Article

Who Benefited from the Bailout?

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INTRODUCTION

The Troubled Asset Relief Program (TARP) was created to respond to a financial panic. Some might say that it was created in panic. Congress appropriated a huge sum of money, gave the Secretary of the U.S. Department of the Treasury (Treasury) enormous latitude to spend the money, and provided ambiguous and, some might say, contradictory direction on the goals and objectives of TARP. Treasury, in turn, gave clear guidance on how it proposed to use the money—to purchase deeply discounted toxic assets from troubled financial institutions—only to shift directions within weeks, when it used TARP funds to make capital investments in banks.

On October 3, 2010, the TARP program's authority to initiate new spending officially ended.⁴ However, as with so much of TARP, even the program's expiration of authority did not really mean that the program terminated. It only meant that Treasury could not initiate new TARP spending programs. It

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^{1.} See Andrew Ross Sorkin, Too Big To Fail 438–46 (2009).

^{2.} See SIMON JOHNSON & JAMES KWAK, 13 BANKERS 164 (2010) (noting that TARP gave "the treasury secretary virtually unlimited power to use the money as he saw fit").

^{3.} Id. at 167-68.

^{4.} OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIG-QR-10-04, QUARTERLY REPORT TO CONGRESS 5 (2010) [hereinafter SIGTARP QUARTERLY REPORT, October 2010], available at http://www.sigtarp.gov/reports/congress/2010/October2010_Quarterly_Report_to_Congress.pdf.

could still spend nearly \$80 billion in "obligated" but unspent funds.⁵ These funds are in addition to the over \$98 billion in TARP funds that have been spent and not repaid.⁶

The controversy over its creation and the ambiguity of its termination are consistent with virtually every chapter in the life of TARP. Throughout its life, the TARP program was misunderstood by the public and misconstrued by the media. This is puzzling, given the level of independent oversight that the program received. When Congress enacted the Emergency Economic Stabilization Act of 2008 (EESA) and created TARP, it also created two independent overseers. EESA mandated the appointment of a special inspector general for the TARP program (SIGTARP) and required the SIGTARP to submit quarterly reports to Congress.8 It also created a bipartisan Congressional Oversight Panel (COP) and required it to submit regular reports to Congress.⁹ The reports of the SIGTARP and the COP provide an unusually robust and highly independent ongoing assessment of TARP. The picture they paint is illuminating and, in many respects, different from the prevailing public impression.

To fully understand TARP and the government's broader response to the financial crisis, one should follow the famous advice that Mark Felt (Deep Throat) is said to have given Woodward and Bernstein—"follow the money." In doing so, the money trail reveals that the funds expended by TARP were in fact merely one component of a much larger governmental intervention that was remarkably similar to governmental responses to past banking failures. And, absent fundamental changes in bank business practices and governmental regulation, other banks will fail and the government will respond with other bailouts in the future.

Part I of this Article describes the government's actions in the financial crisis of 2008, beginning with the collapse of Bear Stearns. Part II follows the money with respect to both TARP

^{5.} *Id*.

^{6.} *Id*.

^{7.} See SORKIN, supra note 1, at 530 (noting the general misunderstanding of TARP when it was enacted); see also Alan Blinder, Op-Ed., Government to the Economic Rescue, WALL St. J., June 16, 2010, at A21 ("TARP must be among the most reviled and misunderstood programs in the history of the republic.").

^{8.} Emergency Economic Stabilization Act of 2008, Pub. Law No. 111-343, § 121(a), (f), 122 Stat. 3765, 3788, 3790.

^{9.} *Id.* § 125.

and non-TARP funds and assesses those interventions. Part III contains a brief summary of past banking failures in the United States, demonstrating that the government's intervention was not out of the ordinary. It also discusses how fundamental changes in the banking business model, coupled with significant industry consolidation, will have consequences for future bank failures, which are inevitable. This Article concludes with some observations on what regulators must address to reduce the consequences of future failures.

"To paraphrase a great wartime leader, never in the field of financial endeavour has so much money been owed by so few to so many. And, one might add, so far with little real reform." ¹⁰

I. THE PRE-TARP MONEY TRAIL

The story of the financial crisis and the government's response does not begin with congressional enactment of TARP. Part I describes the government's inconsistent responses to three financial failures—Bear Stearns, Lehman Brothers, and AIG.

A. Bear Stearns

When banks fail, banking regulators historically struggle to reconcile two frequently conflicting goals—intervening to prevent a single failure from metastasizing into a systemic failure, or refraining from intervention because of a concern that such action will encourage future reckless conduct (the "moral hazard" problem). In March 2008, with the collapse of Bear Stearns, federal regulators were confronted with this choice. In the control of the cont

Bear Stearns (Bear) was a broker-dealer rather than a bank.¹³ It was a major and active participant in the debt markets where it was one of the largest underwriters of subprime

^{10.} Mervyn King, Governor of the Bank of Eng., Speech to Scottish Business Organizations 3 (Oct. 10, 2009), http://www.bankofengland.co.uk/publications/speeches/2009/speech406.pdf (emphasis added).

^{11.} See SORKIN, supra note 1, at 33 (discussing concerns of moral hazard associated with the 2008 bailout); Lissa L. Broome, Extraordinary Government Intervention to Bolster Bank Balance Sheets, 13 N.C. BANKING INST. 137, 147–54 (describing the rationale and risks associated with government bailouts).

^{12.} See SORKIN, supra note 1, at 69.

^{13.} OFFICE OF INSPECTOR GEN., SEC, REP. NO. 446-A, SEC'S OVERSIGHT OF BEAR STEARNS AND RELATED ENTITIES: BROKER-DEALER RISK ASSESSMENT PROGRAM 5 (2008), available at http://www.sec-oig.gov/Reports/AuditsInspections/2008/446-b.pdf.

mortgage-backed securities (MBS) and of collateralized debt obligations (CDO),14 and was also a major participant in the overthe-counter (OTC) derivatives markets. 15 As a broker-dealer, it relied on its own capital (raised through equity or long-term debt) and money borrowed largely through short-term secured transactions (repos) with other banks and financial institutions for liquidity. 16 In March 2008 Bear's "overall financing from other banks totaled \$119 billion."17 As the concern over the firm's solvency spread, some lenders began insisting on more collateral for continued lending and other lenders refused to rollover expiring loans. 18 The premium to obtain insurance against a Bear default, known as a credit default swap (CDS), increased 1400 percent in one week. 19 At the beginning of March, Bear had far more in liquid assets than U.S. Securities and Exchange Commission (SEC) regulations required.²⁰ Within weeks, it did not.²¹

In this instance, the regulators focused on the systemic risk problem.²² It was the classic government response; the

^{14.} FIN. CRISIS INQUIRY COMM'N, PRELIMINARY STAFF REPORT, GOVERNMENTAL RESCUES OF "TOO-BIG-TO-FAIL" FINANCIAL INSTITUTIONS 21 (2010) [hereinafter FCIC STAFF REPORT], available at http://fcicstatic.law.stanford.edu/cdn_media/fcic-docs/2010-08-31%20Preliminary%20Staff%20Report-%20Too%20Big%20To%20Fail%20Institutions.pdf.

^{15.} U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-216, FINANCIAL REGULATION: A FRAMEWORK FOR CRAFTING AND ASSESSING PROPOSALS TO MODERNIZE THE OUTDATED U.S. FINANCIAL REGULATORY SYSTEM 39 (2009) [hereinafter GAO FINANCIAL REGULATORY FRAMEWORK REPORT], available at http://www.gao.gov/new.items/d09216.pdf.

^{16.} See JOHNSON & KWAK, supra note 2, at 158–59.

^{17.} WILLIAM D. COHAN, HOUSE OF CARDS 18 (2009) (quoting Kate Kelly, *The Fall of Bear Stearns: Fear, Rumors Touched Off Fatal Run on Bear Stearns*, WALL St. J., May 28, 2008, at A1.

^{18.} On March 10 Rabobank, a Dutch bank, declined to roll over a \$500 million loan and informed Bear that it was "unlikely to renew a \$2 billion line of credit coming due the following week." COHAN, supra note 17, at 18. "The next morning, ING Group NV, another large Dutch bank, followed Rabobank's lead and pulled its \$500 million in short-term financing." Id. at 23. Similarly, mutual funds such as Fidelity (\$6 billion) and Federated (\$4.5 billion) also stopped long-standing, overnight repos with Bear. Id. at 33.

^{19.} See id. at 21.

^{20.} Testimony Concerning the Role of Federal Regulators: Lessons from the Credit Crisis for the Future of Regulation Before the H. Comm. on Oversight and Gov't Reform, 110th Cong. (2008) (statement of Christopher Cox, Chairman, U.S. Securities and Exchange Commission), available at http://www.sec.gov/news/testimony/2008/ts102308cc.htm.

^{21.} Id.

^{22.} See SORKIN, supra note 1, at 69 (according to Fed Chairman Ben Bernanke, the impetus for the Bear Stearns Bailout was the "protection of the

government brokered a "private sector" solution. J.P. Morgan (JPM) acquired Bear Stearns,²³ which was something like an arranged marriage between a large insolvent entity and a larger solvent entity made possible by a dowry from the couple's rich and loving Uncle Sam. Uncle Sam's wedding present included a \$12.9 billion short-term loan to JPM to facilitate the purchase²⁴ and the creation of Maiden Lane LLC (ML I), a special-purpose vehicle²⁵ (SPV) to remove \$30 billion of toxic debt from the consolidated balance sheet—something like paying down the bride's credit cards.²⁶ ML I was financed by a \$1 billion contribution from JPM and a \$29 billion loan from the Federal Reserve Bank of New York (N.Y. Fed).²⁷ Graciously, JPM agreed to assume responsibility for the first billion in losses.²⁸

To make the newlyweds' adjustment easier, the government also gave JPM unprecedented regulatory relief. For the first time, the Federal Reserve (Fed) did not require the acquiring bank to consolidate the acquisition onto its balance sheet for regulatory capital calculations for eighteen months.²⁹ The couple also got a starter home, Bear's \$1.5 billion dollar office tower on Madison Avenue.³⁰

It was a lovely wedding and one that appears to have had a happy ending. JPM repaid the bridge loan within days, including \$4 million in interest.³¹ As of June 30, 2010, SIGTARP reports that while the balance on the ML I loan was \$29.3 billion, the fair market value of the assets was \$28.4 billion.³² Since

American financial system and the protection of the American economy").

- 23. JOHNSON & KWAK, supra note 2, at 159.
- 24. OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIG-QR-10-03, QUARTERLY REPORT TO CONGRESS 135 (2010) [hereinafter SIGTARP QUARTERLY REPORT, July 2010], available at http://www.sigtarp.gov/reports/congress/2010/July2010_Quarterly_Report_to_Congress.pdf.
- 25. A special-purpose vehicle is "an off-balance sheet legal entity that holds the transferred assets presumptively beyond the reach of the entities providing the assets (e.g., legally isolated)." OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIG-QR-09-03, QUARTERLY REPORT TO CONGRESS 95 (2009) [hereinafter SIGTARP QUARTERLY REPORT, July 2009], available at http://www.sigtarp.gov/reports/congress/2009/July2009_Quarterly_Report_to_Congress.pdf.
 - 26. FCIC STAFF REPORT, supra note 14, at 21.
 - 27. Id.
 - 28. Id.
 - 29. Cohan, supra note 17, at 101.
 - 30. Id. at 125.
 - 31. SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 134.
 - 32. *Id*.

JPM agreed to assume the first \$1 billion in losses, it appears to be a net wash for the government. Not bad.

B. LEHMAN BROTHERS

Just a few months later, regulators were again confronted with the choice of addressing systemic risk or moral hazard when Lehman Brothers (Lehman) failed, in much the same way as Bear Stearns.³³ Following the national criticism of the Bear "bailout," which in the end was not actually a bailout, the regulators chose to address moral hazard rather than systemic risk.³⁴ While the government actively encouraged the JPM takeover of Bear, participating in the negotiation of terms and providing substantial financial assistance and regulatory relief, it took a different approach with Lehman. In hindsight, this was an odd choice. Lehman was a larger firm than Bear, with \$600 billion in outstanding debt, on which CDSs with a notional amount totaling \$400 billion had been written.³⁵

The government did approach Bank of America and Barclays Bank (Barclays) in the United Kingdom regarding a private solution to the Lehman problem.³⁶ While Barclays was interested, Uncle Sam wouldn't promise the same dowry that JPM obtained.³⁷ There was no short-term loan for acquisition, no Maiden Lane SPV to take on Lehman's toxic debt, and no promise of regulatory relief to ease the consolidation.³⁸ Fed Chairman Benjamin Bernanke, then-Secretary of the Treasury Henry Paulson, and current Secretary of the Treasury Timothy Geithner (who was at that time president of the N.Y. Fed) have consistently explained that no intervention was possible because they lacked legal authority to do so.³⁹ However, this ex-

^{33.} JOHNSON & KWAK, supra note 2, at 173.

^{34.} See id. at 162.

^{35.} Peter J. Wallison, Systemic Risk and the Financial Crisis, AM. ENTER. INST. 4 (Oct. 2008), http://www.aei.org/docLib/20081031_23536OctFSOg.pdf.

^{36.} COHAN, supra note 17, at 432-33.

^{37.} See SORKIN, supra note 1, at 271 ("Before the call ended, [Barclay's President Bob] Diamond wanted to make another thing clear: He was looking for a 'Jamie Deal'—in other words, he might come looking for some form of government help. Paulson stated firmly that no assistance from the government would be forthcoming, but added, 'We'll figure out how to get you help.").

^{38.} Id.

^{39.} Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis Before the Fin. Crisis Inquiry Comm'n, 112th Cong. 61 (2010) (testimony of Ben. S. Bernanke, Chairman, Board of Governors of the Federal Reserve System), available at http://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0902-Transcript

planation is based upon their inability under section 13(3) of the Federal Reserve Act to lend money to Lehman because the firm lacked sufficient acceptable collateral to support the loan. 40 Of course the loan could have been made to Barclays, not Lehman, just as JPM was the borrower in the Bear deal. It is difficult to understand why a Barclays-Lehman deal on the same terms as JPM-Bear was not legal. One explanation is that this was a choice that reflected timing more than underlying facts. After Bear, and just after the government bailout of Fannie Mae and Freddie Mac, the political fallout may have been too great. Whatever the reason, 41 there was no arranged marriage. Lehman was left at the altar, or more accurately, at the funeral home next door to the church.

The government's unanticipated about-face surprised and panicked an already panicked and fragile market.⁴² Because markets do not cope well with surprise and panic, the market response was disastrous.⁴³

Actually, the Lehman bankruptcy may never end. Legal fees alone have passed the \$1 billion mark.⁴⁴ Parenthetically, by October 2008 all \$400 billion of CDSs in which Lehman was the intermediary dealer, plus the \$72 billion in CDSs written on a Lehman failure, was settled by the Depository Trust Clearing Corporation among the CDS counterparties for a net total payment of \$5.2 billion.⁴⁵

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[.]pdf ("Lehman did not have enough collateral in terms of financial assets, and its going-concern value was tied up completely in its financial operations.").

^{40.} See 12 U.S.C. § 343 (2006).

^{41.} There is a great deal of speculation as to why Barclays did not buy Lehman (it did buy the broker-dealer subsidiary). The official explanation was that it was unable to obtain from the U.K. Financial Services Agency a waiver of the requirement that a shareholder vote be taken to approve the acquisition. For a discussion of the official decisions, see SORKIN, *supra* note 1, at 345–49. Unofficially, some believe that the Bank of England insisted on U.S. government participation akin to the JPM-Bear deal.

^{42.} Id. at 536.

^{43.} *Id.* at 535 ("On the day that Lehman went into Chapter 11,' Alan Blinder, an economist and former vice chairman of the Federal Reserve, said, 'everything just fell apart.").

^{44.} Lehman Bankruptcy Fees Top \$1 Billion, N.Y. TIMES DEALBOOK (Oct. 19, 2010, 3:21 AM), http://dealbook.nytimes.com/2010/10/19/lehman-bankruptcy-fees-top-1-billion/.

^{45.} Peter J. Wallison, Everything You Wanted to Know About Credit Default Swaps—but Were Never Told, AM. ENTER. INST., 1 (Dec. 2008), http://www.aei.org/docLib/20090107_12DecFSOg.pdf.

C. AIG

The AIG crisis presented regulators with a third opportunity to choose between systemic risk and moral hazard. Following the disastrous market reaction to the decision not to intervene in Lehman, the regulatory choice was not a surprise. AIG was an enormous global insurance company (in fact the largest), with a blue chip balance sheet (in 2005 it was one of only eight U.S. companies with a AAA bond rating).⁴⁶ What made AIG integral to the global banking system was its derivatives business—originating CDSs on specific debt instruments, largely MBSs and structured products. When it collapsed, the notional value of AIG open derivatives contracts was \$2.7 trillion, with \$1 trillion of it concentrated in twelve counterparties, all financial institutions.⁴⁷ By purchasing a CDS, banks could avoid writing down—for regulatory capital calculations—the value of the security covered by the CDS.⁴⁸ In 2008 alone, AIG had written more than \$300 billion in CDSs for banks. 49 If AIG failed, banks relying upon these CDSs would be forced to take enormous reductions in regulatory capital calculations.⁵⁰

At the direction of the Treasury and the Fed, the N.Y. Fed provided immediate relief through an \$85 billion line of credit (called a Revolving Credit Facility (RCF)) and received in exchange 79.9 percent of the company.⁵¹ The deal was structured on the basis of a draft term sheet put together the previous day for a private-sector solution, which the private sector turned down.⁵² In response, the government made only one change in

^{46.} JOHNSON & KWAK, supra note 2, at 139.

^{47.} Id. at 202.

^{48.} The banking industry reliance on AIG to "insure" questionable CDO's is evocative of Dickens's definition of insurance: "[a] person who can't pay, gets another person who can't pay, to guarantee that he can pay." Richard Fisher, *Paradise Lost: Addressing Too Big to Fail*, 30 CATO J. 323, 324 (2010) (quoting CHARLES DICKENS, LITTLE DORRIT 259 (London, Macmillan & Co. ed. 1895)).

^{49.} SORKIN, *supra* note 1, at 395.

^{50.} The Congressional Oversight Panel estimated that seven European banks received \$16 billion in regulatory relief from AIG swap transactions. See Cong. Oversight Panel, June Oversight Report: The AIG Rescue, Its Impact on Markets, and the Government's Exit Strategy 92 fig.21 (2010) [hereinafter COP June 2010 Report].

^{51.} FCIC STAFF REPORT, supra note 14, at 26.

^{52.} The SIGTARP audit, which was issued on November 17, 2009, found, among other things, that the terms of the original N.Y. Fed financing did not result from independent analysis, but were simply an adoption of the term sheet from an aborted private financing discussion, and those terms, which included an onerous effective interest rate of eleven percent, made modification of the terms and further government action inevitable. OFFICE OF THE

the terms. Instead of agreeing to a \$75 billion RCF, it added \$10 billion as a cushion. 53

This credit line was the beginning, not the end, of government assistance to AIG. Subsequently, Treasury provided AIG with \$40 billion from TARP funds under the Systemically Significant Financial Institutions program (SSFI).⁵⁴ AIG was the only recipient of funds under SSFI.⁵⁵ AIG used the \$40 billion to partially pay down the N.Y. Fed RCF,⁵⁶ which was lowered from \$85 billion to \$60 billion.⁵⁷ TARP also created an equity capital facility that AIG could access for up to \$29.8 billion.⁵⁸ This was not the end of government assistance. The N.Y. Fed provided additional financial assistance through the creation of Maiden Lane II and III, perhaps the most interesting part of the AIG story.

The N.Y. Fed created Maiden Lane II (ML II), a SPV, and loaned it \$22.5 billion to purchase deeply discounted residential MBSs from AIG, which then used the cash to close out its securities lending facility's open positions.⁵⁹ AIG thereby reduced its balance sheet, gained some liquidity, and reacquired the lent securities to bolster the balance sheets of its insurance subsidiaries.⁶⁰ Since ML II received these securities at a deep discount, they were likely full collateral for the loaned funds.⁶¹

Next, the N.Y. Fed created Maiden Lane III (ML III) and loaned it \$30 billion to deal with AIG's open CDSs.⁶² In addition to the collateral already held by the counterparties, ML III

SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIG-QR-10-01, QUARTERLY REPORT TO CONGRESS 9 (2010) [hereinafter SIGTARP QUARTERLY REPORT, January 2010], available at http://www.sigtarp.gov/reports/congress/2010/January2010_Quarterly_Report_to_Congress.pdf.

- 53 *Id*
- 54. See SIGTARP QUARTERLY REPORT, July 2009, supra note 25, at 60.
- 55. Id.
- 56. See id.

57. See id. at 148 ("The \$40 billion [of TARP money injected into AIG through the SSFI program] took some of the pressure off the first Federal Reserve line of credit, allowing 'the Federal Reserve to reduce from \$85 billion to \$60 billion the total amount available under the credit facility." (quoting BD. OF GOVERNORS OF THE FED. RESERVE SYS., MONETARY POLICY REPORT TO CONGRESS 51 (2009), available at http://www.federalreserve.gov/monetarypolicy/files/20090224_mprfullreport.pdf)).

- 58. Id. at 60.
- 59. COP JUNE 2010 REPORT, supra note 50, at 71.
- 60. *Id*.
- 61. See id.
- 62. Id. at 74.

agreed to pay the full market value of the open CDSs.⁶³ The net effect was to give those counterparties the full notional value of their securities.⁶⁴ The COP and SIGTARP both concluded that the ML III deal grossly overpaid the CDS holders by an estimated \$78 billion.⁶⁵ "Treasury had received back about 66 cents worth of obligations for each dollar it paid."⁶⁶

ML II and ML III did not signal the end of government assistance to AIG. In 2009 the N.Y. Fed received \$25 billion of preferred equity interests from AIG in two SPVs formed to hold two of AIG's largest foreign life insurance subsidiaries. AIA Group Ltd. and ALICO, and the RCF was lowered by \$25 billion to \$35 billion.⁶⁷ The purpose of the exchange was to enable AIG to sell the two foreign subsidiaries.⁶⁸ In November 2010 AIG conducted an initial public offering (IPO) of AIA Group Ltd. stock in Hong Kong, raising \$20.5 billion.⁶⁹ At the same time, AIG sold ALICO to MetLife for MetLife stock and cash totaling \$16.2 billion. 70 In order to complete these transactions, AIG borrowed \$22 billion from TARP to repurchase the N.Y. Fed's preferred equity interests in the two SPV's that held these subsidiaries.⁷¹ AIG also agreed to use the proceeds of the IPO and ALICO sale to pay down the existing N.Y. Fed loan.⁷² AIG will also transfer the shares it retained in AIA Group Ltd.

^{63.} Id. at 75.

^{64.} See id. at 71 ("The differences between ML2 and ML3 must be emphasized. ML2 purchased deeply discounted securities from AIG, which was then able to use the proceeds of those sales to close out related obligations. In contrast, in ML3 . . . the SPV purchased securities from AIG's counterparties in transactions, the net effect of which was to give those counterparties the full notional value of their securities.").

^{65.} TARP Oversight: Hearing Before the Subcomm. on Oversight and Investigations of the H. Fin. Servs. Comm., 111th Cong. 3 (2009) (testimony of Elizabeth Warren, Chair, Cong. Oversight Panel) [hereinafter Warren Testimony], available at http://financialservices.house.gov/media/file/hearings/111/testimony_of_elizabeth_warren022409.pdf.

^{66.} *Id*

^{67.} COP JUNE 2010 REPORT, supra note 50, at 71.

^{68.} See SIGTARP QUARTERLY REPORT, July 2009, supra note 25, at 60–61 ("Two of AIG's largest foreign life insurance businesses . . . have been put into special purpose vehicles ('SPVs') with significant preferred stock interests in those SPVs used to pay down the Federal Reserve Revolving Credit Facility.").

^{69.} David Lawder, AIG to Get \$22 Billion in TARP Funds for Fed Exit, REUTERS, Nov. 1, 2010, available at http://www.reuters.com/article/idUSTRE 6A03EK20101102.

^{70.} Id.

^{71.} Id.

^{72.} Id.

and the MetLife shares it received in the ALICO sale to the Treasury.⁷³

As of June 30, 2010, AIG had not repaid any TARP funds, and had elected not to pay \$5.5 billion in scheduled dividends.⁷⁴ AIG's total government assistance was \$181 billion, with more than \$127 billion outstanding as of September 1, 2010.⁷⁵

The AIG bailout was, of course, a response to the systemic risk fear. The After the market panic in response to Lehman, this was understandable. But the true beneficiaries were not AIG, its shareholders, or its insurance policyholders. AIG's shareholders were largely wiped out. Its policyholders were already protected by state insurance funds. The AIG is a policyholder were already protected by state insurance funds.

The real beneficiaries of the government's actions were AIG creditors and counterparties to open AIG positions. The list of counterparties and the corresponding amount of government funds they received, which the Fed originally refused to disclose,⁷⁸ is illuminating:⁷⁹

Goldman Sachs: \$12.9 billion Société Générale: \$11.9 billion⁸⁰

^{73.} See id. (reporting the details of these transactions).

^{74.} See Cong. Oversight Panel, September Oversight Report: Assessing the TARP on the Eve of Its Expiration 25 fig.2 (2010) [hereinafter COP September 2010 Report].

^{75.} See id.

^{76.} See SORKIN, supra note 1, at 394–95 (describing the hectic and panicked communications among Fed Chairman Ben Bernanke, Treasury Secretary Henry Paulson, and N.Y. Fed President Tim Geithner—and others—at the time of AIG's bailout).

^{77.} But cf. COP JUNE 2010 REPORT, supra note 50, at 87 & n.408 (noting that because of the magnitude of AIG, it is possible that some state insurance guaranty funds may not have been able to pay off all insurance claims (citing Eric Dinallo, Op-Ed., What I Learned at the AIG Meltdown: State Insurance Regulation Wasn't the Problem, WALL ST. J., Feb. 2, 2010, at A17)).

^{78.} The Federal Bailout of AIG: Hearing Before the H. Comm. on Oversight and Gov't Reform, 111th Cong. 11 (2010) (statement of Neil Barofsky, Special Inspector General for the Troubled Asset Relief Program) [hereinafter Barofsky statement], available at http://oversight.house.gov/images/stories/Hearings/pdfs/20100127barofsky.pdf ("Federal Reserve officials initially refused to disclose the identities of the counterparties or the details of the payments, warning that disclosure of the names would undermine AIG's stability, the privacy and business interests of the counterparties, and the stability of the markets.").

^{79.} See COP JUNE 2010 REPORT, supra note 50, at 94-95.

^{80.} The *New York Times* reported that Goldman Sachs also received a significant amount of the money paid to Société Générale and possibly Calyon, which apparently bought CDS from AIG on behalf of Goldman. Gretchen Mor-

Deutsche Bank: \$11.8 billion Barclays: \$7.9 billion Merrill Lynch: \$6.8 billion Bank of America: \$5.2 billion

UBS: \$5.0 billion

BNP Paribas: \$4.9 billion

HSBC: \$3.5 billion

Calyon (Crédit Agricole): \$2.4 billion

These top ten AIG counterparties received \$72.2 billion of government funds via ML III.⁸¹ It is noteworthy that all but Goldman Sachs, Merrill Lynch, and Bank of America are foreign banks. It is also noteworthy that in some cases, such as Goldman Sachs, more money was paid via ML III than was provided directly through the TARP capital purchase program.⁸² After receiving \$12.9 billion for its AIG open positions, Goldman reacquired the preferred stock it had issued to the government under TARP by repaying the \$10 billion it received (plus \$1.1 billion for the warrants).⁸³

II. FOLLOWING THE MONEY

The story of governmental assistance to financial institutions and financial markets is complicated. It involved many government agencies, and many discrete programs and strategies. It involved capital infusions into individual banks, guarantees against loss to support specific securities as well as pools of securities, the purchase of pools of securities, and the purchase of securities in the secondary market. Section A describes the efforts using funds appropriated by Congress in TARP. Section B describes the larger, more complex, and less transparent efforts undertaken by the government outside of the TARP program.

genson & Louise Story, Testy Conflict with Goldman Helped Push A.I.G. to Precipice, N.Y. TIMES, Feb. 7, 2010, at A1, available at 2010 WLNR 2580032.

^{81.} See COP JUNE 2010 REPORT, supra note 50, at 94.

^{82.} Goldman received \$10 billion in TARP funds. SIGTARP QUARTERLY REPORT, July 2009, *supra* note 25, at 45 fig.2.5.

^{83.} See ROBERT POZEN, TOO BIG TO SAVE? 79 fig.4.4, 383–84 (2010); Steven M. Davidoff, Chump Change from Goldman, N.Y. TIMES DEALBOOK (July 23, 2009, 12:21 PM), http://dealbook.nytimes.com/2009/07/23/chump-change-from-goldman/.

A. FOLLOWING THE TARP MONEY

Congress authorized Treasury to use TARP in a manner that "protects home values, college funds, retirement accounts, and life savings; . . . preserves homeownership and promotes jobs and economic growth; . . . [and] maximizes overall returns to the taxpayers of the United States."⁸⁴ It appropriated \$700 billion in funding for TARP.⁸⁵ In fact, TARP never spent this much. As of October 2010, Treasury had spent \$388 billion and obligated to spend an additional \$82 billion.⁸⁶ Thirteen different programs were announced during the life of TARP.⁸⁷ Some were never implemented or implemented in only token ways.⁸⁸ A description of ten of the thirteen programs provides insight into the government's response to the financial crisis.⁸⁹

The following six TARP programs invested capital or guaranteed assets in return for equity in financial institutions:

1. The *Capital Purchase Program* (CPP) symbolized TARP for the general public. Treasury announced that CPP would directly invest in "healthy, viable banks to promote financial stability, maintain confidence in the financial system, and permit institutions to continue meeting the credit needs of American consumers and businesses."

Over the life of the program Treasury purchased \$205 billion in preferred stock and subordinated debentures from 707 different qualifying financial institutions (QFIs) in forty-eight states, the District of Columbia, and Puerto Rico.⁹¹ The ten largest investments accounted for \$142.6 billion of the pro-

^{84.} Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, § 2, 122 Stat. 3765, 3766.

^{85.} OFFICE OF FIN. STABILITY, U.S. DEP'T OF THE TREASURY, TROUBLED ASSET RELIEF PROGRAM: TWO YEAR RETROSPECTIVE 1 (2010) [hereinafter TREASURY RETROSPECTIVE REPORT], available at http://www.treasury.gov/press-center/news/Documents/TARP%20Two%20Year%20Retrospective_10%2005%2010_transmittal%20letter.pdf.

^{86.} See SIGTARP QUARTERLY REPORT, October 2010, supra note 4, at 43.

^{87.} SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 37.

^{88.} See id. at 37-43.

^{89.} Because the focus of this Article is the financial crisis, the TARP programs pertaining to the automobile industry will not be discussed in any detail.

^{90.} OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIG-QR-09-04, QUARTERLY REPORT TO CONGRESS 55 (2009) [hereinafter SIGTARP QUARTERLY REPORT, October 2009], available at http://www.sigtarp.gov/reports/congress/2009/October2009_Quarterly_Report_to_Congress.pdf.

^{91.} SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 70.

gram.⁹² Three hundred thirty-one of the 707 recipients received \$10 million or less.⁹³

Under CPP, Treasury received senior preferred shares that pay a five percent dividend for the first five years and nine percent per year thereafter. In addition to the senior preferred shares, each public QFI issued Treasury ten-year warrants equal to approximately fifteen percent of the preferred stock investment (five percent for nonpublic QFIs). In page 1975.

As of September 30, 2010, 121 banks, including ten with the largest CPP investments, had paid back all or a portion of their principal or repurchased shares for an aggregate total of \$152.8 billion of repayments. 96 The government also had received \$8 billion as proceeds from the sale or repurchase of CPP and TIP warrants and an additional \$3 billion in proceeds from the sale of Citigroup stock. 97

As of September 1, 2010, 614 banks retained their CPP funds, with \$55.1 billion outstanding.⁹⁸ At the end of that month, there was \$211.3 million in outstanding unpaid CPP dividends.⁹⁹

- 2. The *Capital Assistance Program* built upon CPP. Following the 2009 stress tests¹⁰⁰ of the nineteen largest bank holding companies, Treasury offered these banks the option of requesting additional capital investment or conversion of CPP preferred into mandatory convertible preferred shares.¹⁰¹
- 3. The *Systemically Significant Failing Institutions* (SSFI) program was created to assist QFIs requiring exceptional assistance. AIG was the only recipient of funds under SSFI. ¹⁰²
- 4. The *Targeted Investment Program* (TIP) provided special funding to Bank of America and Citigroup. 103 It purchased \$20

^{92.} *Id*.

^{93.} *Id*.

^{94.} Id. at 69.

^{95.} Id.

^{96.} SIGTARP QUARTERLY REPORT, October 2010, supra note 4, at 92–93.

^{97.} TREASURY RETROSPECTIVE REPORT, supra note 85, at 23.

^{98.} COP SEPTEMBER 2010 REPORT, supra note 74, at 22.

^{99.} SIGTARP QUARTERLY REPORT, October 2010, supra note 4, at 13.

^{100.} Stress tests are used by regulators to assess whether a bank has sufficient capital to withstand an adverse change in economic conditions. For a more detailed discussion of the stress tests, see FCIC STAFF REPORT, *supra* note 14, at 32–34.

^{101.} SIGTARP QUARTERLY REPORT, July 2009, supra note 25, at 53–55.

^{102.} Id. at 32.

^{103.} TREASURY RETROSPECTIVE REPORT, supra note 85, at 29.

billion of senior preferred stock and received warrants for common stock from each bank. 104 Both banks have repurchased the stock. 105

5. The Asset Guarantee Program (AGP) was similar to the JPM/Bear loss insurance pool. The Treasury, Fed, and Federal Deposit Insurance Corporation (FDIC) agreed jointly to provide loss protection for a pool of Citigroup troubled assets worth \$301 billion. In exchange, Citigroup issued \$7 billion in trust-preferred securities and warrants to Treasury and the FDIC. It has a the end of 2009, the insurance protection was cancelled and Treasury reduced its interest in the trust-preferred securities to \$2.2 billion.

6. The Community Development Capital Initiative (CDCI) funded organizations providing financial services to underserved communities. ¹⁰⁹ Eligible entities could obtain capital up to five percent of their risk-weighted assets. ¹¹⁰ The preferred stock issued would pay an annual dividend of two percent for eight years, increasing to nine percent thereafter. ¹¹¹ Through CDCI, eighty-four institutions received a total of \$570 million. ¹¹²

Four other TARP programs focused on reviving the primary and secondary debt markets in asset-backed securities (ABS):

1. The Term Asset-Backed Securities Loan Facility (TALF) was designed to jumpstart the primary ABS market. The N.Y. Fed provided three- or five-year nonrecourse loans to investors secured by certain types of ABSs, including newly issued and legacy commercial mortgage-backed securities (CMBS) and residential mortgage-backed securities (RMBS). Initially a \$200 billion loan facility (backed by \$20 billion from TARP), it was then expanded to up to \$1 trillion of lending

^{104.} *Id*.

^{105.} See id.

^{106.} Id. at 30.

^{107.} Id.

^{108.} Id. at 30-31.

^{109.} SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 85.

^{110.} *Id*.

^{111.} Id.

^{112.} TREASURY RETROSPECTIVE REPORT, *supra* note 85, at 33. "Of this amount, approximately \$363.3 million from 28 banks was exchanged from investments under the Capital Purchase Program into the CDCI." *Id.*

^{113.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 91.

^{114.} *Id.* at 92.

(backed by \$80 billion from TARP).¹¹⁵ Ultimately, it supported thirteen nonmortgage ABS deals totaling \$59 billion and an additional thirteen CMBS deals totaling \$12.1 billion.¹¹⁶ Because of the dramatic collapse of these markets, these offerings accounted for twenty-five percent of the ABS market and seventy-one percent of the CMBS market in 2009.¹¹⁷ The only TARP funds lost, approximately \$1 million, went to administration costs.¹¹⁸ In addition, the Congressional Budget Office (CBO) "estimated the subsidy rate for Treasury protection for the TALF to be 6 percent, resulting in a \$1 billion loss in TARP funds over the life of the program."¹¹⁹

2. The *Public-Private Investment Program* (PPIP) was created to restart frozen credit markets through the purchase of legacy assets (e.g., legacy loans, CMBS, RMBS).¹²⁰ Nine fund managers were selected, eight of which remained as of July 2010.¹²¹ The Treasury, through TARP, agreed to make an equity investment equal to the private capital raised and then provide debt financing at LIBOR+1% equal to the total public-private equity investment.¹²² As of July 2010 the eight funds had closed on a total of \$22.1 billion (total allocated \$30 billion) in debt and equity financing from TARP.¹²³ Treasury has reported rates of return for the eight funds ranging from nine to twenty-six percent.¹²⁴

3. The *Unlocking Credit for Small Businesses* (UCSB) program was created to restart the secondary market in securities backed by Small Business Administration (SBA) loans. ¹²⁵ Initially, Treasury committed \$15 billion in TARP funds (subsequently lowered to \$1 billion and then lowered again to \$400

^{115.} SIGTARP QUARTERLY REPORT, July 2009, supra note 25, at 72.

^{116.} SIGTARP QUARTERLY REPORT, October 2010, supra note 4, at 52.

^{117.} COP SEPTEMBER 2010 REPORT, supra note 74, at 49.

^{118.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 96.

^{119.} COP SEPTEMBER 2010 REPORT, supra note 74, at 23-24.

^{120.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 41.

^{121.} See id.

^{122.} See id. at 50 tbl.2.4, 100. The London interbank offering rate (LIBOR) is a commonly used lending benchmark based on the interest rate for bank-to-bank short-term lending.

^{123.} See COP SEPTEMBER 2010 REPORT, supra note 74, at 23 (noting that after the Dodd-Frank Act was enacted, Treasury reduced the \$30 billion initial allocation of TARP funds to the PPIP to \$22.4 billion).

^{124.} Id.

^{125.} See SIGTARP QUARTERLY REPORT, October 2010, supra note 4, at 141.

million in July 2010).¹²⁶ Ultimately, Treasury made thirty-one purchases totaling \$357 million.¹²⁷

4. The *Home Affordable Modification Program* (HAMP) was created to directly assist homeowners facing foreclosure by providing a method of renegotiating mortgages to affordable levels. The original goal was to assist three to four million homeowners. During the great depression the Federal government created an analogous program, called the Home Owners Loan Corporation (HOLC). "Although the HOLC refinanced approximately 20% of the nation's mortgages, preventing many foreclosures, its success was qualified. The agency rejected half of the applications and set relatively stringent terms for borrowers. Nevertheless, 20% of its loans ended in default." 130

The July 2010 SIGTARP report was highly critical of the program:

The report concluded that:

The American people are essentially being asked to shoulder an additional \$50 billion of national debt without being told, more than 16 months after the program's announcement, how many people Treasury hopes to actually help stay in their homes as a result of these expenditures, how many people are intended to be helped through other subprograms, and how the program is performing against those expectations and goals. 132

B. FOLLOWING THE REAL MONEY—NON-TARP FUNDING AND GUARANTEES

While the public focused on the cost and impact of TARP, in reality it was only one component of the government response to the financial crisis. When compared to other govern-

^{126.} Id.

^{127.} Id.

^{128.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 54.

^{129.} See id. at 56.

^{130.} Learning from the Past: Lessons from The Banking Crises of the 20th Century: Hearing Before the Cong. Oversight Panel, 111th Cong. 84 (2009) (statement of Eugene N. White, Professor of Economics, Rutgers University), available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_senate_hearings&docid=f:48951.pdf.

^{131.} SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 6.

^{132.} *Id.* at 7.

ment loan guarantee programs and secondary market interventions, it was a small piece of a very large pie. The July 2010 SIGTARP report calculated the current outstanding balance of overall federal support for the nation's financial system at \$3.7 trillion in actual expenditures and guarantees. Most of the amount was assumed or spent without direct congressional action. Several agencies participated in the non-TARP bailout. The following are the most significant of the agencies that participated:

1. The Federal Reserve Board established eighteen financial support programs outside of TARP since 2007. Some programs provided short-term liquidity to banks and other financial institutions through secured transactions. Soften programs provided liquidity to support the commercial paper market, the money markets (and funds), and the ABS markets. The Fed also engaged in massive open market purchases to support all credit markets. The Fed authorized a maximum potential balance sheet expansion of approximately \$6.7 trillion and, at its peak in May 2010, its balance sheet had reached \$2.4 trillion. As of July 2010 its balance sheet was approximately \$1.7 trillion, including \$1.1 trillion in government sponsored entities (GSE) debt.

The magnitude of Fed lending to financial institutions has recently been made public, as mandated by the Dodd-Frank Act.¹⁴¹ At its peak, the Fed lent \$3.3 trillion to QFIs at interest rates ranging from 0.5 percent to 3.25 percent.¹⁴²

2. The Federal Deposit Insurance Corporation (FDIC) similarly authorized a potential balance sheet expansion up to \$2.5 trillion. As of July 2010 its assets stood at \$309.6 billion.

^{133.} Id. at 5.

^{134.} See id.

^{135.} *Id.* at 120.

^{136.} See id.

^{137.} See id. at 120-21.

^{138.} See id. at 121.

^{139.} Id. at 118.

^{140.} See id. at 122 tbl.3.2.

^{141.} See Gretchen Morgenson, So That's Where the Money Went, N.Y. TIMES, Dec. 4, 2010, at BU1, available at 2010 WLNR 24107629 ("The Dodd-Frank law forced the Fed to disclose the recipients of \$3.3 trillion from emergency lending programs put in place during the crisis days of 2008, so the tax-payers who paid for those rescue efforts now know whom they were helping.").

^{142.} See id.

^{143.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 118.

^{144.} See id. at 119, 141 tbl.3.4.

- 3. The *Federal Housing Finance Administration* (FHFA) had an implied commitment obligation of approximately \$6 trillion for all outstanding GSE debt and MBS guarantees. ¹⁴⁵
- 4. The *Department of Housing and Urban Development* (HUD) made approximately \$500 billion in additional guarantees from Federal Housing Administration and Government National Mortgage Administration obligations over its precrisis commitments. 146
- 5. The *Department of Education* purchased \$99.6 billion in educational student loans, as of June 30, 2010.¹⁴⁷
- 6. The *Department of the Treasury* had an outstanding balance for non-TARP programs that increased from \$257.1 billion to \$533.5 billion between July 2009 and July 2010.¹⁴⁸ As of June 30, 2010, Fannie Mae and Freddie Mac had received \$83.6 billion and \$61.3 billion, respectively, and the Treasury held \$180.7 billion in GSE MBS.¹⁴⁹ Also, Treasury purchased \$15.3 billion in newly issued Fannie and Freddie debt obligations.¹⁵⁰

In 2009 the SIGTARP testified that if all government efforts, including guarantees, were included, the theoretical government risk exposure would be an astounding \$23.7 trillion, ¹⁵¹ which is equal to roughly 150 percent of U.S. GDP. ¹⁵² In his July 2010 report, he revised this figure upward to \$23.9 trillion. ¹⁵³ Fortunately, this doomsday scenario did not, and will not, oc-

^{145.} Id. at 119.

^{146.} *Id*.

^{147.} Id. at 140.

^{148.} Id. at 119.

^{149.} Id. at 137–38.

^{150.} See id. at 136 tbl.3.3.

^{151.} See Following the Money: Report of the Special Inspector General for the Troubled Asset Relief Program [SIGTARP]: Hearing Before the H. Comm. on Oversight and Gov't Reform, 111th Cong. 15 (2009) (statement of Neil Barofsky, Special Inspector General for the Troubled Asset Relief Program), available at http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg62118/pdf/CHRG-111hhrg62118.pdf.

^{152.} See News Release: Gross Domestic Product (GDP) and Corporate Profits, BUREAU ECON. ANALYSIS, http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm (last modified Mar. 25, 2011).

^{153.} See SIGTARP QUARTERLY REPORT, July 2010, supra note 24, at 116 ("[The m]aximum potential commitment related to crisis (\$23.9 trillion)—each program's gross, not net, pledged commitment if all eligible applicants had requested the maximum assistance for each program at the same time. Implicit guarantees are included in these figures. When a program has no limit, such as Treasury's commitment to backstop losses for the GSEs, the high-water mark is used for this figure as well.").

cur. However, in the same report he indicated that the actual high-water mark for government assistance and guarantees was \$6.3 trillion. 154

C. ASSESSING TARP AND NON-TARP INTERVENTIONS

Assessing TARP and non-TARP assistance is difficult. While many of the TARP programs have largely ended, some such as PPIP and HAMP will continue on for years to come. In some cases, particularly the non-TARP initiatives, too little is still known. Not only is the size of many non-TARP efforts non-public, but also the final cost will not be ascertainable until the securities purchased or guaranteed are sold. With these caveats, section 1 will examine the extent that TARP addressed the goals of Congress included in the act. Section 2 will examine the costs, as they are known to date, of TARP programs. Section 3 will look at the AIG intervention and discuss three important problems in the implementation of this pre-TARP intervention.

1. Did TARP Accomplish Its Goals?

"TARP was an essential piece of a necessary evil—that is, it saved the American financial system from collapse—but it was implemented in a way that was excessively favorable to the very bankers who had presided over the collapse. And this sets up exactly the wrong incentives as we head into the next credit cycle."

—Simon Johnson, Professor of Global Economics and Management, MIT Sloan School of Management.¹⁵⁵

With the benefit of hindsight, one must conclude that TARP was far less significant than envisioned. Both the SIGTARP and the COP have questioned whether TARP had a tangible impact on its nonbailout goals—stimulating the broad economy and job growth, stemming the tidal wave of home foreclosures, protecting pensions and savings, and maximizing returns to investors. ¹⁵⁶ As discussed below in section 2, TARP

^{154.} *Id*.

^{155.} Simon Johnson, TARP, the Long Goodbye, N.Y. TIMES ECONOMIX (Sept. 30, 2010, 6:00 AM), http://economix.blogs.nytimes.com/2010/09/30/tarp-the-long-goodbye/.

^{156.} See COP SEPTEMBER 2010 REPORT, supra note 74, at 88 (noting that since the enactment of EESA, home values have fallen, foreclosures have increased, and investments for college and retirement have yet to recover their

never came close to spending the full \$700 billion that Congress originally appropriated. In fact it now seems clear that the open market activities of the Fed and the expanded guarantee programs of the Fed, FDIC, HUD, and FHFA likely had a bigger impact.

While it did not achieve the lofty national goals stated, it was foolish to think that it would. TARP was an emergency program to halt a financial panic before it became a complete financial collapse. In that respect, TARP and the larger non-TARP interventions worked. Our banking system is not completely sound. But it is also not on life support. Whether it is more susceptible to larger financial crises in the future will be discussed in Part III.

2. What Did TARP Cost the Government?

TARP did not cost the taxpayer as much as was feared. The full \$700 billion appropriated by Congress was never spent. In fact, total spending under TARP was less than \$400 billion and over \$200 billion has been repaid, with interest and in some cases a profit on the warrants issued. 157 Currently, the overall annual rate of return stands at 9.9 percent. 158 In November 2010, the General Motors (GM) IPO further reduced the total cost of TARP. 159 Similarly, the government announced that its sale of its remaining Citigroup stock would result in a total government profit of \$12 billion on funds provided to Citigroup. 160 Eventually more will be repaid from the sale of the

value); SIGTARP QUARTERLY REPORT, October 2010, *supra* note 4, at 5–6 (noting that TARP has failed to increase lending, reduce unemployment, or encourage modification of more than a fraction of home mortgages).

157. See TREASURY RETROSPECTIVE REPORT, supra note 85, at i, 14. As of September 30, 2010, the government has earned \$8.2 billion from the sale of warrants received from banks under TARP. Id. at 13 fig.3-A.

158. See COP SEPTEMBER 2010 REPORT, supra note 74, at 22 ("For CPP investments in financial institutions that have been fully repaid, including warrants repurchased or sold, the overall annual rate of return currently stands at 9.9 percent.").

159. In the GM IPO, the government sold 411 million shares (reducing its ownership from sixty-one percent to thirty-three percent) and received \$13.5 billion. Chris V. Nicholson, Treasury Nets Further \$1.8 Billion from G.M. I.P.O., N.Y. TIMES DEALBOOK (Dec. 3, 2010, 4:11 AM), http://dealbook.nytimes.com/2010/12/03/treasury-nets-further-1-8-billion-from-g-m-i-p-o/. "The automaker will buy back \$2.1 billion in preferred stock from Treasury this month, at which point the government will have recovered \$23.1 billion in payments, interest and dividends on its \$49.5 billion rescue, it said." Id.

160. Eric Dash, Treasury to Sell Last of Its Stake in Citigroup, N.Y. TIMES DEALBOOK (Dec. 6, 2010, 5:07 PM), http://dealbook.nytimes.com/2010/12/06/

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remainder of the government interest in GM,¹⁶¹ from the sale of remaining AIG assets, and the eventual sale of AIG stock held by the government.

In its September 2010 report, the COP found that 614 banks still held their CPP funds, with a total of \$55.1 billion outstanding. 162 "As a result, it is not yet possible to calculate precisely the amount of money that the CPP will earn or lose, although any losses can be capped at \$57.4 billion." 163 The direct financial cost to the federal government, however, will probably be a fraction of that exposure, and the CPP program may even produce a net gain. 164

The performance of the original JPM/Bear troubled assets pool, the Citigroup troubled assets pool, and the aforementioned PPIP pools all suggest that the government guarantee program on these pools, when executed properly, was also successful. This suggests that the government will make a profit on the PPIP pools.

The September 2010 COP report summarized TARP losses in each program, as estimated by the Office of Management and Budget (OMB), CBO, and Treasury. In each case, there was agreement that the large losses for TARP will likely come from the auto bailout, HAMP, and AIG. In although the HAMP program could potentially cost \$20 billion to \$50 billion, if the program continues to flounder it may not cost much. It may or may not cost \$25 billion to \$34 billion. While the GM IPO suggests a lower figure, it may be years before we know.

While the AIG intervention is still likely to lose \$35 billion to \$50 billion, Treasury officials dispute this figure and believe that the government commitment will ultimately be profita-

treasury-to-sell-last-of-citi-stake/.

^{161.} Michael J. de la Merced & Bill Vlasic, U.S. Recovers Billions in Sale of G.M. Stock, N.Y. TIMES, Nov. 17, 2010, at A1, available at 2010 WLNR 22969625 ("To break even, the Treasury Department will need to sell its remaining 500 million shares at an average price of \$53 each in the months and years to come.").

^{162.} COP SEPTEMBER 2010 REPORT, supra note 74, at 22.

^{163.} *Id*.

^{164.} *Id.* at 108–09 ("The CBO also estimates that the financial institution bailout component of TARP—the Capital Purchase Program (CPP)—will return a *profit* of approximately \$2 billion.").

^{165.} See id. at 20 fig.1.

^{166.} See id.

^{167.} See supra text accompanying notes 131–32.

^{168.} See COP SEPTEMBER 2010 REPORT, supra note 74, at 20 fig.1.

ble.¹⁶⁹ However, one must recognize that much of the total cost of the AIG intervention could have been avoided, or reduced, if government officials had acted prudently (in negotiating the original terms of the AIG loan and in monitoring AIG bonuses), had insisted on shared sacrifice from CDS counterparties in its negotiations, and had not used AIG as a disguised funding conduit to other institutions.¹⁷⁰

Finally, in determining the true cost of TARP, one must consider a variety of "hidden" costs. For example, an earlier SIGTARP report identified another TARP cost that has been overlooked.¹⁷¹ Because all of the money allocated to TARP had to be borrowed by the U.S. government, one must include the borrowing cost of these funds into the total cost of the TARP program.¹⁷² As of September 30, 2009, Treasury estimates that the dollar-weighted average cost of TARP funding was below 0.9 percent for a total interest cost of \$2.3 billion.¹⁷³ The SIGTARP disputed this figure. Using an average blended cost of Treasury funds, it determined the borrowing cost as at least twice this amount, and an "all-in" estimate (carrying costs over the life of the borrowings) would yield an amount three to four times the \$2.3 billion estimate.¹⁷⁴

In its September 2010 report, the COP noted that in June 2009 the CBO estimated that TARP would cost \$159 billion, and in August 2009 the OMB projected that TARP would cost \$341 billion. The In its FY 2011 budget estimate, OMB lowered its projections to \$116.8 billion and the CBO estimate was lowered to \$109 billion and then to \$66 billion. The In its retrospective report, the Treasury has projected a final TARP cost of \$51 billion (including the auto bailout). With the success of the GM IPO, the sale of AIG foreign subsidiaries, a future AIG government stock sale, and if the HAMP program continues to be

^{169.} See Andrew Ross Sorkin, Breaking Even on A.I.G., N.Y. TIMES, Oct. 4, 2010, at B1, available at 2010 WLNR 19736647.

^{170.} See infra Part II.C.3.

^{171.} SIGTARP QUARTERLY REPORT, October 2009, supra note 90, at 39.

^{172.} Id.

^{173.} Id.

^{174.} Id

^{175.} COP SEPTEMBER 2010 REPORT, supra note 74, at 17 n.64.

^{176.} Id. at 17.

^{177.} TREASURY RETROSPECTIVE REPORT, *supra* note 85, at 4 fig.2-B. The Treasury estimate assumes that government-owned AIG stock will be sold for \$97 billion. It also assumes that the HAMP program will cost \$46 billion, notwithstanding its limited ability to spend any money. *Id*.

unsuccessful, it is conceivable that the final cost to the taxpayer will be close to zero.

The true costs of the secondary-market interventions and guarantees provided by the Fed and other agencies cannot be predicted at this time. In fact, it may be years before even a rough calculation is possible. Only the Fed knows the quality of the securities it bought and the guarantees it provided.¹⁷⁸ Since the prices paid by the Fed were intentionally designed to provide market stability, one should assume that the prices were higher than the prevailing market prices, but below the intrinsic value of the securities in a recovering market. Whether the long-term prices will be higher is unknowable.

3. What Went Wrong?

Any analysis of the AIG bailout should not begin with a judgment on the choice between addressing moral-hazard risk or systemic risk. The market panic and collapse following Lehman made it imperative that the government intervene. Instead, the focus should be on the mechanics of the intervention and how to minimize the cost and consequences of it. The following three sections describe mistakes that were made in AIG, namely (a) the myth of the binary choice, (b) the government's failure to negotiate effectively or choice not to negotiate, and (c) the high costs of backdoor bailouts.

a. Myth of the Binary Choice

On any number of occasions, Chairman Bernanke, Secretary Paulson, and Secretary Geithner have stated that the decision on AIG was a binary choice—a full government bailout or a full collapse that would have resulted in a cataclysmic systemic failure. This Article disagrees with that position and posits that the history of recent financial failures demonstrates that this was not a binary choice. In many prior financial failures (for example, Salomon Brothers, Long-Term Capital Management, Bear Stearns, Washington Mutual, and Wachovia), the government obtained private-sector participation. While officials consistently argue that no private-sector alternative was possible, it is hard to fathom why. For example, it was possible

^{178.} As discussed previously, Dodd-Frank required the Fed to disclose its emergency lending programs, but did not require the Fed to disclose the purchase price of securities bought in the secondary market. See supra text accompanying note 141.

^{179.} See, e.g., COP JUNE 2010 REPORT, supra note 50, at 196–97.

for regulators to persuade the private sector to participate in the Long-Term Capital Management bailout, 180 but not in a resolution of AIG, a company with a demonstrably robust organic business! One must speculate whether no private option for AIG existed because all private suitors understood that the government would take action. The COP rejected the binary-choice rationale:

The government argues that AIG's failure would have resulted in chaos, so that a wholesale rescue was the only viable choice. The Panel rejects this all-or-nothing reasoning. The government had additional options at its disposal leading into the crisis, although those options narrowed sharply in the final hours before it committed \$85 billion in taxpayer dollars. 181

The COP report acknowledges the difficulty in obtaining a private-sector solution in the short time available and given the state of panic in the markets. However, it identifies two important benefits of a private resolution:

First, it would have saved billions of taxpayer dollars and mitigated if not eliminated the serious moral hazard and "too big to fail" concerns. Second, a successful private sector rescue would have served as a very strong and calming signal that the U.S. financial system was strong enough to function without a full government bailout. The Panel also notes that had private parties been involved they—and not the government—could have managed much of the post-bailout reorganization of the company. 183

b. The Government Failed to Negotiate Effectively or Chose Not to Negotiate

In the JPM/Bear acquisition, the government actively negotiated and insisted on a low share purchase price to send a message. 184 In the GM and Chrysler bailouts, government negotiators worked for weeks to obtain concessions from creditors, investors, auto suppliers, and auto dealers. 185 In contrast, the entire AIG program was literally constructed overnight by exhausted government officials who panicked after the market reaction to Lehman. It accepted an AIG proposal that the pri-

^{180.} See FCIC STAFF REPORT, supra note 14, at 20 (noting that Long-Term Capital Management was a massive, high-profile hedge fund that became insolvent in 1998 due to losses of more than \$4 billion).

^{181.} COP JUNE 2010 REPORT, supra note 50, at 2.

^{182.} Id. at 3.

^{183.} Id. at 118.

^{184.} See SORKIN, supra note 1, at 37.

^{185.} See COP JUNE 2010 REPORT, supra note 50, at 120 & n.556.

vate sector rejected, and further agreed to provide AIG with an additional \$10 billion. 186

It refused to insist upon shared sacrifice by unsecured creditors and, in fact, through ML III, it agreed to pay \$1.00 for \$0.66 of securities, 187 expressly deciding not to negotiate a better deal or use its leverage as regulator to demand concessions, 188 As the COP concluded:

The rescue of AIG distorted the marketplace by transforming highly risky derivative bets into fully guaranteed payment obligations. In the ordinary course of business, the costs of AIG's inability to meet its derivative obligations would have been borne entirely by AIG's shareholders and creditors under the well-established rules of bankruptcy. But... the government instead shifted those costs in full onto taxpayers [T]he government backed up the entire derivatives market, as if these trades deserved the same taxpayer backstop as savings deposits and checking accounts. 189

SIGTARP Barofsky testified before Congress that "Federal Reserve officials provided AIG's counterparties with tens of billions of dollars they likely would have not otherwise received had AIG gone into bankruptcy." ¹⁹⁰

The government's disinterest in negotiating in the best interests of the taxpayer did not end with ML III. Subsequently, the government permitted AIG to pay \$168 million in compensation bonuses and tried to hide the fact. ¹⁹¹ While it was argued that these bonuses were contractual obligations, one should remember that the contracts would have been subject to renegotiation in bankruptcy. ¹⁹²

c. High Costs of Backdoor Bailouts

There is a widespread perception that the decision to bailout AIG without demanding concessions was designed to save its counterparties, such as Goldman Sachs.¹⁹³ While this per-

^{186.} See id. at 57.

^{187.} Warren Testimony, supra note 65, at 3.

^{188.} See SIGTARP QUARTERLY REPORT, January 2010, supra note 52, at 9.

^{189.} COP JUNE 2010 REPORT, supra note 50, at 3 (emphasis omitted).

^{190.} Barofsky statement, supra note 78, at 10.

^{191.} See SIGTARP QUARTERLY REPORT, January 2010, supra note 52, at 8–9 ("Treasury officials effectively outsourced oversight of AIG's compensation systems to the Federal Reserve, failing to take any independent steps to assess broadly the amount or scope of AIG's compensation obligations As a result, senior Treasury officials were apparently not aware of the details of the March 2009 AIGFP payments until February 28, 2009.").

^{192.} See COP JUNE 2010 REPORT, supra note 50, at 103.

^{193.} See, e.g., JOHNSON & KWAK, supra note 2, at 169; SORKIN, supra note 1, at 532–33.

ception may never be confirmed, it is interesting that Goldman received more money through ML III, \$12.9 billion, 194 than it received through the TARP CPP program, \$10 billion. 195 Shortly after receiving the money via ML III, the firm repaid its CPP loan. 196 In doing so, it escaped the TARP restrictions on compensation.

Similarly, COP pointed out that the government conservatorship of the GSEs Fannie Mae and Freddie Mac (estimated to cost \$389 billion) provided another backdoor subsidy, possibly as much as \$100 billion, to financial institutions.¹⁹⁷

III. WAS THIS CRISIS—OR THE GOVERNMENT'S RESPONSE—REALLY DIFFERENT?

The financial crisis and the government's response must be examined in the context of past financial crises. Section A of this Part will briefly describe six discrete financial failures that occurred during the past four decades and highlight a remarkably consistent pattern both in the banking failures and in their governmental responses. Section B will discuss how the business model of banking has changed while the regulatory oversight model has failed to keep pace with these changes. The significant and steady trend of consolidation in the financial sector will also be discussed. Finally, section C will consider what can be learned from this and past financial crises, what to expect when future crises inevitably occur, and several regulatory changes that have been adopted or should be considered.

A. PAST BANKING FAILURES

The Federal Crisis Inquiry Commission (FCIC) staff issued a study of bank failures and government interventions. ¹⁹⁸ A short review of several notable examples reveals a familiar and recurring pattern.

^{194.} JOHNSON & KWAK, supra note 2, at 169.

^{195.} COP JUNE 2010 REPORT, *supra* note 50, at 90 n.420.

^{196.} See SORKIN, supra note 1, at 533 (noting that Goldman paid \$1.1 billion to repurchase its warrants).

^{197.} COP SEPTEMBER 2010 REPORT, *supra* note 74, at 108 ("If only 25 percent of the CBO cost of the bailouts ultimately inures to the benefit of TARP recipients and other financial institutions, Treasury will have provided a subsidy to these institutions of approximately \$100 billion. This non-TARP government sponsored support—unlike obligations incurred under the TARP itself—remains cost-free to the recipients." (footnotes omitted)).

^{198.} FCIC STAFF REPORT, supra note 14.

1. Franklin National Bank failed in 1974. An obscure bank on Long Island, New York, it tripled in size in eleven years. 199 It financed its aggressive lending, largely in commercial real estate and mysterious foreign loans, by aggressively seeking wholesale deposits, often from foreign depositors, at above-market interest rates. 200 These loans were not federally insured. When it experienced a sudden series of loan failures, large amounts of the wholesale deposits were withdrawn, causing it to fail. When the bank failed, the FDIC covered all uninsured depositors and creditors. 201 At the time it was the largest U.S. bank bailout since the Great Depression. 202

2. First Pennsylvania Bank failed in 1980. One of the oldest and largest banks in the state, it pursued an aggressive lending strategy for a decade.²⁰³ The bank quadrupled in size in thirteen years, fueled by uninsured wholesale deposits.²⁰⁴ Because Pennsylvania banking law prohibited an out-of-state bank from acquiring it, and no geographically proximate in-state bank was large enough, the FDIC provided a \$325 million interest-free loan (and received warrants for a majority of bank stock) and assumed control until the bank could be liquidated.²⁰⁵

3. Continental Illinois Bank failed in 1984. Once again, a bank pursued a high-growth strategy of high-risk lending in energy, real estate, and foreign sovereign debt (doubling in size in five years), fueled by uninsured wholesale deposits and short-term borrowing. Of At the time of failure, \$27 billion out of \$30 billion in deposits were uninsured. When the bank failed, no merger partner was available because of state-law prohibitions on branch banking. In exchange for stock and warrants representing an eighty percent interest in the company, the FDIC provided \$4.5 billion and covered all uninsured depositors and creditors. The phrase "too big to fail" was used

^{199.} See id. at 5.

^{200.} See id.

^{201.} Id.

 $^{202.\,\,}$ Martin Mayer, The Greatest-Ever Bank Robbery: The Collapse of the Savings and Loan Industry 29–30 (1990).

^{203.} See FCIC STAFF REPORT, supra note 14, at 6.

^{204.} See id.

^{205.} See id.

^{206.} See id.

^{207.} See id.

^{208.} Id. at 7.

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for the first time at congressional hearings on Continental Illinois. 209

- 4. The Bank of New England failed in 1991. Once again, this bank doubled in size in four years, primarily through lending in the commercial real estate and construction market. When the bank failed, the FDIC covered all bank creditors, but did not cover holding company bondholders or affiliated banks. The resolution costs totaled \$733 million.
- 5. The national banking crisis of the 1980s. During the period from 1980 to 1994, more than 1600 banks failed at a cost of \$36 billion to the FDIC, and more than 1300 savings and loan banks failed, costing the Federal Savings and Loan Insurance Corporation (FSLIC) \$28 billion and taxpayers \$132 billion.²¹³
- 6. The Bear Stearns and Lehman Brothers failures in 2008 followed the same pattern. Bear Stearns's assets grew from \$185 billion to \$400 billion during the years 2003 to 2008. 214 Similarly, Lehman's assets grew from \$354 billion to \$814 billion during the years 2003 to 2007. 215 Both firms fueled this growth through short-term borrowing, largely in the repo market.

This brief summary of past financial failures demonstrates a recurring pattern of events. A financial institution dramatically increases its lending capacity by obtaining high-cost wholesale demand deposits or short-term borrowing from other financial institutions (such as the overnight repo market). These short-term funds are used to finance a business strategy focused on longer-term, high-risk lending. When a portion of these loans default, due to poor lending practices or the collapse of a market bubble, the wholesale deposits are withdrawn, the short-term lenders refuse to continue lending, and the bank becomes insolvent. Inevitably, the financial regulator must intervene. If possible, the regulator orchestrates a private-sector takeover of the failed institution, frequently involv-

^{209.} See id. at 7-8.

^{210.} See 1 FED. DEPOSIT INS. CORP., Banking Problems in the Northeast, in HISTORY OF THE EIGHTIES—LESSONS FOR THE FUTURE: AN EXAMINATION OF THE BANKING CRISES OF THE 1980S AND EARLY 1990S, at 337, 373–74 (1997) [hereinafter HISTORY OF THE EIGHTIES], available at http://www.fdic.gov/bank/historical/history/vol1.html.

^{211.} See id. at 375-76.

^{212.} Id. at 372.

^{213.} FCIC STAFF REPORT, supra note 14, at 9.

^{214.} Id. at 21.

^{215.} *Id.* at 24.

ing federal assumption of troubled assets. In each of these respects, the crisis of 2008 was no different.

B. WHILE THE CRISIS WAS NOT DIFFERENT, THE BUSINESS OF BANKING IS

Notwithstanding the repetitive pattern in financial crises, the business model of banking has changed during the last three decades. Section 1 will describe the most significant changes arising from a combination of financial innovation, such as securitization, and deregulatory actions designed to permit banks to engage in a wider array of business sectors. It will also describe how the traditional model of banking regulation did not change sufficiently to keep pace with the banks under regulation. Section 2 will briefly describe the substantial consolidation in the banking industry that occurred during this same period of time.

1. The Banking Business Model Changed Fundamentally in Three Decades, but the Model for Regulatory Oversight Did Not Keep Pace

In response to the stock market crash of 1929 and the ensuing Great Depression, Congress enacted the Banking Act of 1933 (commonly referred to as Glass-Steagall after its two principal sponsors).²¹⁶ The law dramatically reformed the structure of banking in the United States and created a national system of regulation. For the first time, the government provided a safety net for the general public when it established a national government insurance program for all bank deposits.²¹⁷ In doing so, it acted as a prudent insurer. Glass-Steagall limited the amount of insurance available on each account, it empowered the Fed to set limits on the interest rate that banks could pay on insured bank deposits, and, most importantly, it limited what banks could do with these insured funds.²¹⁸ Glass-Steagall required commercial banks to eliminate or sell off investment banking and brokerage divisions.²¹⁹ This prevented banks from using government-insured deposits to engage in

^{216.} Pub. L. No. 73-66, 48 Stat. 162 (codified as amended in scattered sections of 12 U.S.C. (2006)) (repealed in part 1999).

^{217.} See JOHNSON & KWAK, supra note 2, at 34-35.

^{218.} See id. at 35.

^{219.} See id. at 34 (noting that, for example, the famed "House of Morgan" was split into two unrelated entities, a commercial bank named J.P. Morgan and an investment bank and broker named Morgan Stanley).

high-risk business (other than risky loans).²²⁰ Notwithstanding limited failures, this model worked.²²¹ In this highly regulated system, banks were the dominant provider of lending intermediation.²²² By regulating the maximum interest rate on savings accounts, it created a business model for banks that virtually guaranteed profitability.²²³ It also created a system in which bank (including savings and loan banks) failures were rare.²²⁴

This business model no longer exists. It began to crumble in 1980 when the combination of high inflation and competition from money market funds (which could pay much higher market rates) caused the Fed to rescind Regulation Q, which set savings account interest rates.²²⁵ The growth of money market funds, which invested in short-term government debt and private commercial paper, created a huge demand for corporate commercial paper.²²⁶ Companies could access this market for short-term operating cash, instead of relying upon banks to provide revolving lines of credit.²²⁷ SEC regulation 415 (shelf regulation), in 1984, reduced the time required for, and cost of, corporate debt offerings and siphoned off longer-term bank lending to companies.²²⁸ The use of junk bonds to finance mergers and acquisitions and to finance long-term borrowing by noninvestment grade companies diminished another profitable banking segment.²²⁹ The enormous growth in asset-backed se-

^{220.} ROBERT KUTTNER, THE SQUANDERING OF AMERICA: HOW THE FAILURE OF OUR POLITICS UNDERMINES OUR PROSPERITY 90 (2007).

^{221.} See JOHNSON & KWAK, supra note 2, at 35.

^{222.} See id.

^{223.} Has anyone ever heard of the 4-5-3 principle? During the era of government-set regulations on interest rates for deposits, it was said that the successful bank operated on the principle of paying four percent on savings deposits, charging five percent on loans, and playing golf with clients by 3:00 pm. Johnson and Kwak describe the principle as the "3-6-3 rule." *Id.*

^{224.} MAYER, *supra* note 202, at 35 (noting that from 1934–1981, the FSLIC suffered total losses of \$630 million).

^{225.} KUTTNER, *supra* note 220, at 102.

 $^{226.\} See$ Money Market Fund Reform, 74 Fed. Reg. 32,688–89 (proposed June 30, 2009) (to be codified at 17 C.F.R. pts. 270, 274).

^{227.} See id. ("Today, money market funds provide a substantial portion of short-term credit extended to U.S. businesses.").

^{228.} Rule 415, Securities Act Release No. 6499 [1982–1983 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 83,449 (Dec. 31, 1983) (codified at 17 C.F.R. § 230.415); see also Frank Partnoy, Infectious Greed: How Deceit and Risk Corrupted the Financial Markets 44 (2003) (stating that shelf regulations allowed companies to "issue new stocks or bonds much more quickly and at lower cost").

^{229.} Cf. JOHNSON & KWAK, supra note 2, at 75–76 (noting the shift in corporate financing patterns that occurred with the explosive growth of junk bonds).

curitization—first residential mortgages, followed by commercial mortgages, followed by car and consumer loans, followed by credit card receivables—changed banks from the ultimate lender, with the risk of loan default, into an intermediary who derived profits from loan origination fees, securitization-underwriting fees, and loan-servicing fees. In the "originate to distribute" business model, banks had no risk from making poor quality loans.²³⁰ In fact, the converse was true. The riskier loans generated higher fees and were more profitable.²³¹ Similarly, small businesses reduced their reliance on bank loans, using alternative financing sources such as credit cards and home equity lines on residences.²³²

Competition from capital markets fundamentally altered the traditional banking business model. In response to these fundamental changes, the banking regulators, over a thirtyyear period, administratively eased or eliminated the Glass-Steagall prohibitions on riskier bank lending.²³³ During the 1980s, the Fed, through its broad exemptive authority, permitted banks, in short succession, to own retail brokerage subsidiaries; to own and trade in a holding company proprietary account any form of equity, debt, or derivative security; to underwrite municipal securities; and to underwrite corporate securities.²³⁴ In 1998 when the Fed gave Citibank a two-year exemption from Glass-Steagall in order to complete its merger with Travelers Insurance, it made Glass-Steagall repeal a formality.²³⁵ Congressional repeal in 1999²³⁶ was the equivalent of placing a tombstone on the grave that had been dug and closed during the preceding two decades.

While one could argue that banking deregulation was driven by philosophy, a more persuasive argument can be made that it reflected the enormous changes in financial intermediation that occurred. Simply put, banks could no longer rely on

^{230.} Id. at 77.

^{231.} See id. at 76.

^{232.} See Cong. Oversight Panel, May Oversight Report: Reviving Lending to Small Businesses and Families and the Impact of the TALF 8 (2009).

^{233.} See Daniel K. Tarullo, Governor, Bd. of Governors, Fed. Reserve Sys., Financial Regulation: Past and Future, Speech at the Money Marketers of New York University (Nov. 9, 2009), http://www.federalreserve.gov/newsevents/speech/tarullo20091109a.htm.

^{234.} See PARTNOY, supra note 228, at 47.

^{235.} See KUTTNER, supra note 220, at 104.

^{236.} See id. at 104-05.

traditional lending practices for profitability. Competition from capital markets and securitization was too great. Increasingly large banks have relied upon transactional business—investment banking, proprietary trading, mortgage and loan origination fees, processing fees, and payment systems for profits.²³⁷ In 1987 Willard Butcher, chairman of Chase Manhattan Bank, explained, "When I started in the bank 42 years ago 90 percent of our business came from loans to U.S. corporations. Today, they account for less than 4 percent of income."²³⁸ Twenty years later, one must wonder if the figure has declined further.

Not surprisingly, the largest banks are no longer primarily lenders. They are financial intermediaries that generate revenue and profits from loan origination and servicing, securitization, investment banking, management of investment portfolios, traders of government securities and foreign currencies and as the dominant participants in the OTC derivatives market.

The banks' role in the derivatives market, and its impact on the financial crisis, warrants particular attention. During the 1990s the federal financial regulators decided to forbear direct regulation of this newly emerging business sector.²³⁹ Congress codified this regulatory forbearance in 2000.²⁴⁰ By 2009 the top five banks controlled over ninety-five percent of all derivatives contracts.²⁴¹

The impact of bank participation in the OTC derivatives market can best be understood by considering one form of derivative, the CDS. While subprime lending is frequently identified as the bottom-line cause of the financial crisis, in fact, CDSs were the accelerant that caused the fire to envelop the entire system.²⁴² Credit default swaps are a derivative that is

^{237.} See BETHANY MCLEAN & JOE NOCERA, ALL THE DEVILS ARE HERE: THE HIDDEN HISTORY OF THE FINANCIAL CRISIS 53–54 (2010) ("In the early 1980s, J.P. Morgan earned most of its money by making commercial loans. By 1993, nearly 75 percent of its revenues derived from investment banking fees and trading profits, the results of the bank moving to what one British journalist described as 'new forms of finance.' The most important of these new forms was derivatives. By 1994, the year [then-J.P. Morgan CEO] Weatherstone retired, Fortune could quote a bank executive calling them 'the basic business of banking.").

^{238.} KUTTNER, supra note 220, at 104.

^{239.} See JOHNSON & KWAK, supra note 2, at 134-36.

^{240.} See id. at 136-37.

^{241.} Id. at 180.

^{242.} Cf. GAO FINANCIAL REGULATORY FRAMEWORK REPORT, supra note 15,

marketed as insurance against a loss due to a default by the issuer of a security.²⁴³ However, while insurance products may only be sold to persons with an "insurable interest," a demonstrable loss that the insurance policy will cover, anyone may purchase a CDS.²⁴⁴ An insurance company is limited to writing only the amount of insurance for which it has sufficient reserves to cover estimated probabilities of loss. 245 A company writing a CDS is not similarly limited.²⁴⁶ Because a CDS is a contract, it is backed only by the financial balance sheet of the issuer and the amount of collateral negotiated by the purchaser.²⁴⁷ When it collapsed, AIG had open CDS positions with a notional value of \$2.7 trillion dollars (\$1 trillion was concentrated with twelve counterparties).²⁴⁸ At its peak, the CDS market was worth roughly \$60 trillion, ten times the face value of the securities insured.249 When the benefits of a default are ten times greater than the value of the default, it is an invitation for disaster.

The expansion of banks into these more aggressive and riskier business segments may reflect a strategic plan of aggressive growth. But it also may reflect the declining profitability of the traditional banking model due to the growth of securitization and competition from nonbanks.

Although the bank business model changed fundamentally, the regulatory system did not. Banking regulators continued to focus on traditional responsibilities of bank minimum capital requirements and the loan portfolio on the bank's balance sheet. Highly concentrated loan portfolios to be used for future securitizations were not consolidated. The nonbank mortgage origination process was unregulated, as was the OTC derivatives market. In a 2009 speech, Fed Governor Daniel Tarullo acknowledged the regulatory failure to adequately oversee

at 40–41 (highlighting the risk posed by the potential failure of a CDS-issuing firm).

^{243.} Id. at 40.

^{244.} See SIGTARP QUARTERLY REPORT, July 2009, supra note 25, at 63.

²⁴⁵. Cf. Wallison, supra note 45, at 5 (identifying strategies for ensuring the sufficiency of reserves).

^{246.} See id. at 3-4.

^{247.} See id.

^{248.} See JOHNSON & KWAK, supra note 2, at 202.

^{249.} See Fin. Crisis Inquiry Comm'n, Preliminary Staff Report: Credit Derivatives and Mortgage-Related Credit Derivatives 4 (2010), available at http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/2010-0630-psr-credit-derivatives.pdf.

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these new and important business segments: "Truthfully, though, there was no wholesale transformation of financial regulation to match the dramatic changes in the structure and activities of the financial industry." ²⁵⁰

2. The U.S. Banking Sector Has Experienced an Extraordinary Consolidation in Three Decades—the Implicit Government Protection of "Too-Big-to-Fail" Banks Provides an Important Competitive and Financial Advantage

For three decades, banking in the United States has become more concentrated, with a small number of the largest banks increasingly dominating the industry. In 1984 only twenty-four commercial banks had more than \$10 billion in assets.²⁵¹ Ten years later, in 1994, the number was sixty-four.²⁵² During that period, total assets at these banks had risen from \$865 billion to \$1.94 trillion.²⁵³

Not surprisingly, between 1990 and 2005 there were seventy-four bank mega-mergers (the acquiring and acquired banks both held more than \$10 billion in assets).²⁵⁴ During this period, the combined share of banking industry assets of the ten largest banks grew from twenty-five percent to fifty-five percent.²⁵⁵ Between 1998 and 2007, the five largest U.S. banks—Bank of America, Citigroup, JPMorgan Chase, Wachovia, and Wells Fargo—all made acquisitions and their combined assets more than tripled (from \$2.2 trillion to \$6.8 trillion).²⁵⁶

This trend continues. Between 2007 and 2009 Bank of America grew thirty percent to \$2.3 trillion, JPM grew twenty-five percent to \$2.0 trillion, and Wells Fargo doubled in size to \$1.2 trillion.²⁵⁷ In 1995, the combined assets of the six largest banks equaled less than twenty percent of U.S. GDP.²⁵⁸ In 2009, the combined assets of the six largest banks was greater than sixty percent of GDP.²⁵⁹ In 1994, the Fed adopted a regulation prohibiting any bank from having ten percent of all na-

^{250.} Tarullo, supra note 233.

^{251. 1} FED. DEPOSIT INS. CORP., Continental Illinois and "Too Big to Fail," in HISTORY OF THE EIGHTIES, supra note 210, at 235, 235 n.2.

^{252.} Id.

^{253.} Id.

^{254.} FCIC STAFF REPORT, supra note 14, at 14.

^{255.} Id.

^{256.} Id.

^{257.} JOHNSON & KWAK, supra note 2, at 180.

^{258.} Id. at 203 fig.7-1.

^{259.} Id.

tional retail deposits.²⁶⁰ In 2010 the three largest banks each controlled more than ten percent of all retail deposits.²⁶¹ All three obtained waivers from the Fed.²⁶²

The investment banking firms grew in the same way. Between 1997 and 2007, Goldman Sachs assets grew from \$178 billion to \$1.1 trillion and Morgan Stanley grew from \$302 billion to more than \$1 trillion. The comparable growth by Bear Stearns and Lehman has already been discussed. 264

The reason for this dramatic consolidation is not because larger banks are better banks. Simon Johnson and James Kwak highlight a 2007 study coauthored by Roger Ferguson (former Vice Chairman of the Fed) that "found that the unprecedented consolidation in the financial sector over the previous decade had led to no significant efficiency gains, no economies of scale beyond a low threshold, and no evident economies of scope."²⁶⁵

It appears that the real reason for banking consolidation is the greater profitability of too-big-to-fail banks due to implicit government protection. A recent academic study concluded that the belief in an implicit government guarantee of the largest banks dramatically reduces the cost of capital for the largest banks. This study concluded that today the eighteen largest banks borrow at rates 0.78 percent lower than smaller banks.²⁶⁶ During the period from 2000 to 2007, the spread was 0.29 percent.²⁶⁷ This study calculated that this lower cost of capital was worth up to \$34 billion for the eighteen largest banks in 2009, roughly half of their reported profits.²⁶⁸ The FCIC Staff report describes a study by the Bank of England that reached the same conclusion. "The study estimated that the 26 global banks received an implicit subsidy of \$37 billion in 2007—of which \$18 billion accrued to the five largest banks—in the form of reduced funding costs due to lower [in-

^{260.} See id. at 214.

^{261.} See id.

^{262.} Id.

^{263.} Id. at 213.

^{264.} See supra Part I.A-B.

^{265.} JOHNSON & KWAK, *supra* note 2, at 212 (quoting ROGER W. FERGUSON, JR. ET AL., INTERNATIONAL FINANCIAL STABILITY 93–94 (2007)).

^{266.} See id. at 180–81.

^{267.} Id. at 180.

^{268.} See Dean Baker & Travis McArthur, The Value of the "Too Big to Fail" Big Bank Subsidy, CENTER ECON. & POLY RES., 4 tbl.1 (Sept. 2009), http://www.cepr.net/documents/publications/too-big-to-fail-2009-09.pdf.

terest] rates paid on bonds and other ratings-sensitive wholesale liabilities."269

There is additional evidence that the lower lending costs for the largest banks are based upon the implicit government subsidy rather than lower likelihood of failure. The history of bank failures in this country demonstrates that the largest banks have a greater risk of failure at a greater cost. "For example, although only 1 percent of failed institutions from 1986 to 1994 had more than \$5 billion in assets, those banks made up 37 percent of the total assets of failed institutions and accounted for 23 percent of [Bank Insurance Fund] losses during that period."²⁷⁰ Is it surprising that banks see major benefits in growth for growth's sake?

C. WHAT HAVE WE LEARNED FROM FOUR DECADES OF BANK FAILURES? WHAT HAVE WE DONE?

The financial failures discussed in section A demonstrate a common pattern in financial failures. The substantial changes in the business of banking and in the consolidation of the industry described in section B provide insight into the increasing size and complexity of these failures. Section C will consider what can be learned from these events, what to expect when future crises inevitably occur, and several regulatory changes that have been adopted or should be considered.

1. Financial Crises Are Not Unforeseeable "Black Swans"— When Banks Aggressively Grow Their Balance Sheets and Fuel Them with "Hot Money"—They Are Candidates for Failure

"I would be the first to acknowledge that some things have changed in our financial markets, but financial crises continue to occur for the same reasons as always—over-optimism, excessive debt and leverage ratios, and misguided incentives and perspectives—and our solutions must continue to address these basic problems."

> —Thomas Hoenig, President, Federal Reserve Bank of Kansas City²⁷¹

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^{269.} FCIC STAFF REPORT, supra note 14, at 12.

^{270.} FED. DEPOSIT INS. CORP., supra note 251, at 235.

^{271.} Thomas M. Hoenig, President and Chief Exec. Officer, Fed. Reserve Bank of Kan. City, Speech in Omaha, Nebraska: Too Big Has Failed 9–10 (Mar. 6, 2009), available at http://www.kansascityfed.org/SpeechBio/HoenigPDF/Omaha.03.06.09.pdf.

The summary of major bank failures is remarkably consistent. A bank achieves dramatic growth in its business and balance in a short period of time. It makes large, high-risk loans that promise high returns. The loans are supported by large wholesale deposits, obtained by offering above-market interest rates or by borrowing money on a short-term basis, often from other financial institutions. In both cases, the source of funds can disappear overnight if depositors make withdrawals or lenders refuse to extend or "roll over" loans. This is "hot money." Inevitably, high-risk loans fail at a greater rate than conservative loans and the hot money is gone when trouble appears. Similarly, when a bank relies upon aggressive leverage to fuel lending growth, a series of loan failures or large trading losses will effectively wipe out the capital cushion. In both cases, a bank failure ensues.

The series of failures previously discussed focused on banks. An expanded list of financial failures would have included Drexel Burnham Lambert in 1990,²⁷² Baring Brothers in 1995,²⁷³ and Long-Term Capital Management in 1998.²⁷⁴ One might also add to this list the series of sovereign debt crises: the Latin debt crisis of the early 1980s,²⁷⁵ Mexico in 1994,²⁷⁶ the Asian debt crisis in 1997,²⁷⁷ Russia in 1998,²⁷⁸ and Iceland, Ireland, Greece, and Portugal during the most recent crisis.²⁷⁹

The frequency and variety of these failures over the past three decades demonstrates that financial crises are not "black swans" or "long tails."²⁸⁰ They are not once in a generation events that cannot be foreseen. Accordingly, regulatory policy

^{272.} See FCIC STAFF REPORT, supra note 14, at 18-19.

^{273.} See PARTNOY, supra note 228, at 243.

^{274.} See FCIC STAFF REPORT. supra note 14, at 20.

^{275.} See 1 Fed. Deposit Ins. Corp., The Banking Crises of the 1980s and Early 1990s: Summary and Implications, in History of the Eighties, supranote 210, at 3, 43–44.

^{276.} See JOHNSON & KWAK, supra note 2, at 39.

^{277.} See id. at 43.

^{278.} See id. at 47.

^{279.} See Stephen Castle, Economic Divisions in Euro Zone Are Seen as Threat, N.Y. TIMES, Nov. 30, 2010, at B1, available at 2010 WLNR 23766032.

^{280.} See Paul A. Volcker, Chairman of the U.S. President's Econ. Recovery Advisory Bd. & Former Chairman of the Fed. Reserve Sys., Remarks at Federal Reserve Bank of Chicago: Thirteenth Annual International Banking Conference (Sept. 23, 2010), http://insider.thomsonreuters.com/link.html?ctype=groupchannel&chid=3&cid=146696&shareToken=Mzo5NTI2NzE2ZS1kYTU5LTQ0ZGQtYjU0Ny1mOTIyZDdmNDdhYmQ%3D (arguing that market crises cannot be viewed as being normally distributed).

must seriously monitor banks that exhibit unusually rapid business and balance-sheet growth.

Because the pattern of aggressive expansion through risky lending leading to bank failure appears so strong, one must ask the question—why do some bank executives choose high-risk strategies? While not the entire answer, the linkage between stock-performance-based executive compensation and bank growth must be considered. In 2009 congressional testimony, Professor Simon Johnson discussed the dramatic rise in bank compensation: "From 1948 to 1982, average compensation in the financial sector varied between 99% and 108% of the average for all domestic private industries. From 1983, it shot upward in nearly a straight line, reaching 181% in 2007."281 Johnson and Kwak highlight the rise in compensation for CEOs of the largest banks and investment houses over two decades. In 1985, the annual compensation of John Gutfreund, CEO of Salomon (at the time the most prominent firm on Wall Street) was \$5.8 million (inflation adjusted to 2009 dollars).²⁸² In 2007 Lloyd Blankfein (Goldman Sachs) received \$54 million, Jamie Dimon (JPMorgan) received \$34 million, John Thain (Merrill Lynch) received \$84 million, and John Mack (Morgan Stanley) received \$41 million.²⁸³ While the payment of large bonuses and compensation packages was suspended following the financial crisis and the enactment of TARP, it proved to be fleeting. The SIGTARP report of January 2010 stated that "although there have been some improvements in the form that bonus compensation takes for some executives, there has been little fundamental change in the excessive compensation culture on Wall Street."284

Absent fundamental changes in the business of banking or in the system for compensating persons who determine bank business strategies, one must conclude that there will be financial crises in the future.

^{281.} Systematic Risk: Are Some Institutions Too Big to Fail and If So, What Should We Do About It? Hearing Before the H. Comm. on Fin. Servs., 111th Cong. 7 (2009) (statement of Simon Johnson, Ronald Kurtz Professor of Entrepreneurship, Massachusetts Institute of Technology Sloan School of Management), available at http://financialservices.house.gov/media/file/hearings/111/simon_johnson.pdf.

^{282.} See JOHNSON AND KWAK, supra note 2, at 57–59.

^{283.} Id. at 59.

^{284.} SIGTARP QUARTERLY REPORT, January 2010, supra note 52, at 6.

2. In a Crisis, a Regulator Will Invariably Act to Prevent a Systemic Failure, Even if It Exacerbates the Problem of Moral Hazard

"It is a fantastical notion to expect that having once pulled poorly run, systemically threatened firms out of the fire, government won't do it again, no matter how many times and how loudly it says it won't."

> —Richard Fisher, President, Federal Reserve Bank of Dallas²⁸⁵

Notwithstanding the isolated case of Lehman (a decision likely based upon the outcry over Bear Stearns), moral hazard is a concern that rarely determines regulatory decisions. However, it continues to have a powerful effect on Congress. In 1991. Congress attempted to restrict similarly regulators' ability to bail out the uninsured creditors and depositors.²⁸⁶ The least-cost resolution provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) "barred the FDIC from approving any transaction that would protect uninsured depositors or other uninsured creditors in a failed bank unless that transaction represented the least costly resolution option available to the FDIC."287 However, the systemic risk exemption "permits the FDIC to protect uninsured depositors or other uninsured creditors of a failing bank if such protection would avoid or mitigate 'serious adverse effects on economic conditions or financial stability."288 Similarly, section 13(3) of the Federal Reserve Act permits the Fed to authorize a Reserve Bank to lend in "unusual and exigent" circumstances.²⁸⁹ As discussed, non-TARP intervention by the Fed likely had a far greater impact on stopping the financial panic and ameliorating its consequences than the congressionally approved TARP intervention.²⁹⁰ Once again, in the Dodd-Frank Act, Congress has attempted to restrict regulators' discretion to intervene by imposing limits on the ability of the FDIC to en-

^{285.} Fisher, supra note 48, at 330.

^{286.} $\it Cf.$ FED. DEPOSIT INS. CORP., $\it supra$ note 275, at 51 (describing statutory limits on regulatory forbearance).

^{287.} FCIC STAFF REPORT, supra note 14, at 10.

^{288.} *Id.* (quoting 12 U.S.C. § 1823(c)(4)(G)(i) (2006)).

^{289. 12} U.S.C. § 343(A) (2006).

^{290.} See supra Part II.B.

gage in bailouts of uninsured creditors.²⁹¹ It remains to be seen whether this will have the full desired effect.

Because regulators typically seem to find a way to take any action they deem necessary to stem a financial crisis, the discussion of regulatory intervention policy should focus on how the intervention occurs rather than if it should occur. In particular, attention should focus on the types of intervention and the consequences of government intervention. Federal Reserve Bank of Kansas City's President Thomas Hoenig recommends this approach. Under his approach, regulators would be reguired to place insolvent institutions in receivership, fire management, and engage in an orderly transfer or disposition of assets.²⁹² "Too large" banks would be dismantled and sold off in parts.²⁹³ Shareholders and unsecured creditors (including uninsured depositors) would be treated just as they would under the bankruptcy code.²⁹⁴ The TARP strategy of providing federal funds and allowing existing management to stay in place, subject to government micromanagement and "strings attached," would be prohibited.²⁹⁵

The lessons of the financial crisis for government seem clear. Insolvent banks should be put into some form of receivership, with a rapid and orderly disposition of assets. Management should always be removed. There should be equally shared sacrifice by all creditors, even those deemed systemically significant. The terms of the government's contribution should be more, not less, onerous than a private sector intervention.²⁹⁶

^{291.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 210, 124 Stat. 1376, 1460 (2010).

^{292.} See Hoenig, supra note 271, at 11–12.

^{293.} See id.

^{294.} See id.

^{295.} See id.

^{296.} As described previously, the government bailout of AIG was more favorable to AIG than the term sheet bailout rejected by the private sector. See supra Part I.C. Numerous commentators have pointed out that Warren Buffett purchased preferred stock in Goldman Sachs on better terms than the Treasury received through the CPP portion of TARP. See, e.g., Andrew A. Samwick, Moral Hazard in Response to the 2008 Financial Market Meltdown, 29 CATO J. 131, 137–38 (2009).

3. In a Too-Big-to-Fail Environment, Regulators Must Reexamine How They Monitor and Regulate Bank Risk

"[E]ven if TARP saved our financial system from driving off a cliff back in 2008, absent meaningful reform, we are still driving on the same winding mountain road, but this time in a faster car."

—Neil Barofsky, Special Inspector General for TARP²⁹⁷

"If stupidity got us into this mess, then why can't it get us out?"

—Will Rogers, commenting on the crash of 1929²⁹⁸

Mr. Barofsky offered his pessimistic view in 2010, prior to congressional passage of the Dodd-Frank regulatory reform law. This Act, which is over 2300 pages in length, purports to address the flaws and failures that contributed to the financial crisis.299 However, unlike Glass-Steagall and the other depression-era laws that imposed outright prohibitions on activities that were believed to have contributed to the financial crisis of 1929, Dodd-Frank creates a Financial Stability Oversight Council and empowers it, in conjunction with the various government regulators, to determine which activities should be restricted or prohibited and what, if any, structural changes should be required.³⁰⁰ Until the federal agencies have completed the mandatory studies and adopted regulations in areas required by the law, it is impossible to assess or even predict its impact. In effect, an assessment of Dodd-Frank today would be the equivalent of writing a restaurant review based upon the restaurant menu, before the food is prepared, let alone served and eaten.

Dodd-Frank addresses the problem of too-big-to-fail banks in several ways. For example it requires large banks (and systemically important nonbank financial companies) to prepare a plan for orderly resolution (analogous to a living will).³⁰¹ The

^{297.} SIGTARP QUARTERLY REPORT, January 2010, supra note 52, at 6.

 $^{298.\;}$ Quoted in Liaquat Ahamed, Lords of Finance: The Bankers Who Broke the World 347 (2009).

^{299.} See Binyamin Appelbaum & David M. Herszenhorn, Congress Passes Major Overhaul of Finance Rules, N.Y. TIMES, July 16, 2010, available at 2010 WLNR 14244093.

^{300.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 112(a)(2), 124 Stat. 1376, 1395–96 (2010).

^{301.} See id. § 165(d)(1).

Act also requires the Fed to consider, in any bank merger, its impact on the financial stability of the United States and the Fed must determine that the acquiring bank is well capitalized and well managed. In very limited circumstances, when a systemically important bank or nonbank financial company poses a "grave threat" to financial stability, the Financial Stability Oversight Council may—by a two-thirds vote (which must include the Secretary of the Treasury)—place restrictions on banking activities or require the company to sell off assets or subsidiaries. As is typical of the Act, these provisions provide regulatory discretion. While regulators in the near term may carefully monitor the size of banks, the long history of banking regulation has reflected support for bank mergers and consolidation, particularly in response to a crisis.

Similarly, Dodd-Frank provides expansive authority to aggressively regulate bank risk taking. Under the Act, the Fed is authorized to adopt higher prudential standards for banks with assets above \$50 billion dollars. Dodd-Frank also empowers the Fed to set higher risk-based minimum capital requirements for banks and, for the first time, countercyclical capital levels for bank-holding companies. Dodd-Frank authorized to agree the first time, countercyclical capital levels for bank-holding companies.

While it is difficult to argue against higher capital requirements, one must not assume that this will solve the problem. The magnitude of the problem will inevitably be influenced by the stability of the capital. As the history of banking crises demonstrates, demand deposits (particularly wholesale jumbo deposits) and capital secured by short-term borrowing in the repo market may disappear in a crisis.³⁰⁷ Also, if the assets purchased on leverage or funds loaned are highly risky, a sudden dramatic fall in market prices or loan defaults may wipe out even a substantial capital cushion.

Higher minimum capital requirements may also increase, rather than decrease, other forms of risk taking. As discussed, when bank executives are compensated through stock, it creates a substantial incentive to increase short-term perfor-

^{302.} See id. §§ 604(d), 607(b).

^{303.} See id. § 121(a).

^{304.} See id.

^{305.} See id. § 165(a)(2).

^{306.} See id. § 616(a).

^{307.} JOHNSON & KWAK, *supra* note 2, at 206 (noting that both Bear Stearns and Lehman had adequate net capital, on paper, just days before their respective failures).

mance.³⁰⁸ One of the leading metrics for measuring bank performance is total return on equity (ROE).³⁰⁹ Simply put, when a bank is required to retain higher levels of reserve capital, ROE will fall unless a higher return on assets (ROA) is generated. Higher ROA typically can only be attained by engaging in higher-risk lending or trading. Therefore, a bank executive seeking higher stock performance will be motivated to engage in riskier banking practices in order to attain the same ROE.

Because a higher capital requirement may have the unintended consequence of encouraging greater risk taking, it is important for regulators to reexamine the methods for calculating and regulating risk. In particular, regulators should reexamine their reliance upon value at risk (VaR) models to measure capital adequacy and their acquiescence in bank reliance on derivatives such as CDSs to hedge risk. While VaR models are useful at measuring and predicting known, quantifiable risks, the past crisis demonstrated the danger of using these models to measure the unquantifiable and unanticipated "long tail" risks. Turthermore, because each firm has substantial latitude to develop its VaR, and more importantly to control the data that is entered into the calculation, it is dangerous for regulators to rely upon it exclusively. 311

Most importantly, in a too-big-to-fail world, regulators must focus on regulating bank business segments that inherently have a higher risk component. For example, the much-publicized Volcker Rule, which ostensibly will prohibit banks from engaging in proprietary trading and will limit bank sponsorship or investment in hedge funds, is a notable example of this approach.³¹²

^{308.} See supra text accompanying notes 281-84.

^{309.} See, e.g., DAVID L. SCOTT, WALL STREET WORDS 299 (1988) ("Many analysts consider ROE the single most important financial ratio applying to stockholders and the best measure of performance by a firm's management.").

^{310.} For a detailed discussion of VaR models and their limitations, see Joe Nocera, *Risk Mismanagement*, N.Y. TIMES, Jan. 4, 2009, § MM (Magazine) at 24. available at 2009 WLNR 152510.

^{311.} See id.

^{312.} The Volcker rule in Dodd-Frank has a two-year delayed effectiveness, followed by a two-year transition period. See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 619(c), 124 Stat. 1376, 1622–23 (2010). The Act also provides the Fed with broad latitude in defining proprietary trading and expansive exemptive authority. See id. § 619(b)(2). As such, the rule may have little impact on bank operations. At a minimum, it will not be known for several years.

Dodd-Frank also provides for regulation of OTC derivatives. In doing so, it authorizes the Commodity Futures Trading Commission and the SEC to establish minimum margin requirements for most swap transactions.³¹³ However, it does not address the problem of multiple CDSs written on a single security. As such, it will continue to be possible for exponentially more investors to benefit from a credit default than would benefit from full payment of the obligation.

CONCLUSION

While the magnitude of the financial crisis in 2008 was unprecedented, it followed a predictable pattern. Overly aggressive financial houses grew too rapidly by borrowing in the short term and committing too much capital into a bubble market of securities and derivatives built on subprime mortgages. The government predictably responded by engineering government-financed and assisted takeovers designed to halt a panic. To the extent that the government engaged in well-established techniques of lending money against sound collateral, and intervening in the secondary market to reestablish market pricing, the process worked. The banks were recapitalized. While the secondary debt markets are not fully recovered (and may be overly dependent on the Fed as a buyer), at least they are functioning.

Who benefited from the bailout? The narrow answer to the question would be that the creditors and counterparties of Bear, AIG, and the CPP banks on the verge of failure were the principle beneficiaries. Unlike the creditors and counterparties of Lehman, they received one hundred cents on the dollar. Executives and other employees in the financial sector were also major beneficiaries. Bonuses were paid in most instances and the compensation system in the financial sector continues, largely as is. As a nation, we benefited by averting a financial meltdown. In retrospect, the cost of the bailout was not great. Even when factoring in the enormous non-TARP interventions by the Fed and others, the final cost may be surprisingly small. Of course, the shareholders in Bear, Lehman, AIG, Wachovia, Washington Mutual, and others suffered.

Looking to the future, did our nation's financial system benefit? The verdict on systemic beneficiaries is less positive. In all likelihood, the underlying problems have not been addressed. While the Dodd-Frank Act provides regulators with greatly expanded authority, it remains uncertain how this power will be used. Banks that are too big to fail are larger to-day and, as such, future failures will be greater. Executive compensation practices that encourage bank management to seek growth at any cost have not been addressed. An unlimited number of investors lacking an insurable interest in a security can still buy derivative "insurance" with the consequence that a failure of one MBS will result in a profitable return that is exponentially greater than the value lost on the underlying security.

Plus ça change, plus c'est la même chose.