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REFORMING FINANCIAL REGULATION TO ADDRESS THE TOO-BIG-TO-FAIL PROBLEM

Arthur E. Wilmarth, Jr.*

INTRODUCTION

The ongoing financial crisis—widely viewed as the worst since the Great Depression¹—has inflicted tremendous damage on financial markets and economies around the world. The crisis has revealed fundamental weaknesses in the financial regulatory systems of the United States (“U.S.”), the United Kingdom (“U.K.”), and other European nations, making regulatory reforms an urgent priority. Publicly-funded bailouts of “too big to fail” (“TBTF”) financial institutions have provided indisputable proof that (i) TBTF institutions benefit from large explicit and implicit public subsidies, and (ii) those subsidies distort economic incentives and encourage excessive risk-taking by large, complex financial institutions (“LCFIs”). Accordingly, the primary objective of regulatory reforms must be to eliminate (or at least greatly reduce) TBTF subsidies and to force LCFIs to internalize the risks and costs of their activities.

Parts I and II of this article survey the consequences and causes of the current financial crisis. As described in Part I, the financial crisis has

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1. Arthur E. Wilmarth, Jr., *The Dark Side of Universal Banking: Financial Conglomerates and the Origins of the Subprime Crisis*, 41 CONN. L. REV. 963, 966 n.3 (2009) (quoting views of regulators and analysts describing the current financial crisis as the worst since the Great Depression); see also *The Causes and Current State of the Financial Crisis: Hearing Before the Financial Crisis Inquiry Commission* 3, 4 tbl.1 (Jan. 13, 2010) (written testimony of Mark Zandi, Chief Economic and Co-founder of Moody’s Economy.com), available at <http://www.fcic.gov/hearings/pdfs/2010-0113-Zandi.pdf> [hereinafter 2010 Zandi Testimony] (stating that the current financial crisis caused a “Great Recession” that is “the longest, broadest and most severe since the Great Depression”); Michael McKee & Peter Cook, *Paulson Says U.S. Was ‘Close’ to Financial Collapse* (Update 3), BLOOMBERG.COM, Feb. 2, 2010 (reporting the view of former Treasury Secretary Henry Paulson that “[t]he U.S. economy came ‘very close’ to collapsing into a second Great Depression”).

caused governments around the globe to provide more than \$11 trillion of assistance to financial institutions and to spend more than \$6 trillion on economic stimulus programs. The bulk of those expenditures have occurred in the U.S., the U.K. and other nations in the European Union ("EU"), where the crisis has inflicted the greatest damage. In the U.S., the federal government provided \$6 trillion of assistance to financial institutions and guaranteed the survival of the nineteen largest banking organizations and the largest insurance company. The U.K. and other EU nations provided more than \$4 trillion of assistance and conducted similar bailouts of LCFIs. Notwithstanding these extraordinary measures, the economies and financial systems of the U.S., U.K., and EU remained fragile and vulnerable to further shocks in early 2010. In particular, analysts warned about the potential impact of widespread defaults and foreclosures on residential and commercial mortgages, as well as the risks posed by large budget deficits in many developed countries.

The severity of the financial crisis has alarmed the public and produced a strong consensus in favor of reforming financial regulation in the U.S. and other developed nations.² In order to identify the most critically needed reforms, Part II of this article summarizes the basic causes of the crisis in the U.S. The unsound residential and commercial mortgage loans that devastated the U.S. financial system shared a common set of problems with high-risk credit card loans and corporate leveraged buyout ("LBO") loans that banks also originated during the credit boom that precipitated the current crisis. As described in Part II.A., LCFIs followed an "originate-to-distribute" ("OTD") strategy in all four credit markets that led to the production and securitization of huge volumes of high-risk loans.³ This OTD strategy enabled LCFIs to earn large fees from (i) originating high-risk loans, (ii) pooling those loans to create a variety of structured-finance securities, and (iii) distributing those securities to in-

2. See, e.g., Jackie Calmes, *With Populist Stance, Obama Takes on Banks*, N.Y. TIMES, Jan. 22, 2010, at A1 (reporting that "big banks have miscalculated Americans' intensified resentment against the bailout [of LCFIs during the financial crisis]—anger stoked by persistent high unemployment, banks' stinginess in lending to small business and the revival of Wall Street's bonus culture"); Simon Clark, *'Lepers' in London Defend Right to Make Money as Election Looms*, BLOOMBERG.COM, Feb. 25, 2010 (reporting on public revulsion against large U.K. banks "after British taxpayers assumed liabilities of more than [\$1.23 trillion] to bail out the country's lenders").

3. Wilmarth, *supra* note 1, at 988–91, 1037–40 (reporting that, in 2007, residential mortgage-backed securities accounted for nearly two-thirds of all U.S. residential mortgages, while commercial mortgage-backed securities represented almost a quarter of domestic commercial mortgages, asset-backed securities accounted for more than a quarter of domestic consumer loans, and collateralized loan obligations included more than a tenth of global leveraged syndicated loans).

vestors. Bank managers and regulators operated under the illusion that the OTD business model would permit LCFIs to transfer the risks embedded in securitized loans to investors who bought the structured-finance securities derived from those loans.

However, as discussed in Part II.B, LCFIs in fact pursued an “originate to *not really* distribute” approach in two major respects. First, LCFIs kept large amounts of AAA-rated tranches of structured-finance securities on their balance sheets because (1) those tranches paid significantly higher yields than conventional AAA-rated investments, (2) federal regulations assessed very low capital charges against AAA-rated securities, and (3) LCFIs retained AAA-rated tranches that could not be sold immediately in order to complete more securitization deals, earn more fees and produce higher short-term profits. Second, LCFIs transferred large volumes of AAA-rated tranches to off-balance-sheet (“OBS”) conduits, which LCFIs supported by providing explicit and implicit liquidity guarantees. After the financial crisis erupted in mid-2007, many LCFI sponsors provided financial support to their sponsored conduits or brought the conduits’ assets back onto their balance sheets. Ultimately, LCFIs suffered devastating losses from structured-finance securities they retained on their balance sheets or parked in OBS conduits.

Part II.C explains that LCFIs were the primary, private-sector catalysts for the financial crisis because they generated most of the financing for the unsustainable bubbles that occurred in the residential and commercial real estate markets and in the corporate LBO market. Consequently, as shown in Part II.D, LCFIs also became the leading recipients of government support measures. In the U.S., U.K., and the EU, governments engineered massive bailouts of leading banks, securities firms and insurers, thereby cementing the TBTF status of those entities.

Thus, the financial crisis has provided dramatic evidence of the competitive and regulatory distortions created by TBTF financial institutions. Part III of the article proposes five regulatory reforms that are designed to eliminate (or at least greatly reduce) the extensive public subsidies currently enjoyed by LCFIs that are presumptively TBTF. First, as described in Part III, existing statutory limitations on growth by large banks should be strengthened. Second, LCFIs whose failure would pose a systemic threat to the stability of the financial system should be publicly designated as systemically important financial institutions (“SIFIs”). A special resolution regime should be established for handling each actual or threatened failure of a SIFI. This resolution regime, which would be administered by the FDIC, should follow the essential principles of a Chapter 11 bankruptcy proceeding, including (i) wiping out the investments of the SIFI’s shareholders; (ii) dismissing the SIFI’s senior execu-

tives and directors, and (iii) requiring the SIFI's creditors to accept "haircuts" in the form of less-than-full payment of their claims or conversion of their claims into equity interests in a successor institution.

The third proposed regulatory reform would subject each SIFI to consolidated supervision by the Federal Reserve Board ("FRB") and would require each SIFI to comply with systemic risk capital requirements ("SRCRs"). Fourth, each SIFI would be required to pay insurance premiums to create a systemic risk insurance fund ("SRIF") that would cover the future costs of resolving failed SIFIs. SRCRs and SRIF premiums should be established jointly by the FRB and the Federal Deposit Insurance Corporation ("FDIC"). The SRIF should be kept strictly separate from the existing Deposit Insurance Fund ("DIF"). To prevent the DIF from being used to support future bailouts of TBTF institutions, Congress should prohibit the DIF from making any payment to uninsured creditors of banking organizations.

Finally, to ensure that SIFIs cannot exploit the federal safety net to subsidize speculative activities in the capital markets, a two-tiered system of banking regulation and deposit insurance should be established. The first tier of "traditional" banking organizations could provide services that are "closely related" to banking. However, those entities would not be allowed to engage, or affiliate with firms engaged in securities underwriting or dealing, insurance underwriting, or derivatives dealing. First-tier banks would operate under their current supervisory arrangements, including their existing deposit insurance.

By contrast, the second tier of "nontraditional" banking organizations would be allowed to engage in securities underwriting and dealing, insurance underwriting, and derivatives dealing. However, second-tier banking organizations (which presumably would include the largest financial firms) would be required to organize their banking subsidiaries as "narrow banks." Narrow banks could offer FDIC-insured checking and savings accounts, but they could not offer uninsured deposits. Those banks would effectively operate as FDIC-insured Money Market Mutual Funds ("MMMFs"), and their assets would be limited to cash and marketable, short-term debt obligations such as qualifying government securities and highly-rated commercial paper. Narrow banks would be prohibited from making any loans or other transfers of funds to their affiliates, except for paying lawful dividends to their holding companies. In addition, narrow banks would be prohibited from purchasing derivatives, except for bona fide hedging purposes, or from dealing in derivatives. The primary objectives of the narrow bank concept, in conjunction with the other four proposed reforms, would be (i) to prevent financial conglomerates from using FDIC-insured deposits as a source of low-cost

funding for speculative activities in the capital markets, and (ii) to compel financial conglomerates to internalize the potential risks and costs of their capital markets activities. If financial conglomerates cannot produce attractive economic return without access to extensive public subsidies, they will face significant pressure from investors to break up voluntarily (in the same way that investors forced many industrial conglomerates to break up after 1980).

I. THE IMPACT OF THE FINANCIAL CRISIS

The financial crisis has caused “[g]overnments and central banks around the world [to spend] more than \$11 trillion to support the financial sector and about \$6 trillion on fiscal stimulus programs.”⁴ The largest financial support and economic stimulus programs have been implemented by the U.S., the U.K., and other EU nations, where the financial crisis has caused the greatest harm.⁵ By mid-2009, authorities in those nations furnished more than \$10 trillion of assistance to financial institutions through central bank loans and other governmental loans, guarantees, and capital infusions.⁶ The U.S. provided about \$6 trillion of that amount to support its domestic financial sector.⁷ Additionally, the U.S.

4. David M. Dickson, *Debate Rages Over Stimulus Fallout*, WASH. TIMES, Feb. 23, 2010, at A1 (quoting Ruth Stroppiana, chief international economist for Moody’s Economy.com); see also Adrian Blundell-Wignall et al., *The Elephant in the Room: The Need to Deal with What Banks Do*, 2009 ORG. FOR ECON. CO-OPERATION & DEV. J.: FIN. MKT. TRENDS VOL. 2, 1, 14, 15 tbl.4, available at <http://www.oecd.org/dataoecd/13/8/44357464.pdf> (showing that leading nations around the world provided an estimated \$11.4 trillion of capital infusions, asset purchases and guarantees, and debt guarantees and facilities to financial institutions through October 2009).

5. Int’l Monetary Fund, *Global Financial Stability Report: Navigating the Financial Challenges Ahead*, at 4–5, 6–10, 24–29 (2009), available at <http://www.imf.org/external/pubs/ft/gfsr/2009/02/pdf/text.pdf> [hereinafter October 2009 IMF GFS Report]; *Withdrawing the Drugs: Tightening Economic Policy*, THE ECONOMIST, Feb. 13, 2010, [hereinafter *Tightening Economic Policy*].

6. See Blundell-Wignall et al., *supra* note 4, at 15 tbl.4.

7. In April 2009, the International Monetary Fund (“IMF”) reported that the U.S., the U.K., and European Union (“EU”) nations had provided \$9 trillion of support to financial institutions, including \$4.7 trillion provided by U.S. authorities and \$4.3 trillion provided by U.K. and other EU agencies. Int’l Monetary Fund, *Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risk*, at 41, 44 tbl.1.7 (2009), available at <http://www.imf.org/External/Pubs/FT/GFSR/2009/01/pdf/text.pdf> [hereinafter April 2009 IMF GFS Report]. The IMF estimated that the \$4.7 trillion of financial sector support provided by U.S. authorities included \$1.8 trillion of government guarantees. *Id.* However, the IMF estimate evidently did not include additional guarantees that the U.S. government provided to support money market mutual funds (“MMMFs”) following the

Congress passed an \$800 billion economic stimulus bill in 2009, and other nations have adopted similar programs.⁸

Government agencies have acted most dramatically in rescuing LCFIs that were threatened with failure. U.S. authorities bailed out two of the three largest U.S. banks and the largest U.S. insurance company.⁹ In addition, federal regulators provided financial support for emergency acquisitions of two other major banks, the two largest thrifts, and two of the five largest securities firms, and regulators also approved emergency conversions of two other leading securities firms into bank holding companies (“BHCs”), thereby placing those institutions under the FRB’s pro-

failure of Lehman Brothers in September 2008. In June 2009, the Congressional Oversight Panel (“COP”) provided an estimate of U.S. financial sector assistance that was very close to the IMF estimate. The COP report stated that federal authorities had provided \$4.6 trillion of support to financial institutions, including \$500 billion of capital infusions, \$2.2 trillion of loans and \$1.8 trillion of guarantees. CONGRESSIONAL OVERSIGHT PANEL, JUNE OVERSIGHT REPORT: STRESS TESTING AND SHORING UP BANK CAPITAL 142–48, June 9, 2009, available at <http://cop.senate.gov/documents/cop-060909-report.pdf> [hereinafter June 2009 COP Report]. However, the COP report noted that its estimate did not include the potential cost of the guarantee program established by the Treasury Department to support MMMFs. *Id.* at 148 n.272. In November 2009, COP reported that the Treasury guarantee program had covered up to \$3.2 trillion of MMMF customer accounts between the program’s initiation in September 2008 and its expiration in September 2009. COP estimated that the Treasury’s “practical exposure” under its guarantee program was probably less than half of the maximum potential exposure, because “a majority of the assets in covered [MMMF] accounts” consisted of Treasury bills or other federally-guaranteed securities. CONGRESSIONAL OVERSIGHT PANEL, NOVEMBER OVERSIGHT REPORT: GUARANTEES AND CONTINGENT PAYMENTS IN TARP AND RELATED PROGRAMS 27, 35, Nov. 6, 2009, available at <http://cop.senate.gov/documents/cop-110609-report.pdf> [hereinafter November 2009 COP Report]. Assuming that the Treasury Department’s actual exposure under the MMMF guarantee program was less than half of the maximum \$3.2 trillion of assets held by MMMFs, it seems appropriate to add about \$1.4 trillion of MMMF guarantees to the \$4.6 trillion estimate developed by COP in June 2009. Based on that assumption, it appears that U.S. authorities provided approximately \$6 trillion of assistance to financial institutions in 2009, as compared with the \$4.3 trillion of financial sector support provided by U.K. and EU agencies as reported by the IMF. See Blundell-Wignall et al., *supra* note 4, at 15 tbl.4 (concluding that the U.S. provided approximately \$6.4 trillion of financial sector support through October 2009, while Europe provided nearly \$4.3 trillion of such support).

8. See Dickson, *supra* note 4; William Pesek, *After the Stimulus Binge, A Debt Hangover*, BLOOMBERG BUSINESS WEEK, Jan. 26, 2010, at 14; Tightening Economic Policy, *supra* note 5.

9. For discussions of the federal government’s bailouts of Citigroup, Bank of America (“BoFA”) and American International Group (“AIG”), see DAVID WESSEL, IN FED WE TRUST: BEN BERNANKE’S WAR ON THE GREAT PANIC 3, 25–26, 189–97, 239–41, 259–63 (2009); Patricia A. McCoy, Andrey D. Pavlov & Susan M. Wachter, *Systemic Risk Through Securitization: The Result of Deregulation and Regulatory Failure*, 41 CONN. L. REV. 1327, 1364–66 (2009); Wilmarth, *supra* note 1, at 1044–45.

tective umbrella.¹⁰ Federal regulators also conducted “stress tests” on the nineteen largest BHCs—each with more than \$100 billion of assets—and injected more than \$220 billion of capital into eighteen of those companies.¹¹ Before regulators performed the stress tests, they announced that the federal government would provide any additional capital that the nineteen banking firms needed but could not raise on their own. By giving that public assurance, regulators indicated that all nineteen firms were presumptively TBTF, at least for the duration of the current financial crisis.¹²

10. For descriptions of the federal government’s support for the acquisitions of Wachovia by Wells Fargo, of National City Bank by PNC, of Bear Stearns (“Bear”) and Washington Mutual (“WaMu”) by JP Morgan Chase (“Chase”), and of Countrywide and Merrill Lynch (“Merrill”) by BofA, as well as the rapid conversions of Goldman Sachs (“Goldman”) and Morgan Stanley into BHCs, see DAVID P. STOWELL, AN INTRODUCTION TO INVESTMENT BANKS, HEDGE FUNDS, AND PRIVATE EQUITY: THE NEW PARADIGM 182–84, 398–405, 412–17 (2010); WESSEL, *supra* note 9, at 8–9, 18–19, 147–72, 217–26, 239–41, 259–63; Wilmarth, *supra* note 1, at 1044–45; Arthur E. Wilmarth, Jr., *Cuomo v. Clearing House: The Supreme Court Responds to the Subprime Financial Crisis and Delivers a Major Victory for the Dual Banking System and Consumer Protection* 27–30 (Geo. Wash. U. Law Sch. Pub. L. & Leg. Theory, Working Paper No. 479, 2009), available at <http://ssrn.com/abstract=1499216>.

11. June 2009 COP Report, *supra* note 7, at 7–8, 13–27, 51–52 fig.4 (reporting that the U.S. government provided \$217 billion of capital to 18 of the 19 largest U.S. bank holding companies, and describing the “stress tests” performed on those firms); Dakin Campbell, David Mildeberg & Robert Schmidt, *GMAC Gets \$3.8 Billion in Third U.S. Bailout Package* (Update 2), BLOOMBERG.COM, Dec. 31, 2009, available at <http://www.bloomberg.com/apps/news?pid=20601103&sid=agcYWuOIJVRg#> (describing the federal government’s infusion of \$3.8 billion of additional capital into GMAC).

12. In announcing the “stress test” for the 19 largest banking firms in early 2009, federal regulators “emphasized that none of the banks would be allowed to fail the test, because the government would provide any capital that was needed to ensure the survival of all nineteen banks.” Wilmarth, *supra* note 1, at 1050 n.449 (citing speech by Federal Reserve Bank of New York president William C. Dudley and congressional testimony by FRB chairman Ben Bernanke); Joe Adler, *In Focus: Stress Tests Complicate ‘Too Big to Fail’ Debate*, AM. BANKER, May 19, 2009, at 1, available at http://www.americanbanker.com/issues/174_98/-378732-1.html (stating that “[b]y drawing a line at \$100 billion of assets, and promising to give the 19 institutions over that mark enough capital to weather an economic downturn, the government appears to have defined which banks are indeed ‘too big to fail’”). Based on the stress tests, regulators determined that ten of the 19 firms required additional capital. June 2009 COP Report, *supra* note 7, at 25–27. Nine of those firms were successful in raising the needed funds, but the federal government provided \$11.3 billion of additional capital to GMAC when that company could not raise the required capital on its own. CONGRESSIONAL OVERSIGHT PANEL, JANUARY OVERSIGHT REPORT: EXITING TARP AND UNWINDING ITS IMPACT ON THE FINANCIAL MARKETS 100–04, 160 (Jan. 13, 2010), available at <http://cop.senate.gov/documents/cop-011410-report.pdf> [hereinafter January 2010 COP Report].

Similarly, the U.K. and other EU nations adopted more than eighty rescue programs to support their financial systems. Those programs included costly bailouts of several major EU banks—including ABN Amro, Commerzbank, Fortis, ING, Lloyds HBOS (“Lloyds”), and Royal Bank of Scotland (“RBS”)—while Switzerland financed a similar recapitalization of UBS.¹³

Despite these extraordinary measures of governmental support, financial institutions, commercial firms, and ordinary citizens suffered huge losses in the U.S. and other nations. Between the outbreak of the crisis in mid-2007 and the end of 2009, LCFIs around the world recorded \$1.5 trillion of losses on risky loans and investments made during the preceding credit boom.¹⁴ The financial crisis pushed the economies of the U.S., the U.K., and other EU nations into deep recessions during 2008 and the first half of 2009.¹⁵ Economies in all three regions began to improve in

13. For descriptions of governmental support measures for financial institutions in the U.K. and other European nations, see Fabio Panetta et al., *An Assessment of Financial Sector Rescue Programmes* (Bank of Int'l Settlements Paper No. 48, 2009), available at <http://ssrn.com/abstract-1457664>. Press Release, Eur. Comm'n Communications, State Aid: Overview of National Measures Adopted as a Response to the Financial/Economic Crisis (Jan. 26, 2010), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/13&format=HTML&aged=0&language=EN&guiLanguage=en> (listing 85 measures adopted by EU governments to support their financial sectors); John Goddard, Phil Molyneux & John O.S. Wilson, *The Financial Crisis in Europe: Evolution, Policy Responses and Lessons for the Future* (June 5, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1414935&rec=1&srcabs=1350022; Jann Bettings, *Commerzbank Net Loss Exceeds Estimates on Writedowns* (Update 4), BLOOMBERG.COM, Feb. 23, 2010; *EC Approves More Bailout Funding for Dutch Banks Fortis, ABN AMRO*, 94 BANKING REP. (BNA) 333 (2010); Bert Koster & Dan Fitzpatrick, *ING to Cut Itself in Two to Repay Dutch Aid*, WALL ST. J., Oct. 27, 2009, at C1; Jon Me-non & Andrew MacAskill, *RBS, Lloyds Get \$51 Billion in Second Bank Bailout* (Update 6), BLOOMBERG.COM, Nov. 3, 2009; Daniel Pruzin, *International Banking: Switzerland Aims Plan to Bail Out UBS, Shore Up Financial System*, 91 BANKING REP. (BNA) 686 (2008).

14. Rodney Yap & Dave Pierson, *Subprime Mortgage-Related Losses Exceed \$1.74 Trillion: Table*, BLOOMBERG NEWS, Jan. 25, 2010 (showing that banks, securities firms and insurers incurred \$1.49 trillion of writedowns and credit losses due to the financial crisis, while Fannie Mae and Freddie Mac suffered an additional \$250 billion of losses). As used in this article, the term “large, complex financial institution” (“LCFI”) includes major commercial banks, securities firms and insurance companies as well as “universal banks” (i.e., financial conglomerates that have authority to engage, either directly or through affiliates, in a combination of banking, securities, and insurance activities). See Wilmarth, *supra* note 1, at 968 n.15.

15. See Int'l Monetary Fund, *World Economic Outlook, April 2009: Crisis and Recovery*, at 1–96 (2009), available at <http://www.imf.org/external/pubs/ft/weo/2009/01/pdf/text.pdf>.

the second half of 2009, but the recoveries were tentative and fragile.¹⁶ In early 2010, economies in all three areas continued to face significant challenges, including (i) high unemployment rates and shortages of bank credit that discouraged spending by consumers and investments by businesses; and (ii) large budget deficits that impaired the ability of governments to provide additional fiscal stimulus.¹⁷

The impact of the financial crisis on the U.S. has been especially severe. The collapse of housing and stock values inflicted devastating losses on homeowners and investors. Home prices nationwide fell by thirty percent from their peak in 2006 to their trough in 2009.¹⁸ At the beginning of 2010, more than a fifth of U.S. homeowners were “underwater”—owing more on their mortgages than the value of their homes—and nearly a seventh of all residential mortgages were delinquent or in foreclosure.¹⁹ Between October 2007 and March 2009, U.S. stock prices

16. Int’l Monetary Fund, *World Economic Outlook, October 2009: Sustaining the Recovery*, at 1–92 (2009), available at <http://www.imf.org/external/pubs/ft/weo/2009/02/pdf/text.pdf>; Timothy R. Homan, *U.S. Economy Grew at 2.2% Annual Rate Last Quarter* (Update 2), BLOOMBERG.COM, Dec. 22, 2009, available at <http://www.bloomberg.com/apps/news?pid=20601068&sid=aVeAMaVRygoM> (reporting that the U.S. economy grew during the third quarter of 2009 “at a slower pace than anticipated,” following a steep decline during the previous year); Marcus Walker & Brian Blackstone, *Euro-Zone Economy Returns to Expansion—Third-Quarter Growth Brings an End to Stretch of Contraction Dating to last Year, but Signals Fragility of Region’s Recovery*, WALL ST. J., Nov. 14, 2009, at A6 (reporting that “[t]he euro-zone economy returned to modest growth in the third quarter [of 2009], marking an apparent end to five quarters of recession, but the region’s recovery looks set to be anemic”).

17. See, e.g., Frank Ahrens, *Three Indicators Spell Trouble for the Recovery*, WASH. POST, Feb. 28, 2010, at G01; Mark Deen, *European Economy Risks Decoupling from Global Growth Recovery*, BLOOMBERG.COM, Feb. 26, 2010, <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aD6mJGvUqkRE#>; Jon Hilsenrath, *U.S. News: Credit Remains Scarce in Hurdle to Recovery*, WALL ST. J., Feb. 27, 2010, at A2; Alistair MacDonald, *Big Deficits Cloud Britain’s Future*, WALL ST. J., Jan. 8, 2010, at A1; Simone Meier, *Europe’s Recovery Almost Stalls as Investment Drops* (Update 2), BLOOMBERG.COM, Mar. 4, 2010, <http://www.businessweek.com/news/2010-03-04/europe-s-recovery-almost-stalls-as-investment-drops-update1-.html>; Gretchen Morgenson, *This Crisis Won’t Stop Moving*, N.Y. TIMES, Feb. 7, 2010, § BU, at 1; Pesek, *supra* note 8; Buttonwood, *Finance and Economics: Stimulating debate*, ECONOMIST, Feb. 6, 2010, at 81.

18. Renae Merle, *Housing Recovery Could Take a Decade, Economists Warn*, WASH. POST, Jan. 27, 2010, at A12; see also 2010 Zandi Testimony, *supra* note 1, at 9 chart 7 (showing that a national index of housing prices rose from 100 at the end of 2000 to a high of 175 in 2006, before declining to a low of 120 in early 2009, and recovering slightly to 125 in late 2009).

19. See Daniel Taub, *One-Fifth of U.S. Homeowners Owe More Than Properties Are Worth*, BLOOMBERG.COM, Feb. 10, 2010,

fell by \$10 trillion.²⁰ Household wealth plummeted by \$17.5 trillion during the same period and less than a third of that loss was recovered during a subsequent increase in stock prices and home values.²¹ As the financial crisis deepened, consumers cut back on spending to reduce their heavy debt burdens and rebuild their depleted savings.²²

Rising rates of unemployment and consumer bankruptcies further discouraged household consumption. The national unemployment rate reached ten percent in 2009, reflecting a loss of 8.4 million jobs since the end of 2007.²³ Nearly 2.5 million individuals filed for bankruptcy in 2008 and 2009.²⁴ Falling demand by consumers for housing, goods, and services caused businesses to reduce production and lay off workers, thereby further depressing employment and economic activity.²⁵ Businesses also suffered from the steepest decline in bank credit since the 1940s.²⁶

<http://www.bloomberg.com/apps/news?pid=20603037&sid=at6VKvccpCzs#> (reporting that in the fourth quarter of 2009, “21.4 percent of owners of mortgaged homes were underwater”); *Seven Million Loans Are Behind on Payments*, NAT’L MORTGAGE NEWS, Feb. 15, 2010, at 18 (reporting that 13.3% of residential mortgages were delinquent or in foreclosure); CONGRESSIONAL OVERSIGHT PANEL, DECEMBER OVERSIGHT REPORT, TAKING STOCK: WHAT HAS THE TROUBLED ASSET RELIEF PROGRAM ACHIEVED? 68, 68 n.270 (Dec. 9, 2009), available at www.cop.senate.gov/gocuments/co-120909-report.pdf [hereinafter December 2009 COP Report] (reporting that 5.5 million home foreclosures were started, and two million foreclosures were completed, between July 2007 and September 2009).

20. David Henry et al., *Waiting for the Bull to Return*, BUS. WK., Mar. 16, 2009, at 24–25.

21. 2010 Zandi Testimony, *supra* note 1, at 8, 8 chart 6 (showing that U.S. household wealth declined from a peak of \$65.5 trillion in mid-2007 to a low of \$48 trillion in early 2009, before recovering to \$53 trillion in late 2009).

22. The ratio of U.S. household debt to personal income rose from 87% in 1990 to 139% in 2007, before declining to 131% in 2009. That decline in the household debt burden, along with a corresponding rise in the personal savings rate from zero to four percent, reflected a painful “deleveraging” by U.S. households in response to the financial crisis. See Wilmarth, *supra* note 1, at 1010; James C. Cooper, *Business Outlook: Consumers Won’t Drive a Recovery*, BUS. WK., June 29, 2009, at 14; Reuven Glick & Kevin J. Lansing, *U.S. Household Deleveraging and Future Consumption Growth*, FRBSF ECON. LETTER (Fed. Reserve Bank of S.F., Cal.), May 15, 2009, at 3, available at <http://www.frbsf.org/publications/economics/letter/2009/el2009-16.html>.

23. Neil Irwin et al., *White House Crafts Jobs Bill, a Year into Stimulus Effort*, WASH. POST, Feb. 18, 2010, at A1.

24. David M. Dickson, *Soaring Rate of Bankruptcies Expected to Continue in 2010*, WASH. TIMES, Jan. 8, 2010, at A1.

25. Michael McKee, *No Job Growth for Small Business Spurs Recovery Doubt* (Update 1), BLOOMBERG.COM, Feb. 8, 2010, <http://www.bloomberg.com/apps/news?pid=20601109&sid=apZULWyXpqhE#>; Paul Vigna & John Shipman, *The Upshot: The Great Corporate Pullback*, WALL ST. J., Jan.

In early 2010, regulators and analysts identified serious problems in the commercial real estate (“CRE”) market as a further obstacle to economic recovery. Commercial property values declined by more than forty percent between October 2007 and October 2009, and default rates more than doubled on CRE loans held by banks during 2009.²⁷ Banks held about half of the \$3.4 trillion in outstanding CRE debt, and analysts estimated that banks could suffer \$150 billion to \$300 billion of losses on those loans.²⁸ Many CRE loans fell into default because they were originated during the real estate boom, when lenders offered CRE loans with weak underwriting standards and lax payment terms that resembled the unsound features of subprime and Alt-A residential mortgages.²⁹ Analysts feared that losses on defaulted CRE loans would further weaken the capacity of banks to provide credit to consumers and businesses. Community and regional banks, the primary providers of relationship loans to small businesses, were especially threatened because they held heavy concentrations of CRE loans.³⁰

In February 2010, the Congressional Oversight Panel (“COP”) warned that rising CRE loan defaults threatened to create a “negative feedback loop that suppresses economic recovery” because (i) losses from CRE loan defaults were causing banks to cut back on their lending to small businesses and consumers, thereby causing (ii) lower rates of consumption and higher rates of business failures and unemployment, which would lead to (iii) higher vacancy rates in office buildings, stores, and

25, 2010, at B2; Editorial (United States), *The Economy: The Trap*, *ECONOMIST*, Jan. 16, 2010, at 32.

26. Binyamin Appelbaum, *Troubled Banking Industry Sharply Reduced Lending in 2009*, *WASH. POST*, Feb. 24, 2010, at A8 (reporting that U.S. banks cut their lending by \$587 billion, or 7.5%, in 2009, “the largest annual decline since the 1940s”).

27. Brian Louis, *U.S. Commercial Property Falls to Lowest in 7 Years* (Update 3), *BLOOMBERG.COM*, Dec. 21, 2009, <http://bloomberg.com/apps/news?pid=20601103&sid=aHtqsgJE35sU>; Dan Levy & David Henry, *Commercial Mortgage Default Rate in U.S. More Than Doubles*, *BLOOMBERG.COM*, Feb. 24, 2010, <http://www.bloomberg.com/apps/news?pid=20601206&sid=aExgk1dEfRrA#>.

28. CONGRESSIONAL OVERSIGHT PANEL, *FEBRUARY OVERSIGHT REPORT: COMMERCIAL REAL ESTATE LOSSES AND THE RISK TO FINANCIAL STABILITY* 36–38, 45–46, 102 (Feb. 10, 2010), available at <http://cop.senate.gov/documents/cop-021110-report.pdf> [hereinafter February 2010 COP Report]; Matthew Monks, *CRE Losses Could Pass \$150 Billion Next Year*, *AM. BANKER*, Feb. 8, 2010, at 12; see also Louis, *supra* note 27 (reporting that \$1.4 trillion of CRE loans were scheduled to mature within five years and half of those loans were “underwater” because property values were worth less than the outstanding loans).

29. Wilmarth, *supra* note 1, at 1037–39; February 2010 COP Report, *supra* note 28, at 19–28, 62–64.

30. February 2010 COP Report, *supra* note 28, at 36–38, 42–46, 62–64, 78–81.

apartment buildings, which in turn would produce (iv) additional CRE loan defaults and further downward pressure on the economy.³¹ The COP cautioned that CRE loan defaults could inflict “a second wave of property-based stress on the financial system—this time based on commercial rather than residential real estate.”³²

Losses from defaults on residential mortgages, CRE loans, and related securities have caused almost 200 FDIC-insured depository institutions to fail since 2007. Those failed institutions held assets of more than \$500 billion, and hundreds of additional banks are likely to fail in the near future.³³ Thus, in early 2010, the ability of the U.S. financial system and the general economy to recover from the financial crisis remained in serious doubt.

II. LCFIS' RESPONSIBILITY FOR THE FINANCIAL CRISIS

In order to design regulatory reforms that could prevent a similar crisis in the future, it is essential to understand that LCFIs were the primary private-sector catalysts for the current financial crisis. This Part analyzes the crucial role played by LCFIs in helping to produce the financial and economic conditions that led to the crisis. The discussion will briefly refer to governmental policies that compounded the disastrous errors of LCFIs, but its main focus will be on the LCFIs' responsibility for the crisis.

A. LCFIs Originated Huge Volumes of Risky Loans and Helped to Inflate a Massive Credit Boom That Precipitated the Crisis

1. LCFIs Used Securitization to Originate Risky Loans and to Distribute Hazardous Securities Derived from Those Loans

During the past two decades, and especially between 2000 and 2007, LCFIs helped to generate an enormous credit boom that set the stage for

31. *Id.* at 80; *see also* 2010 Zandi Testimony, *supra* note 1, at 10 (explaining that the threat of widespread defaults on CRE loans was causing many banks to “tighten lending standards, to the detriment of their small business customers” because “more than a third [of U.S. banks] had commercial mortgage loans outstanding worth more than 200% of their equity capital”).

32. February 2010 COP Report, *supra* note 28, at 6.

33. Fed. Deposit Ins. Corp., Q. Banking Profile, 4th Qtr. 2009, 17 tbl.II-B (showing that 165 FDIC-insured institutions, with \$540 billion of assets, failed during 2008 and 2009, while 702 additional institutions, with \$400 billion of assets, were on the FDIC's list of “problem institutions” at the end of 2009); Stephen Bernard, *FDIC Shuts Down Banks in Nevada and Washington*, ASSOCIATED PRESS FIN. WIRE, Feb. 27, 2010 (reporting that 22 additional banks failed during the first two months of 2010, and “[t]he pace of bank seizures this year is likely to accelerate in coming months, FDIC officials said”).

the current financial crisis. LCFIs adopted what appeared to be an “originate to distribute” (“OTD”) strategy based on the techniques of securitization. Securitization enabled LCFIs to earn large amounts of fee income by originating high-risk loans (including nonprime residential mortgages, credit card loans, commercial mortgages, and LBO loans) and pooling those loans to create structured-finance securities. Securitization also allowed LCFIs—with the blessing of regulators—to reduce their capital requirements and offload much of their apparent credit risk.³⁴ LCFIs constructed structured-finance securities that typically included senior, mezzanine and junior (or equity) “tranches.” Those tranches represented a hierarchy of rights (along a scale from the most senior to the most subordinated) to receive cash flows produced by the pooled loans. LCFIs marketed the tranches to satisfy the demands of various types of investors for different combinations of yield and risk. Structured-finance securities included (1) asset-backed securities (“ABS”), which represented interests in pools of credit card loans, auto loans, student loans and other consumer loans; (2) residential mortgage-backed securities (“RMBS”), which represented interests in pools of residential mortgages; and (3) commercial mortgage-backed securities (“CMBS”), which represented interests in pools of commercial mortgages.³⁵

LCFIs created “second-level securitizations” by bundling tranches of ABS and MBS into cash flow collateralized debt obligations (“CDOs”), and they similarly packaged syndicated LBO loans into collateralized loan obligations (“CLOs”).³⁶ LCFIs also created third-level securitiza-

34. Wilmarth, *supra* note 1, at 984–87, 994–97, 1008–43; *see also id.* at 995 (noting that “[f]ee income at the largest U.S. banks (including BofA, Chase and Citigroup) rose from 40% of total earnings in 1995 to 76% of total earnings in 2007”); Viral V. Acharya & Matthew Richardson, *Causes of the Financial Crisis*, 21 *CRITICAL REV.* 195, 198–200 (2009), available at <http://ssrn.com/abstract=1514984>; Viral V. Acharya, Thomas Philippon, Matthew Richardson & Nouriel Roubini, *Prologue: A Bird’s-Eye View: The Financial Crisis of 2007-2009: Causes and Remedies*, in *RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM* 14–23 (Viral V. Acharya & Matthew Richardson eds., 2009).

35. Wilmarth, *supra* note 1, at 984–90; *see also* Joshua Coval et al., *The Economics of Structured Finance*, 23 *J. ECON. PERSPECTIVES* 3, 5–7 (2009); Efraim Benmelech & Jennifer Dlugosz, *The Credit Rating Crisis* 3–6, (Nat’l Bureau of Econ. Research, Working Paper No. 15045, 2009); Kenneth E. Scott, *The Financial Crisis: Causes and Lessons: Ending Government Bailouts As We Know Them, Part I – The Crisis* 6–8 (Rock Center for Corp. Governance, Working Paper Ser. No. 67, 2009). RMBS and CMBS are sometimes hereinafter collectively referred to as “mortgage-backed securities” (“MBS”).

36. Wilmarth, *supra* note 1, at 990–91. The term “CDOs” is generally used to refer collectively to CDOs and CLOs as well as collateralized bond obligations (CBOs). STOWELL, *supra* note 10, at 105–06, 456. Frank Partnoy has noted that many CDOs functioned as “‘second-level’ securitizations of ‘first-level’ mortgage-backed securities

tions by assembling pools of tranches from cash flow CDOs to construct “CDOs-squared.”³⁷ The International Monetary Fund has estimated that private-sector financial institutions issued about \$15 trillion of ABS, MBS, and CDOs in global markets between 2000 and 2007, including \$9 trillion issued in the U.S.³⁸ Another study determined that \$11 trillion of structured-finance securities were outstanding in the U.S. market in 2008.³⁹

LCFIs intensified the risks of securitization by writing over-the-counter (“OTC”) credit derivatives known as “credit default swaps” (“CDS”), which provided “the equivalent of insurance against default events” that might occur with reference to loans in securitized pools or tranches of ABS, MBS and CDOs.⁴⁰ While CDS could be used for hedging purposes, financial institutions and other investors increasingly used CDS to speculate on the default risks of securitized loans and structured-finance securities.⁴¹ LCFIs further increased the financial system’s ag-

(which were securitizations of mortgages).” Frank Partnoy, *Overdependence on Credit Ratings was a Primary Cause of the Crisis* 5 (U. San Diego Sch. of Law Legal Studies Research Paper No. 09-015, 2009), available at <http://ssrn.com/abstract=1430653>. CDOs consisting of tranches of MBS are sometimes referred to as collateralized mortgage obligations (CMOs) but are referred to herein as CDOs. Benmelech & Dlugosz, *supra* note 35, at 6.

37. LCFIs typically used mezzanine tranches of CDOs to create CDOs-squared, because the mezzanine tranches were the least attractive (in terms of their risk-yield tradeoff) to most investors. Wilmarth, *supra* note 1, at 990–91, 1027–30; see also Scott, *supra* note 35, at 7–8, 8 slide 3. CDOs and CDOs-squared are sometimes hereinafter collectively referred to as “CDOs.”

38. *October 2009 IMF GFS Report*, *supra* note 5, at 84, fig.2.2 & fig.2.3 (indicating that \$15.3 trillion of “private-label” issues of ABS, MBS, CDOs and CDOs-squared were issued in global markets between 2000 and 2007, of which \$9.4 trillion was issued in the U.S.). “Private-label” securitizations refer to asset-backed securities issued by private-sector financial institutions, in contrast to securitizations created by government-sponsored enterprises (“GSEs”) such as Fannie Mae (“Fannie”) and Freddie Mac (“Freddie”). *Id.* at 77; see also Wilmarth, *supra* note 1, at 988–89.

39. Benmelech & Dlugosz, *supra* note 35, at 1.

40. Jeffrey Manns, *Rating Risk After the Subprime Mortgage Crisis: A User Fee Approach for Rating Agency Accountability*, 87 N.C. L. REV. 1011, 1036–37 (2009); see also Viral V. Acharya et al., *Centralized Clearing for Credit Derivatives*, in *RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM* 254 (Viral V. Acharya & Matthew Richardson eds., 2009) (explaining that “a [CDS] is like an insurance contract”); Wilmarth, *supra* note 1, at 991–93, 1031–32.

41. James Crotty, *Structural Causes of the Global Financial Crisis: A Critical Assessment of the ‘New Financial Architecture’*, 33 CAMBRIDGE J. ECON. 563, 569 (2009) (citing (i) a 2007 report by Fitch Ratings, concluding that “58% of banks that buy and sell credit derivatives acknowledged that ‘trading’ or gambling is their ‘dominant’ motivation for operating in this market, whereas less than 30% said that ‘hedging/credit risk management’ was their primary motive,” and (ii) a statement by New York superintendent of

gregate exposure to the risks of securitized loans by using pools of CDS to construct synthetic CDOs. Synthetic CDOs were generally constructed to mimic the performance of cash flow CDOs, and synthetic CDOs issued yet another series of tranching, structured-finance securities to investors.⁴² By 2007, the total notional amounts of CDS and synthetic CDOs written with reference to securitized loans, ABS, MBS or cash flow CDOs may have exceeded \$15 trillion.⁴³

Thus, based on available estimates, approximately \$25 trillion of structured-finance securities and related derivatives were outstanding in the U.S. financial markets at the peak of the credit boom in 2007.⁴⁴ Eighteen giant LCFIs, including ten U.S. and eight foreign financial institutions (the “big eighteen LCFIs”), originated the lion’s share of those complex instruments.⁴⁵ Structured-finance securities and related derivatives not

insurance Eric Dinallo, concluding that “80% of the estimated \$62 trillion in CDS outstanding in 2008 were speculative”); Manns, *supra* note 40, at 1036–37 (noting the use of CDS as “speculative instruments”); Michael Lewis, *Betting on the Blind Side*, VANITY FAIR, April 2010 (explaining that “[i]n the beginning, credit-default swaps had been a tool for hedging Very quickly, however, the new derivatives became tools for speculation”).

42. Wilmarth, *supra* note 1, at 993–94, 1030–32.

43. *Id.* at 993–94, 1030–32 (citing estimates indicating that, at the peak of the credit boom, \$1.25 to \$6 trillion of synthetic CDOs were outstanding and that one-third of the \$45 trillion of outstanding CDS were written to protect holders of CDOs, CLOs and other structured-finance instruments).

44. *See supra* notes 38–39, 43 and accompanying text.

45. During the credit boom that led to the financial crisis, the 18 leading LCFIs in global and U.S. markets for securities underwriting, securitizations, structured-finance products, and OTC derivatives included the four largest U.S. banks (BoFA, Chase, Citigroup and Wachovia), the five largest U.S. securities firms (Bear, Goldman, Lehman Brothers, Merrill and Morgan Stanley), the largest U.S. insurer (AIG), and eight foreign universal banks (Barclays, BNP Paribas, Credit Suisse, Deutsche, HSBC, RBS, Société Générale and UBS). *See* Wilmarth, *supra* note 1, at 980–84, 989–90, 994–95, 1019–20, 1031–33; *see also* Dwight Jaffee et al., *Mortgage Origination and Securitization in the Financial Crisis*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 61, 69 tbl.1.4 (Viral V. Acharya & Matthew Richardson eds., 2009) (showing that 11 of those 18 LCFIs ranked among the top 12 global underwriters of CDOs between 2004 and 2008); Anthony Saunders, Roy C. Smith & Ingo Walter, *Enhanced Regulation of Large, Complex Financial Institutions*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 139, 142 tbl.5.2 (Viral V. Acharya & Matthew Richardson eds., 2009) (showing that all of the foregoing 18 LCFIs, except for AIG, ranked among the top 23 global providers of wholesale financial services in 2006 and 2007). In Wilmarth, *supra* note 1, at 994–95, I mistakenly omitted UBS from the list of leading LCFIs during the credit boom. UBS clearly belonged on that list, as shown at *id.* at 980–82, 989–90, 1019 n.280, 1032–33; *see also* Jaffee et al., *supra*, at 69 tbl.1.4 (listing UBS among the top 12 global underwriters of CDOs between 2004 and 2007); Saunders, Smith & Walter, *supra*,

only financed, but also far exceeded, about \$9 trillion of risky private-sector debt that was outstanding in U.S. financial markets when the credit crisis broke out.⁴⁶ The combined volume of MBS, cash flow CDOs, CDS, and synthetic CDOs created an “inverted pyramid of risk,” which enabled investors to place “multiple layers of financial bets” on the performance of high-risk loans in securitized pools.⁴⁷ Consequently, when the underlying loans began to default, the leverage inherent in this “pyramid of risk” produced losses that were far larger than the face amounts of the defaulted loans.⁴⁸

2. LCFIs Pressured Credit Ratings Agencies to Provide “AAA” Ratings to Promote the Sale of Risky Structured-Finance Securities

In view of the risks embodied in structured-finance securities, why did investors buy them? LCFIs made the securities attractive to investors by paying large fees to credit rating agencies (“CRAs”) in order to secure investment-grade ratings (BBB- and above) for most tranches of those securities. Many institutional investors (including banks and insurance companies) are obligated by law or contract to invest solely in securities that carry investment-grade ratings, and only a handful of CRAs possess the “regulatory imprimatur” to issue such ratings.⁴⁹

at 142 tbl.5.2 (showing that UBS was one of the eight largest global providers of wholesale financial services in 2006 and 2007).

46. About \$6.3 trillion of nonprime residential mortgage loans, credit card loans, and CRE loans were outstanding in the U.S. market in 2008, of which about \$2.8 trillion was held in securitized pools and other loans were referenced by CDS. See Wilmarth, *supra* note 1, at 988–94, 1024–41. In addition, about \$2.5 trillion of LBO loans and high-yield (“junk”) bonds were outstanding in the U.S. market in 2008, and a significant portion of that debt was securitized or referenced by CDS. *Id.* at 1039–43; see also CHARLES R. MORRIS, *THE TWO TRILLION DOLLAR MELTDOWN: EASY MONEY, HIGH ROLLERS, AND THE GREAT CREDIT CRASH* 123–26, 134–39 (2d ed. 2008).

47. Wilmarth, *supra* note 1, at 991–94, 1027–32.

48. See MORRIS, *supra* note 46, at 73–79, 113–14, 123–32; Michael Lewis, *The End, PORTFOLIO.COM* (Nov. 11, 2008), <http://www.portfolio.com/news-markets/national-news/portfolio/2008/11/11/The-End-of-Wall-Streets-Boom/?print=true> (quoting hedge fund manager Steve Eisman, who explained that Wall Street firms built an “engine of doom” with cash flow CDOs and synthetic CDOs, because those instruments created “several towers of debt” on top of “the original subprime loans,” and “that’s why the losses are so much greater than the loans”).

49. Manns, *supra* note 40, at 1050–52; see also STOWELL, *supra* note 10, at 105–06, 125–28; Timothy E. Lynch, *Deeply and Persistently Conflicted: Credit Rating Agencies in the Current Regulatory Environment*, 59 CASE W. RES. L. REV. 227, 244–46 (2009); Matthew Richardson & Lawrence J. White, *The Ratings Agencies: Is Regulation the Answer?*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 101, 101–05 (Viral V. Acharya & Matthew Richardson eds., 2009); Benmelech & Dlugosz, *supra* note 35, at 3–4; Frank Partnoy, *Rethinking Regulation of Credit Rating Agencies: An*

CRA's charge fees for their ratings based on an "issuer pays" business model, which requires an issuer of securities to pay fees to one or more CRA's in order to secure credit ratings for its securities. The "issuer pays" model creates an obvious conflict of interest between a CRA's desire to earn fees from issuers of securities and the CRA's stake in preserving its reputation for making reliable risk assessments. Structured-finance securitizations heightened this conflict of interest because LCFIs often paid additional consulting fees to obtain CRA's advice on how to structure securitizations to produce the maximum percentage of AAA-rated securities.⁵⁰ Moreover, a small group of LCFIs dominated the securitization markets and were therefore significant repeat players in those markets. As a result, LCFIs could strongly influence a CRA's decision on whether to assign favorable ratings to an issue of structured-finance securities by threatening to seek higher ratings from other CRA's for the same issue.⁵¹

Moody's, one of the two leading CRA's, reported the highest profit margin of any company included in the S&P 500 index for five consecutive years during the early 2000s, while S&P, the other top CRA, "was similarly profitable."⁵² Moody's generated almost half of its total reve-

Institutional Investor Perspective 4–6 (U. San Diego Sch. of Law Legal Studies Research Paper No. 09-014,2009), available at <http://ssrn.com/abstract=1430608>.

50. For discussion of the conflicts of interest created by the CRA's "issuer pays" model, see, for example, Lynch, *supra* note 49, at 246–48, 256–61; Manns, *supra* note 40, at 1052; Partnoy, *supra* note 36, at 3–7; David Reiss, *Rating Agencies and Reputational Risk* 4–8 (Brook. L. Sch. Legal Studies Research Paper No. 136, 2009), available at <http://ssrn.com/abstract=1358316>. An investigative report issued by the Securities and Exchange Commission ("SEC") in 2008 discussed the CRA's conflicts of interest and quoted an email message sent by a CRA manager to a colleague on December 15, 2006. After complaining that CRA's were making the CDO market an "even bigger monster," the CRA manager remarked, "Let's hope we are all wealthy and retired by the time this house of cards falters." Lynch, *supra* note 49, at 258–60 (summarizing SEC report and quoting CRA manager's email message); see also Aaron Luchetti, *S&P Email: 'We Should Not Be Rating It'*, WALL ST. J., Aug. 2, 2008, at B1 (reporting that the quoted email message was sent by an analytical manager at Standard & Poor's ("S&P"), while an S&P staffer stated in another email message that "we rate every deal" and "it could be structured by cows and we would rate it").

51. Benmelech & Dlugosz, *supra* note 35, at 16–21, 25 (providing evidence of "rating shopping" by issuers of structured-finance securities); Roger Lowenstein, *Triple-A Failure*, N.Y. TIMES, Apr. 27, 2008, (Magazine), at 36; see also Lynch, *supra* note 49, at 256–58 (stating that a *Wall Street Journal* article and the SEC's 2008 investigative report on CRA's indicated that "the credit rating agencies were captured by MBS issuers and bent to the pressures inherent in the issuer-pays business model"); Wilmarth, *supra* note 1, at 988–94, 1011–12, 1017–20, 1027–42 (describing how a small group of LCFIs achieved dominance over the securitization markets).

52. Partnoy, *supra* note 49, at 5.

nues from rating structured-finance products during 2005 and 2006.⁵³ Given the generous fees CRAs received from LCFIs for rating structured-finance securities, it is not surprising that CRAs typically assigned AAA ratings to three-quarters or more of the tranches of ABS, RMBS, CDOs and CDOs-squared.⁵⁴

Investors relied heavily on credit ratings and usually did not perform any meaningful due diligence before deciding to buy structured-finance securities. SEC regulations allowed issuers to sell ABS, RMBS and CDOs to investors based on very limited disclosures beyond the instruments' credit ratings.⁵⁵ In addition, the complexity of structured-finance transactions made it difficult for investors to evaluate the risks of first-level securitizations and nearly impossible for investors to ascertain the risks of second- and third-level securitizations.⁵⁶

Investors also had strong incentives not to question the ratings assigned to structured-finance securities by CRAs. AAA-rated structured-finance securities paid yields that were significantly higher than other AAA-rated securities.⁵⁷ Structured-finance securities were therefore very

53. Coval et al., *supra* note 35, at 4–5; Crotty, *supra* note 41, at 566.

54. See Wilmarth, *supra* note 1, at 1028–29; Benmelech & Dlugosz, *supra* note 35, at 4 (stating that “[a] common feature of all structured finance deals, regardless of the type of underlying collateral, is that a large share of the securities issued (typically 70–85%) are carved out as AAA”); see also Jaffee et al., *supra* note 45, at 73–74 (showing that a typical securitization of subprime mortgages, followed by the creation of two cash flow CDOs and a CDO-squared, would produce an array of tranches of which more than 90% were rated AAA); cf. Coval et al., *supra* note 35, at 4 (stating that three-fifths of all outstanding issues of structured-finance products in 2007 carried AAA ratings, compared to less than one percent of outstanding issues of corporate debt).

55. Kathleen C. Engel & Patricia A. McCoy, *Turning a Blind Eye: Wall Street Finance of Predatory Lending*, 75 *FORDHAM L. REV.* 2039, 2070–73 (2007) (discussing limited disclosures given to institutional investors who bought structured-finance securities in private placements under SEC Rule 144A); Richard E. Mendales, *Collateralized Explosive Devices: Why Securities Regulations Failed to Prevent the CDO Meltdown, and How to Fix It*, 2009 *U. ILL. L. REV.* 1359, 1360–62, 1373–87 (2009) (discussing additional reasons why SEC regulations failed to require adequate disclosures for offerings of CDOs and instead encouraged investors to rely on credit ratings).

56. Wilmarth, *supra* note 1, at 1026–28; Jaffee et al., *supra* note 45, at 73–74; Scott, *supra* note 35, at 7–8, 16; October 2009 IMF GFS Report, *supra* note 5, at 81.

57. AAA-rated structured finance securities paid higher yields than AAA-rated corporate bonds because they represented interests in large, diversified pools of risky loans and, therefore, were exposed to “enormous systematic risk” in the event of “large declines in the aggregate economy.” Coval et al., *supra* note 35, at 17–19 (quotes at 18). Structured-finance securities offered “payoffs essentially identical to a derivative security written against a broad economic index,” and securities with “[s]uch a risk profile should be expected to earn a higher rate of return than those available from single-name bonds, whose defaults are affected by firm-specific bad luck.” *Id.* at 18; see also Wilmarth, *su-*

attractive to investors who were seeking the highest available yields on “safe” debt securities during the low-interest, low-inflation environment of the pre-crisis period.⁵⁸

Thus, the investment-grade credit ratings issued by CRAs enabled LCFIs to transform “trillions of dollars of risky assets . . . into securities that were widely considered to be safe . . . [and] were eagerly bought up by investors around the world.”⁵⁹ LCFIs exploited the conflicts of interest inherent in the “issuer pays” model by paying copious fees that persuaded CRAs to “turn[] a blind eye” to the risks underlying structured-finance securities.⁶⁰ As a practical matter, LCFIs induced CRAs to issue corrupt ratings for structured-finance securities in much the same way that LCFIs had previously bribed and bullied in-house research analysts to provide corrupt recommendations to support dotcom and telecom stocks that LCFIs underwrote during the stock market boom of the late 1990s.⁶¹

Given the CRAs’ pervasive conflicts of interest, it is not surprising that their credit ratings misrepresented the true risks embedded in structured-finance securities. CRAs, like the LCFI issuers, either knowingly or recklessly made critical misjudgments by (i) giving too much weight to

pra note 1, at 1028 (noting that “AAA-rated senior tranches of RMBS . . . offered significantly higher yields than other types of AAA-rated investments and carried the same imprimatur from the [CRAs]”).

58. See Coval et al., *supra* note 35, at 4, 19; Wilmarth, *supra* note 1, at 1028–29; October 2009 IMF GFS Report, *supra* note 5, at 81; Acharya & Richardson, *supra* note 34, at 205 (stating that, in June 2006, “AAA-rated tranches of subprime CDOs offered twice the premium of the typical AAA credit-default swap of a corporation”); U.K. FIN. SERV. AUTH., THE TURNER REVIEW: A REGULATORY RESPONSE TO THE GLOBAL BANKING CRISIS 12–15 (March 2009), available at http://www.fsa.gov.uk/pubs/other/turner_review.pdf [hereinafter TURNER REVIEW] (explaining that LCFIs created novel types of securitized credit instruments to satisfy “a ferocious search for yield” by investors in the context of “very low medium- and long-term real interest rates”); Mark Astley et al., *Global Imbalances and the Financial Crisis* 178, 181, BANK OF ENGLAND Q. BULL., Q3, 2009, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1478419 (concluding that “[t]he low interest rate environment seems to have interacted with strong competitive pressures on banks and asset managers to maintain returns, leading to a ‘search for yield’ in financial markets”) (footnote omitted).

59. Coval et al., *supra* note 35, at 3–4.

60. Manns, *supra* note 40, at 1043; see also Lynch, *supra* note 49, at 258–60; Manns, *supra* note 40, at 1041–47, 1052–53; Reiss, *supra* note 50, at 4–8.

61. FRANK PARTNOY, INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS 274–91 (2003); Wilmarth, *supra* note 1, at 1000. For a comprehensive journalistic account of the research analyst scandal, see CHARLES GASPARINO, BLOOD ON THE STREET: THE SENSATIONAL INSIDE STORY OF HOW WALL STREET ANALYSTS DUPED A GENERATION OF INVESTORS (2005).

the benefits of diversification from pooling large numbers of high-risk loans, (ii) failing to recognize that RMBS and CDOs became more risky as mortgage lending standards deteriorated between 2004 and 2007, (iii) failing to appreciate that RMBS and CDOs often contained dangerous concentrations of loans from high-risk states like California, (iv) underestimating the risk that a serious economic downturn would trigger widespread correlated defaults among pooled loans of similar types, (v) relying on historical data drawn from a relatively brief period in which benign economic conditions prevailed, and (vi) assuming that housing prices would never decline on a nationwide basis.⁶² By mid-2009, CRAs had cut their ratings on tens of thousands of investment-grade tranches of RMBS and CDOs, and securitization markets had collapsed.⁶³

3. LCFIs Promoted an Unsustainable Credit Boom that Set the Stage for the Financial Crisis

The LCFIs' large-scale securitizations of credit helped to create an enormous credit boom in the U.S. financial markets between 1991 and 2007. Nominal domestic private-sector debt nearly tripled, rising from \$10.3 trillion to \$39.9 trillion during that period, and the largest increases occurred in the financial and household sectors.⁶⁴ Total domestic private-sector debt as a percentage of gross domestic product ("GDP") rose from 150 percent in 1987 to almost 300 percent in 2007 and, by that measure, exceeded even the huge credit boom that led to the Great Depression.⁶⁵

62. See Coval et al., *supra* note 35, at 3–4, 8–21; Wilmarth, *supra* note 1, at 1034; Benmelech & Dlugosz, *supra* note 35, at 2, 13–15, 21–23, 25; Partnoy, *supra* note 36, at 6–11; Lowenstein, *supra* note 51.

63. October 2009 IMF GFS Report, *supra* note 5, at 93 fig.2.12 (reporting that, as of June 30, 2009, S&P had (i) cut its ratings on 90% of AAA-rated tranches of ABS CDOs issued from 2005 to 2007, and 80% of those tranches were reduced to noninvestment-grade ratings of BB or lower, and (ii) lowered its ratings on 63% of AAA-rated tranches of private-label RMBS issued during the same period, and 52% of those tranches were reduced to noninvestment-grade ratings); Benmelech & Dlugosz, *supra* note 35, at 8–9, 31 tbl.2 (reporting that Moody's issued 45,000 downgrades affecting 36,000 tranches of structured-finance securities during 2007 and the first nine months of 2008, and Moody's average downgrade during that period was 5.2 rating notches).

64. Wilmarth, *supra* note 1, at 1002 & nn.174–76 (reporting that financial sector debt accounted for \$13 trillion of the increase in domestic nongovernmental debt between 1991 and 2007, while household debt grew by \$10 trillion and nonfinancial business debt increased by \$6.4 trillion).

65. TURNER REVIEW, *supra* note 58, at 18 ex. 1.10; see also STOWELL, *supra* note 10, at 456 ex.3 (showing the rapid growth of total domestic nongovernmental debt as a percentage of GDP between the mid-1980s and the end of 2007); Wilmarth, *supra* note 1, at 974, 974 n.26 (referring to the credit boom of the 1920s that precipitated the Great Depression).

Financial sector debt as a percentage of GDP rose from 40 percent in 1988 to 70 percent in 1998 and 120 percent in 2008.⁶⁶ Meanwhile, household sector debt grew from two-thirds of GDP in the early 1990s to 100 percent of GDP in 2008.⁶⁷

The credit boom produced a surge in profits and employee compensation in the financial sector, and it greatly enhanced the financial sector's importance within the broader economy. "From 1996 through 2006, profits at financial companies rose an average of 13.8% per year, compared with 8.5% for nonfinancial companies."⁶⁸ Financial sector earnings doubled as a share of total corporate pretax profits between 1980 and 2007, rising from thirteen to twenty-seven percent of such profits.⁶⁹ During the same period, the compensation gap between financial sector employees and other workers grew from ten percent to fifty percent.⁷⁰ Stocks of financial firms included in the S&P 500 index held the highest aggregate market value of any sector of that index from 1995 to 1998, and again from 2002 to 2007.⁷¹

As the credit book inflated and the financial sector grew in size and importance to the overall economy, LCFIs also became more leveraged, more fragile, and more vulnerable to a systemic crisis. At the end of 2007, the ten largest U.S. financial institutions—all of which were leading participants in structured-finance securitization—had an average leverage ratio of 27:1 when their off-balance-sheet ("OBS") commitments

66. *The Gods Strike Back: A Special Report on Financial Risk*, ECONOMIST, Feb. 13, 2010, at 3, chart 1.

67. Peter Coy, *Why the Fed Isn't Igniting Inflation*, BUS. WEEK, June 29, 2009, at 20, 21; *see also supra* n.22 (reporting that the ratio of U.S. household debt to disposable personal income increased from 87% in 1990 to 139% in 2007).

68. Tom Lauricella, *Crumbling Profit Center: Financial Sector Showing Life, but Don't Bank on Long-Term Revival*, WALL ST. J., Mar. 24, 2008, at C1; *see also* HENRY KAUFMAN, *THE ROAD TO FINANCIAL REFORMATION: WARNINGS, CONSEQUENCES, REFORMS* 161 (2010) (stating that financial sector profits increased by 313% between 1995 and 2007, compared to a 197% profit rise for nonfinancial businesses).

69. Justin Lahart, *Has the Financial Industry's Heyday Come and Gone?*, WALL ST. J., Apr. 28, 2008, at A2; *see also* Buttonwood, *The Profits Puzzle*, ECONOMIST, Sept. 15, 2007, at 99 (reporting that the financial sector contributed "around 27% of the profits made by companies in the S&P 500 index [in 2007], up from 19% in 1996").

70. Lahart, *supra* note 69.

71. Elizabeth Stanton, *Bank Stocks Cede Biggest S&P Weighting to Technology* (Update 1), BLOOMBERG.COM, May 21, 2008; *see also* Lauricella, *supra* note 68 (reporting that financial stocks accounted for 22.3% of the value of all stocks included in the S&P index at the end of 2006, "up from just 13% at the end of 1995").

were taken into account.⁷² James Crotty has summarized the parallel development of financial growth, leverage and fragility as follows:

Over time, financial markets grew ever larger relative to the nonfinancial economy, important financial products became more complex, opaque and illiquid, and system-wide leverage exploded. As a result, financial crises became more threatening. This process culminated in the current crisis, which is so severe that it has pushed the global economy to the brink of depression.⁷³

As I noted in a previous article, “[b]y 2007, the health of the U.S. economy relied on a massive confidence game—indeed, some might say, a Ponzi scheme—operated by its leading financial institutions.”⁷⁴ This “confidence game,” which sustained the credit boom, could continue only as long as investors were willing “to keep buying new debt instruments that would enable overstretched borrowers to expand their consumption and service their debts.”⁷⁵ In the summer of 2007, when investors lost confidence in the ability of subprime borrowers to meet their obligations, “the game collapsed and a severe financial crisis began.”⁷⁶

B. LCFIs Retained Exposures to Many of the Hazards Embedded in Their High-Risk Lending

During the credit boom, LCFIs pursued a securitization strategy that produced highly leveraged risk-taking through the use of complex structured-finance products, CDS, and OBS vehicles.⁷⁷ This securitization strategy was highly attractive in the short term, because LCFIs (as well

72. See KAUFMAN, *supra* note 68, at 105 ex.8.4 (providing the total assets, OBS commitments and shareholders' equity for each of the 10 largest U.S. financial institutions—Citigroup, BofA, Chase, Morgan Stanley, Merrill, Wells Fargo, AIG, Goldman and Lehman—at the end of 2007). I calculated the leverage ratio for each of the 10 LCFIs by (i) combining the total assets and OBS commitments of each LCFI and (ii) dividing the combined number by the LCFI's shareholders' equity. See *infra* notes 90–99 and accompanying text (explaining how LCFIs used OBS vehicles to increase their leverage).

73. Crotty, *supra* note 41, at 564; see also TURNER REVIEW, *supra* note 58, at 19 (observing that “[t]he growing size of the financial sector was accompanied by an increase in total system leverage which . . . played an important role in driving the boom and in creating vulnerabilities that have increased the severity of the crisis”) (footnote omitted).

74. Wilmarth, *supra* note 1, at 1008 (footnote omitted).

75. *Id.*

76. *Id.*

77. Viral V. Acharya & Philipp Schnabl, *How Banks Played the Leverage Game, in* RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 83, 83–89 (Viral V. Acharya & Matthew Richardson eds., 2009); Blundell-Wignall et al., *supra* note 4, at 3–13; Saunders, Smith & Walter, *supra* note 45, at 140–45; Wilmarth, *supra* note 1, at 1027–41.

as the mortgage brokers, nonbank lenders and CRAs who worked with LCFIs) collected lucrative fees at each stage of originating, securitizing, rating and marketing the risky residential mortgages, commercial mortgages, credit card loans and LBO loans.⁷⁸ Based on the widespread belief that LCFIs were following an OTD strategy, both managers and regulators of LCFIs operated under the illusion that the credit risks inherent in the securitized loans were being transferred to the ultimate purchasers of structured-finance securities.⁷⁹ In significant ways, however, LCFIs actually pursued an originate to *not really* distribute program.⁸⁰

For example, LCFIs decided to keep large amounts of highly-rated, structured-finance securities on their balance sheets because regulators allowed LCFIs to do so with a minimum of capital. In the U.S., LCFIs took advantage of a regulation issued by the federal banking agencies in November 2001, which greatly reduced the risk-based capital charge for structured-finance securities rated “AAA” or “AA” by CRAs. The 2001 regulation assigned a risk weighting of only twenty percent to such securities in determining the amount of risk-based capital that banks were required to hold.⁸¹ As a practical matter, the 2001 rule cut the risk-based capital requirement for highly-rated tranches of RMBS and related CDOs from four percent to only 1.6 percent.⁸² The federal agencies adopted the 2001 rule even though commentators at the proposal stage warned that CRAs faced “an inherent conflict of interest” in rating structured-finance securities because the bank issuers would be “paying for the rating[s].”⁸³

In Europe, LCFIs similarly retained AAA-rated structured-finance securities on their balance sheets because the Basel I and Basel II capital accords assigned very low risk weights to such securities. In contrast to the U.S., European nations did not require banks to maintain a minimum leverage capital ratio and instead required banks only to meet the Basel

78. Crotty, *supra* note 41, at 565–66; Wilmarth, *supra* note 1, at 984–87, 995–96, 1017–20, 1034–42.

79. Wilmarth, *supra* note 1, at 995–96, 1030.

80. Acharya & Richardson, *supra* note 34, at 198–201; Wilmarth, *supra* note 1, at 970–71, 1032–35, 1039–43, 1046–48; TURNER REVIEW, *supra* note 58, at 15–21.

81. See Risk-Based Capital Guidelines, 66 Fed. Reg. 59614, 59625–27 (Nov. 29, 2001) [hereinafter 2001 Risk-Based Capital Rule]; Arnold Kling, Not What They Had in Mind: A History of Policies that Produced the Financial Crisis of 2008 at 25–26 (Sept. 15, 2009) (unpublished manuscript), available at <http://ssrn.com/abstract=1474430>.

82. Kling, *supra* note 81, at 25 fig.4.

83. 2001 Risk-Based Capital Rule, *supra* note 81, at 59265 (noting statements by “[s]everal commenters” who responded to the proposed rule by warning that the reliability of ratings would be undermined by conflicts of interest at CRAs); Kling, *supra* note 81, at 25–26; see also *supra* notes 49–53 and accompanying text (discussing conflicts of interest created by the “issuer pays” business model adopted by CRAs).

risk-weighted capital standards. As a result, European banks did not incur significant capital charges for holding on-balance-sheet, AAA-rated instruments due to their low risk weights under Basel rules.⁸⁴

LCFIs had other reasons to retain highly-rated structured finance securities on their balance sheets. As the credit boom reached its peak, LCFIs found it difficult to locate investors to purchase all of the AAA tranches they were producing. Managers at aggressive LCFIs decided to assume “warehouse risk” by keeping AAA-rated tranches on their balance sheets, because they wanted to complete more securitization deals, earn more fees, produce higher short-term profits and distribute larger compensation packages to executives and key employees.⁸⁵ In addition, several LCFIs engaged in “negative basis trades” (“NBTs”) by purchasing AAA-rated tranches and selling CDS on the same instruments to either AIG or monoline insurance companies. LCFIs used aggressive accounting techniques to book an immediate profit on each NBT in an amount equal to the estimated present value of the difference between (i) the expected revenues to be received from the AAA-rated tranches during the term of the NBT and (ii) the premiums to be paid on the CDS during that period (usually five to ten years).⁸⁶ The promise of near-term

84. For discussion of the liberal treatment of AAA-rated securities under the Basel accords, see Acharya & Schnabl, *supra* note 77, at 94–98; Andrew G. Haldane, *Banking on the State*, BANK INT'L SETTLEMENTS REVIEW 5–8 (Nov. 11, 2009), available at <http://www.bis.org/review/r091111e.pdf>. Because European banks did not have to comply with a minimum leverage capital ratio, the 13 largest European banks operated in 2008 with an average leverage ratio of 2.68%, compared to an average leverage ratio of 5.88% for the ten largest U.S. banks (which were required to maintain a leverage capital ratio of at least 4%). Similarly, the four largest U.S. securities firms had an average leverage ratio of only 3.33%, because the SEC did not require those firms to comply with a minimum leverage ratio. Adrian Blundell-Wignall & Paul Atkinson, *The Sub-prime Crisis: Causal Distortions and Regulatory Reform*, in LESSONS FROM THE FINANCIAL TURMOIL OF 2007 AND 2008: PROCEEDINGS OF A CONFERENCE ON 14-15 JULY 2008 55, 93–94, 95 tbl.6 (Paul Bloxham & Christopher Kent eds., 2008), available at <http://www.rba.gov.au/publications/conf/2008/conf-vol-2008.pdf>; McCoy et al., *supra* note 9, at 1358–60 (explaining that the SEC exempted the five largest U.S. investment banks from the SEC's net capital rule in 2004 and allowed them to determine their capital requirements based on internal risk models, with the result that leverage at the five firms increased to about 30:1 by 2008).

85. Wilmarth, *supra* note 1, at 1032–33; see also Gian Luca Clementi et al., *Rethinking Compensation in Financial Firms*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 197, 198–200 (Viral V. Acharya & Matthew Richardson eds., 2009); Crotty, *supra* note 41, at 568–69; Jaffee et al., *supra* note 45, at 71–73.

86. For discussion of negative basis trades, see Wilmarth, *supra* note 1, at 1033 n.355; David Henry & Matthew Goldstein, *Death of a Bond Insurer*, BUS. WEEK, Apr. 14, 2008, at 24, 25–26; Serena Ng & Susan Pulliam, *The Bond 'Transformers': Regula-*

profits from fees and NBTs blinded LCFIs to the risk that AIG and monoline insurers might default on their CDS obligations.⁸⁷

By 2007, Citigroup, Merrill, and UBS together held more than \$175 billion of AAA-rated CDOs on their books.⁸⁸ The huge losses suffered by those institutions on retained CDO exposures were a significant reason why all three needed extensive governmental assistance to avoid failure.⁸⁹

In addition, LCFIs retained risk exposures for many of the assets they ostensibly transferred to OBS entities through securitization. Regulators in the U.S. and Europe allowed LCFIs to sponsor structured investment vehicles (“SIVs”) and other OBS conduits, which were frequently used as dumping grounds for the RMBS and CDOs that LCFIs were unable to sell to arms-length investors. The sponsored conduits sold asset-backed commercial paper (“ABCP”) to investors (including MMMFs) and used the proceeds to buy structured-finance securities originated by the sponsoring LCFIs. The conduits faced a potentially dangerous funding mismatch between their longer-term, structured-finance assets and their shorter-term, ABCP liabilities. The sponsoring LCFIs covered that mismatch (in whole or in part) by providing explicit credit enhancements (including lines of credit) or implicit commitments to ensure the availability of liquidity if the sponsored conduits could not roll over their ABCP.⁹⁰

U.S. regulators adopted capital rules that encouraged the use of ABCP conduits. Those rules did not assess any capital charges against LCFIs for transferring securitized assets to sponsored conduits, but instead, required LCFIs to post capital only if they provided explicit credit en-

tors Revisit a Loophole Allowing Insurers to Do Swaps, WALL ST. J., Jan. 30, 2008, at C1.

87. GILLIAN TETT, *FOOL’S GOLD: HOW THE BOLD DREAM OF A SMALL TRIBE AT J.P. MORGAN WAS CORRUPTED BY WALL STREET GREED AND UNLEASHED A CATASTROPHE* 127–28, 134, 138, 216–17 (2009); Wilmarth, *supra* note 1, at 1031–35 (noting that AIG and monoline insurers wrote about \$1 trillion of CDS with respect to structured-finance securities); Henry & Goldstein, *supra* note 86; Ng & Pulliam, *supra* note 86 (noting that “[f]or Wall Street firms, the bond insurers’ willingness to sell [CDS] was a potential bonanza” that “benefited the banks by freeing capital . . . [and] enabled the banks to book sizable profits upfront”).

88. Clementi et al., *supra* note 85, at 198–200.

89. TETT, *supra* note 87, at 133–39, 204–06; Blundell-Wignall et al., *supra* note 4, at 4, 7–11; Jaffee et al., *supra* note 45, at 68–69, 72–73; *infra* notes 118–119 and accompanying text.

90. For discussion of the risk exposures of LCFIs to SIVs and other sponsored conduits, see TETT, *supra* note 87, at 97–98, 127–28, 136, 196–98; Acharya & Schnabl, *supra* note 77, at 88–94; Wilmarth, *supra* note 1, at 1033.

hancements to their conduits.⁹¹ Moreover, a 2004 regulation approved a very low capital charge for sponsors' lines of credit, equal to only one-tenth of the usual capital charge of eight percent, as long as the lines of credit had maturities of one year or less.⁹²

ABCP conduits sponsored by LCFIs grew rapidly during the peak years of the credit boom. As a result, the ABCP market in the United States nearly doubled after 2003 and reached \$1.2 trillion in August 2007. Three-quarters of that amount was held in 300 conduits sponsored by U.S. and European LCFIs.⁹³ Citigroup was the largest conduit sponsor, and seven of the top ten sponsors were members of the "big eighteen" club of LCFIs.⁹⁴ As a result of their risk exposures to conduits and their other OBS commitments, many of the leading LCFIs were much more highly leveraged than their balance sheets indicated.⁹⁵

After the financial crisis broke out in August 2007, conduits suffered large losses on their holdings of structured-finance securities. Many conduits were unable to roll over their ABCP because investors refused to buy securities (like ABCP) that were exposed to potential losses from subprime mortgages.⁹⁶ To prevent conduit defaults and avoid damage to their reputations, most LCFI sponsors went beyond their legal obligations and either brought conduit assets back onto their balance sheets or provided stronger credit enhancements that enabled conduits to remain in business.⁹⁷

91. Acharya & Schnabl, *supra* note 77, at 89.

92. Risk-Based Capital Guidelines, 69 Fed. Reg. 44908, 44910-11 (July 28, 2004); *see also* Acharya & Schnabl, *supra* note 77, at 89 (noting that capital requirements for short-term "liquidity enhancements" were "only 0.8 percent of asset value").

93. For an analysis of ABCP conduits and the growth of the ABCP market, see Martin Kacperczyk & Philipp Schnabl, *When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007-2009*, 24 J. ECON. PERSP. 29, 32-34, 38 fig.1 (2010).

94. Acharya & Schnabl, *supra* note 77, at 93 tbl.2.1 (listing Citigroup, BofA, Chase, HSBC, Société Générale, Deutsche and Barclays among the top 10 conduit sponsors).

95. *See* KAUFMAN, *supra* note 68, at 105 exh.8.4; TETT, *supra* note 87, at 97-98; Crotty, *supra* note 41, at 570.

96. For a discussion of losses suffered by ABCP conduits and the collapse of the ABCP market, *see* Acharya & Schnabl, *supra* note 77, at 89-92 (noting that the outstanding volume of ABCP fell from \$1.22 trillion to \$800 billion between August 2007 and January 2008).

97. *Id.* at 91-94; *see also* Wilmarth, *supra* note 1, at 1033 (observing that the conduit rescues "showed that LCFIs felt obliged, for reasons of 'reputation risk,' to support OBS commitments that they had sponsored, even when they did not have explicit contractual commitments to do so"). Citigroup absorbed \$84 billion of assets onto its balance sheet from seven SIVs, while HSBC and Société Générale took back \$50 billion of assets from their SIVs. Wilmarth, *supra* note 1, at 1033 n.358.

Thus, notwithstanding the widely-shared assumption that LCFIs were following an OTD strategy, they did not transfer many of the credit risks created by their securitization programs. Instead, “they ‘warehoused’ nonprime mortgage-related assets . . . [and] transferred similar assets to sponsored OBS entities.”⁹⁸ In fact, LCFIs retained risk exposures to about half of the outstanding AAA-rated ABS in mid-2008 through their “warehoused” and OBS positions.⁹⁹ In many respects, LCFIs “pursued an ‘originate to *not really* distribute’ strategy, which prevented financial regulators and analysts from understanding the true risks created by the LCFIs’ involvement with nonprime mortgage-related assets.”¹⁰⁰

Commentators noted that the LCFIs’ use of complex derivatives and OBS structures resembled the abusive accounting maneuvers of Enron, which Congress thought it had prohibited by passing the Sarbanes-Oxley Act in 2002.¹⁰¹ Indeed, many of the same LCFIs that were embroiled in the financial crisis had previously played major roles in structuring Enron’s deceptive transactions.¹⁰² Belatedly, the Financial Accounting Standards Board (“FASB”) and federal banking agencies took action during the past year to force banks to provide on-balance-sheet accounting and capital treatment for OBS entities they control.¹⁰³

98. Wilmarth, *supra* note 1, at 1033–34.

99. Acharya & Schnabl, *supra* note 77, at 97 tbl.2.2, 97–98.

100. Wilmarth, *supra* note 1, at 1034.

101. See, e.g., Floyd Norris, *Why Surprises Still Lurk After Enron*, N.Y. TIMES, Feb. 29, 2008, at C1; David Reilly, *Look Under the Banks’ Hoods: FASB to Re-Examine Whether Financing Vehicles That Added to Woes Should Stay Off Books*, WALL ST. J., Feb. 29, 2008, at C1. For a description of Enron’s manipulative use of derivatives and OBS entities, see Arthur E. Wilmarth, Jr., *Conflicts of Interest and Corporate Governance Failures at Universal Banks During the Stock Market Boom of the 1990s: The Cases of Enron and WorldCom*, in CORPORATE GOVERNANCE IN BANKING: A GLOBAL PERSPECTIVE 97, 102–10 (Benton E. Gup ed., 2007).

102. Wilmarth, *supra* note 1, at 999–1001; Wilmarth, *supra* note 101, at 101–12 (explaining the important roles played by Citigroup, Chase, Barclays, Credit Suisse, Deutsche, RBS, Merrill Lynch, BNP Paribas and UBS in (i) structuring Enron’s abusive transactions and/or (ii) pressuring their in-house research analysts to provide favorable reports on Enron).

103. Risk-Based Capital Guidelines, 74 Fed. Reg. 47138, 47140–41 (Sept. 15, 2009) (explaining that FASB had adopted new standards that would require consolidated accounting treatment for all OBS “variable interest entities” (VIEs), including ABCP conduits, over which a bank exercises a “controlling financial interest” by reason of (i) “the power to direct matters that most significantly impact the activities of the VIE” or (ii) “either the obligation to absorb losses of the VIE that could potentially be significant to the VIE, or the right to receive benefits from the VIE that could potentially be significant to the VIE, or both”); Risk-Based Capital Guidelines, 75 Fed. Reg. 4636, 4637–39 (Jan. 28, 2010) (applying risk-based and leverage capital requirements to VIEs that are subject to consolidated accounting treatment under the FASB’s new standards).

C. LCFIs were Not Solely Responsible for the Financial Crisis, but They were the Most Important Private-Sector Catalysts for the Crisis

Excessive risk-taking by LCFIs was not the only cause of the current financial crisis. Several additional factors played an important role. First, many analysts have criticized the FRB for maintaining an excessively loose monetary policy during the second half of the 1990s and again between 2001 and 2005. Critics charge that the FRB's monetary policy mistakes produced speculative asset booms that led to the dotcom-telecom bust in the stock market between 2000 and 2002 and the bursting of the housing bubble after 2006.¹⁰⁴

Second, during the past decade several Asian nations that were large exporters of goods (including China, Japan, and South Korea) maintained artificially low exchange rates for their currencies against the dollar, the pound sterling, and the euro. To preserve the desired currency exchange rates, those nations boosted the value of Western currencies by purchasing Western government securities and investing in Western financial markets. In addition, many oil exporting nations invested large amounts in Western assets. Thus, nations with significant balance-of-trade surpluses provided large amounts of credit and investment capital that helped to promote asset booms in the U.S., the U.K., and other European countries.¹⁰⁵

Third, Robert Shiller and others have argued that "bubble thinking" caused home buyers, LCFIs, CRAs, investors in structured-finance securities, and regulators to believe that the housing boom would continue

104. For critiques of the FRB's monetary policy, see JOHN B. TAYLOR, GETTING OFF TRACK: HOW GOVERNMENT ACTIONS AND INTERVENTIONS CAUSED, PROLONGED AND WORSENE THE FINANCIAL CRISIS 1-6, 11-13 (2009) (contending that the FRB's "extra-easy [monetary] policy accelerated the housing boom and thereby ultimately led to the housing bust"); Wilmarth, *supra* note 1, at 1005-06 (summarizing analysis by various critics of the FRB); Yener Altumbas et al., *Does Monetary Policy Affect Bank Risk-taking* 1, 4, 16 (Bank Int'l Settlements Working Paper No. 298, 2010), available at <http://www.bis.org/publ/work298.htm> (determining, based on a study of performance data for 1,100 banks operating in the U.S. and the EU from 1998 to 2008, that "unusually low interest rates over an extended period of time contributed to an increase in banks' risk-taking"); Kling, *supra* note 81, at 38-39. For an impassioned attack on the FRB's monetary policy between the mid-1990s and 2005, see generally WILLIAM A FLECKENSTEIN & FREDERICK SHEEHAN, GREENSPAN'S BUBBLES: THE AGE OF IGNORANCE AT THE FEDERAL RESERVE (2008).

105. For analysis of the impact of large purchases of Western government securities and other investments in Western financial markets by Asian nations and oil exporting countries, see MORRIS, *supra* note 46, at 88-104; Wilmarth, *supra* note 1, at 1006-07; Astley et al., *supra* note 58, at 180-82.

indefinitely and “could not end badly.”¹⁰⁶ According to these analysts, a “*social contagion* of boom thinking” helps to explain both why the housing bubble continued to inflate for several years, and why regulators failed to stop LCFIs from making high-risk loans to borrowers who had no capacity to repay or refinance their loans unless their properties continued to appreciate in value.¹⁰⁷ Failures by federal financial regulators to stop unsound lending and speculative risk-taking by LCFIs played a significant role in precipitating the financial crisis.¹⁰⁸

Finally, Fannie Mae (“Fannie”) and Freddie Mac (“Freddie”) contributed to the housing bubble by purchasing large quantities of nonprime mortgages and RMBS beginning in 2003. Those government-sponsored entities (“GSEs”) purchased nonprime mortgages and RMBS because (i) Congress pressured them to fulfill affordable housing goals, (ii) large nonprime mortgage lenders (including Countrywide) threatened to sell most of their mortgages to Wall Street firms if the GSEs failed to purchase more of their nonprime loans, and (iii) Fannie’s and Freddie’s senior executives feared the loss of additional market share to LCFIs that were aggressively securitizing nonprime mortgages into private-label RMBS. In 2007, the two GSEs held \$220 billion of RMBS backed by subprime and Alt-A mortgages, representing a tenth of the nonprime market. Heavy losses on Fannie’s and Freddie’s portfolios of nonprime RMBS contributed to their collapse in 2008.¹⁰⁹

106. ROBERT J. SHILLER, *THE SUBPRIME SOLUTION* 48–54 (2008); see also MORRIS, *supra* note 46, at 65–69; Wilmarth, *supra* note 1, at 1007–08; Astley et al., *supra* note 58, at 181 (observing: “Financial market participants were lulled into a false sense of security by extrapolating only from recent benign data, thereby attaching low probabilities to adverse outcomes. This ‘disaster myopia’ may have contributed to the price of risk being set too low”) (footnote omitted).

107. SHILLER, *supra* note 106, at 41–54; see also Wilmarth, *supra* note 1, at 1007–08, and sources cited therein.

108. For critiques of regulatory failures by the FRB, the Office of the Comptroller of the Currency (“OCC”), the Office of Thrift Supervision (“OTS”) and SEC, see, e.g., Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 80–95 (2008); McCoy et al., *supra* note 9, at 1343–66; Wilmarth, *supra* note 10, at 19–31; Neglect and Inaction: An Analysis of Federal Banking Regulators’ Failure to Enforce Consumer Protections (Center for Responsible Lending, CRL Policy Brief, July 13, 2009), available at <http://www.responsiblelending.org/mortgage-lending/policy-legislation/regulators/neglect-and-inaction-7-10-09-final.pdf>.

109. For discussions of Fannie’s and Freddie’s purchases of nonprime RMBS and the reasons for such purchases, see, for example, Dwight Jaffee et al., *What to Do about the Government-Sponsored Enterprises*, in *RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM* 121, 124–30 (Viral V. Acharya & Matthew Richardson eds., 2009); Christopher L. Peterson, *Fannie Mae, Freddie Mac, and the Home Mortgage Foreclosure Crisis*, 10 LOY. J. PUB. INT. L. 149, 163–168 (2009); Jo Becker et al., *White*

Notwithstanding the foregoing factors, LCFIs were clearly “the primary private-sector catalysts for the destructive credit boom that led to the subprime financial crisis, and they [became] the epicenter of the current global financial mess.”¹¹⁰ As indicated above, the big eighteen LCFIs were dominant players in global securities and derivatives markets during the credit boom.¹¹¹ The big eighteen LCFIs included most of the top underwriters for nonprime RMBS, ABS, CMBS and LBO loans as well as related CDOs, CLOs and CDS.¹¹² While Fannie and Freddie funded about one-tenth of the nonprime mortgage market between 2003 and 2007, they did so primarily by purchasing RMBS that were underwritten by LCFIs.¹¹³ LCFIs provided most of the rest of the funding for nonprime mortgages, as well as much of the financing for risky credit card loans, CRE loans, and LBO loans.¹¹⁴

The central role of the big eighteen LCFIs in the financial crisis is confirmed by the enormous losses they suffered and the huge bailouts they received. The big eighteen LCFIs accounted for almost three-fifths of the \$1.49 trillion of total worldwide losses recorded by banks, securities firms, and insurers between the outbreak of the financial crisis in mid-2007 and the beginning of 2010.¹¹⁵ The list of leading LCFIs is “a who’s who of the current financial crisis” that includes “[m]any of the firms that either went bust . . . or suffered huge write-downs that led to significant government intervention.”¹¹⁶ Lehman Brothers (“Lehman”) failed, while two other members of the big eighteen LCFIs (AIG and RBS) were nationalized and three others (Bear Stearns, Merrill Lynch, and Wachovia) were acquired by other LCFIs with substantial governmental assis-

House Philosophy Stoked Mortgage Bonfire, N.Y. TIMES, Dec. 21, 2008, at A1; Paul Davidson, *Lawmakers Blast Former Freddie, Fannie CEOs: Execs Say Competition Played Role in Decisions*, USA TODAY, Dec. 10, 2008, at 3B; Charles Duhigg, *Pressured to Take More Risk, Fannie Reached Tipping Point*, N.Y. TIMES, Oct. 5, 2008, at A1.

110. Wilmarth, *supra* note 1, at 1046.

111. See *supra* note 45 and accompanying text.

112. Wilmarth, *supra* note 1, at 982–84, 989–91, 1019–20, 1031–35, 1039–42; see also Jaffee, *supra* note 45, at 69 tbl.1.4 (showing that the big eighteen LCFIs included eleven of the twelve top global underwriters of CDOs during 2006 and 2007).

113. See Peterson, *supra* note 109, at 167–69; *supra* note 109 and accompanying text.

114. See Jaffee et al., *supra* note 45, at 68–73; Saunders, Smith & Walter, *supra* note 45, at 143–45; *supra* Part II.A.1.

115. Yap & Pierson, *supra* note 14 (showing that the big eighteen LCFIs accounted for \$860 billion, or 58%, of the \$1.49 trillion of losses suffered by banks, securities firms and insurers); see also Saunders, Smith & Walter, *supra* note 45, at 144–45 tbl.5.3 (showing writedowns by nine of the big eighteen LCFIs as of mid-2008).

116. Jaffee, *supra* note 45, at 69.

tance.¹¹⁷ Three additional members of the group—Citigroup, Bank of America (“BofA”), and UBS—survived only because they received costly government bailouts.¹¹⁸ JP Morgan Chase (“Chase”), Goldman Sacks (“Goldman”), and Morgan Stanley received substantial infusions of capital under the federal government’s Troubled Asset Relief Program (“TARP”), and Goldman and Morgan Stanley quickly converted to BHCs to secure permanent access to the FRB’s discount window as well as “the Fed’s public promise of protection.”¹¹⁹

Only Lehman failed of the big eighteen LCFIs, but the U.S., the U.K., and European nations provided extensive assistance to ensure the survival of at least twelve other members of the group.¹²⁰ In the U.S., the federal government guaranteed the viability of the nineteen largest BHCs as well as AIG.¹²¹ Those institutions received \$290 billion of capital infusions from the federal government, and they also issued \$235 billion of debt that was guaranteed (and thereby subsidized) by the FDIC. In contrast, smaller banks received only \$41 billion of capital assistance and

117. STOWELL, *supra* note 10, at 182–84, 398–405, 408–17; Wilmarth, *supra* note 1, at 1044–45; Wilmarth, *supra* note 10, at 28–30.

118. Wilmarth, *supra* note 1, at 1044–45 (stating that Citigroup and BofA received “huge bailout packages from the U.S. government that included \$90 billion of capital infusions and more than \$400 billion of asset guarantees,” while UBS “received a \$60 billion bailout package from the Swiss government”); *see also* WESSEL, *supra* note 9, at 239–41, 259–63 (discussing Citigroup and BofA bailouts).

119. WESSEL, *supra* note 9, at 217; *see also id.* at 217–18, 227, 236–40 (noting that Chase received \$25 billion of TARP capital while Goldman and Morgan Stanley each received \$10 billion).

120. Because Lehman’s collapse created a severe disruption in global financial markets, federal authorities decided to take all measures necessary to prevent other major LCFIs from suffering comparable failures. That decision led to the federal government’s bailouts of AIG, Citigroup and BofA, the infusions of TARP capital into other LCFIs and other extraordinary measures of support for the financial markets. *See generally* ANDREW ROSS SORKIN, *TOO BIG TO FAIL: THE INSIDE STORY OF HOW WALL STREET AND WASHINGTON FOUGHT TO SAVE THE FINANCIAL SYSTEM FROM CRISIS—AND THEMSELVES* 373–537 (2009); WESSEL, *supra* note 9, at 189–241; Fabio Benedetti-Valentini, *SocGen Predicts ‘Challenging’ 2009, Posts Profit*, BLOOMBERG.COM (Feb. 18, 2009) (reporting that the French government had provided financial assistance to Société Générale by purchasing subordinated debt and preferred stock from the bank); *supra* notes 117–119 and accompanying text (explaining that Bear, Merrill and Wachovia avoided failure due to government-assisted acquisitions, while AIG, RBS, BofA, Citigroup, UBS, Chase, Goldman and Morgan Stanley received varying amounts of direct governmental assistance).

121. *See* Robert Schmidt, *Geithner Slams Bonuses, Says Banks Would Have Failed* (Update 2), BLOOMBERG.COM (Dec. 4, 2009) (quoting statement by Treasury Secretary Timothy Geithner that “none” of the biggest U.S. banks would have survived if the federal government had not intervened to support the financial system); *supra* notes 9–12 and accompanying text.

issued only \$11 billion of FDIC-guaranteed debt.¹²² A prominent FRB official recently observed that LCFIs “were central to this crisis as it expanded and became a global recession. However, while the crisis caused workers to lose their jobs and families to forfeit their homes, the stockholders and creditors of these firms enjoyed special protection funded by the American taxpayer.”¹²³ He further remarked, “It is no longer conjecture that the largest institutions in the United States have been determined to be too big to fail. They have been bailed out.”¹²⁴

122. November 2009 COP Report, *supra* note 7, at 75, 76 fig.10 (showing that the 19 largest BHCs received \$220 billion of TARP capital and issued \$235 billion of FDIC-guaranteed debt); *see also id.* at 117 fig.26 (showing that AIG received \$70 billion of TARP capital); *see also id.* at 6–7, 35–38, 58–63 (describing the FDIC’s Debt Guarantee Program (DGP) for banks and BHCs); *id.* at 68–72 (concluding that financial institutions received significant federal subsidies from issuing FDIC-guaranteed debt). Financial institutions other than the 19 largest BHCs issued \$66 trillion of FDIC-guaranteed debt by October 2009. However, \$55 billion of that amount was issued by GE Capital, a huge finance company that is a subsidiary of GE, a leading industrial conglomerate. GE Capital owns two FDIC-insured depository institutions (a thrift and an industrial bank) located in Utah. Federal regulators granted GE Capital special permission to issue FDIC-guaranteed debt even though it was not a BHC and therefore did not meet the general terms and conditions for participation in the DGP. After subtracting the amount issued by GE Capital, smaller banks issued only \$11 trillion of FDIC-guaranteed debt. *See id.* at 37–38, 69 fig.6 (showing amount of FDIC-guaranteed debt issued by GE Capital); 75–76 (showing amounts issued by the 19 largest BHCs and by other institutions); *see also* Jeff Gerth, *Paulson’s Book Details GE Chief’s Private Concerns in 2008 Over Company’s Debt*, WASH. POST, Feb. 6, 2010, at A8 (reporting on federal regulators’ approval of GE Capital’s participation in the DGP in November 2008, after GE Capital encountered significant problems in selling commercial paper to fund its operations); Jeff Girth & Brady Dennis, *How a Loophole Benefits GE in Bank Rescue: Industrial Giant Becomes Top Recipient in Debt-Guarantee Program*, WASH. POST, June 29, 2009, at A1.

123. Thomas M. Hoenig, President, Federal Reserve Bank of Kansas City, Regulatory Reform and the Economy: We Can Do Better 8, Speech at the 2009 Colorado Economic Forums, Denver, Colo. (Oct. 6, 2009), *available at* <http://www.kansascityfed.org/SpeechBio/HoenigPDF/Denver.Forums.10.06.09.pdf> [hereinafter *Hoenig October 6, 2009 Speech*].

124. Thomas M. Hoenig, President, Fed. Reserve Bank of Kansas City, Leverage and Debt: The Impact of Today’s Choices on Tomorrow 4, Speech at the 2009 Annual Meeting of the Kansas Bankers Association (Aug. 6, 2009), *available at* <http://www.kansascityfed.org/SpeechBio/HoenigPDF/hoenigKBA.08.06.09.pdf> [hereinafter *Hoenig August 6, 2009 Speech*]; *see also* Charles I. Plosser, President and CEO, Fed. Reserve Bank of Philadelphia, Some Observations About Policy Lessons from the Crisis 3, Speech at the Philadelphia Fed Policy Forum (Dec. 4, 2009), *available at* http://www.philadelphiafed.org/publications/speeches/plosser/2009/12-04-09_fed-policy-forum.pdf (stating that “[d]uring this crisis and through the implementation of the stress tests, we have effectively declared at least 19 institutions as too big to fail”).

D. Recent Bailouts of LCFIs Have Confirmed Their TBTF Status, Thereby Intensifying Systemic Risk and Moral Hazard in Financial Markets

As shown above, LCFIs became the “epicenter of the current global financial mess” because they pursued aggressive business strategies premised on (i) maximizing short-term fee income by originating and securitizing high-risk loans, (ii) seeking speculative gains by investing in structured-finance securities and trading in CDS, (iii) leveraging earnings by manipulating regulatory capital requirements, and (iv) funding operations by relying on the continuous availability of short-term funding from the capital markets.¹²⁵ Those high-risk business strategies exposed LCFIs to huge losses and potential failures when asset bubbles in U.S. and European housing markets, CRE markets and LBO markets burst in the second half of 2007.¹²⁶ Three prominent academics recently concluded that LCFIs

. . . committed themselves to unusual degrees of leverage and other business practices on and off the balance sheet to ramp up earnings but which . . . jeopardized their institution’s safety and soundness, ultimately imposing a high level of risk on the financial system as a whole. This generalization applied equally to LCFIs originating in commercial banking, insurance, and investment banking. . . . All types of LCFIs contributed to placing the financial system and consequently the real economy at severe risk.¹²⁷

By 2007 LCFIs had created very high levels of systemic risk in U.S. and European financial markets. The term “systemic risk” is typically used to describe the vulnerability of financial markets and the real economy to spillover effects from (i) the failure of a major financial institution or (ii) the failures of many financial institutions with highly correlated risk exposures.¹²⁸ For example, the failure of a leading financial

125. Wilmarth, *supra* note 1, at 970–71, 994–97, 1046–48.

126. *Id.* at 1032–43.

127. Saunders, Smith & Walter, *supra* note 45, at 144–45.

128. For helpful definitions of systemic risk, see, for example, E. PHILIP DAVIS, DEBT, FINANCIAL FRAGILITY AND SYSTEMIC RISK 117 (1992) (defining systemic risk as “a disturbance in financial markets which entails unanticipated changes in prices and quantities in credit or asset markets, which lead to a danger of failure of financial institutions, and which in turn threatens to spread so as to disrupt the payments mechanism and the capacity of the financial system to allocate capital”); Viral Acharya et al., *Regulating Systemic Risk*, in RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 283, 284–89 (Viral V. Acharya & Matthew Richardson eds., 2009) [hereinafter Acharya et al., *Regulating Systemic Risk*]; George G. Kaufman & Kenneth E. Scott, *What Is Systemic Risk, and Do Bank Regulators Retard or Contribute to It?*, INDEP. REV., Winter 2003, at 371, 372–76 (2003) (describing “chain-reaction and common-shock concepts of systemic risk”); Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 198–204 (2008).

institution may create a “chain reaction” that imposes severe losses and the threat of failure on other important financial institutions that are counterparties in transactions with the failed institution. Alternatively, a “common economic shock” may cause the failures of many financial institutions with correlated exposures to that shock. In either case, widespread defaults among important financial institutions are likely to cause significant disruptions in financial markets and to inflict serious injury on the real economy through a sharp increase in the cost of capital and credit and/or a steep reduction in the availability of capital and credit.¹²⁹ The threat that AIG would default on its CDS and securities lending contracts with a number of major U.S. and foreign LCFIs is a good example of “chain reaction” systemic risk, while the highly correlated exposures of many LCFIs in 2007 to collapsing prices in housing, CRE, and LBO markets provide a striking illustration of “common economic shock” systemic risk.¹³⁰ As indicated by those examples, both types of systemic risk are likely to occur during severe and widespread financial crises.

The systemic risk created by LCFIs during the credit boom led inexorably to government-financed bailouts of major financial institutions during the present crisis. Several years ago, I argued that emergency measures taken by governments around the world in response to systemic crises manifested a strong trend in favor of protecting large banks and their depositors:

[G]overnment officials often proclaim their adherence to ‘market discipline’ before a banking crisis occurs, [but] the experiences of the Great Depression and more recent events have convinced most authorities that systemic banking crises cannot be left to run their course. The conventional response since the 1970s has been to take the same course that U.S. authorities adopted after 1933—namely to recapitalize large banks and protect depositors against loss.¹³¹

129. Kaufman & Scott, *supra* note 128, at 372–73, 375.

130. For discussions of the federal government’s decision to bail out AIG because of the risk that AIG’s failure would impose severe losses on major U.S. and foreign LCFIs that were counterparties of AIG, see, for example, SORKIN, *supra* note 120, at 380–407, 532–33; TETT, *supra* note 87, at 233, 237–39; WESSEL, *supra* note 9, at 25–26, 189–98; Blundell-Wignall, et al., *supra* note 4, at 11, 12 tbl.3. For discussions of systemic risk resulting from the risk exposures of many LCFIs in 2007 to falling prices in housing, CRE, and LBO markets, see, for example, MORRIS, *supra* note 46, at 65–85, 113–39; Blundell-Wignall & Atkinson, *supra* note 84, at 58–66; McCoy et al., *supra* note 9, at 1329–33, 1338–44, 1366–71; Wilmarth, *supra* note 1, at 970–71, 994–97, 1008–11, 1020–24, 1032–43.

131. Arthur E. Wilmarth, Jr., *Does Financial Liberalization Increase the Likelihood of a Systemic Banking Crisis? Evidence from the Past Three Decades and the Great Depression*, in TOO BIG TO FAIL: POLICIES AND PRACTICES IN GOVERNMENT BAILOUTS 77, 96

At about the same time, I predicted that the Gramm-Leach-Bliley Act of 1999 (“GLBA”) would make the TBTF problem much worse by “extend[ing] the scope of the TBTF subsidy to reach nonbank affiliates of large financial holding companies.”¹³² I warned that GLBA’s authorization of financial conglomerates “increases the likelihood that major segments of the securities and life insurance industry will be brought within the scope of the TBTF doctrine.”¹³³

In fact, the current financial crisis has caused the U.S. and other nations to implement massive bailouts of LCFIs, including leading securities firms and insurance companies as well as banks.¹³⁴ At the height of the financial crisis in March 2009, FRB Chairman Bernanke declared that the federal government was committed to ensure the survival of “systemically important financial institutions” (“SIFIs”) in order to prevent a systemic collapse of the financial markets and an economic depression.¹³⁵ Chairman Bernanke defended the federal government’s decision to ensure “the continued viability” of SIFIs in the following terms:

In the midst of this crisis, given the highly fragile state of financial markets and the global economy, government assistance to avoid the failures of major financial institutions has been necessary to avoid a

(Benton E. Gup ed., 2004); *see also* GARY H. STERN & RON J. FELDMAN, *TOO BIG TO FAIL: THE HAZARDS OF BANK BAILOUTS* 40, 75–77 (2004) (observing that many foreign countries provided extensive assistance to banks and protected depositors during systemic financial crises in the 1980s and 1990s); Arthur E. Wilmarth, Jr., *Wal-Mart and the Separation of Banking and Commerce*, 39 *CONN. L. REV.* 1539, 1589, 1598–1606 (2007) [hereinafter Wilmarth, *Separation of Banking and Commerce*] (same).

132. Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks*, 2002 *U. ILL. L. REV.* 215, 446; *see also id.* at 303–04.

133. *Id.* at 447.

134. *See* Office of the Special Inspector General for the Troubled Asset Relief Program, *Additional Insight on Use of Troubled Asset Relief Funds (SIGTARP-10-004)* 2–3, 7–9, 26–31 (Dec. 10, 2009) (discussing \$4.4 billion of capital assistance provided by the Treasury Department to two large life insurers, Hartford Life and Lincoln National), *available at* http://www.sig tarp.gov/reports/audit/2009/Additional_Insight_on_Use_of_Troubled_Ass et_Relief_Program_Funds.pdf; *supra* notes 9–13, 117–124 and accompanying text (describing rescues of LCFIs by the U.S. and foreign governments, including, inter alia, federally-assisted rescues of AIG, Bear and Merrill and federal assistance provided to Goldman and Morgan Stanley).

135. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve, *Financial Reform to Address Systemic Risk*, Speech at the Council on Foreign Relations (Mar. 10, 2009), *available at* <http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm>.

further serious destabilization of the financial system, and our commitment to avoiding such a failure remains firm.¹³⁶

Chairman Bernanke admitted that “the too-big-to-fail issue has emerged as an enormous problem” because “it reduces market discipline and encourages excessive risk-taking” by TBTF firms.¹³⁷ Several months later, Governor Mervyn King of the Bank of England condemned the perverse incentives created by TBTF subsidies in even stronger terms. Governor King maintained that “[t]he massive support extended to the banking sector around the world, while necessary to avert economic disaster, has created possibly the biggest moral hazard in history.”¹³⁸ He further argued that TBTF subsidies provided a likely explanation for decisions by LCFIs to engage in high-risk strategies during the credit boom:

Why were banks willing to take risks that proved so damaging to themselves and the rest of the economy? One of the key reasons – mentioned by market participants in conversations before the crisis hit – is that incentives to manage risk and to increase leverage were distorted by the implicit support or guarantee provided by government to creditors of banks that were seen as ‘too important to fail.’ . . . Banks and their creditors knew that if they were sufficiently important to the economy or the rest of the financial system, and things went wrong, the government would always stand behind them. And they were right.¹³⁹

Industry studies and anecdotal evidence confirm that TBTF subsidies create significant economic distortions and promote moral hazard. In recent years, and particularly during the present crisis, LCFIs have operated with much lower capital ratios, and have benefited from a much lower cost of funds, compared with smaller banks.¹⁴⁰ In addition, CRAs

136. *Id.*

137. *Id.*

138. Mervyn King, Governor of the Bank of England, Speech to Scottish Business Organizations in Edinburgh 4 (Oct. 20, 2009), *available at* <http://www.bankofengland.co.uk/publications/speeches/2009/speech406.pdf> [hereinafter King 2009 Speech]; *see also* RICHARD S. CARNELL, JONATHAN R. MACEY & GEOFFREY P. MILLER, *THE LAW OF BANKING AND FINANCIAL INSTITUTIONS* 326 (4th ed. 2009) (explaining that “moral hazard” results from the fact that “[i]nsurance changes the incentives of the person insured [I]f you no longer fear a harm [due to insurance], you no longer have an incentive to take precautions against it”).

139. King 2009 Speech, *supra* note 138, at 3.

140. *See* Allen Berger et al., *How Do Large Banking Organizations Manage Their Capital Ratios?*, 34 J. FIN. SERV. RES. 123, 138–39, 145 (2008) (finding that, between 1992 and 2006, banks with more than \$50 billion of assets maintained significantly lower capital ratios, compared to smaller banks); Wilmarth, *supra* note 132, at 295, 301–02 (citing additional studies finding that large banks operated with capital ratios that were

and bond market investors have given preferential treatment to TBTF institutions because of the explicit and implicit government backing they receive.¹⁴¹ The preferential status of TBTF institutions is confirmed by the fact that they received by far the largest share of governmental assistance in the form of TARP capital assistance and FDIC debt guarantees.¹⁴² The federal government publicly announced in early 2009 that it would ensure the survival of the nineteen largest BHCs, thereby certifying their TBTF status.¹⁴³

much lower than those of smaller banks, and that large banks also paid significantly lower interest rates on their deposits in comparison with smaller banks); David Cho, *Banks 'Too Big to Fail' Have Grown Even Bigger; Behemoths Born of the Bailout Reduce Consumer Choice, Tempt Corporate Moral Hazard*, WASH. POST, Aug. 28, 2009 (reporting that “[l]arge banks with more than \$100 billion in assets are borrowing at interest rates 0.34 percentage points lower than the rest of the industry,” compared to a borrowing advantage of 0.08% in 2007); Gretchen Morgenson, *The Cost of Saving These Whales*, N.Y. TIMES, Oct. 4, 2009, § BU, at 1 (reporting on a study by Dean Baker and Travis McArthur, finding that (i) from 2000 through 2007, the average cost of funds for smaller banks was 0.29% higher than the average cost of funds for banks with \$100 billion or more in assets, and (ii) “this spread widened to an average of 0.78 percentage point” from 2008 through June 2009, “when bailouts for large institutions became expected”); Hoenig August 6, 2009 Speech, *supra* note 124 (observing that the ten largest U.S. banks operated with a Tier 1 common stock capital ratio of 3.2% during the first quarter of 2009, compared to a Tier 1 common stock capital ratio of 6.0% for banks smaller than the top-20 banks).

141. See, e.g., STERN & FELDMAN, *supra* note 131, at 30–37 (describing preferential treatment given to TBTF banks by financial markets); Wilmarth, *supra* note 132, at 301, 301 n.359 (citing study by Donald Morgan and Kevin Stiroh, which showed that “during 1993–98, (i) bond markets applied substantially *less* market discipline to banks larger than \$85 billion, and (ii) bond markets applied the *weakest* market discipline to the eleven banks that the OCC publicly identified as TBTF in 1984”); Peter Eavis, *Bank's Safety Net Fraying*, WALL ST. J., Nov. 16, 2009, at C6 (reporting that “S&P gives Citigroup a single-A rating, but adds that it would be rated triple-B-minus, four notches lower, with no [governmental] assistance . . . [while] Morgan Stanley and Bank of America get a three-notch lift . . . [and] Goldman Sachs Group enjoys a two-notch benefit”).

142. See *supra* notes 121–123 and accompanying text (stating that the 19 largest BHCs and AIG received \$290 billion of TARP capital assistance and issued \$235 billion of FDIC-guaranteed debt, while smaller banks received only \$41 billion of capital infusions and issued only \$11 billion of FDIC-guaranteed debt). In addition, “[d]uring the second half of 2007, the Federal Home Loan Bank System (“FHLBS”) provided more than \$200 billion of secured credit to Citigroup, Countrywide, Merrill, Wachovia and Wamu after those institutions suffered severe losses from subprime mortgages and related assets. . . . Advances from the FHLBS helped Countrywide to survive until it received an emergency takeover offer from [BoFA].” Arthur E. Wilmarth, Jr., *Subprime Crisis Confirms Wisdom of Separating Banking and Commerce*, BANKING & FIN'L SERV. POL'Y REP., May 2008, at 1, 6.

143. See *supra* notes 11–12, 121–123 and accompanying text.

FRB Chairman Bernanke also assured the public that federal regulators would *not* impose regulatory sanctions on the nineteen largest BHCs under the “prompt-corrective-action” (“PCA”) regime established by Congress in 1991.¹⁴⁴ Federal bank regulators entered into confidential memoranda of understanding with BofA and Citigroup, but regulators have not taken any formal enforcement actions against the nineteen largest BHCs. In contrast, regulators have initiated hundreds of formal enforcement proceedings against smaller banks.¹⁴⁵ Thus, as Edward Kane has pointed out, the financial crisis has confirmed that major LCFIs are “too big to discipline adequately” (“TBTDA”) as well as TBTF.¹⁴⁶

Given the enormous benefits of TBTF status, LCFIs have pursued aggressive growth strategies during the past two decades in order to reach a size at which they would be presumptively TBTF and largely immune

144. Steven Sloan, *Bernanke: 'Don't Need' to Nationalize Weak Banks*, AM. BANKER, Feb. 25, 2009, at 1 (reporting on congressional testimony by FRB Chairman Ben Bernanke, in which Mr. Bernanke confirmed that “regulators would not employ ‘prompt-corrective-action’ tools, . . . such as replacing management,” against the 19 largest BHCs); see also Richard S. Carnell, *A Partial Antidote to Perverse Incentives: The FDIC Improvements Act of 1991*, 12 ANN. REV. BANKING L. 317 (1993) (describing PCA regime mandated by Congress in 1991).

145. Compare Dan Fitzpatrick, *U.S. Regulators to BofA: Obey or Else*, WALL ST. J., July 16, 2009, at C1 (reporting that (i) BofA was operating under a “secret” memorandum of understanding (“MOU”) with federal regulators since May 2009, while Citigroup had been operating under “a similar order” since 2008; and (ii) the informal MOU procedure “gives banks a chance to work out their problems without the glare of outside attention,” in contrast to a “publicly announced” formal enforcement order) with *Exploring the Balance between Increased Credit Availability and Prudent Lending Standards Before the H. Comm. on Financial Services*, 111th Cong. 7–8 (2009) (testimony of R. Michael S. Menzies, Sr., Pres. and CEO, Easton Bank and Trust Co., on behalf of the Independent Community Bankers of America) (stating that “I have yet to hear of an enforcement action against a too-big-to-fail bank, while such actions are commonplace in the community banking industry”), available at <http://www.icba.org/files/ICBASites/PDFs/test032509.pdf>. All of the formal enforcement orders cited in a recent survey of enforcement actions by federal bank regulators were issued against community banks. See Thomas P. Vartanian & Lawrence K. Nesbitt, *Enforcement Actions Against Banks Exceeded 1000 For First Time in 2009*, 94 BANKING REP. (BNA) 444 (Mar. 2, 2010) (providing results of a survey of 1,095 formal enforcement actions against banks in 2010).

146. Edward J. Kane, *Extracting Nontransparent Safety Net Subsidies by Strategically Expanding and Contracting a Financial Institution's Accounting Balance Sheet*, 36 J. FIN. SERV. RES. 161, 162 (2009) (explaining that “in times of financial-sector distress, authorities can and will circumvent [PCA] constraints to assist bank and nonbank institutions that they regard as either too big and too complex to fail and unwind or at least as . . . [TBTDA]”).

from takeover threats.¹⁴⁷ Chief executive officers (“CEOs”) of LCFIs have strong incentives to pursue TBTF status because they “draw their paychecks – and their identity – from the companies they run.”¹⁴⁸ The “quest for immortality” encourages CEOs to build “legacy” institutions, and growth also produces large increases in CEO compensation.¹⁴⁹

All of today’s four largest U.S. banks (BofA, Chase, Citigroup and Wells Fargo) are the products of serial acquisitions and explosive growth since 1990.¹⁵⁰ BofA’s and Citigroup’s rapid expansions led them to brink

147. See, e.g., Robert De Young et al., *Mergers and Acquisitions of Financial Institutions: A Review of the Post-2000 Literature*, 36 J. FIN. SERV. RES. 87, 96–97, 104 (2009) (reviewing studies and finding that “subsides associated with becoming ‘too big to fail’ are important incentives for large bank acquisitions”); Todd Davenport, *Understanding the Endgame: Scale Will Matter, But How Much?*, AM. BANKER, Aug. 30, 2006, at 1 (describing the widespread belief among banking industry executives that “size is the best guarantor of survival” and that “[t]he best way—and certainly the quickest way—to achieve scale is to buy it”); Wilmarth, *supra* note 132, at 300–08 (citing additional evidence for the conclusion that “TBTF status allows megabanks to operate with virtual ‘fail-safe’ insulation from both market and regulatory discipline”); Elijah Brewer & Julapa Jagtiani, *How Much Would Banks Be Willing to Pay to Become ‘Too-Big-to-Fail’ and to Capture Other Benefits?* 9–20, 25–26 (Fed. Res. Bank of Kansas City Econ. Research Dep’t Research Working Paper 07-05, 2007) (determining that large banks paid significantly higher premiums to acquire smaller banks when (i) the acquisition produced an institution that crossed a presumptive TBTF threshold, such as \$100 billion in assets or \$20 billion in market capitalization, or (ii) a bank that was already TBTF acquired another bank and thereby enhanced its TBTF status).

148. Davenport, *supra* note 147; see also Wilmarth, *supra* note 132, at 292–93 (stating that “a major growth incentive for bank managers is the widely shared assumption that the biggest banks will achieve *permanent* status at the top of the financial industry”).

149. Davenport, *supra* note 147 (noting that the CEO of the median bank with assets between \$1 billion and \$5 billion earned \$636,000 in 2005, while Jamie Dimon, CEO of Chase, earned \$22.3 million); see also Richard T. Bliss & Richard J. Rosen, *CEO Compensation and Bank Mergers*, 61 J. FIN. ECON. 107, 109–10, 116–19, 124–25, 135–36 (2001) (finding that CEOs at 32 large banks increased their compensation significantly by entering into megamergers, and those CEOs reaped significant compensation gains even when they made acquisitions that negatively affected their banks’ stock values); Wilmarth, *supra* note 132, at 288–89 (citing additional studies indicating that “managerial self-interest plays a major role in determining the frequency of mergers among both corporations and banks”).

150. See KAUFMAN, *supra* note 68, at 100–05; STOWELL, *supra* note 10, at 405–08; Wilmarth, *supra* note 1, at 975–77; Valerie Bauerlein, *Vault to the Top: Bank of America CEO In Spotlight After Deal—Countrywide Gives Lewis Status He Long Craved; Up From Walnut Grove*, WALL ST. J., Aug. 27, 2007, at A1 (describing the tremendous growth of BofA under the leadership of Hugh McColl and Kenneth Lewis, and quoting Mr. Lewis’ belief that “size and scale do matter”); David Mildenberg, *Bank of America’s Lewis Resigns After Bet on Rebound* (Update 3), BLOOMBERG.COM, (Oct. 1, 2009) (reporting that Mr. Lewis spent more than \$130 billion on acquisitions since becoming CEO in 2001, and that BofA more than tripled in size under his leadership); Annys Shin, *Citi’s*

of failure, from which they were saved by huge federal bailouts.¹⁵¹ Wachovia (the fourth-largest U.S. bank at the beginning of the crisis) pursued a similar path of frenetic growth until it collapsed in 2008 and was rescued by Wells Fargo in a federally-assisted merger.¹⁵² A comparable pattern of rapid expansion, collapse and bailout occurred among several European LCFIs, frequently due to CEOs who pursued similarly misguided aspirations for impregnable status.¹⁵³

Unfortunately, the emergency acquisitions of LCFIs arranged by U.S. regulators have produced domestic financial markets in which the largest

Relentless Quest for Growth: History of Innovation Has Led Banks to Milestones, Mistakes, WASH. POST, Nov. 25, 2008, at D1 (explaining how an “emphasis on size” and rapid growth “landed Citibank in the midst of every financial crisis over the past century, including the stock market crash of 1929, the Latin American debt crisis of the 1980s and the current financial meltdown”).

151. See *supra* notes 9, 118 and accompanying text.

152. For descriptions of Wachovia’s aggressive growth, see, for example, Dennis K. Berman et al., *Wachovia Strikes \$26 Billion Deal for Golden West: California S&L Will Give Acquisitive Giant Big Slice of Mortgage-Loan Business*, WALL ST. J., May 8, 2006, at A1 (reporting that “Wachovia has been the most voracious [acquirer] of all, forging about 140 takeovers and mergers – large and small – that have transformed it from a sleepy Southern bank into a coast-to-coast financial-services giant”); Barbara A. Rehm, *Wachovia Chief’s Vision: Handful of Dominant Firms*, AM. BANKER, May 19, 2006, at 2 (quoting Wachovia CEO G. Kennedy Thompson’s belief that the banking industry would have “a handful of dominant firms” and that “[c]onsolidation continues to make economic sense” because “size enhances competitive power”). For discussions of Wachovia’s collapse and the federally-assisted acquisition of Wachovia by Wells Fargo, see, for example, Paul Davis, *In Closing Act, Wachovia Lays Bare Extent of Woe*, AM. BANKER, Oct. 23, 2008, at 1; Art Levy, *Wells Fargo Chairman Prefers U.S. Plan to Buy Stakes* (Update 3), BLOOMBERG.COM (Oct. 22, 2008), <http://www.bloomberg.com/apps/news?pid=20670001&sid=atJpJcGxblqA>; Paul Davis, *Was It Really All Golden West?: Option ARM Hit was one of Many at Wachovia*, AM. BANKER, Oct. 1, 2008, at 1.

153. See, e.g., Wilmarth, *supra* note 1, at 976 (discussing rapid consolidation among banks in the U.K. and other European nations); Simon Clark et al., *Decline of West Where Mathewson Rues What RBS Wrought* (Update 1), BLOOMBERG.COM, June 19, 2009, [available at http://www.bloomberg.com/apps/news?pid=20601109&sid=anU5X5BaNe4M#](http://www.bloomberg.com/apps/news?pid=20601109&sid=anU5X5BaNe4M#) (describing how RBS “expanded on three continents” and became the biggest European bank under its “hard-driving” CEO, Fred Goodwin, before RBS “collapsed” and was nationalized by the U.K. government); Antonio Ligi & Ben Holland, *Why Bernie Madoff Is No Marcel Ospel as Man Swiss Love to Hate*, BLOOMBERG.COM (Feb. 24, 2009), <http://www.bloomberg.com/apps/news?pid=20670001&sid=aApnFtmhFswQ> (discussing how UBS CEO Marcel Ospel “vowed to turn [UBS] into the largest global investment bank” and pursued a high-risk expansion strategy that resulted in “writedowns in excess of \$50 billion” and a massive bailout of UBS by the Swiss government); *supra* notes 13, 120 and accompanying text (discussing government rescues of RBS, UBS, and several other major European banks).

institutions hold even greater dominance.¹⁵⁴ The four largest U.S. banks (BofA, Chase, Citigroup and Wells Fargo) now control 56% of domestic banking assets, up from 35% in 2000,¹⁵⁵ while the top ten U.S. banks control 75% of domestic banking assets, up from 54% in 2000.¹⁵⁶ The four largest banks also control a majority of the product markets for home mortgages, home equity loans, and credit card loans.¹⁵⁷ Together with Goldman, the same four banks account for 97% of the aggregate notional values of OTC derivatives contracts written by U.S. banks.¹⁵⁸ Thus, as Nomi Prins observed last September, “[n]othing has changed [as a result of the financial crisis] except that we have larger players who are more powerful, who are more dependent on government capital and who are harder to regulate than they were to begin with.”¹⁵⁹

III. REGULATORY REFORMS TO ADDRESS SYSTEMIC RISK CREATED BY LCFIS

In 2002, I warned that “the TBTF policy is the great unresolved problem of bank supervision” because it “undermines the effectiveness of

154. See *supra* notes 10, 152 and accompanying text (discussing acquisitions of Countrywide and Merrill by BofA, of Bear and Wamu by Chase, and of Wachovia by Wells Fargo).

155. Peter Eavis, *Finance Fixers Still Living in Denial*, WALL ST. J., Dec. 16, 2009, at C18. Compare Benton Ives, *Consolidation Fuels Megabank Boom*, CQ WEEKLY, Oct. 27, 2008, at 2858 (reporting that BofA, Chase, Citigroup and Wells Fargo collectively held \$8.5 trillion of assets, accounting for “more than half of all bank assets”) with Peter Boone & Simon Johnson, *Shooting Banks*, NEW REPUBLIC, Mar. 11, 2010, at 20 (stating that the six largest U.S. banks currently have combined assets exceeding 63% of GDP, while the combined assets of the six largest banks in 1995 were equal to only 17% of GDP).

156. Heather Landy, *What’s Lost, Gained if Giants Get Downsized*, AM. BANKER, Nov. 5, 2009, at 1.

157. Kate Berry, *Mortgages’ Big Two Are Too Big to Avoid*, AM. BANKER, Sept. 28, 2009, at 1 (reporting that the four largest banks “control 57.8% of the overall [mortgage] lending market”); David Cho, *Banks ‘Too Big to Fail’ Have Grown Even Bigger*, WASH. POST, Aug. 28, 2009 (reporting on the top four banks’ majority share of the mortgage and credit card markets); Renae Merle, *Second Loans Complicate Homeowner Assistance*, WASH. POST, Mar. 27, 2010, at A1 (reporting that the same four banks held 53% of the \$840 billion of outstanding home equity loans and lines of credit); Daniel Wolfe, *Top Issuers, with Less Appetite for Risk, Slashing Credit Lines*, AM. BANKER, Dec. 2, 2008, at 7 (reporting that BofA, Citigroup and Chase “account for more than half of the U.S. credit card market”).

158. OFF. OF THE COMPTROLLER OF THE CURRENCY, OCC’S QUARTERLY REPORT ON BANK TRADING AND DERIVATIVES ACTIVITIES, FOURTH QUARTER 2009, app. graph 4 & tbl.5 (2009), available at <http://www.occ.treas.gov/ftp/release/2010-33a.pdf>.

159. Alison Fitzgerald & Christine Harper, *Lehman Monday Morning Lesson Lost With Obama Regulator-in-Chief*, BLOOMBERG.COM (Sept. 11, 2009) (quoting Ms. Prins).

both supervisory and market discipline, and it creates moral hazard incentives for managers, depositors, and other uninsured creditors of [LCFIs].”¹⁶⁰ The current financial crisis has confirmed that the U.S. and European nations adhere to a TBTF policy that embraces the entire financial sector. Recent studies have shown that the TARP capital infusions and FDIC debt guarantees announced in October 2008 represented very large transfers of wealth from taxpayers to the shareholders and creditors of the largest U.S. LCFIs.¹⁶¹ The enormous competitive advantages enjoyed by TBTF institutions must be eliminated (or at least significantly reduced) in order to restore a more level playing field for smaller financial institutions and to encourage the voluntary breakup of inefficient and risky financial conglomerates.

Despite their access to extensive government subsidies, large financial conglomerates have never proven their ability to achieve superior performance.¹⁶² Even before the financial crisis began, economic studies showed that (i) large financial conglomerates were producing “higher levels of systemic risk on both sides of the Atlantic,”¹⁶³ (ii) LCFIs were subject to greater risks as they increased their “involvement in nontraditional activities, produced higher percentages of fee income, and relied more heavily on wholesale (non-deposit) funding,”¹⁶⁴ and (iii) financial markets applied a significant “conglomerate discount” to banks that engaged in multiple lines of financial activity, thereby indicating that “functional breadth impairs both competitive performance and share-

160. Wilmarth, *supra* note 132, at 475.

161. Elijah Brewer III & Anne Marie Klingenhagen, *Be Careful What You Wish for: The Stock Market Reactions to Bailing Out Large Financial Institutions—Evidence from the USA*, 18 J. FIN. REG. & COMPLIANCE 56, 57–59, 64–66 (2010) (finding significant increases in stock market valuations for the 25 largest U.S. banks as a result of Treasury Secretary Paulson’s announcement, on Oct. 14, 2008, of \$250 billion of TARP capital infusions into the banking system, including \$125 billion for the nine largest banks); Pietro Veronesi & Luigi Zingales, *Paulson’s Gift* 2–3, 11–31 (Chicago Booth Research Paper No. 09-42, 2009), available at <http://ssrn.com/abstract=1498548> (concluding that the TARP capital infusions and FDIC debt guarantees produced \$130 billion of gains for holders of equity and debt securities of the nine largest U.S. banks, at an estimated cost to taxpayers of \$21 to \$44 billion).

162. See Kane, *supra* note 146, at 162 (observing that “[b]ecause safety net subsidies increase with size and complexity, offsetting diseconomies [of scale and scope] must exist in the operation of large institutions”).

163. See Wilmarth, *supra* note 1, at 996, 996 nn.139–40 (discussing pre-crisis studies finding that “growing convergence among the activities of banks, securities firms and insurance companies . . . intensified the risk that losses in one sector of the financial services industry would spill over into other sectors and produce a systemic financial crisis”).

164. *Id.* at 997 (citing study by Asli Demirguc-Kunt and Harry Huizinga).

holder value.”¹⁶⁵ In addition, while each of the four largest U.S. banks has assets exceeding \$1 trillion, studies have not found favorable economies of scale or scope in banks larger than \$100 billion.¹⁶⁶ The financial crisis has proven, beyond any reasonable doubt, that large universal banks operate based on a dangerous business model that is riddled with conflicts of interest and prone to speculative risk-taking.¹⁶⁷

Accordingly, U.S. and European governments must rapidly adopt reforms that will (i) greatly reduce the scope of governmental safety nets and thereby significantly diminish the subsidies currently provided to LCFIs, and (ii) facilitate the orderly failure and liquidation of LCFIs under governmental supervision, with consequential losses to managers, shareholders and creditors of LCFIs. I believe that the following five key reforms are needed to accomplish these objectives: (1) strengthen current statutory restrictions on the growth of LCFIs, (2) create a special resolution process to manage the orderly liquidation or restructuring of SIFIs, (3) establish a consolidated supervisory regime and enhanced capital requirements for SIFIs, (4) create a special insurance fund for SIFIs, to cover the costs of resolving failed SIFIs, and (5) rigorously insulate FDIC-insured banks that are owned by LCFIs from the activities and risks of their nonbank affiliates. Due to space limitations, this symposium article provides only a summary overview of the proposed re-

165. Markus M. Schmid & Ingo Walter, *Do Financial Conglomerates Create or Destroy Economic Value?*, 18 J. FIN. INTERMEDIATION 193, 214 (2009) (analyzing more than 600 U.S. financial firms operating between 1985 and 2004); *see also* Luc Laeven & Ross Levine, *Is There a Diversification Discount in Financial Conglomerates?*, 85 J. FIN. ECON. 331, 333–335 (similarly finding, based on an analysis of more than 800 banks operating in 43 countries between 1998 and 2002, that “the market values of banks that engage in multiple activities are much lower than if those banks were broken up into financial intermediaries that specialized in the individual activities”).

166. Wilmarth, *supra* note 132, at 279–81 (citing studies finding an absence of economies of scale or scope in LCFIs larger than \$25 billion); Boone & Johnson, *supra* note 155 (stating that there are “no economies of scale for banks above \$100 billion in total assets”); *see also* June 2009 COP Report, *supra* note 7, at 51–52 fig.4 (reporting that, as of Mar. 31, 2009, BofA had assets of \$2.3 trillion, Chase had assets of approximately \$2.1 trillion, Citigroup had assets of approximately \$1.8 trillion, and Wells Fargo had assets of approximately \$1.3 trillion).

167. Saunders, Smith & Walter, *supra* note 45, at 143–47; Wilmarth, *supra* note 1, at 970–72, 994–1002, 1024–50; Boone & Johnson, *supra* note 155; John Kay, *Narrow Banking: The Reform of Financial Regulation* 12–16, 41–44, 86–88 (Sept. 15, 2009) (unpublished manuscript), available at <http://www.johnkay.com/wp-content/uploads/2009/12/JK-Narrow-Banking.pdf>.

forms.¹⁶⁸ I intend to develop more detailed expositions of such reforms in future works.

A. Existing Statutory Limits on the Growth of LCFIs Should Be Strengthened

In 1994, Congress authorized interstate bank acquisitions and interstate bank branching by adopting the Riegle-Neal Interstate Banking and Branching Act of 1994 (“Riegle-Neal Act”).¹⁶⁹ To prevent the emergence of dominant megabanks, the Riegle-Neal Act imposes nationwide and statewide deposit concentration limits on interstate expansion by large banking organizations.¹⁷⁰ A BHC may not acquire a bank in another state, and a bank may not merge with another bank across state lines, if the resulting banking organization (together with all affiliated FDIC-insured depository institutions) would hold (i) hold ten percent or more of the total deposits of all depository institutions in the U.S., or (ii) thirty percent or more of the total deposits of all depository institutions in any state.¹⁷¹

Unfortunately, the effectiveness of Riegle-Neal’s nationwide and statewide deposit concentration limits is undermined by three major loopholes. First, the concentration limits do not apply to intrastate bank ac-

168. For the same reason of space limitations, this article will not analyze a regulatory reform bill that was passed by the U.S. House of Representatives in December 2009. See H.R. 4173, 111th Cong. (2009), available at http://financialservices.house.gov/Key_Issues/Financial_Regulatory_Reform/FinancialRegulatoryReform/hr4173eh.pdf. For helpful summaries of H.R. 4173, see Gail C. Bernstein, Matthew A. Chambers, Sara A. Kelsey & Martin E. Lybecker, *Are We Half-way There Yet? House Passes Major Financial Services Bill with Senate Expected to Act Early This Year*, 127 BANKING L. J. 12 (2010); Mike Ferullo, Malini Manickavasagam, Richard Hill & R. Christian Bruce, *Regulatory Reform: House Clears Regulatory Reform Package Calling for New Controls on Financial Sector*, 93 BANKING REP. (BNA) 1167 (Dec. 15, 2009). As this article went to press, it was not clear whether the Senate would pass similar legislation. See Alison Vekshin, *Dodd Says Panel Has ‘No Agreement’ on Financial Rules Overhaul*, BLOOMBERG.COM, Mar. 5, 2010, <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aSPIHb52zYGw>.

169. Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, Pub. L. No. 103-328, Sept. 29, 1994.

170. See H.R. REP. NO. 103-448, at 65–66 (1994) (additional views of Rep. Neal and Rep. McCollum) (explaining that the Riegle-Neal Act “adds two new concentration limits to address concerns about potential concentration of financial power at the state and national levels”), as reprinted in 1994 U.S.C.C.A.N. 2039, 2065–66.

171. Riegle-Neal Act, §§ 101, 102, 108 Stat. 2340, 2345 (codified as amended in 12 U.S.C. §§ 1831u(b)(2), 1842(d)(2)). The Riegle-Neal Act permits a state to waive or relax, by statute, regulation or order, the thirty percent statewide concentration limit with respect to interstate mergers or acquisitions involving banks located in that state. See 12 U.S.C. §§ 1831u(b)(2)(D), 1842(d)(2)(D).

quisitions or intrastate bank mergers. Second, the concentration limits do not apply to acquisitions of, or mergers with, thrift institutions and industrial banks, because those institutions are not treated as “banks” for purposes of the Riegle-Neal Act.¹⁷² Third, the concentration limits do not apply to acquisitions of, or mergers with, banks that are “in default or in danger of default.”¹⁷³

The acquisitions of Countrywide, Merrill, Washington Mutual (“WaMu”), and Wachovia demonstrate the significance of Riegle-Neal’s loopholes and the need to close them. In reliance on the “non-bank” loophole, the FRB allowed BofA to acquire Countrywide and Merrill even though (i) both firms controlled FDIC-insured depository institutions (a thrift, in the case of Countrywide, and a thrift and industrial bank, in the case of Merrill), and (ii) both transactions allowed BofA to exceed the ten percent nationwide deposit cap.¹⁷⁴ Similarly, after the FDIC seized control of WaMu as a failed depository institution, the FDIC sold the giant thrift to Chase even though the transaction enabled Chase to exceed the ten percent nationwide deposit cap.¹⁷⁵ Finally, although the FRB determined that Wells Fargo’s acquisition of Wachovia would give Wells Fargo control of just under ten percent of nationwide deposits, the FRB could probably have approved the acquisition in any case by designating Wachovia as a bank “in danger of default.”¹⁷⁶

172. See *Order Approving the Acquisition of a Savings Association and an Industrial Loan Company (Bank of America Corporation)*, FED. RES. BULL., B13, B14 (Mar. 2009) [hereinafter FRB BofA-Merrill Order] (noting that thrifts and industrial banks “are not ‘banks’ for purposes of the [Riegle-Neal] Act and its nationwide deposit cap”).

173. 12 U.S.C. §§ 1831u(e), 1842(d)(5).

174. See *Order Approving the Acquisition of a Savings Association and Other Nonbanking Activities (Bank of America Corporation)*, FED. RES. BULL., C81–C82, C83 n.13 (Aug. 2008) (approving BofA’s acquisition of Countrywide and Countrywide’s thrift subsidiary, even though the transaction resulted in BofA’s ownership of 10.9% of nationwide deposits); FRB BofA-Merrill Order, *supra* note 172, at B13–B14, B14 n.6 (approving BofA’s acquisition of Merrill and Merrill’s thrift and industrial bank subsidiaries, even though the transaction resulted in BofA’s ownership of 11.9% of nationwide deposits).

175. Joe Adler, *Thrift M&A Could Suffer As Frank Slams ‘Loophole’*, AM. BANKER, Dec. 10, 2009, at 1.

176. See *Statement by the Board of Governors of the Federal Reserve System Regarding the Application and Notices by Wells Fargo & Company to Acquire Wachovia Corporation and Wachovia’s Subsidiary Banks and Nonbanking Companies (Wells Fargo & Company)*, FED. RES. BULL., B40, B41–42 (Mar. 2009) (determining that “the combined organization would not control an amount of deposits that would exceed the nationwide deposit cap on consummation of the proposal”); *id.* at B48 (concluding that “expeditious approval of the proposal was warranted in light of the weakened condition of Wachovia”).

The foregoing acquisitions have enabled BofA, Chase, and Wells Fargo to surpass the ten percent nationwide deposit cap.¹⁷⁷ Thus, the loopholes in Riegle-Neal's concentration limits have allowed giant TBTF and TBTDA institutions to reach a size that Congress clearly did not anticipate. To prevent further breaches of the Riegle-Neal limits, Congress should extend the nationwide and statewide deposit caps to cover all intrastate and interstate transactions involving acquisitions of, or mergers with, any type of FDIC-insured depository institution (including thrifts and industrial banks).

In addition, Congress should significantly narrow the failing bank exception by requiring federal regulators to make a "systemic risk determination" ("SRD") in order to invoke that exception. Thus, an SRD would be a precondition to any acquisition or merger involving a failing FDIC-insured depository institution that would exceed one of the Riegle-Neal concentration limits.

Congress should establish the following requirements for an SRD. First, the FRB and FDIC should be required to determine jointly, with the concurrence of the Treasury Secretary, that the proposed transaction is necessary to avoid a substantial threat of severe systemic injury to the banking system, the financial markets, or the national economy. Second, each SRD should be published and reported in writing to the Systemic Risk Oversight Council described below ("SROC") and to Congress. Third, the Government Accountability Office ("GAO") should undertake an audit to determine whether regulators satisfied the criteria for an SRD, and the SRD and the GAO audit report should be reviewed in a joint hearing held by the House and Senate committees with oversight of the financial markets.¹⁷⁸ Mandating the SRD Procedure would ensure much greater public transparency of, and scrutiny for, any federal agency order that invokes the "failing bank" exception to the Riegle-Neal concentration limits. The SRD Procedure would also ensure similar public transparency and scrutiny for regulatory decisions of comparable importance, as discussed below.

The Obama Administration has recently announced its support for a proposal by former FRB Chairman Paul Volcker to prohibit mergers and acquisitions that would give a single bank control of more than ten percent of total bank liabilities other than insured deposits (the "Volcker liabilities cap"). The Volcker liabilities cap would supplement the exist-

177. See Matt Ackerman, *Big 3 Deposit Share Approaches 33%*, AM. BANKER, Oct. 28, 2008, at 16 (reporting the nationwide deposit shares for BofA, Chase, and Wells Fargo as 11.3%, 10.2%, and 11.2%, respectively).

178. The foregoing process for approving and reviewing an SRD is hereinafter referred to as the "SRD Procedure."

ing Riegle-Neal deposit concentration limits and would be subject to the same exemption for acquisitions of banks “in default or in danger of default.”¹⁷⁹ If enacted, the Volcker liabilities cap would present a significant barrier to further acquisitions of banks by BofA, Chase, and Citigroup.¹⁸⁰ As a practical matter, the Volcker liabilities cap would have the greatest impact on Citigroup, because Citigroup currently is not close to exceeding the Riegle-Neal nationwide deposit cap. In contrast, the Riegle-Neal nationwide deposit concentration limit already blocks the three major rivals of Citigroup (BofA, Chase, and Wells Fargo) from making further interstate acquisitions of banks.¹⁸¹

The Volcker liabilities cap has been criticized as vague and unworkable.¹⁸² It remains to be seen whether the proposal can be clarified in a manner that would give it a utility and ease of application comparable to the Riegle-Neal deposit concentration limits. If it is appropriately clarified, the Volcker liabilities cap should be adopted as a supplemental method of restricting the growth of very large banks (e.g., Citigroup, Goldman, and Morgan Stanley) that rely mainly on the capital markets, rather than deposits, for their funding.¹⁸³ For the reasons stated above with regard to the Riegle-Neal limits, the Volcker liabilities cap should apply to acquisitions of all FDIC-insured depository institutions (including thrifts and industrial banks), and regulators should not be able to invoke the “failing bank” exception unless they comply with the SRD Procedure.

179. Rebecca Christie & Phil Mattingly, *‘Volcker Rule’ Draft Signals Obama Wants to Ease Market Impact*, BLOOMBERG.COM, Mar. 4, 2010.

180. *Id.* (reporting that U.S. banks held \$10.4 trillion of liabilities, while Chase, BofA, and Citigroup held liabilities of \$1.5 trillion, \$1.3 trillion, and \$1 trillion, respectively).

181. See Kevin Dobbs, *Even After Infusion, Citi Seen Needing Fix*, AM. BANKER, Nov. 25, 2008, at 1 (reporting that Citigroup had only \$200 billion of domestic deposits, compared to the more than \$600 billion of domestic deposits held by each of its three major rivals); *supra* note 177 and accompanying text (citing news article reporting that BofA, Chase, and Wells slightly exceeded the Riegle-Neal 10% nationwide deposit cap).

182. Cheyenne Hopkins, *Obama to Banks: Big Is Bad*, AM. BANKER, Jan. 25, 2010, at 22 (quoting criticisms of the proposed Volcker liabilities cap by Jamie Cox of Harris Financial Group and Sean Ryan of Wisco Research).

183. See Heather Landy, *Review/Preview: Goldman and Morgan Stanley Ditch Banking Script, So Far*, AM. BANKER, Dec. 30, 2009, at 1 (reporting that Goldman and Morgan Stanley relied primarily on the capital markets for funding, as each firm had less than \$70 billion of deposits in 2009); *supra* notes 180–181 and accompanying text (stating that Citigroup had \$1 trillion of assets but only \$200 billion of domestic deposits).

B. A Special Resolution Regime Should Be Authorized for Systemically Important Financial Institutions

Regulators and analysts support the creation of a special resolution regime to handle the failures of SIFIs.¹⁸⁴ As shown by the FRB-assisted rescue of Bear Stearns, the federal government's massive bailout of AIG, and the traumatic collapse of Lehman, federal regulators currently confront a "Hobson's choice of bailout or disorderly bankruptcy" when they decide how to respond to a SIFI's potential failure.¹⁸⁵ A statutory resolution regime for SIFIs, similar to the existing resolution regime for FDIC-insured depository institutions,¹⁸⁶ would be a highly beneficial "third way, between bankruptcy and bailout, that would either euthanize [SIFIs] peacefully or resuscitate them under new management."¹⁸⁷ This special resolution regime for SIFIs should include three essential elements.

First, Congress should establish an SROC, consisting of federal officials representing the Treasury Department, the FRB, the FDIC, the OCC, the SEC, the Commodity Futures Trading Commission ("CFTC"), and the Federal Housing Finance Agency, as well as state officials representing the National Association of Insurance Commissioners, and the Conference of State Bank Supervisors.¹⁸⁸ The FRB and the FDIC

184. See, e.g., Sheila C. Bair, Chairman, Fed. Deposit Insurance Corp., Statement on the Causes and Current State of the Financial Crisis before the Financial Crisis Inquiry Commission (Jan. 14, 2010), available at <http://fdic.gov/news/news/speeches/chairman/spjan1410.html> [hereinafter Bair FCIC Testimony]; Daniel K. Tarullo, Member, Bd. of Governors of the Fed. Reserve System, Financial Regulatory Reform, Speech at the U.S. Monetary Policy Forum (Feb. 26, 2010) [hereinafter Tarullo Regulatory Reform Speech], available at <http://www.federalreserve.gov/newsevents/speech/tarullo20100226a.htm>; Alan S. Blinder, *Time for Financial Reform, Plan C*, THE ECONOMISTS' VOICE (Feb. 2010), at 2, available at <http://www.bepress.com/ev/vol7/iss1/art5/>; Stephen Joyce, *Regulatory Reform: Cohen Says Not Enacting Financial Reform 'Unthinkable' But Opposes 'Volcker Rule'*, 94 BANKING REP. (BNA) 464 (Mar. 9, 2010) (citing view of H. Rodgin Cohen that "creating [a] resolution authority that would allow even the largest U.S. financial institutions to fail should be the 'lynchpin' of any meaningful financial regulatory overhaul").

185. Regulatory Reform Speech, *supra* note 184.

186. See CARNELL, MACEY & MILLER, *supra* note 138, ch. 13 (describing the FDIC's resolution regime for failed banks).

187. Blinder, *supra* note 184, at 2; see also Bair FCIC Testimony, *supra* note 184 (stating, while discussing potential financial reforms, that "[f]oremost among needed reforms is a new legal and regulatory framework for large interconnected firms [i.e., SIFIs] to ensure their orderly wind-down while avoiding financial disruptions that could devastate our financial markets and economy," and suggesting that the "FDIC's authority to resolve failing banks and thrifts is a good model").

188. The proposed SROC would include all seven of the primary federal regulators of financial institutions and financial markets, as well as the organizations that represent state regulators of insurance companies and state-chartered banks. I would not include the

should have joint responsibility for designating financial firms as SIFIs on a quarterly basis, based on criteria established by the SROC and after consultation with the SROC. The SROC should have authority (by the affirmative vote of at least five of its seven members who are not representatives of the FRB or FDIC) either (i) to designate a financial firm as a SIFI, in the event of a disagreement between the FRB and the FDIC, or (ii) to overrule the FRB's and FDIC's joint decision to designate a financial firm as a SIFI. The criteria for identifying a financial firm as a SIFI should be based on factors relevant to systemic risk, including the firm's size and the risk of contagion from the firm's failure due to (i) the firm's interconnectedness or correlations of risk exposures with other important financial institutions or financial markets or (ii) the firm's role as a key participant within one or more important sectors of the financial markets.¹⁸⁹

Some commentators have opposed any identification of SIFIs, due to concerns that firms designated as SIFIs would be treated as TBTF by the financial markets and would create additional moral hazard.¹⁹⁰ However, moral hazard already exists in abundance because the financial markets are currently treating major LCFIs as TBTF. As noted above, during the current crisis federal regulators publicly identified and supported the nineteen largest BHCs, as well as Bear and AIG, as TBTF institutions.¹⁹¹ As a result of this massive and explicit governmental support, CRAs,

OTS on the SROC. As I have explained elsewhere, I believe that (i) the federal thrift charter should be abolished, and existing federal thrifts should be required to convert into national or state banks, and (ii) the OTS should be abolished and its existing supervisory functions and staff should be transferred to the OCC. The current financial crisis has demonstrated (as the savings and loan crisis of the 1980s previously showed) that it is not desirable to charter federally-insured depository institutions that engage primarily in housing finance. Such institutions expose the federal deposit insurance fund and taxpayers to an excessive risk of loss due to the boom-and-bust cycles that have characterized housing markets over the past century. See Arthur E. Wilmarth, Jr., *Comment Letter to the U.S. Treasury Department Concerning the Regulatory Structure for Financial Institutions* 1–2 (Geo. Wash. U. Law Sch. Legal Studies Research Paper No. 388, 2007), available at <http://ssrn.com/abstract=1067065>.

189. See, e.g., Acharya et al., *Regulating Systemic Risk*, *supra* note 128, at 283–92; Saunders, Smith & Walter, *supra* note 45, at 151–55; James B. Thomson, *On Systemically Important Financial Institutions and Progressive Systemic Mitigation* 1–6 (Fed. Reserve Bank of Clev. Pol'y Discussion Paper No. 27, 2009).

190. See Malini Manickavasagam & Mike Ferullo, *Regulatory Reform: Witnesses Warn Against Identifying Institutions as Systemically Significant*, 41 SEC. REG. L. REP. (BNA) 502 (2009).

191. See *supra* notes 9–12, 117–124, 130–137, 143–144 and accompanying text.

depositors, and bondholders are giving highly preferential treatment to LCFIs that are viewed as TBTF.¹⁹²

Accordingly, it is no longer credible for federal regulators to pretend that they can retreat to their former policy of “constructive ambiguity” by asserting their willingness to allow major LCFIs to collapse into disorderly bankruptcies similar to the Lehman debacle.¹⁹³ Any such assertion would not be believed by the public or the financial markets.¹⁹⁴ As shown below, the best way to impose effective discipline on SIFIs, and to reduce the federal subsidies they receive, would be to designate them publicly as SIFIs and to impose stringent regulatory requirements that would force them to internalize the potential costs of their TBTF status.

Second, the FRB and FDIC should have shared authority to initiate the new special resolution regime for a failing SIFI, based on a joint finding that the SIFI either (i) has fallen below a specified minimum capital threshold or (ii) is facing a near-term risk of insolvency or bankruptcy due to a lack of adequate liquidity or a threatened acceleration of outstanding creditor claims. The resolution process for a failed SIFI should be administered by the FDIC, given its experience in resolving large bank failures.¹⁹⁵

192. See *supra* notes 141–142 and accompanying text.

193. Thomson, *supra* note 189, at 8–9.

194. For example, Herbert Allison recently claimed before the Congressional Oversight Panel (“COP”) that “[t]here is no ‘too big to fail’ guarantee on the part of the U.S. government.” Members of the COP responded to Mr. Allison’s claim with derision and disbelief. COP member Damon Silvers declared, “I do not understand why it is that the United States government cannot admit what everyone in the world knows.” Cheyenne Hopkins, *Pandit Sees a New Citigroup, But Others aren’t Convinced*, AM. BANKER, Mar. 5, 2010, at 1 (noting that Mr. Allison’s claim “angered and baffled the panelists”).

195. Due to current limitations on its statutory authority, the FDIC does not have experience in resolving the failures of large holding companies that control banks. However, the FDIC’s failure resolution process for banks appears to provide a better model for designing a new process to ensure an orderly resolution of SIFIs, compared to Chapter 11 bankruptcy procedures. See, e.g., Sheila C. Bair, Chairman, Federal Deposit Insurance Corporation, Remarks to the Council of Institutional Investors (Apr. 12, 2010), available at <http://www.fdic.gov/news/news/speeches/chairman/spapr1210.html>; Edward R. Morrison, *Is the Bankruptcy Code an Adequate Mechanism for Resolving the Distress of Systemically Important Institutions?* 10–16 (Columbia L. & Econ. Working Paper No. 362, 2009), available at <http://ssrn.com/abstract=1529802> (concluding that creation of a new regulatory process for regulating SIFIs and resolving their failures would be preferable to an approach that would rely on Chapter 11 bankruptcy proceedings to resolve such failures). For a more favorable view of the Chapter 11 bankruptcy alternative, see Kenneth Ayotte & David A. Skeel, Jr., *Bankruptcy or Bailouts?* (U. Pa. L. Sch. Instit. L. & Econ. Res. Paper No. 09-11, 2009), available at <http://ssrn.com/abstract=1362639>. A detailed analysis of this issue is beyond the scope of this article.

The resolution process for SIFIs should include the following principles: (A) stockholders must lose their entire investment if the SIFI is unable to pay all valid creditor claims, (B) senior managers must be dismissed, together with other employees who were responsible for the SIFI's failure, and (C) unsecured creditors must be required to accept meaningful "haircuts," either in the form of a significant reduction in the amount of their debt claims or an exchange of a substantial amount of their debt for stock of a successor institution. In other words, the resolution process for a SIFI should resemble, to the maximum extent possible, the outcome of a Chapter 11 bankruptcy proceeding.¹⁹⁶ The FDIC should be required to prepare an SRD, and to comply with the SRD Procedure, if it decides either that (A) it must depart from any of the foregoing principles, or (B) it must advance funds to support the SIFI's resolution without a reasonable assurance of repayment from the proceeds of the resolution. Any net proceeds realized by the FDIC from a SIFI's resolution (over and above the FDIC's expenses in carrying out the resolution) should be added to the Systemic Risk Insurance Fund ("SRIF"), described below.¹⁹⁷

Third, Congress should limit the FRB's ability to make loans to SIFIs under its emergency lending authority contained in § 13(3) of the Federal Reserve Act.¹⁹⁸ The FRB should be prohibited from extending credit to SIFIs under § 13(3) for more than ninety days unless (i) the SIFI has been placed in a resolution process or (ii) the FRB makes an SRD and complies with the SRD Procedure. In addition, the FRB should not be allowed to make additional § 13(3) loans to a SIFI after initiation of the resolution process.

C. SIFIs Should Be Subject to Consolidated Supervision by the FRB and Should Comply with Systemic Risk Capital Requirements

Congress should designate the FRB as the consolidated supervisor for SIFIs, subject to the oversight of the SROC. Given the FRB's experience as the regulator of BHCs and as the "umbrella supervisor" for financial holding companies ("FHCs"), it is the logical choice as the consolidated supervisor for SIFIs.¹⁹⁹ However, the FRB has a longstanding concern

196. See Bair FCIC Testimony, *supra* note 184.

197. See *infra* Part III.D.

198. 12 U.S.C. § 343 (2006); see also Christian A. Johnson, *Exigent and Unusual Circumstances: The Federal Reserve and the U.S. Financial Crisis*, EUR. BUS. ORG. L. REV. (forthcoming 2010) (manuscript at Part II.E) (describing the FRB's emergency lending authority under § 13(3)), available at <http://ssrn.com/abstract-1584731>.

199. See CARNELL, MACEY & MILLER, *supra* note 138, at 437–40, 455–60, 465–74 (discussing the FRB's supervision of BHCs and FHCs); Heidi Mandanis Schooner, *Regu-*

with maintaining the stability of financial markets, and it has frequently intervened in the markets to avoid the failure of significant firms that might threaten financial stability.²⁰⁰ The FRB thus has a tendency to grant forbearance to LCFIs in order to maintain financial stability, and the SROC should therefore be given oversight powers to prevent the FRB from granting excessive leniency to SIFIs.

As consolidated supervisor, the FRB should have power to examine, and require reports from, SIFIs and their subsidiaries and affiliates. The FRB should also have authority to take enforcement actions (including cease-and-desist orders, civil money penalty orders, and orders removing directors and officers) against SIFIs and their subsidiaries and affiliates. The FRB's authority in these matters should be direct. The FRB should not be required (as it is under current law) to rely primarily on actions taken by regulators of functionally regulated subsidiaries (e.g., banks, securities broker-dealers, and insurance companies).²⁰¹

If a functional regulator (e.g., the OCC or the SEC) believes that actions by the FRB as systemic risk regulator are creating an unwarranted conflict with the functional regulator's supervision of a functionally regulated subsidiary, the functional regulator should have the right to appeal to the SROC. By a two-thirds vote, the SROC could require the FRB to rescind or modify any regulatory action with regard to a functionally regulated subsidiary of a SIFI that the SROC determined was not necessary or appropriate to prevent a serious threat to the stability of the SIFI or any of the SIFI's FDIC-insured subsidiaries.

The FRB should also have authority, with the concurrence of the FDIC, to establish systemic risk capital requirements ("SRCRs") for SIFIs. The FDIC should be given a concurrent role in establishing SRCRs in view of its role as administrator of the SRIF.²⁰² The FDIC's responsibilities for administering the SRIF would encourage the FDIC to apply

lating Risk Not Function, 66 UNIV. CIN. L. REV. 441, 478-86 (1998) (contending that the FRB is best situated to act as "systemic risk regulator" for financial conglomerates).

200. The FRB's extraordinary efforts to prevent widespread failures among LCFIs during the current financial crisis are broadly consistent with the FRB's past responses to financial crises. From 1970 to 2001, the FRB repeatedly intervened in the financial markets to prevent the failure of large financial institutions and to preserve financial stability. See Wilmarth, *supra* note 132, at 470-73.

201. Under current law, the FRB is required to rely "to the fullest extent possible" on reports provided and examinations conducted by primary regulators of functionally regulated subsidiaries of BHCs and FHCs. The FRB has only limited authority to require reports from, to conduct examinations of, or to take enforcement actions against, functionally regulated subsidiaries of BHCs and FHCs. See 12 U.S.C. §§ 1844(c), 1844(e), 1844(g), 1848a; CARNELL, MACEY & MILLER, *supra* note 138, at 457-60.

202. See *infra* Part III.D.

strict discipline against SIFIs in order to protect the SRIF's solvency. Accordingly, the FDIC's tendency toward supervisory stringency would serve as a desirable counterweight against the FRB's tendency toward supervisory forbearance.²⁰³ If the FRB and the FDIC disagreed over the appropriate level of SRCRs, the SROC could resolve the disagreement and specify SRCRs by a vote of at least five members other than the representatives of the FRB and FDIC.

SRCRs should include a leverage capital requirement, which would be calculated based on the total (unweighted) assets of each SIFI. A leverage requirement is a useful tool for limiting excessive risk-taking by financial institutions, and it is an essential supplement to risk-based capital requirements. In 2007, European banks and U.S. investment banks operated with very high asset-to-equity ratios (usually above 30:1) because they were subject only to risk-based capital rules and did not have to satisfy a leverage capital requirement. By contrast, asset-to-equity ratios for U.S. commercial banks were typically below 25:1 because those banks had to comply with a leverage requirement as well as risk-based capital rules. To provide an additional margin for safety, the minimum leverage capital requirement for SIFIs should be increased to a level well above the current requirement of five percent for well-capitalized institutions.²⁰⁴

203. For example, the conduct of the FRB and the FDIC during the negotiations that led to the Basel II international capital accord indicated that the FRB was more inclined than the FDIC to accommodate the interests and concerns of large banks. During those negotiations, the FRB actively supported an "advanced internal risk-based" ("A-IRB") method for establishing capital requirements for the largest banks. The A-IRB method was favored by major banks because it allowed each bank to calculate its capital needs based on internal quantitative risk models, as long as those models satisfied supervisory criteria. Major banks supported the A-IRB method because that approach held out the possibility of significantly reducing their capital requirements. In contrast to the FRB, the FDIC expressed great skepticism about the A-IRB approach. The FDIC therefore insisted that federal regulations implementing Basel II must include transitional, phased-in capital floors to prevent any rapid drop in risk-based capital requirements under the A-IRB method. In addition, the FDIC fought hard to preserve the U.S. leverage capital requirement as an essential safeguard that would help maintain adequate capital levels at all U.S. banks, even though the Basel II accord did not include any leverage requirement. See DANIEL K. TARULLO, *BANKING ON BASEL: THE FUTURE OF INTERNATIONAL FINANCIAL REGULATION* 99–130 (2008).

204. For sources supporting the imposition of a leverage capital requirement, and noting the disparity between the asset-to-equity ratios at U.S. commercial banks and the significantly higher (and more risky) ratios at U.S. investment banks and European banks in 2007, see Blundell-Wignall & Atkinson, *supra* note 84, at 93–96; Blundell-Wignall et al., *supra* note 4, at 18–22; Haldane, *supra* note 84, at 7 (stating that "[o]ne simple means of altering the rules of the asymmetric [risk] game between banks and the state is to place heavier restrictions on leverage").

In addition to a leverage requirement, SRCRs should incorporate risk-based components, including rules that emphasize “the importance of common equity” as well as the need to “reduce pro-cyclical tendencies by establishing special capital buffers that would be built up in boom times and drawn down as conditions deteriorate.”²⁰⁵ The marginal rates for risk-based SRCRs should become progressively higher as a SIFI poses greater systemic risk due to (a) increases in its size, complexity, or interconnectedness with other LCFIs, (b) hazards created by an aggressive compensation structure for managers or for key employees who work in high-risk areas (e.g., proprietary trading), and/or (c) weaknesses in the SIFI’s liquidity.²⁰⁶ In addition, SRCRs should take full account of all risk exposures of a SIFI, whether those exposures are held on the SIFI’s balance sheet or are linked to OBS entities.²⁰⁷

One intriguing proposal would require each SIFI to issue “contingent capital” as one component of its SRCR. This contingent capital would be issued in the form of convertible subordinated debt. That debt would convert automatically into common stock upon the occurrence of a designated event of financial stress, such as (i) a decline in the SIFI’s capital below a specified level that would “trigger” an automatic conversion, or (ii) the initiation by the FRB and the FDIC of the special resolution process for a SIFI. One advantage of contingent capital is that the SIFI’s common equity would be increased (due to the mandatory conversion of subordinated debt) at a time when the SIFI would face significant financial stress and probably could not sell stock in the market. Additionally, mandatory conversion would encourage holders of convertible subordinated debt to exercise greater discipline over the SIFI’s management, since those holders would risk losing their entire investment if mandatory conversion occurred.²⁰⁸

The biggest problem with the contingent capital proposal is that outside investors would be reluctant to purchase convertible subordinated debt unless the terms of the debt included a relatively high interest rate or other investor-friendly features (e.g., a voluntary conversion option on

205. Tarullo Regulatory Reform Speech, *supra* note 184.

206. For one approach to calculating SRCRs, see Acharya et al., *Regulating Systemic Risk*, *supra* note 128, at 289–93.

207. See *supra* notes 90–95 and accompanying text (describing how LCFIs retained large risk exposures to OBS conduits during the credit boom that led to the current financial crisis).

208. For discussion of proposals for a contingent capital requirement, see, for example, Christopher L. Culp, *Contingent Capital vs. Contingent Reverse Convertibles for Banks and Insurance Companies*, J. APPLIED CORP. FIN., Fall 2009, at 17, 23–27; Emily Flitter, *Push for ‘Contingent Capital’ Has Momentum*, AM. BANKER, Oct. 2, 2009, at 1; David Henry, *The Second Coming of ‘Safer’ Securities*, BUSINESS WK., Dec. 7, 2009, at 56.

favorable terms) that would offset the risk of forfeiture due to a mandatory conversion event. SIFIs and outside investors therefore might not be able to agree on an interest rate and other terms for contingent capital that would be acceptable to both sides.²⁰⁹

Contingent capital might be a much more feasible option if it is used to compensate senior managers and other key employees. Managers and key employees would become “captive investors” for contingent capital if they were required to accept convertible subordinated debentures in payment of a significant portion (e.g., one-third) of their annual compensation. Managers and key employees should not be allowed to make voluntary conversions of their subordinated debentures into common stock until the expiration of a minimum holding period (e.g., three years) after the termination date of their employment. Such a minimum post-employment holding period would discourage managers and key employees from taking excessive risks to boost the value of the conversion option during the term of their employment. At the same time, their debentures would be subject to mandatory conversion into common stock upon the occurrence of a designated event of financial stress. Requiring managers and key employees to hold a significant portion of contingent capital could give them positive incentives to manage their SIFI prudently in accordance with the interests of creditors as well as shareholders. Such a requirement would also force managers and key employees to share a significant portion of the loss if their SIFI is threatened with failure.²¹⁰

D. SIFIs Should Be Required to Pay Risk-Based Premiums to Establish a Systemic Risk Insurance Fund Administered by the FDIC

To accomplish a further reduction in TBTF subsidies, Congress should require SIFIs to pay risk-based insurance premiums to establish the SRIF. SRIF insurance premiums should be established by the FDIC with the FRB’s concurrence. If the FDIC and FRB disagree about the appropriate schedule for SRIF premiums, the SROC should possess authority to resolve the disagreement and to specify SRIF premiums by a vote of at least five members other than the FDIC’s and FRB’s representatives.

209. See Culp, *supra* note 208, at 27; Flitter, *supra* note 208; Henry, *supra* note 208.

210. For two other recent proposals that call for managers and key employees to receive part of their compensation in debt securities in order to encourage them to avoid excessive risk-taking, see Lucian Bebchuk & Holger Spamann, *Regulating Bankers’ Pay*, 98 GEO. L. J. 247, 283–86 (2010); Frederick Tung, *Pay for Banker Performance: Structuring Executive Compensation and Risk Regulation* 31–51 (Emory L. & Econ. Res. Paper No. 10-60, 2010), available at <http://ssrn.com/abstract=1546229>.

The FDIC should be required to assess SRIF premiums in order to establish, within a period not to exceed five years, a SRIF that would provide reasonable protection to taxpayers against the cost of a future systemic financial crisis. As explained above, federal regulators provided \$290 billion of capital assistance to the nineteen largest BHCs (each with assets of more than \$100 billion) and to AIG during the current crisis.²¹¹ It therefore appears that (i) \$300 billion (appropriately adjusted for inflation) would be the minimum acceptable size for the SRIF, and (ii) SRIF premiums should be paid by all BHCs with assets of more than \$100 billion (also adjusted for inflation) and by all other designated SIFIs. As with SRCRs, the marginal rates for SRIF premiums should become progressively higher as SIFIs pose greater systemic risk, adopt riskier compensation structures, and/or maintain inadequate liquidity.²¹² In addition, the FDIC should impose additional assessments on SIFIs in order to replenish the SRIF within three years after the SRIF incurs any loss due to the failure of a SIFI.

For four reasons, it is essential to establish a pre-funded SRIF. First, it is unlikely that most SIFIs would have adequate financial resources to pay large SRIF premiums after one or more of their peers failed during a financial crisis. LCFIs are frequently exposed to highly correlated risk exposures during a serious financial disruption, because they followed similar high-risk business strategies (“herding”) during the credit boom that led to the crisis.²¹³ Many LCFIs are therefore likely to suffer severe

211. See *supra* notes 9–12, 121–123 and accompanying text.

212. Acharya et al., *Regulating Systemic Risk*, *supra* note 128, at 293–94; see also Xin Huang et al., *A Framework for Assessing the Systemic Risk of Major Financial Institutions*, 33 J. BANKING & FIN. 2036 (2009) (proposing a stress testing methodology for calculating an insurance premium sufficient to protect against losses of more than 15% of the total liabilities of twelve major U.S. banks during the period 2001–2008, and concluding that the hypothetical aggregate insurance premium would have had an “upper bound” of \$250 billion in July 2008).

213. A recent study concluded that market returns of the 100 largest banks, securities firms, insurers, and hedge funds became “highly interconnected,” and their risk exposures became “highly interrelated,” during the current financial crisis as well as during (i) the dotcom-telecom bust of 2000–2002 and (ii) the crisis surrounding Russia’s debt default and the threatened failure of Long-Term Capital Management, a major hedge fund, in 1998. Monica Billio et al., *Measuring Systemic Risk in the Finance and Insurance Sectors* 16–17, 40–47 (MIT Sloan Sch. Mgmt. Working Paper 4774-10, 2010), available at <http://ssrn.com/abstract=1571277>. For additional evidence indicating that banks and other financial institutions engage in herding behavior that can trigger systemic financial crises, see Viral V. Acharya & Tanju Yorulmazer, *Information Contagion and Bank Herding*, 40 J. MONEY, CREDIT & BANKING 215, 215–17, 227–29 (2008); Viral V. Acharya & Tanju Yorulmazer, *Too Many To Fail – An Analysis of Time-Inconsistency in Bank Closure Policies*, 16 J. FIN. INTERMEDIATION 1, 2–4, 18–19, 24–27 (2007); Raghuram G. Rajan,

losses and to face a substantial risk of failure during a major disturbance in the financial markets.²¹⁴ Consequently, a post-funded SRIF (i) would probably not be able in the short term to collect enough premiums from surviving SIFIs to cover the costs of resolving one or more failed SIFIs, and (ii) would therefore have to borrow large sums from the federal government to cover short-term resolution costs. Even if the SRIF ultimately repaid the borrowed funds by imposing ex post assessments on surviving SIFIs, the public and the financial markets would understandably conclude that the federal government provided bridge loans to bail out creditors of the failed SIFIs.²¹⁵ Accordingly, a post-funded SRIF would not be successful in eliminating many of the implicit subsidies (and associated moral hazard) that our current TBTF policy has created.

Second, in a post-funded system, the most reckless SIFIs (which would be the most likely to fail) would effectively shift the potential costs of their risk-taking to the most prudent SIFIs, because the latter would be more likely to survive and bear the ex post costs of resolving failed SIFIs. Thus, a post-funded SRIF is undesirable because “firms that fail never pay and the costs are borne by surviving firms.”²¹⁶

Third, a pre-funded SRIF would create beneficial incentives that would encourage each SIFI to monitor other SIFIs and to alert regulators to excessive risk-taking by those institutions. Every SIFI would know that the failure of another SIFI would deplete the SRIF and would also trigger future assessments that it and other surviving SIFIs would have to pay. Thus, each SIFI would have good reason to complain to regulators if it became aware of unsound practices or conditions at another SIFI.

Fourth, a pre-funded SRIF would reduce the TBTF subsidy for SIFIs by forcing them to internalize more of the “negative externality” (i.e., the potential public bailout cost) of their activities.²¹⁷ A pre-funded SRIF would provide a reserve fund, paid for by SIFIs, that would protect governments and taxpayers from having to incur the expense of underwriting future bailouts of failed SIFIs.

Has Finance Made the World Riskier?, 12 EUR. FIN. MGMT. 499, 499–503, 513–22 (2006). As described above in Part III, major LCFIs engaged in parallel behavior that resembled herding during the credit boom that precipitated the present crisis, particularly with regard to high-risk securitized lending in the residential and commercial mortgage markets and the corporate LBO market.

214. See *supra* notes 115–122 and accompanying text (showing that the big eighteen LCFIs accounted for nearly three-fifths of the \$1.5 trillion of losses incurred by global banks, securities firms and insurers during the current crisis, and twelve of those institutions were bailed out or received substantial governmental assistance).

215. Bair FCIC Testimony, *supra* note 184.

216. *Id.*

217. Acharya et al., *Regulating Systemic Risk*, *supra* note 128, at 293–95.

To further reduce the potential TBTF subsidy for SIFIs, the SRIF should be strictly separated from the existing Deposit Insurance Fund (“DIF”). To ensure this separation, Congress should repeal the “systemic-risk exception” that is currently included in the Federal Deposit Insurance Act (“FDI Act”).²¹⁸ The FDIC relied on that exception when it joined with the Treasury Department and the FRB in providing more than \$400 billion of asset guarantees to Citigroup and BofA.²¹⁹ The DIF should no longer be available as a potential source of protection for creditors of SIFIs. Instead, the SRIF should be designated as the exclusive source of future funding for resolutions of failed SIFIs. Thus, the systemic-risk exception for the DIF should be repealed, and the FDIC should be required to apply the least-cost test in resolving all future bank failures.²²⁰ Repeal of the systemic-risk exception would ensure that the DIF is no longer viewed as a potential bailout fund for TBTF banking organizations.

E. Banks Controlled by Financial Holding Companies Should Operate as “Narrow Banks” to Ensure that They Cannot Transfer Their Federal Safety Net Subsidies to Their Nonbank Affiliates

In January 2010, President Obama announced his support for the “Volcker rule” proposed by former FRB Chairman Paul Volcker. The Volcker rule would prohibit FDIC-insured banks and companies controlling such banks from owning or controlling hedge funds or private equity funds or from engaging in proprietary trading (i.e., buying and selling securities, derivatives, and other tradable assets for their own account). Trading in the capital markets by banks and their holding companies would be limited to “market making” activities conducted on behalf of

218. 12 U.S.C. § 1823(c)(4)(G) (2006) (allowing the FDIC, with the concurrence of the Treasury Secretary and the FRB, to disregard the least-cost requirement for bank resolutions if the failure of a bank “would have serious adverse effects on economic conditions or financial stability”); *see also* CARNELL, MACEY & MILLER, *supra* note 138, at 731–32 (discussing “systemic-risk exception”).

219. *See* Press Release, Joint Statement by Treasury, Federal Reserve and the FDIC on Citigroup (Nov. 23, 2008), *available at* <http://www.fdic.gov/news/news/pres/2008/pr08125.html>; Sheila C. Bair, Chairman, Fed. Deposit Insurance Corp., Statement on Bank of America Acquisition of Merrill Lynch before the House Committee on Oversight and Government Reform and the Subcommittee on Domestic Policy (Dec. 11, 2009), *available at* <http://www.fdic.gov/news/news/speeches/archives/2009/spdec1109.html>.

220. The least-cost test requires the FDIC to “meet the obligation of the [FDIC] to provide insurance coverage for the insured deposits” in a failed bank by using the approach that is “least costly to the [DIF].” 12 U.S.C. § 1823(c)(4)(A)(i), (ii) (2006).

clients.²²¹ The primary purpose of the Volcker rule is to prevent government safety nets from “protecting and supporting essentially proprietary and speculative activities.”²²² As this article went to press, it was uncertain whether Congress would adopt the Volcker rule. One of the most widely-shared critiques of the rule was the difficulty in distinguishing between permissible market-making for clients and prohibited proprietary trading for a bank’s own account.²²³

In my view, the most feasible way to accomplish the basic purpose of the Volcker rule—namely, to prevent SIFIs from using the federal safety net to subsidize their speculative activities in the capital markets—would be to create a two-tiered structure of bank regulation and deposit insurance. As described below, the first tier of “traditional” banking organizations would provide a relatively broad range of banking-related services, but those organizations would not be allowed to engage in, or affiliate with firms engaged in, securities underwriting or dealing, insurance underwriting or derivatives dealing. In contrast, the second tier of “narrow banks” could affiliate with “nontraditional” firms engaged in capital markets activities, except for private equity investments. However, “narrow banks” would be prohibited from making any extensions of credit or other transfers of funds to their nonbank affiliates, except for lawful dividends paid to their parent holding companies. The “narrow bank” approach provides the most practicable method for ensuring that banks cannot transfer their safety net subsidies to affiliated companies engaged in speculative activities in the capital markets, and it is therefore consistent with the spirit of the Volcker rule.²²⁴

221. See Cheryl Bolen et al., *Regulatory Reform: White House Seeks Tough Limits on Size, Trading Activities of Large Financial Firms*, 94 BANKING REP. (BNA) 127 (2010).

222. Brady Dennis, *Volcker Urges Senators to Adopt Obama’s Rules on Banking*, WASH. POST, Feb. 3, 2010, at A11 (quoting testimony by Mr. Volcker).

223. See, e.g., Sewell Chan, *Dodd Calls Obama Plan Too Grand*, N.Y. TIMES, Feb. 3, 2010, at B1; Rebecca Christie & Phil Mattingly, *‘Volcker Rule’ Draft Signals Obama Wants to Ease Market Impact*, BLOOMBERG.COM, Mar. 4, 2010, available at http://www.bloomberg.com/apps/news?pid=20601103&sid=aHT_LKrSCQ1c; Stacy Kaper, *Absence of Details Hurts Obama Plans*, AM. BANKER, Feb. 4, 2010, at 1; Alison Vekshin, *Obama’s ‘Volcker Rule’ May Not Survive Congressional Skepticism*, BLOOMBERG.COM, Feb. 5, 2010, available at <http://www.bloomberg.com/apps/news?pid=20601103&sid=apVODE601KQ4>; CARNELL, MACEY & MILLER, *supra* note 138, at 130, 528–29 (describing the roles of “dealers” (i.e., proprietary traders) and “market makers” and indicating that the two roles can frequently overlap).

224. I have previously presented my proposal for a two-tiered structure of bank regulation and deposit insurance in two articles. See Arthur E. Wilmarth, Jr., *How Should We Respond to the Growing Risks of Financial Conglomerates?*, in FINANCIAL MODERNIZATION AFTER GRAMM-LEACH-BLILEY 65, 121–32 (Patricia A. McCoy ed.,

1. The First Tier of Traditional Banking Organizations

Under my proposal, the first tier of regulated banking firms would be “traditional” banking organizations that limit their activities (including the activities of all holding company affiliates) to lines of business that meet the “closely related to banking” test under Section 4(c)(8) of the Bank Holding Company Act (“BHC Act”).²²⁵ For example, this first tier of traditional banks could take deposits, make loans, and offer fiduciary services, as well as act as agents in selling securities, mutual funds, and insurance products underwritten by non-affiliated firms. Additionally, they could underwrite and deal solely in “bank-eligible” securities that national banks are permitted to underwrite and deal in directly.²²⁶ First-tier banking organizations could also purchase, as end-users, derivatives solely for bona fide hedging transactions that qualify for hedging treatment under FASB’s Financial Accounting Standard (“FAS”) Statement No. 133.²²⁷

Most first-tier banking firms would probably be smaller, community-based banks, because those banks do not have any comparative advantage—and therefore have not shown any substantial interest—in engaging as principal in insurance underwriting, securities underwriting, or

2002) [hereinafter Wilmarth, *Financial Conglomerates*]; Arthur E. Wilmarth, Jr., *Too Good to Be True? The Unfulfilled Promises Behind Big Bank Mergers*, 2 STAN. J.L. BUS. & FIN. 1, 77–87 (1995) [hereinafter Wilmarth, *Big Bank Mergers*]. The discussion in this article is adapted in part from those prior articles. As indicated in those articles, I am indebted to Robert Litan for many of the concepts incorporated in my two-tiered proposal. See generally ROBERT E. LITAN, WHAT SHOULD BANKS DO? 164–89 (1987). For additional works that favor the use of “narrow banks” to achieve a strict separation between banking institutions and affiliates engaged in capital markets operations, see, for example, Emiliios Avgouleas, *The Reform of ‘Too Big-To-Fail’ Bank: A New Regulatory Model for the Institutional Separation of ‘Casino’ from ‘Utility’ Banking*, Feb. 14, 2010, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1552970; Kay, *supra* note 167, at 39–92; Ronnie J. Phillips & Alessandro Roselli, *How to Avoid the Next Taxpayer Bailout of the Financial System: The Narrow Banking Proposal* (Networks Fin. Instit. Pol’y Brief 2009-PB-05, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1459065.

225. 12 U.S.C. § 1843(c)(8) (2006); CARNELL, MACEY & MILLER, *supra* note 138, at 442–44 (describing “closely related to banking activities” that are permissible for non-bank subsidiaries of BHCs under § 4(c)(8)).

226. See CARNELL, MACEY & MILLER, *supra* note 138, at 132–34 (discussing “bank-eligible” securities that national banks are authorized to underwrite or purchase or sell for their own account); Wilmarth, *supra* note 132, at 225, 225–26 n.30 (same).

227. See Wilmarth, *Financial Conglomerates*, *supra* note 224, at 117 n.132 (discussing FASB’s adoption of FAS 133); see also Financial Accounting Standards Board, Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities (June 1998), available at <http://www.fasb.org/pdf/fas133.pdf>.

dealing, derivatives dealing, or other capital markets activities. Those community banks are well positioned to continue their traditional business of attracting core deposits, providing relationship loans to consumers and small and medium-sized business firms, and offering wealth management services to local customers through their fiduciary operations.²²⁸

In order to provide reasonable flexibility for this first tier of traditional banks, Congress should amend Section 4(c)(8) of the BHC Act by allowing the FRB to expand the list of “closely related” activities that are permissible for holding company affiliates of traditional banks.²²⁹ However, Congress should prohibit first-tier BHCs from engaging as principal in underwriting or dealing in securities, underwriting any type of insurance (except for credit insurance), dealing in OTC derivatives, or making private equity investments. Traditional banks and their holding companies would continue to operate under their current supervisory arrangements, and all of the banks’ deposits (up to the current statutory limit of \$250,000) would be covered by deposit insurance.

2. The Second Tier of Nontraditional Banking Organizations

In contrast to first-tier banking firms, the second tier of “nontraditional” banking organizations would be allowed to engage in (i) underwriting and dealing (i.e., proprietary trading) in “bank-ineligible” securities, (ii) underwriting insurance, and (iii) dealing or trading in derivatives. Second-tier organizations would include: (A) FHCs registered under Sections 4(k) and 4(l) of the BHC Act,²³⁰ (B) holding companies owning grandfathered “nonbank banks,” and (C) grandfathered “unitary thrift” holding companies.²³¹ In addition, firms controlling industrial banks

228. For a discussion of the business strategies typically followed by community banks, see, for example, Wilmarth, *supra* note 132, at 268–72.

229. Unfortunately, GLBA prohibits the FRB from approving any new “closely related” activities for bank holding companies under Section 4(c)(8) of the BHC Act. See CARNELL, MACEY & MILLER, *supra* note 138, at 444 (explaining that GLBA does not permit the FRB to expand the list of permissible activities under Section 4(c)(8) beyond the activities that were approved as of Nov. 11, 1999). Congress should revise Section 4(c)(8) by authorizing the FRB to approve a limited range of new activities that are “closely related” to the traditional banking functions of accepting deposits, extending credit, discounting negotiable instruments, and providing fiduciary services. See Wilmarth, *Big Bank Mergers*, *supra* note 224, at 80 n.365, 84 & n.378.

230. 12 U.S.C. § 1843(k), (l) (2006); see also CARNELL, MACEY & MILLER, *supra* note 138, at 467–48 (describing registration of FHCs under the BHC Act).

231. See CARNELL, MACEY & MILLER, *supra* note 138, at 468–70 (discussing activities authorized for FHCs under the GLB Act); Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1569–71, 1584–86 (explaining that (i) during the 1980’s and

should be required either to register as FHCs or to divest their ownership of such banks if they cannot comply with the BHC Act's prohibitions against commercial activities.²³² Second-tier holding companies would thus encompass all of the largest banking organizations, most of which are heavily engaged in capital markets activities, together with other financial conglomerates that control FDIC-insured depository institutions.

a. The "Narrow Bank" Structure for Second-Tier Banks

Under this proposal, FDIC-insured depository institutions that are subsidiaries of second-tier holding companies would be required to operate as "narrow banks." Narrow banks could offer all permissible types of FDIC-insured deposit accounts, including checking and savings accounts. These banks would hold all of their assets in the form of cash and marketable, short-term debt obligations, including qualifying government securities, highly-rated commercial paper, and other liquid, short-term debt instruments that are eligible for investment by MMMFs under the SEC's rules. Narrow banks could not hold any other types of loans or investments, nor could they accept any uninsured deposits. Narrow banks would present a very small risk to the DIF, because (i) each narrow bank's non-cash assets would consist solely of short-term securities that could be "marked to market" on a daily basis, and the FDIC could therefore readily determine whether a narrow bank was threatened with insolvency, and (ii) the FDIC could promptly convert a narrow bank's assets into cash if the FDIC decided to liquidate the bank and pay off the claims of its insured depositors.²³³

Thus, narrow banks would effectively operate as FDIC-insured MMMFs. In order to prevent unfair competition with narrow banks, and to avoid future government bailouts of uninsured MMMFs, firms that

1990's, many securities firms, life insurers, and industrial firms used the "nonbank bank" loophole or the "unitary thrift" loophole to acquire FDIC-insured institutions, and (ii) those loopholes were closed to new acquisitions by a 1987 statute and GLBA, respectively).

232. For a discussion of reasons for this requirement, see generally Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1554-1620 (arguing that commercial firms should not be permitted to acquire industrial banks because such acquisitions (i) undermine the long-established U.S. policy of separating banking and commerce, (ii) threaten to spread federal safety net subsidies to the commercial sector of the U.S. economy, (iii) threaten the solvency of the DIF, (iv) create competitive inequities between owners of industrial banks and other commercial firms, and (v) increase the likelihood of federal bailouts of commercial companies); Wilmarth, *supra* note 142.

233. See Kenneth E. Scott, *Deposit Insurance and Bank Regulation: The Policy Choices*, 44 BUS. LAW. 907, 921-22, 928-29 (1989); Wilmarth, *Big Bank Mergers*, *supra* note 224, at 79-82.

manage uninsured MMMFs should be prohibited from representing, either explicitly or implicitly, that they will redeem their shares based on a “constant net asset value” (“NAV”) of \$1 per share.²³⁴ Currently, the MMMF industry (which manages \$3.3 trillion of assets) leads investors to believe that their funds will be available for withdrawal (redemption) based on “a stable price of \$1 per share.”²³⁵ Not surprisingly, “the \$1 share price gives investors the false impression that money-market funds are like [FDIC-insured] bank accounts and can’t lose money.”²³⁶ However, “[t]hat myth was shattered in 2008” when Lehman’s default on its commercial paper caused Reserve Primary Fund (a large MMMF that invested heavily in Lehman’s paper) to suffer large losses and to “break the buck.”²³⁷ Reserve Primary Fund’s inability to redeem its shares based on a NAV of \$1 per share caused an investor panic that precipitated runs on several MMMFs. The Treasury Department responded by establishing the Money Market Fund Guarantee Program (“MMFGP”) which protected investors in participating MMMFs between October 2008 and September 2009.²³⁸

Critics of MMMFs maintain that the Treasury’s MMFGP has created an expectation of similar government bailouts if MMMFs “break the

234. See Daisy Maxey, *Money Funds Exhale After New SEC Rules, But Should They?*, WALL ST. J., Feb. 2, 2010, at C9 (describing the SEC’s adoption of new rules governing MMMFs, and reporting on concerns expressed by representatives of the MMMF industry that the SEC might someday force the industry to adopt a “floating NAV” in place of the industry’s current practice of quoting a constant NAV of \$1 per share).

235. David Reilly, *Goldman Sachs Wimps Out in Buck-Breaking Brawl*, BLOOMBERG.COM, Feb. 3, 2010, available at <http://www.bloomberg.com/apps/news?pid=20670001&sid=aZq9IO8WsG0Q>; see also November 2009 COP Report, *supra* note 7, at 28 (stating that MMMFs are “structured to be highly liquid and [to] protect principal by maintaining a stable net asset value (NAV) of \$1.00 per share”).

236. Reilly, *supra* note 235; see also Kay, *supra* note 167, at 65 (arguing that an MMMF with a constant NAV of \$1 per share “either confuses consumers or creates an expectation of government guarantee”).

237. Reilly, *supra* note 235; see also Christopher Condon, *Volcker Says Money-Market Funds Weaken U.S. Financial System*, BLOOMBERG.COM, Aug. 25, 2009, available at <http://www.bloomberg.com/apps/news?pid=20670001&sid=a5O9Upz5e0Qc>.

238. November 2009 COP Report, *supra* note 7, at 28–35 (describing creation and terms of the Treasury Department’s MMFGP); Reilly, *supra* note 235 (describing “panic” that occurred among investors in MMMFs after Lehman’s collapse forced the Reserve Primary Fund to “break the buck”); Malini Manickavasagam, *Mutual Funds: Citing Stability, Treasury Allows Expiration of Money Market Fund Guarantee Program*, 93 BANKING REP. (BNA) 508 (2009) (reporting that “[t]o prevent other money market funds from meeting the Reserve fund’s fate, Treasury launched its [MMFGP] in October 2008” and continued that program until Sept. 18, 2009).

buck” in the future.²³⁹ In addition, former FRB chairman Paul Volcker has argued that MMMFs weaken banks because of their ability to offer bank-like products without equivalent regulation. MMMFs typically offer accounts with check-writing features, and they provide returns to investors that are higher than bank checking accounts because MMMFs do not have to pay FDIC insurance premiums or to comply with other bank regulations.²⁴⁰ A Group of Thirty report, which Mr. Volcker spearheaded, proposed that MMMFs “that want to offer bank-like services, such as checking accounts and withdrawals at \$1 a share, should reorganize as a type of bank, with appropriate supervision and government insurance.”²⁴¹ In contrast, MMMFs that do not wish to operate as banks “should not maintain the implicit promise that investors’ money is always safe” and should be required to base their redemption price on a floating NAV.²⁴²

239. Jane Bryant Quinn, *Money Funds Are Ripe for ‘Radical Surgery’*, BLOOMBERG.COM, July 29, 2009, available at <http://www.bloomberg.com/apps/news?pid=20601212&sid=a6iLSIGSSoFo>; see also Reilly, *supra* note 235 (arguing that the failure of federal authorities to reform the regulation of MMMFs “creates the possibility of future market runs and the need for more government bailouts”).

240. Condon, *supra* note 237; Quinn, *supra* note 239 (observing that “[b]anks have to hold reserves against demand deposits and pay for [FDIC] insurance” while “[m]oney funds offer similar transaction accounts without being burdened by these costs. That’s why they usually offer higher interest rates than banks”).

241. Quinn, *supra* note 239 (summarizing recommendation presented in a January 2009 report by the Group of Thirty); see GROUP OF THIRTY, FINANCIAL REFORM: A FRAMEWORK FOR FINANCIAL STABILITY 29 (2009), available at <http://www.group30.org/pubs/reformreport.pdf> (recommending that “[m]oney market mutual funds wishing to continue to offer bank-like services, such as transaction account services, withdrawals on demand at par, and assurances of maintaining a stable net asset value (NAV) at par, should be required to reorganize as special-purpose banks, with appropriate prudential regulation and supervision, government insurance, and access to central bank lender-of-last resort facilities”). “The Group of Thirty . . . is a private, non-profit, international body composed of very senior representatives of the private and public sectors and academia. It aims to deepen understanding of international economic and financial issues, to explore the international repercussions of decisions taken in the public and private sectors, and to examine the choices available to market practitioners and policymakers.” About the Group of 30, <http://www.group30.org/about.htm> (last visited May 21, 2010).

242. Quinn, *supra* note 239 (summarizing recommendations of Group of Thirty); see GROUP OF THIRTY, *supra* note 247, at 29 (stating that MMMFs “should be clearly differentiated from federally insured instruments offered by banks” and should base their pricing on “a fluctuating NAV”); see also Reilly, *supra* note 235 (supporting the Group of Thirty’s recommendation that MMMFs “either use floating values—and so prepare investors for the idea that these instruments can lose money—or be regulated as if they are bank products”); Kay, *supra* note 167, at 65 (similarly arguing that “[i]t is important to

For the above reasons, uninsured MMMFs should be prohibited from representing, explicitly or implicitly, that they will redeem shares based on a stable NAV. If Congress imposed this prohibition on MMMFs and adopted my proposal for a two-tiered structure of bank regulation, many MMMFs would probably reorganize as FDIC-insured narrow banks and would become subsidiaries of second-tier FHCs.²⁴³ As noted above, rules restricting the assets of narrow banks to commercial paper, government securities, and other types of marketable, highly-liquid investments would protect the DIF from any significant loss if a narrow bank failed.

b. Four Additional Rules Would Prevent Narrow Banks from Transferring Safety Net Subsidies to Their Affiliates

Four supplemental rules are needed to prevent second-tier holding companies from exploiting their narrow banks' safety net subsidies. First, narrow banks should be prohibited from making any extensions of credit or other transfers of funds to their affiliates, except for the payment of lawful dividends out of profits to their parent holding companies.²⁴⁴ During times of financial crisis, the FRB has repeatedly waived the current restrictions on affiliate transactions mandated by Sections 23A and 23B of the Federal Reserve Act.²⁴⁵ Those waivers have allowed bank subsidiaries of FHCs to provide extensive support to affiliated securities broker-dealers and MMMFs. By granting those waivers, the FRB has enabled banks controlled by FHCs to transfer the safety net subsidy provided by low-cost, FDIC-insured deposits to their nonbank affiliates.²⁴⁶ With respect to second-tier banking organizations, my proposal

create very clear blue water between deposits, subject to government guarantee, and [uninsured MMMFs], which may be subject to market fluctuation”).

243. See Quinn, *supra* note 239 (describing strong opposition by Paul Schott Stevens, chairman of the Investment Company Institute (the trade association representing the mutual fund industry), against any rule requiring uninsured MMMFs to quote floating NAVs, because “[i]nvestors seeking guaranteed safety and soundness would migrate back to banks” and “[t]he remaining funds would become less attractive because of their fluctuating price”).

244. Scott, *supra* note 233, at 929; Wilmarth, *Big Bank Mergers*, *supra* note 224, at 79–82, 86.

245. 12 U.S.C. §§ 371c, 371c-1 (2006); see also *infra* note 246 (describing the FRB's waivers of sections 23A and 23B).

246. Wilmarth, *supra* note 132, at 456–57, 472–73 (discussing the FRB's waiver of § 23A restrictions so that major banks could make large loans to their securities affiliates after the terrorist attacks on September 11, 2001); Wilmarth, *supra* note 142, at 9 (describing the FRB's waiver of § 23A restrictions in August 2007, so that major banks could provide credit to support their securities affiliates following the outbreak of the subprime lending crisis); see also Transactions Between Member Banks and Their Affiliates: Exemption for Certain Purchases of Asset-Backed Commercial Paper by a Member

would replace Sections 23A and 23B with an absolute prohibition on any extensions of credit or other transfers of funds by second-tier banks to their nonbank affiliates. That reform would effectively prevent the FRB from approving any similar transfers of safety net subsidies by narrow banks to their affiliates.

Second, as discussed above, the “systemic risk” provision currently included in the FDI Act should be repealed. By repealing the “systemic risk” exception, Congress would require the FDIC to follow the least costly resolution procedure for every failed bank, and the FDIC could no longer rely on the TBTF policy as a justification for protecting uninsured creditors of a failed bank’s parent holding company or other nonbank affiliates of a failed bank.²⁴⁷

Insulating the DIF from any possibility of TBTF bailouts would have important benefits. It would make clear to the financial markets that the DIF could only be used to protect depositors of failed banks. Uninsured creditors of FHCs—regardless of their size—would no longer have any reasonable expectation of being protected by the DIF. Shareholders and creditors of FHCs and their nonbank subsidiaries would therefore have stronger incentives to monitor the financial condition of such entities.

Additionally, smaller banks would no longer bear any part of the cost of rescuing uninsured creditors of TBTF banks. Under current law, all FDIC-insured banks must pay a special assessment (allocated in proportion to their total assets) to reimburse the FDIC for the cost of protecting uninsured claimants of a TBTF bank under the “systemic risk” provision.²⁴⁸ A 2000 FDIC report noted the unfairness of expecting smaller banks to help pay for “systemic risk” bailouts when “it is virtually inconceivable that they would receive similar treatment if distressed.”²⁴⁹ The FDIC report suggested that the way to correct this inequity is “to remove the systemic risk exception from the [FDI Act],”²⁵⁰ as I have proposed here.

Third, second-tier narrow banks should be prohibited from dealing in derivatives or from purchasing derivatives except as end-users for bona

Bank From an Affiliate, 74 Fed. Reg. 6226 (Feb. 6, 2009) (to be codified at 12 C.F.R. pt. 223) (approving waivers of §§ 23A and 23B in order to “increase the capacity” of banks to purchase ABCP from affiliated MMMFs, and explaining that such waivers—which had originally been granted in September 2008—were justified “[i]n light of ongoing dislocations in the financial markets, and the impact of such dislocations on the functioning of the ABCP markets and on the operations of [MMMMFs]”).

247. See *supra* notes 218–220 and accompanying text.

248. 12 U.S.C. § 1823(c)(4)(G)(ii) (2006).

249. Federal Deposit Ins. Corp., Options Paper, Aug. 2000, at 33, available at http://www.fdic.gov/deposit/insurance/initiative/Options_080700m.pdf.

250. *Id.*

vide hedging purposes pursuant to FAS 133.²⁵¹ All other derivatives activities of second-tier banking organizations must be conducted through separate nonbank affiliates. This rule would prevent FHCs from continuing to exploit federal safety net subsidies by conducting risky derivatives activities within their FDIC-insured bank subsidiaries.

I have previously pointed out that bank dealers in OTC derivatives enjoy significant competitive advantages over nonbank dealers because of the banks' explicit and implicit safety net subsidies.²⁵² Banks typically borrow funds at significantly lower interest rates than their holding company affiliates because (i) banks can obtain direct, low-cost funding through FDIC-insured deposits, and (ii) banks present lower risks to their creditors because of their direct access to other federal safety net resources, including (A) the FRB's discount window lending facility, (B) the FRB's guarantee of interbank payments made on Fedwire, and (C) the greater potential availability of TBTF bailouts for uninsured creditors of banks (as compared to creditors of BHCs).²⁵³ The OCC has confirmed that FHCs generate higher profits when they conduct derivatives activities directly within their banks, in part because the "favorable [funding] rate enjoyed by the banks" is lower than "the borrowing rate of their holding companies."²⁵⁴ Such an outcome may be favorable to FHCs, but it is certainly not beneficial to the DIF and taxpayers, because they are exposed to a higher risk of losses when derivatives activities are conducted directly within banks instead of within nonbank holding company affiliates.²⁵⁵

251. See Wilmarth, *Big Bank Mergers*, *supra* note 224, at 84–85 (explaining why narrow banks should be allowed to purchase derivatives solely for hedging purposes); *supra* note 227 and accompanying text (discussing FAS 133).

252. Wilmarth, *supra* note 132, at 336–37, 372–73.

253. See CARNELL, MACEY & MILLER, *supra* note 138, at 492; Wilmarth, *supra* note 142, at 5–7, 16 n.39.

254. OFFICE OF THE COMPTROLLER OF THE CURRENCY, OCC INTERPRETIVE LETTER NO. 892, at 3 (from Comptroller of the Currency John D. Hawke, Jr., to Rep. James A. Leach, Chairman of H. Committee on Banking & Financial Services), *available at* <http://www.occ.treas.gov/interp/sep00/int892.pdf>.

255. Wilmarth, *supra* note 132, at 372–73. For general discussions of the risks posed by OTC derivatives to banks and other financial institutions, see, for example, *id.* at 337–78; RICHARD BOOKSTABER, *A DEMON OF OUR OWN DESIGN: MARKETS, HEDGE FUNDS, AND THE PERILS OF FINANCIAL INNOVATION* 7–142 (2007); TETT, *supra* note 87, *passim*. CFTC Chairman Gary Gensler has proposed legislation that would require "standard" (as opposed to "customized") derivatives to be traded on exchanges or clearinghouses instead of being arranged through privately-negotiated contracts with OTC dealers. Chairman Gensler contends that "standard" derivatives should be traded on exchanges or clearinghouses in order to (i) increase the public transparency of trading positions and prices, and (ii) force derivatives counterparties to post collateral, as required by the relevant

Fourth, second-tier banks and their affiliates should be prohibited from making private equity investments. To accomplish this reform, Congress must repeal Sections 4(k)(4)(H) and (I) of the BHC Act,²⁵⁶ which allow FHCs to make merchant banking investments and insurance company portfolio investments.²⁵⁷ Private equity investments by second-tier banking organizations should be banned because they involve a high degree of risk and have inflicted significant losses on FHCs in the past.²⁵⁸ In addition, private equity investments “could potentially weaken the separation of banking and commerce” by allowing FHCs “to maintain long-term control over entities that conduct commercial (i.e., nonfinancial) businesses.”²⁵⁹ Such affiliations between banks and commercial firms are undesirable because they are likely to create serious competitive and economic distortions, including the spread of federal safety net benefits to the commercial sector of our economy.²⁶⁰

In combination, the four supplemental rules described above would help to ensure that narrow banks cannot transfer their federal safety net subsidies to their nonbank affiliates. Restricting the scope of safety net subsidies is of utmost importance in order to restore a more level playing

exchange or clearinghouse, to protect against the risk of counterparty default. *See, e.g.,* Graham Bowley, *A Convert to Reform: Goldman Deal-Maker Now Advocates Regulation*, N.Y. TIMES, Mar. 10, 2010, at B1; Ian Katz & Robert Schmidt, *Gensler Turns Back on Wall Street to Push Derivatives Overhaul*, BLOOMBERG.COM, Feb. 12, 2010, available at <http://www.bloomberg.com/apps/news?pid=20670001&sid=a3OkrdITAZtA>. I strongly support Chairman Gensler’s proposal, but a detailed discussion of that proposal is beyond the scope of this article.

256. 12 U.S.C. § 1843(k)(4)(H), (I) (2006).

257. *See* CARNELL, MACEY & MILLER, *supra* note 138, at 483–85 (explaining that “through the merchant banking and insurance company investment provisions, [GLBA] allows significant nonfinancial affiliations” with banks).

258. *See* Wilmarth, *supra* note 132, at 330–32, 375–78.

259. Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1581–82 (noting, however, that the FRB and the Treasury Dept. have so far “impose[d] strict limitations” on such investments in order to help preserve the separation of banking and commerce).

260. For further discussion on this argument, see *id.* at 1588–1613. Federal regulators recently provided a large federal safety net subsidy to GE, a major industrial conglomerate, when they allowed GE’s finance company subsidiary, GE Capital, to issue \$55 billion of FDIC-guaranteed debt during 2008 and 2009. Federal regulators permitted GE Capital, which owns a thrift and industrial bank, to issue debt through the FDIC’s DGP after GE Capital experienced difficulties in selling commercial paper to fund its operations. GE Capital received this subsidy even though it is not a BHC and did not satisfy the general terms and conditions of the FDIC’s DGP. *See supra* note 122. This incident illustrates the potential risk that affiliations between banks and commercial firms will result in an extension of the federal safety net from the banking sector to the commercial sector of the economy.

field between small and large banks, and between banking and nonbanking firms. Safety net subsidies have increasingly distorted our regulatory and economic policies over the past three decades. During that period, nonbanking firms have pursued every available avenue to acquire FDIC-insured depository institutions so that they can secure the funding advantages provided by low-cost, FDIC-insured deposits. At the same time, nonbank affiliates of banks have made every effort to exploit the funding advantages and other safety net benefits conferred by their affiliation with FDIC-insured institutions.²⁶¹ The enormous benefits conferred by federal safety net subsidies are conclusively shown by the following facts: (i) no major bank organization has ever voluntarily surrendered its banking charter, and (ii) large nonbanking firms have aggressively pursued strategies to secure control of FDIC-insured depository institutions.²⁶²

The most practicable way to prevent the spread of federal safety net subsidies, and their distorting effects on regulation and economic activity, is to establish strong barriers that prohibit narrow banks from transferring their subsidies to their nonbanking affiliates, including those engaged in speculative capital markets activities.²⁶³ The narrow bank structure and the supplemental rules described above would force financial conglomerates to prove that they can produce superior risk-related returns to investors without relying on governmental subsidies. As noted above, economic studies have not confirmed the existence of favorable economies of scale or scope in financial conglomerates, and those conglomerates have not been able to generate consistently positive returns, even under the current regulatory system that allows them to capture extensive federal subsidies.²⁶⁴

A prominent bank analyst recently suggested that if Congress enacted new rules that imposed severe restrictions on affiliate transactions, and thereby prevented nonbank subsidiaries of FHCs from relying on low-cost deposit funding provided by their affiliated banks, large FHCs would not be economically viable and would be forced to break up vo-

261. Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1569–70, 1584–93; Wilmarth, *supra* note 142, at 5–8; *see also* Kay, *supra* note 167, at 43 (“The opportunity to gain access to the retail deposit base has been and remains irresistible to ambitious deal makers. That deposit base carries an explicit or implicit government guarantee and can be used to leverage a range of other, more exciting, financial activities. The archetype of these deal-makers was Sandy Weill, the architect of Citigroup.”).

262. Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1590–93.

263. *See* Kay, *supra* note 167, at 57–59.

264. *See supra* notes 165–167 and accompanying text.

luntarily.²⁶⁵ It is noteworthy that many of the largest commercial and industrial conglomerates in the U.S. and Europe have been broken up through hostile takeovers and voluntary divestitures during the past three decades because they proved to be “less efficient and less profitable than companies pursuing more focused business strategies.”²⁶⁶ It is long past time for financial conglomerates to be stripped of their safety net subsidies so that they will be subject to the same type of scrutiny and discipline that the capital markets have applied to commercial and industrial conglomerates during the past thirty years. The narrow bank concept provides a workable plan to impose such scrutiny and discipline on FHCs.

c. Responses to Critiques of the Narrow Bank Proposal

Critics have raised three major objections to the narrow bank concept. First, critics point out that the asset restrictions imposed on narrow banks would prevent them from acting as intermediaries of funds between depositors and most borrowers. As noted above, most narrow bank proposals would require such banks to invest their deposits in safe, highly marketable assets such as those permitted for MMMFs. Narrow banks would therefore be largely or entirely barred from making commercial loans. As a result, a banking system composed exclusively of narrow banks could not provide credit to small and mid-sized business firms that lack access to the capital markets and depend on banks as their primary source of outside credit.²⁶⁷

265. Karen Shaw Petrou, the managing partner of Federal Financial Analytics, recently explained that “[i]nteraffiliate restrictions would limit the use of bank deposits on non-banking activities,” and “[y]ou don’t own a bank because you like branches, you own a bank because you want cheap core funding.” Ms. Petrou therefore concluded that proposed federal legislation, which would impose tough restrictions on affiliate transactions, “really strikes at the heart of a diversified banking organization” and “I think you would see most of the very large banking organizations pull themselves apart” if Congress passed such legislation. Stacy Kaper, *Big Banks Face Most Pain Under House Bill*, AM. BANKER, Dec. 2, 2009, at 1 (quoting Ms. Petrou).

266. Wilmarth, *supra* note 132, at 284; *see also* Philip G. Berger & Eli Ofek, *Bustup Takeovers of Value-Destroying Diversified Firms*, 51 J. FIN. 1175, 1175–78, 1198 (1996); John C. Coffee, Jr., *Shareholders Versus Managers: The Strain in the Corporate Web*, 85 MICH. L. REV. 1, 2–8, 52–60 (1986); Chris Veld & Yulia V. Veld-Merkoulova, *Value Creation Through Spin-Offs: A Review of the Empirical Evidence*, 11 INT’L J. MGMT. REVS. 407 (2009).

267. *See, e.g.*, Neil Wallace, *Narrow Banking Meets the Diamond-Dybvig Model*, 20 FRB of Minn. Q. Rev. (Winter 1996), at 3; Wilmarth, *Big Bank Mergers*, *supra* note 224, at 79–81 (explaining that narrow banks would be prohibited from making commercial loans, except perhaps for a limited basket of loans based on a fraction of their equity capital).

However, my two-tiered proposal would greatly reduce any disruption of the traditional role of banks in acting as intermediaries between depositors and bank-dependent firms by permitting first-tier “traditional” banks (primarily community banks) to continue making commercial loans that are funded by deposits. Community banks make most of their commercial loans in the form of longer-term “relationship” loans to small and mid-sized firms. Community banks have significant advantages in making such loans, because (i) their main offices are located in the communities where they make most of their commercial loans and their employees are therefore well informed about the character, reputation, and skills of local business owners, (ii) they maintain greater continuity in their branch managers and loan officers, thereby creating stronger relationships with local business owners, and (iii) they typically provide greater flexibility to their loan officers and business customers.²⁶⁸ Under my proposal, community banks could carry on their deposit-taking and lending activities as first-tier banking organizations without any change from current law, and their primary commercial lending customers would continue to be smaller, bank-dependent firms.

In contrast to community banks, most big banks do not make a substantial number of relationship loans to small firms. Instead, big banks primarily make loans to large and well-established firms. In addition, when big banks do provide credit to smaller firms they primarily do so through automated “transaction-based” programs that (A) disburse loans in relatively small amounts (usually under \$100,000), (B) use centralized, impersonal approval methods based on credit scoring, and (C) enable loans to be securitized into asset-backed securities sold to investors in the capital markets.²⁶⁹ Under my proposal, as indicated above, most large banks would operate as subsidiaries of second-tier “nontraditional” banking organizations. Second-tier holding companies would conduct their business lending programs through nonbank finance subsidiaries that are funded by commercial paper and other debt instruments that are sold to investors in the capital markets. This operational structure should not create a substantial disincentive for the small business lending programs currently offered by big banks, because major segments of those programs (e.g., business credit card loans) are already financed by the capital markets through securitization. Accordingly, my two-tier proposal should not cause a significant reduction in bank loans to bank-dependent

268. Wilmarth, *supra* note 132, at 261–66; see also Allen N. Berger et al., *Does Function Follow Organizational Form? Evidence from the Lending Practices of Large and Small Banks*, 76 J. FIN. ECON. 237, 239–46, 254–62, 266 (2005).

269. Wilmarth, *supra* note 132, at 264–66; see also Berger et al., *supra* note 268, at 240–41, 266.

firms, as big banks have already moved away from traditional relationship-based lending funded by deposits.²⁷⁰

The second major criticism of the narrow bank proposal is that it would lack credibility because federal regulators would retain the inherent authority (whether explicit or implicit) to organize bailouts of major financial firms during periods of severe economic distress. Accordingly, some critics maintain that the narrow bank concept would simply shift the TBTF problem from the insured bank to its nonbank affiliate.²⁷¹ However, the force of this objection would be greatly diminished if Congress established a new comprehensive regime for regulating SIFIs as described above, including a special resolution process, SRCRs, consolidated supervision, and mandatory payment of SRIF insurance premiums.²⁷² This proposed systemic risk supervision regime would ensure that all nonbanking firms that might be considered for TBTF bailouts are designated and regulated as SIFIs. In addition, all SIFIs would be required to pay premiums to fund the SRIF, and a fund separate from the DIF would therefore exist to resolve the failure of major nonbanking firms.

Accordingly, the narrow bank structure would prevent FDIC-insured banks that are controlled by SIFIs from transferring their safety net subsidies to their nonbank affiliates, and the systemic risk supervisory regime would force nonbank SIFIs to internalize the potential risks to financial and economic stability that result from their operations. In combination, both regulatory reforms should greatly reduce any TBTF subsidies that might otherwise be available to large nonbank firms.

The third principal objection to the narrow bank proposal is that it would place U.S. FHCs at a significant disadvantage in competing with foreign universal banks that are not required to comply with similar constraints.²⁷³ Again, there are persuasive rebuttals to this objection. For one thing, government officials in the U.K. have given serious consideration to the possible adoption of a narrow banking proposal developed by John Kay.²⁷⁴ If the U.S. and the U.K. both decided to implement a narrow

270. Wilmarth, *Financial Conglomerates*, *supra* note 224, at 126–27.

271. See Scott, *supra* note 233, at 929–30 (noting the claim of some critics that there would be “irresistible political pressure” for bailouts of uninsured “substitute-banks” that are created to provide the credit previously extended by FDIC-insured banks).

272. See *supra* Parts III.B–III.D.

273. See Scott, *supra* note 233, at 931; Kay, *supra* note 167, at 71–74.

274. See TREASURY COMMITTEE, TOO IMPORTANT TO FAIL—TOO IMPORTANT TO IGNORE, 2009–10, H.C. 9–Vol. 1, at 52, 59, available at <http://www.publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/261/261i.pdf> [hereinafter 2009 U.K. Treasury Committee Report] (expressing qualified support for Kay’s narrow banking proposal); King 2009 Speech, *supra* note 138, at 6–7 (expressing

banking structure (together with other needed systemic risk regulations), their joint dominance in global financial markets would place considerable pressure on other developed countries to adopt similar financial reforms.²⁷⁵

Moreover, the financial sector accounts for a large share of the domestic economies of the U.S. and U.K., and both economies have suffered severe injuries from two financial crises during the past decade (the dot-com-telecom bust and the subprime lending crisis). Both crises were produced by the same set of LCFIs that continue to dominate the financial systems in both nations. Accordingly, regardless of what other nations may do, the U.S. and the U.K. have compelling national interests in making sweeping changes to their financial systems in order to protect their domestic economies from the threat of a similar crisis in the future.²⁷⁶

Finally, the view that the U.S. and the U.K. must refrain from implementing fundamental financial reforms until all other major developed nations have agreed to do so rests upon two deeply flawed assumptions: (i) the U.S. and the U.K. must allow foreign nations with the weakest systems of financial regulation to dictate the level of supervisory constraints on LCFIs, and (ii) until a comprehensive international agreement on reform is achieved, the U.S. and the U.K. must continue to provide TBTF bailouts and other safety net subsidies that create moral hazard and distort economic incentives simply because other nations provide similar benefits to their LCFIs.²⁷⁷ Both assumptions are unacceptable and must be rejected.

support for Kay's narrow bank proposal and for the Volcker rule as two alternative possibilities for separating the "utility aspects of banking" from "some of the riskier financial activities, such as proprietary trading"); Kay, *supra* note 167, at 51–69 (describing the narrow bank proposal as a means for accomplishing "the separation of utility from casino banking").

275. 2009 U.K. Treasury Committee Report, *supra* note 274, at 70–71 (quoting views of former FRB Chairman Paul Volcker); *see also* TARULLO, *supra* note 203, at 45–54 (describing how the U.S. and U.K. reached agreement on bank capital rules and then pressured other developed nations to agree to the Basel I international capital accord); Kay, *supra* note 167, at 74.

276. *See e.g.*, Hoenig October 6, 2009 Speech, *supra* note 123, at 4–10; King 2009 Speech, *supra* note 138; 2009 U.K. Treasury Committee Report, *supra* note 274, at 71–74; Kay, *supra* note 167, at 14–17, 20–24, 28–31, 39–47, 57–58, 66–75, 86–87; *supra* Parts I–II.

277. *See, e.g.*, Hoenig October 6, 2009 Speech, *supra* note 123, at 4–10; Kay, *supra* note 167, at 42–46, 57–59, 66–75.

d. The Relevance of the Schumer "Core Banking" Proposal of 1991

In 1991, Congress considered, but did not pass, legislation proposed by the Treasury Department to allow banks to affiliate with securities firms and insurance companies by organizing financial holding companies.²⁷⁸ During the House debates on the 1991 legislation, which was essentially a forerunner of GLBA,²⁷⁹ then-Representative Charles Schumer offered an amendment that incorporated a narrow banking proposal similar to the one outlined in this article.²⁸⁰ Representative Schumer argued that Congress should not authorize financial holding companies unless it adopted his amendment, which he described as a "core bank proposal."²⁸¹ His proposal sought to guarantee that "insured deposits [are] used for low-risk, traditional banking activities, and then if our large financial institutions wish to invest in high-risk activities, they do not use the depositors' money, they do not use insured dollars, but they go to the markets for money."²⁸²

Representative Schumer maintained that the FDIC and taxpayers should not be insuring such risky activities as "huge bridge loans to LBO's, . . . equity investments in real estate[,] . . . foreign currency trading and trading in . . . derivatives, which is betting on futures."²⁸³ He noted that "[m]ost of the large banks are opposed because they do not want to take the necessary medicine to make them better," but he argued that "[t]hey need strong medicine, and only core banking provides it."²⁸⁴ Representative Marge Roukema supported the proposal because "the core bank concept is the only proposal before us to insulate the deposit insurance fund and protect the taxpayer from future bailouts."²⁸⁵ She agreed that "insured deposits should only be used to finance [the] traditional business of banking" and should not be used to "finance highly

278. See Arthur E. Wilmarth, *Too Big to Fail, Too Few to Serve: The Potential Risks of Nationwide Banks*, 77 IOWA L. REV. 957, 966, 978–80 (1992) (discussing congressional consideration of the Treasury Department's proposal to allow banks to affiliate with securities firms and insurance companies); Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1579–80.

279. Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1580–81 (explaining that Congress effectively adopted the Treasury Department's 1991 proposal when it enacted GLBA in 1999).

280. See 137 CONG. REC. 29359–29367 (1991).

281. *Id.* at 29361 (remarks of Rep. Schumer).

282. *Id.* at 29360.

283. *Id.*

284. *Id.* at 29361 (remarks of Rep. Schumer).

285. *Id.* at 29366 (remarks of Rep. Roukema).

speculative lending, equity investments or other activities which should be done outside the Federal safety net.”²⁸⁶

Representative Schumer’s core banking proposal was defeated.²⁸⁷ However, he was undoubtedly correct in saying that his proposal was the “only amendment on the floor today that says we will not do what we did during the S&L crisis, and that is [to] use insured dollars for risky activities.”²⁸⁸ He argued that Congress had grievously erred in 1982, when it allowed federal thrifts to “expand into new businesses with the taxpayers’ dollars.”²⁸⁹ He further warned that Congress would be confronted with a future bailout of the banking system that could cost “\$300 billion” unless we reform the system today. Do not put it off. Do not delay. The taxpayers cannot afford it. Only [the] core bank [proposal] will protect the insured deposit system once and for all.²⁹⁰

Unfortunately, Representative Schumer’s warning not only proved to be prescient but also underestimated the potential cost of allowing banks to expand into capital markets activities while relying on federal safety net subsidies. As the current financial crisis has made clear, Congress must mandate narrow banking in order to prevent FDIC-insured banks

286. *Id.* at 19363 (remarks of Rep. Roukema); *see also id.* at 29365 (remarks of Rep. Slattery) (arguing that the “core-bank proposal offers real reform” because “it will say to the big banks in this country that . . . you can speculate in the monetary markets, you can speculate in real estate, you can speculate in high-yield junk bonds, but you cannot do it with the taxpayers’ insured deposits”); *id.* at 29366–29367 (remarks of Rep. Weiss) (explaining that “the core bank proposal” would ensure that financial institutions interested in “underwriting, trading, and investment banking activities . . . would have to raise funds in the marketplace,” and contending that “it would be unconscionable to expand bank powers without enacting major safeguards to the American taxpayer”).

287. *Id.* at 29367 (reporting that Rep. Schumer’s amendment was defeated by a vote of 106-312).

288. *Id.* at 29360 (remarks of Rep. Schumer); *see also id.* at 29366 (remarks of Rep. Schumer) (contending that his proposal was the “only . . . amendment on the floor today that learns from history”).

289. *Id.* at 29366; *see also id.* at 29360 (remarks of Rep. Schumer) (contending that congressional “deregulation” of thrift powers meant that “we . . . were insuring crazy, and risky and wild investments in the S&L industry to an enormous extent”); Wilmarth, *Separation of Banking and Commerce*, *supra* note 131, at 1574–79 (explaining that (i) Congress’ expansion of the powers of federal thrifts in 1982 caused many states to “liberalize their own laws in order to keep state thrift charters attractive,” and (ii) federal and state deregulation allowed many thrifts to expand aggressively into “nontraditional activities,” including real estate development and investments in equity securities and junk bonds, which helped to cause “[s]ome of the largest and most costly thrift failures”).

290. 137 CONG. REC. 29366 (1991) (remarks of Rep. Schumer); *see also id.* at 29363 (remarks of Rep. Bacchus) (advocating the core banking proposal as the best way to “limit the risk [to] the taxpayers of a bank bailout that could cost hundreds of billions of dollars”).

from being used to subsidize similar high-risk underwriting, trading, and investment activities in the future.

CONCLUSION

The TBTF policy remains “the great unresolved problem of bank supervision,” more than a quarter century after the policy was invoked to justify the federal government’s rescue of Continental Illinois in 1984.²⁹¹ The current financial crisis has proven, once again, that TBTF institutions “present formidable risks to the federal safety net and are largely insulated from both market discipline and supervisory intervention.”²⁹² The crisis has also confirmed that TBTF institutions “pursue riskier and opaque activities and . . . increase their leverage, through capital arbitrage, if necessary, as they grow in size and complexity.”²⁹³ Accordingly, as I observed in 2002, “fundamentally different approaches for regulating financial conglomerates and containing safety net subsidies are urgently needed.”²⁹⁴

To respond to that need, this article has outlined a reform program to shrink safety net subsidies, force SIFIs to internalize the risks and costs of their activities, and create a more level playing field between smaller, traditional banks and LCFIs. My five-part program would (i) strengthen existing statutory limits on the growth of LCFIs, (ii) create a special resolution process to manage the orderly liquidation or restructuring of failed SIFIs, (iii) establish a consolidated supervisory regime and special capital requirements for SIFIs, (iv) create a special insurance fund (the SRIF), financed by assessments on SIFIs, in order to protect taxpayers against the costs of resolving failed SIFIs, and (v) mandate a “narrow bank” structure for FDIC-insured banks owned by LCFIs for the purpose of insulating those banks and the DIF from the risks of nonbank affiliates.

In combination, my proposed reforms would strip away many of the safety net subsidies that are currently exploited by LCFIs and would subject them to the same type of market discipline that the capital markets have applied to commercial and industrial conglomerates over the past thirty years. Financial conglomerates have never demonstrated that they can provide beneficial services to their customers and attractive returns to their investors without relying on safety net subsidies and massive taxpayer-funded bailouts. It is long past time for LCFIs to prove—based

291. Wilmarth, *supra* note 132, at 475; *see also id.* at 300–01, 314–15.

292. Wilmarth, *supra* note 132, at 476.

293. *Id.*

294. *Id.*

on a true market test—that their claimed superiority is a reality and not a myth.