart itself. Wal-Mart's success in expanding its retail operations, so that it is now the largest company in the United States when measured by sales and by employment, generated fears that its entry into banking would further endanger small retailers as well as endangering small and medium size commercial banks and thrifts (community banks). The retailers and bankers were joined in their opposition to Wal-Mart's entry into banking by labor unions and their political allies, who disliked Wal-Mart because of its relatively low wage structure and its hostile attitude toward the unionization of its

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33. In this context, "banking" refers to commercial banks and thrifts. The longstanding discomfort is represented strongly by one of the named sponsors of the GLBA, Representative James A. Leach. *See generally* Leach, *supra* note 2.

34. *See* Lawrence J. White, *The Community Reinvestment Act: Good Intentions Headed in the Wrong Direction*, 20 FORDHAM URB. L.J. 281, 281 (1993).

35. Although smaller banks have primarily expressed this last fear, the senior managements of larger commercial banks have also generally been content to maintain this barrier. It has shielded them from whatever additional competition nonfinancial-headed banks might generate, plus it has shielded them from the possibility of having their bank taken over by a nonfinancial company. Indeed, it was the efforts of a nonfinancial company to take over Chemical Bank, which was a one-bank bank holding company in the late 1960s, that led to the BHCA Amendments of 1970, which extends the prohibitions that applied to multi-bank bank holding companies to one-bank bank holding companies as well. *See generally* Shull & White, *supra* note 19.

36. *See* Lawrence J. White, *Wal-Mart and Banks: Should the Twain Meet? A Principles-Based Approach to the Issues of the Separation of Banking and Commerce*, 27 CONTEMP. ECON. POL'Y 440, 440 (2009).

labor force.

With the route to banking via a unitary thrift holding company foreclosed by the GLBA, Wal-Mart subsequently tried to enter United States banking by establishing an industrial loan company charter.[37] Wal-Mart was rebuffed in its efforts to obtain a California charter. However, it was successful in obtaining a Utah charter, but to open for business, Wal-Mart's Utah industrial loan company required FDIC deposit insurance, for which it applied in 2005. After being stalled by the FDIC for almost two years, with Congress encouraging the FDIC to stall, Wal-Mart announced its decision to cease efforts to enter banking in the United States.[38]

This policy of hostility toward nonfinancial firms' ownership of depository institutions is unfortunate.[39] First, there may well be genuine synergies between commercial ownership and the operation of a depository institution. For example, many suburban supermarkets already allow commercial banks and thrifts to establish branches within the walls of the supermarket, often located close to their checkout areas. This is a good indicator that, at least at the level of physical proximity, there appear to be synergies between retailing operations and depository institutions. Perhaps the efficiency could be even greater if the same company owned the retailer and the depository institution.

Second—and this argument applies especially to Wal-Mart—the introduction of commercial banking to a company that has a business model of providing good value to low- and moderate-income households and communities would be especially beneficial. Currently, the Community Reinvestment Act (CRA) of 1977 is the main policy tool for encouraging commercial banks and thrift institutions to provide financial services to low- and moderate-income households and communities through the CRA's admonition that commercial banks and thrifts should "meet the credit needs" of their communities.[40]

Although it is clear that low- and moderate-income households and communities tend to be "under-banked" and are more likely to rely on more costly non-bank financial services, such as payday loans and storefront check-cashing services, the CRA is not a good vehicle for achieving the goals of its supporters.[41]

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37. *See id.* (stating Wal-Mart applied to obtain Utah charter and industrial loan company). Industrial loan companies are depository institutions that are chartered by seven states: California, Colorado, Hawaii, Indiana, Minnesota, Nevada, and Utah. Of the seven, Utah is by far the most important in terms of the numbers and sizes of chartered industrial loan companies.

38. Wal-Mart did, however, enter banking in Mexico in 2007.

39. *See* Wall Street Reform and Consumer Protection Act of 2009, H.R. 4173, 111th Cong. (1st Sess. 2009) (expressing policy hostility in House of Representatives' version of post-crisis financial regulatory reform, which House passed in December 2009). Section 1301 would prohibit any new industrial loan companies, while grandfathering existing industrial loan companies. *See id.*

40. *See* Community Reinvestment Act of 1977, Pub. L. No. 95-128, 91 Stat. 1147 (codified as amended at 12 U.S.C. § 2901-08 (1977)).

41. *See generally* White, *supra* note 34; Lawrence J. White, *The Community Reinvestment Act: Good Goals, Flawed Concept*, *in* REVISITING THE CRA: PERSPECTIVES ON THE FUTURE OF THE COMMUNITY REINVESTMENT ACT 185 (Prabal Chakrabarti et al. eds., 2009) (critiquing CRA).

At its base, the CRA is an effort to "lean on" commercial banks and thrifts in vague and subjective ways. It does not represent good public policy. Far better would be a policy that encouraged companies, such as Wal-Mart, to enter commercial banking and to bring their business model to financial services for the households and communities who need it, rather than prohibiting such companies from doing so.

But what about the fears of the opponents of mixing banking and commerce?[42] First, what about the fears that a commercial owner of a depository institution might use the institution to favor the owner's business and, in the process, drain the institution financially to the detriment of the FDIC? This is a more general problem that applies to the owners of a depository institution under most circumstances. They always face the temptation of trying to drain the institution for their own benefit.

Bank regulators have long understood this problem and have developed regulations to guard against it. Foremost in these regulations is the requirement for a depository institution to maintain adequate minimum capital levels.[43] Related to the capital requirement are limitations on the dividends that capital-constrained institutions can pay to owners because dividends drain assets out of the institution and, thus, reduce capital levels. Equally important are Sections 23A and 23B of the Federal Reserve Act, which require arms-length terms for a depository institution's transactions with an affiliate or affiliated party.[44]

It is also important to note that the current, and proposed, prohibitions on commercial or industrial ownership of depository institutions apply only to *corporate* ownership of a bank or thrift via a holding company.[45] They do not prohibit ownership of a bank by the local automobile dealer or hardware store owner, which raises all of the same issues that Sections 23A and 23B are designed to address. It is, thus, legally possible for the local auto dealer to own a bank, while it is not legally possible for AutoNation, Inc., a publicly traded company that operates multiple auto dealerships, to own a bank. There is no sensible logic underlying this distinction.

Second, what of the fears that the bank itself might engage in commercial or industrial activities and thereby be exposed to excessive risks? These fears are baseless. Bank regulations already limit what activities are appropriate for a depository institution.[46] The "mixing" issue is about what happens in the holding

42. *See* White, *supra* note 36 (discussing fears regarding mixing banking and commerce).

43. *See infra* Appendix (elaborating on regulations).

44. *See* Federal Reserve Act of 1913, Pub. L. No. 63-43, 38 Stat. 251 (codified as amended at 12 U.S.C. § 221). And, if, even with arms-length terms, the commercial affiliate of a depository institution has an advantage vis-a-vis similar unaffiliated firms, this would indicate that there are real efficiencies that come with the affiliation. Further, it is noteworthy that the nonfinancial companies that have owned a number of thrift institutions were not a source of difficulties during the savings and loan debacle of the 1980s. *See* WHITE, *supra* note 16.

45. *See supra* note 39 (discussing proposed H.R. 4173).

46. *See* White, *supra* note 36 (discussing activities appropriate for depository institutions and those appropriate for holding companies).

company—equivalently, what kind of enterprise can own a bank—rather than what can occur within the bank.

Third, what of small banks' fears that the commercial entity would subsidize the bank and thereby out-compete neighboring banks? It is important to realize that this argument is the exact opposite of the "drain the bank" argument. Also, it has the same flavor of the arguments that the investment banking industry used during the 1970s and 1980s in its opposition to the encroachments of the commercial banking industry into investment banking, with similar claims as to possible predation and its consequences.[47] The claims were false when they were applied by the investment banks against the commercial banks at that time, and they are false today when applied by the commercial banks against ownership by nonfinancial firms.

Let us add a third set of post-2008 fears that should be addressed. Would commercial or industrial ownership of a depository institution by a large firm, such as a Wal-Mart, create yet another category of financial institution that was too-big-to-fail? However, the depository institution itself would always be subject to the full panoply of prudential regulation by its regulator, as well as the possibility of receivership by the FDIC in the event that it became insolvent. Moreover, the problems of too-big-to-fail financial institutions are primarily those of highly-leveraged, large financial institutions and their highly-leveraged financial holding companies.[48] If a Wal-Mart, or another large industrial or commercial company, were to own a depository institution, that ownership itself would not transform the company into a highly-leveraged financial company. It is noteworthy that General Electric owns a large finance company—GE Capital, which had $650 billion in assets at the end of 2007—but any fears of too-big-to-fail apply to GE Capital, not to the parent company.

In sum, when the GLBA eliminated the barrier between commercial banking and investment banking via holding company structures, the problem was not that the GLBA went too far. Instead, the GLBA did not go far enough and should have knocked down barriers to banking and commerce as well.

V. THE WAY FORWARD

The argument of this Article has been that the GLBA was not responsible for, nor did it contribute significantly to, the financial crisis of 2007-2009. The GLBA was definitely not a bridge too far. A repeal of the GLBA and the concomitant revival of the Glass-Steagall Act would not forestall a future financial crisis that was based on poor investments by large, thinly capitalized financial institutions. Similarly, the imposition of the Volcker Rule, which is often touted as a modified version of a revival of Glass-Steagall, would have little effect. These are not

47. *See* Rowen, *supra* note 14 (discussing claims of banking industry); *see also* DEREGULATING WALL STREET, *supra* note 19.

48. *See infra* Appendix (discussing too-big-to-fail institutions).

sensible ways forward.

Instead, better prudential regulation of large financial institutions is the sensible direction for public policy. At the heart of such regulation must be higher capital requirements (based on market-value accounting), activities limitations, managerial competency standards, tighter monitoring of financial flows between financial institutions and their affiliates and affiliated parties, adequate numbers of well-trained and well-paid men and women to staff regulatory agencies, and a receivership regime as a more controlled alternative to bankruptcy for these large institutions.[49] With respect to dealing with the too-big-to-fail issue, the consequences of a financial institution's large size should be seen as a negative externality or negative spillover effect. In this light, higher capital requirements based on size (as measured by assets), as well as a tax on a large financial institutions' non-deposit liabilities, are appropriate tools for dealing with the negative externality.[50] In this light, the Volcker Rule's merger-oriented cap on liabilities is both too blunt and less effective because the tax would apply to all non-deposit liabilities, while the Volcker Rule cap would only apply when, *as a consequence of a merger*, a financial firm's liabilities would exceed 10% of the aggregate financial sector's liabilities.

In addition, one specific piece of the GLBA—the shutting off of one important route by which nonfinancial firms had been able to acquire a depository institution—should be repealed, and the follow-on effort in H.R. 4173 should be cast aside. Instead, the entry of nonfinancial firms into banking of all kinds should be made easier, not harder. In that important sense, by erecting an additional barrier rather than going further in knocking down barriers, the GLBA was a bridge that was not far enough.

Appendix: A Primer on "Capital" and "Leverage"

"Capital" and "leverage" figure prominently in discussions of the financial crisis of 2007-2009 and in discussions of remedies. This primer is intended to clarify these terms, as they apply to financial institutions.[51]

We need to start, however, somewhere else: with the stylized balance sheet of a typical manufacturing corporation, as portrayed in Figure 1. That firm has assets of $100, consisting of a plant, equipment, inventories, accounts receivable, cash

49. *See* RESTORING FINANCIAL STABILITY, *supra* note 29. *See generally* Lawrence J. White, *Financial Regulation: An Agenda for Reform*, 11 MILKEN INST. REV. 15, 19-20 (2009) (providing additional details on these and other measures for financial regulatory reform).

50. The Obama administration proposed a tax on non-deposit liabilities shortly before proposing the Volcker Rule. An argument for placing the tax only on non-deposit liabilities is that a tax on deposits—the FDIC assessments on deposits—is already in place.

51. *See generally* Lawrence J. White, *The Role of Capital and Leverage in the Financial Markets Debacle of 2007-2008*, MERCATUS ON POL'Y, Feb. 2009 (clarifying concepts of "capital" and "leverage" as applicable to financial institutions).

on hand, etc. Its direct obligations to creditors are $60, consisting of loans owed to banks, any bonds owed to bond investors, accounts payable, etc. By simple subtraction, its net worth or owners' equity—the value of its assets minus the value of its direct obligations—is $40.

This firm has a leverage ratio—its ratio of assets to net worth—of 2.5 to 1. The sense of the leverage ratio can be seen as follows: if the firm's assets increase by $10 (to $110)—say, because it makes and retains operating profits of $10, or its assets simply appreciate by $10—without an increase in its direct obligations, then its net worth also increases by $10 (to $50). Thus a 10% increase in the value of its assets results in a 25% increase in its net worth—a notion of "leverage" that is comparable to the high school physics example of a plank and a fulcrum. Leverage also works in reverse. A 10% decrease in the value of the firm's assets results in a 25% decrease in the value of its net worth.

There is one other point to keep in mind. In a legal system of "limited liability" for the shareholder-owners of a corporation, those shareholders cannot be required to support the company beyond their initial contributions. Thus, if the company's assets were to fall below $60 (which would wipe out its net worth) and therefore be inadequate to cover the claims of the company's creditors, those creditors normally have no claim against the owners. The creditors will simply have to divide the (inadequate) assets among themselves to satisfy their claims, usually in a bankruptcy proceeding.

Accordingly, from the creditors' perspective, the level of net worth is the extent of the buffer that protects them against a fall in the value of the assets that would expose them to a loss. The thicker the buffer (other things being equal), the more assured the creditors should feel. Typically, the terms of a bank's lending agreement, or the covenants in bonds, will allow the creditors to place restrictions on the actions of a company as that company's net worth buffer gets thinner.

Since net worth is also owners' equity, the extent of net worth is also a measure of the disincentive for the owners to take large risks, since a larger net worth means that they have more to lose and are farther away from the limit on their losses that limited liability provides.

We can now describe a commercial bank or thrift institution. Figure 2 provides the stylized balance sheet of a well capitalized bank or thrift. Its $100 of assets are primarily the loans that it makes and the bonds that it owns. Its direct obligations of $92 are primarily its deposits. And, again, by simple subtraction, it has $8 of net worth or owners' equity. For financial institutions, this net worth is also called "capital."

Note that this bank has a substantially thinner net worth (capital) buffer than does the manufacturing firm. Equivalently, it is much more leveraged: 12.5 to 1. A 10% increase in the value of the bank's assets yields a 125% increase in the bank's capital. Note also that "capital" is not money, or cash, or liquidity. It is net worth. Although a bank can increase its "capital" by receiving a "cash injection" from investors, the increase in capital occurs because the additional cash adds to the assets of the bank and, therefore, to its net worth. If the bank lends or invests the cash, its capital is still augmented by the investors' infusion. By contrast, a loan of an equivalent amount of cash to the bank would not increase its capital (and would instead increase its leverage).

Again, leverage also works in reverse. A 10% decrease in the value of the bank's assets wipes out its capital and exposes its depositors to losses (again, because of the limited liability of the bank's owners). This insolvent bank is portrayed in Figure 3. Of course, a larger decline in the value of the bank's assets would mean an even deeper insolvency.

If some depositors are unsure about the value of the bank's assets, but are worried that the assets may be inadequate to satisfy all depositors' claims, those depositors may want to "run" to the bank to withdraw their funds before other depositors get the same idea. Other depositors, seeing or hearing about the first group's actions, may similarly rush to withdraw their funds. This general depositor "run" on the bank can be exacerbated by the realization that even a solvent bank is illiquid, in the sense that it has loaned out almost all of the depositors' funds and keeps only a small amount of cash on hand to deal with "normal" withdrawals. (Think of Jimmy Stewart's efforts in "It's a Wonderful Life" to stop his depositors' run by explaining to them that their money is not in the till, but has been loaned to their neighbors.) And, if depositors in the bank across the street see the run on the first bank, and they fear that the same problems may apply to their bank as well, the depositors in this second bank may start a run on their bank. Thus, a "contagion" or "cascade" of bank runs develops.

The roles of a central bank, a prudential regulator, and deposit insurance in maintaining a stable banking system can now be seen. The central bank can lend (provide liquidity) to an otherwise illiquid, but solvent, bank to help it deal with any temporary nervousness that might develop among its depositors. Prudential regulation is intended to prevent the bank from becoming insolvent and thereby prevent depositors from being exposed to losses. Deposit insurance provides back-up reassurance to depositors, in the event that prudential regulation has failed to prevent the bank's insolvency.

Finally, Figure 4 portrays a highly leveraged investment bank. Its $100 in assets are its investments in bonds, loans, shares of stock, real estate, and just about any other asset—real or financial. Its $97 in direct obligations are in the form of loans, bonds, commercial paper, and other obligations. By simple subtraction, it has only $3 in capital.

The investment bank's leverage ratio is 33.33 to 1. Only a modest decrease in the value of its assets can expose its creditors to losses. It is easy to understand why creditors would become nervous and, if they owned short-term debt obligations, would begin a run on such an institution.[52] Until March 2008,

52. It is harder to understand why anyone would lend to such an institution in the first place, but that is part of the mystery of the general neglect of risk by investors and lenders that immediately preceded the financial crisis.

investment banks did not have access to the Federal Reserve for liquidity, the Securities and Exchange Commission was a weak prudential regulator, and there was no creditor insurance.

For all financial institutions, capital levels are so thin that accurate measurements of the value of the institution's assets—and thus of its capital (because capital is determined by simple subtraction)—are crucial. An accounting system that relies primarily on market values for the determination of asset values, with some allowance for the vagaries of thin markets, rather than on historical costs or on projected cash flows, is essential.

Finally, as an indication that the examples in Figures 2 and 4 are not exaggerations, Table 1 provides data on the total assets and the net worth (capital) levels of the fifteen largest financial institutions in the United States as of December 31, 2007.

FIGURE 1: THE BALANCE SHEET OF A TYPICAL MANUFACTURING CORPORATION

Assets	Liabilities
$100 (plant, equip., inv., cash, etc.)	$60 (bank loans, bonds issued, accts. payable, etc.)
	$40 (net worth, owners' equity)

FIGURE 2: THE BALANCE SHEET OF A WELL CAPITALIZED BANK OR THRIFT

Assets	Liabilities
$100 (loans, bonds, investments)	$92 (deposits)
	$8 (net worth, owners' equity, capital)

FIGURE 3: THE BALANCE SHEET OF AN INSOLVENT BANK OR THRIFT

Assets	Liabilities
$90 (loans, bonds, investments)	$92 (deposits)
	$-2 (net worth, owners' equity, capital)

FIGURE 4: THE BALANCE SHEET OF A HIGHLY-LEVERAGED INVESTMENT BANK

Assets	Liabilities
$100 (loans, bonds, stocks, real estate, investments)	$97 (bonds, loans, c.p.)
	$3 (net worth, owners' equity, capital)

TABLE 1: FIFTEEN LARGEST FINANCIAL INSTITUTIONS IN THE UNITED STATES, 2007
(by asset size, December 31, 2007)

2007 Rank	Financial institution	Category	Assets ($ billion)	Equity as a % of assets
1	Citigroup	Commercial bank	$2,182	5.2%
2	Bank of America	Commercial bank	1,716	8.6
3	JPMorgan Chase	Commercial bank	1,562	7.9
4	Goldman Sachs	Investment bank	1,120	3.8
5	American International Group	Insurance conglomerate	1,061	9.0
6	Morgan Stanley	Investment bank	1,045	3.0
7	Merrill Lynch	Investment bank	1,020	3.1
8	Fannie Mae	GSE	883	5.0
9	Freddie Mac	GSE	794	3.4
10	Wachovia	Commercial bank	783	9.8
11	Lehman Brothers	Investment bank	691	3.3
12	Wells Fargo	Commercial bank	575	8.3
13	MetLife	Insurance	559	6.3
14	Prudential	Insurance	486	4.8
15	Bear Stearns	Investment bank	395	3.0

Note: The Federal Home Loan Bank System ($1,272B in 2007) and TIAA-CREF ($420B in 2007) have been excluded from this list. If GE Capital were a standalone finance company, its asset size ($650B in 2007) would place it at number 12.

Sources: FORTUNE 500, May 5, 2008, and Federal Housing Finance Agency (for Fannie Mae and Freddie Mac).