

# THE REDUCTION OF SYSTEMIC RISK IN THE UNITED STATES FINANCIAL SYSTEM

HAL S. SCOTT\*

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\* Nomura Professor of International Financial Systems, Harvard Law School.

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This Article concentrates on the central problem for financial regulation that has emerged from the 2007–2009 financial crisis—the prevention of systemic risk. The discussion largely focuses on the relevant recommendations of the Committee on Capital Markets Regulation (CCMR) in its May 2009 report.<sup>1</sup> Where appropriate, the Article compares the CCMR recommendations to those of the United States Treasury in its June 2009 report<sup>2</sup> and its suggested implementing legislation, and also to pending congressional legislation.<sup>3</sup>

The CCMR is an independent, nonpartisan research organization founded in 2005 to improve the regulation of United States capital markets.<sup>4</sup> “Thirty leaders from the investor community, business, finance, law, accounting, and academia comprise the CCMR’s membership.”<sup>5</sup> Its “co-chairs are Glenn Hubbard, Dean of Columbia Business School, and John Thornton, Chairman of the Brookings Institution.”<sup>6</sup> The Author of this Article is the Director.

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1. COMM. ON CAPITAL MKTS. REGULATION, THE GLOBAL FINANCIAL CRISIS: A PLAN FOR REGULATORY REFORM (2009) [hereinafter CCMR PLAN FOR REGULATORY REFORM].

2. U.S. DEP’T OF THE TREASURY, FINANCIAL REGULATORY REFORM, A NEW FOUNDATION: REBUILDING FINANCIAL SUPERVISION AND REGULATION (2009) [hereinafter TREASURY WHITE PAPER].

3. H.R. 4173, 111th Cong. (as passed by House, Dec. 11, 2009); STAFF OF S. COMM. ON BANKING, HOUS. & URBAN AFFAIRS, 111TH CONG., RESTORING AMERICAN FINANCIAL STABILITY ACT OF 2010 (Comm. Print 2010) [hereinafter SENATE PROPOSAL].

4. Committee on Capital Markets Regulation, Welcome, <http://www.capmktreg.org> (last visited Mar. 1, 2010).

5. *Id.*

6. *Id.*

## I. SYSTEMIC RISK REDUCTION: THE CENTRAL PROBLEM

Going forward, the central problem for financial regulation (defined as the prescription of rules, as distinct from supervision or risk assessment) is to reduce systemic risk. Systemic risk is the risk that the failure of one significant financial institution can cause or significantly contribute to the failure of other significant financial institutions as a result of their linkages to each other. Systemic risk can also be defined to include the possibility that one exogenous shock may simultaneously cause or contribute to the failure of multiple significant financial institutions. This Article focuses on the former definition because proper regulation could have the greatest potential to reduce systemic risk in this area.<sup>7</sup>

There are four principal linkages that can result in a chain reaction of failures. First, there are interbank deposits, whether from loans or from correspondent accounts used to process payments. These accounts were the major concern when Continental Illinois Bank almost failed in the mid-1980s.<sup>8</sup> Continental held sizable deposits of other banks; in many cases, the amount of the deposits substantially exceeded the capital of the depositor banks. These banks generally held such sizable deposits because they cleared payments, such as checks or wire transfers, through Continental. If Continental had failed, those banks would have failed as well. Section 308 of the FDIC Improvement Act of 1991 gives the Federal Reserve Board powers to deal with this problem.<sup>9</sup> The Act permits the Board to limit the credit extended by an insured depository institution to another depository institution.<sup>10</sup> Limitation of interbank deposits may be feasible with respect to placements by one bank with

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7. A recently released report by the Financial Stability Board, International Monetary Fund, and Bank for International Settlement suggests that "systemic risk" could also be defined as the risk of a "disruption to the flow of financial services that is (i) caused by an impairment of all or parts of the financial system; and (ii) has the potential to have serious negative consequences for the real economy." INT'L MONETARY FUND ET AL., REPORT TO G20 FINANCE MINISTERS AND GOVERNORS: GUIDANCE TO ASSESS THE SYSTEMIC IMPORTANCE OF FINANCIAL INSTITUTIONS, MARKETS AND INSTRUMENTS: INITIAL CONSIDERATIONS 5-6 (2009).

8. HAL S. SCOTT, INTERNATIONAL FINANCE: TRANSACTIONS, POLICY, AND REGULATION 173-74 (16th ed. 2009).

9. See Federal Deposit Insurance Corporation Improvement Act of 1991 § 308, 12 U.S.C. § 3716-2 (2006).

10. *Id.*

another because the amount of credit extended is fixed for a given term. Indeed, it appears that the chain-reaction risk arising from bilateral credit exposures from overnight Federal Reserve funds transactions is quite low: Losses would not exceed one percent of total commercial banking assets as long as loss rates are kept to historically observed levels.<sup>11</sup>

Exposures are more difficult to identify with respect to inter-bank clearing accounts where the amount of credit extended is a function of payment traffic. For example, Bank *A* may be credited by its correspondent Bank *B* for an incoming wire transfer of \$10 million. Bank *A* is thus a creditor of Bank *B* for this amount. If Bank *B* were to fail, Bank *A* is seriously exposed.<sup>12</sup> Without material changes in the payment system, such as forcing banks to make and receive all payments through Federal Reserve rather than correspondent accounts, it would be quite difficult to limit these types of exposures.

Second, a chain reaction of bank failures can occur through net settlement payment systems. If one bank fails to settle its position in a net settlement system for large value payments, such as the Clearing House Interbank Payments System (CHIPS) in the United States, other banks that do not get paid may, in turn, fail.<sup>13</sup> This risk was the major systemic risk concern of the Federal Reserve until CHIPS changed its settlement procedures in 2001 to essentially eliminate this risk.<sup>14</sup>

Third, a chain reaction of bank failures can occur through imitative runs. When one bank fails, depositors in other banks, particularly those whose deposits are uninsured, may assume that their banks may also fail and so withdraw their funds, exposing these banks to a liquidity crisis and ultimately to failure. This result comes from a lack of information in the market about what specifically caused the first bank to fail.<sup>15</sup> The Fed-

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11. Craig H. Furfine, *Interbank Exposures: Quantifying the Risk of Contagion*, 35 J. MONEY CREDIT & BANKING 111, 125 (2003); see also Simon Wells, *Financial Interlinkages in the United Kingdom's Interbank Market and the Risk of Contagion* 5–7 (Bank of Eng., Working Paper No. 230, 2004) (looking at exposures in the U.K. interbank market and finding that although a single bank failure is rarely sufficient to cause other banks to fail, it does have the potential to weaken their capital substantially).

12. SCOTT, *supra* note 8, at 174.

13. *Id.*

14. *Id.* at 471.

15. *Id.* at 174.

eral Reserve plays the classic role of lender of last resort to stem irrational imitative runs in situations such as this one.

Lastly, and especially prominent in the current crisis, a chain reaction of bank failures can occur as a result of counterparty risk on derivative transactions, such as credit default swaps (CDSs).<sup>16</sup> Here the concern is that if institution X fails to settle its derivative position with institution Y, both X and Y will fail. If Y in turn cannot settle its positions, other institutions will also fail. This risk proved potentially significant in the failure of the hedge fund Long-Term Capital Management in 1998.<sup>17</sup> Concerns of this type also underlay JPMorgan Chase's assisted acquisition of Bear Stearns and the injection of federal funds into AIG.<sup>18</sup> This is one area in which the failure of non-banks is a major concern, but the severity of this form of systemic risk and the degree of interconnectedness among financial institutions is currently unknown.<sup>19</sup> A report by the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) on the government's investments in AIG indicated that Goldman Sachs, a major counterparty, would have been made whole in the event of an AIG default.<sup>20</sup> The report further indicated that the Treasury and Federal Reserve were primarily concerned with losses that would be incurred by investors in AIG in the event of a default, including \$10 billion of state and local government money, \$40 billion in 401(k) plans, and \$38 billion in retirement plans.<sup>21</sup> The report's explanation of the government's action also mentioned concern over stemming runs on money market funds, which held \$20 billion in AIG commercial paper.<sup>22</sup> Similarly, in their recent testimony on the "Federal Bailout of AIG," Treasury Secretary Timothy Geithner and

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16. See Hal S. Scott, Editorial, *Do We Really Need a Systemic Regulator?*, WALL ST. J., Dec. 10, 2009, at A21.

17. THE PRESIDENT'S WORKING GROUP ON FIN. MKTS., HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT 19 (1999). See generally John H. Makin, *Risk and Systemic Risk*, AEI ECON. OUTLOOK, Sept. 2008, at 1, 1-2.

18. Robin Sidel, Dennis K. Berman & Kate Kelly, *J.P. Morgan Buys Bear in Fire Sale, As Fed Widens Credit to Avert Crisis*, WALL ST. J., Mar. 17, 2008, at A1; see also Scott *supra* note 16.

19. See OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSETS RELIEF PROGRAM, FACTORS AFFECTING EFFORTS TO LIMIT PAYMENTS TO AIG COUNTERPARTIES 29 (2009), [hereinafter SIGTARP]; see also Scott, *supra* note 16.

20. SIGTARP, *supra* note 19, at 16-17.

21. *Id.* at 9-10.

22. *Id.* at 10-11.

New York Federal Reserve General Counsel Thomas Baxter also emphasized factors other than derivatives counterparty risk, including the impact that the failure of AIG would have on money market funds, personal savings and retirement plans, and insurance policyholders.<sup>23</sup> If prospective investor losses, rather than the fallout of interconnectedness, were the true basis for the government policy with respect to AIG, it may be that the concern with systemic risk is overstated. Further study and better disclosure from the Treasury and Federal Reserve is needed to support informed estimates of the magnitude of the problem. In any event, gauging the impact of systemic risk is difficult to determine and beyond the scope of this Article.<sup>24</sup>

The threat of systemic risk (whether real or imagined) results in both the need for government bailouts at taxpayer expense and in an increase in moral hazard. These results occur because both equity and debt holders, as well as counterparties, may be protected against losses. Of course, the government could decide not to intervene, but this laissez-faire approach could put the entire global economy at risk, an even worse outcome. As the financial crisis has illustrated, banks cannot always count on the government to cut off systemic risk when it occurs. The politics of supplying money to banks are unpopular and unsustainable by the Federal Reserve over the long term without intense public scrutiny and loss of independence.

At the outset, it is also worth noting that the “Volcker Rules” and related limitations on bank size announced by the Obama Administration on January 21, 2009<sup>25</sup> do not have much if any

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23. *The Federal Bailout of AIG: Hearing Before the H. Comm. on Oversight and Gov't Reform*, 111th Cong. (2010) (statements of Timothy F. Geithner, Sec'y, U.S. Treasury Dep't & Thomas C. Baxter, Exec. Vice President and General Counsel, Fed. Reserve Bank of N.Y.). *But see* Eric Dinallo, *What I Learned at the AIG Meltdown*, WALL ST. J., Feb. 3, 2010, at A17 (arguing that “insurance policyholders at AIG were protected by reserves that each of the insurance companies are required to hold by state regulation”).

24. The International Monetary Fund provides a discussion of the systemic implications of financial linkages. INT'L MONETARY FUND, GLOBAL FINANCIAL STABILITY REPORT 73–110 (2009).

25. Press Release, The White House, Remarks by the President on Financial Reform (Jan. 21, 2010) [hereinafter *Obama Remarks on Reform*], available at <http://www.whitehouse.gov/the-press-office/remarks-president-financial-reform>; *Prohibiting Certain High-Risk Investment Activities by Banks and Bank Holding Companies: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. (2010) (statements of Paul A. Volcker, Chairman, President's Econ. Recovery Advisory Bd., and of Neal S. Wolin, Deputy Sec'y, U.S. Dep't of the Treasury). For a more complete discussion of the impact of the “Volcker Rules,” see *Prohibiting Certain High-Risk Investment Activities*

potential to reduce systemic risk. The Volcker Rules would prohibit bank holding companies and all of their subsidiaries from engaging in proprietary trading, as well as from investing in or sponsoring hedge fund and private equity operations. Although President Obama has characterized proprietary trading as trading “unrelated to serving customers,”<sup>26</sup> a precise legal standard has not been given. The related size limitations were initially described as straightforward caps on each bank’s market share of non-deposit liabilities. As Deputy Treasury Secretary Neal Wolin describes, however, the size limits would not require banks to divest existing operations or restrict organic growth, but would instead limit banks’ ability to gain market share through mergers and acquisitions.<sup>27</sup>

The Volcker Rules are unlikely to reduce systemic risk for several reasons. First, banks generally engage in relatively little proprietary trading. For example, Wells Fargo and Bank of America, two of the largest deposit-funded banks, are estimated to earn less than 1% of revenues from proprietary trading. Second, activities that threaten the financial system do not occur only in banks. In fact, none of the most prominent failures of the financial crisis—Fannie Mae, Freddie Mac, AIG, Bear Stearns, or Lehman—was a deposit-taking bank. And third, focusing on proprietary trading ignores the real cause of the financial crisis: losses from lending and securitization. Goldman Sachs has estimated that losses from lending and securitization accounted for approximately 80% of overall credit losses incurred by U.S. banks.<sup>28</sup>

Nor should we expect reductions in systemic risk to result from the size limitations. An institution does not pose systemic risk because of its absolute size, but rather because of its debt, its derivatives positions, and the scope and complexity of its other financial relationships. Because the problem is not size but interconnectedness, reform should focus on reducing the interconnections so that firms can fail safely. Furthermore, even

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by *Banks and Bank Holding Companies: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. (2010) (statement of Hal S. Scott, Nomura Professor of Int’l Fin. Sys. at Harvard Law Sch. and Dir. of the Comm. on Capital Mkts. Regulation).

26. Obama Remarks on Reform, *supra* note 25.

27. *Prohibiting Certain High-Risk Investment Activities by Banks and Bank Holding Companies: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. (2010) (statement of Neal S. Wolin, Deputy Sec’y, U.S. Dep’t of the Treasury).

28. GOLDMAN INV. RESEARCH, UNITED STATES: BANKS 6 (2009).

if size were the right issue, Mr. Wolin's testimony implies that the size limitations would not require any existing bank to shrink. If size is the source of systemic risk, presumably we should be concerned about it whether it is the result of acquisition, organic growth, or otherwise.

The draft legislation introduced by Senator Dodd on March 15, 2010 (the Senate draft) contained a modified version of the Volcker Rules and size limitations.<sup>29</sup> Though the Senate draft calls on the Financial Stability Oversight Council to conduct studies of whether these reforms will reduce systemic risk before they are implemented,<sup>30</sup> studies are not needed to confirm that benefits from these reforms will be negligible. Outright restrictions on proprietary trading proposed in the Senate draft would apply to insured depository institutions, companies that control insured depository institutions, bank holding companies, and all subsidiaries of the foregoing.<sup>31</sup> The Dodd proposal is even more strict than Chairman Volcker recommended. According to Chairman Volcker it would be acceptable for Goldman Sachs to drop its bank charter and continue to engage in proprietary trading.<sup>32</sup> However, under the Senate draft, Goldman would almost certainly be a systematically important non-bank financial company when it dropped its bank charter,<sup>33</sup> and thus would continue to be supervised by the Federal Reserve. While Goldman could, as a non-bank, continue to engage in proprietary trading, it would be subject to Federal Re-

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29. SENATE PROPOSAL, *supra* note 3, §§ 619–620; see also *Prohibiting Certain High-Risk Investment Activities by Banks and Bank Holding Companies: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. (2010) (statement of Paul A. Volcker, Chairman, President's Econ. Recovery Advisory Bd.) [hereinafter Volcker Testimony].

30. SENATE PROPOSAL, *supra* note 3, §§ 619(g), 620.

31. *Id.* § 619(b)(1).

32. Volcker Testimony, *supra* note 29 (“The basic point is that there has been, and remains, a strong public interest in providing a ‘safety net’—in particular, deposit insurance and the provision of liquidity in emergencies—for commercial banks carrying out essential services. There is not, however, a similar rationale for public funds—taxpayer funds—protecting and supporting essentially proprietary and speculative activities. Hedge funds, private equity funds, and trading activities unrelated to customer needs and continuing banking relationships should stand on their own, without the subsidies implied by public support for depository institutions.”).

33. Under Section 113, the Financial Stability Oversight Council “may determine that a U.S. nonbank financial company shall be supervised by the [Federal Reserve] if the Council determines that material financial distress at the U.S. nonbank financial company would pose a threat to the financial stability of the United States.” SENATE PROPOSAL, *supra* note 3, § 113(a)(1).

serve controls, including “additional capital requirements” and “additional quantitative limits.”<sup>34</sup>

Thus, even if Goldman Sachs were to give up its bank charter, it would be required to hold additional capital against its proprietary trading positions. Because institutions that are systemically important are likely to be more thoroughly regulated than those that are not, this could encourage proprietary trading to shift to less carefully monitored firms, thereby increasing systemic risk. Saddling non-bank financial companies engaged in proprietary trading with additional capital requirements is thus problematic.

This Article addresses what I regard as the five most important policies for dealing with systemic risk: the imposition of capital requirements (or limits on leverage), the use of clearinghouses and exchanges for over-the-counter derivatives, the resolution of insolvent institutions, the emergency lending by the Federal Reserve, and the structure of the regulatory system as it affects the control of systemic risk.

## II. CAPITAL REQUIREMENTS

Ex ante, regulatory capital requirements have been the chief measure to reduce systemic risk. Capital requirements, which have focused principally on banks, are designed to decrease the likelihood of financial institution failure. If institutions do not fail, the problem of systemic risk largely disappears. Capital requirements have been highly regulated for a long time. Since 1988, the requirements have been standardized worldwide by the Basel Committee on Bank Supervision.<sup>35</sup> The United States implemented Basel I and is in the process of implementing Basel II for banks and their holding companies.<sup>36</sup> The SEC had already implemented Pillar I of Basel II for securities firms’ holding companies before the onslaught of the credit crisis.<sup>37</sup> These capital requirements proved highly inadequate. The

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34. *Id.* § 619(f)(1).

35. See BASEL COMM., INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS 3 (1988), <http://www.bis.org/publ/bcbasc111.pdf>.

36. See Press Release, Bd. of Governors of the Fed. Reserve Sys. et al., Banking Agencies Reach Agreement on Basel II Implementation (July 20, 2007), available at <http://federalreserve.gov/newsevents/press/bcreg/20070720a.htm>.

37. See 17 C.F.R. §§ 200.30-3, 240.3a4-2 to -6, 240.3a5-1, 240.3b-17 to -18, 240.15a-7 to -9 (2004).

SEC's Basel II-based rules permitted the top five major investment banks to achieve leverage of over thirty to one.<sup>38</sup> Insufficient capital was a significant cause of the failure of Lehman Brothers and Bear Stearns.<sup>39</sup> Insufficient capital also played a major role in forcing Merrill Lynch to sell itself to Bank of America.<sup>40</sup> Indeed, the most intensive and detailed area of regulation, capital, has proven ineffective. This failure demonstrates that more regulation does not necessarily translate into less systemic risk.

One of the interesting features of capital regulation is that depository banks turned out to be much less leveraged than investment banks—those banks that do not take deposits. The top five depository banks were leveraged at thirteen to one compared to the over thirty to one leverage of the investment banks.<sup>41</sup> Whereas Basel imposed a minimum 8% capital requirement on risk-weighted assets,<sup>42</sup> the United States requires 10% for well-capitalized banks.<sup>43</sup> The United States also imposed its own leverage requirement of 5% on all assets, without risk weighting, again for well-capitalized banks.<sup>44</sup> The leverage ratio, which was not applied to investment banks, turned out to be a more binding restraint on banks than the more “sophisticated” Basel approach.

A. *CCMR Recommendations Aligned with the White Paper*

The CCMR, like the Treasury, believes that institutions with the ability to borrow from the Federal Reserve in its capacity as lender of last resort should be subject to some form of federal capital regulation.<sup>45</sup> It also believes, however, that these requirements should not necessarily take the form of bank capital rules.<sup>46</sup> For example, insurance companies should have differ-

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38. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 60.

39. JOINT ECON. COMM. MAJORITY STAFF, FROM WALL STREET TO MAIN STREET: UNDERSTANDING HOW THE CREDIT CRISIS AFFECTS YOU 4 (2008).

40. *Id.*

41. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 60.

42. BASEL COMM., *supra* note 35, at 13.

43. 12 C.F.R. § 208.43(b)(1)(i) (2009).

44. 12 C.F.R. § 208.43(b)(1)(iii).

45. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 80; *see also* TREASURY WHITE PAPER, *supra* note 2, at 11 (recommending strengthening capital requirements at all banks).

46. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 80–81.

ent rules than banks that are appropriate to the different business risks of insurance companies.<sup>47</sup>

The CCMR and the Treasury also recommended the adoption of techniques to ensure that capital ratios are countercyclical, with ratios higher in good times (characterized by rising markets) than in bad times with falling valuation and liquidity.<sup>48</sup> Countercyclical ratios could be implemented through dynamic provisioning, as in Spain,<sup>49</sup> to permit reserves to cover estimated future losses rather than only known losses. The CCMR has suggested that the imposition of countercyclical ratios could be accomplished without violating current accounting and securities regulation rules by providing that estimated losses not run through the income statement.<sup>50</sup> Under current accounting rules, premised on the incurred loss model, only known impairments, but not expected future losses, are provisioned for and reflected in an institution's financial reporting.<sup>51</sup> In addition, financial institutions should be required to main-

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47. *Id.*

48. *Id.* at 81; TREASURY WHITE PAPER, *supra* note 2, at 80.

49. See FIN. SERV. AUTH., THE TURNER REVIEW: A REGULATORY RESPONSE TO THE GLOBAL BANKING CRISIS 63 (2009) (discussing the Spanish dynamic provisioning system).

50. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 81. FASB Chairman Bob Herz has also endorsed this approach. Robert H. Herz, Chairman, Fin. Accounting Standards Bd., Remarks to AICPA National Conference on Current SEC and PCAOB Developments 15 (Dec. 8, 2009), available at [http://www.fasb.org/cs/ContentServer?c=Document\\_C&pagename=FASB/Document\\_C/DocumentPage&cid=1176156571228](http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB/Document_C/DocumentPage&cid=1176156571228).

51. Both U.S. GAAP and IFRS accounting rules operate according to an incurred loss model under which a financial institution records an impairment only after the associated financial asset is known to have incurred a loss. This principle governs even when the exact loss amount is not known with specificity and must be estimated based on past experience (for example, in the case of receivables, losses on which may be known to have been incurred but not identified specifically). Expected future losses, by contrast, are not reserved against under the incurred loss model and thus are not deducted from income. CODIFICATION OF ACCOUNTING STANDARDS AND PROCEDURES §§ 5, 114 (Am. Inst. of Certified Pub. Accountants 2009). The incurred loss model is a staple of both U.S. GAAP and IFRS accounting, but has been subject to recent criticism and challenge, for example in the International Accounting Standards Board's November 2009 exposure draft outlining a proposed expected loss model to replace the incurred loss model in connection with financial asset reporting. Press Release, Int'l Accounting Standards Bd., IASB publishes proposal on the impairment of financial assets (Nov. 5, 2009), available at <http://www.iasb.org/News/Press+Releases/IASB+publishes+proposals+on+the+impairment+of+financial+assets.htm>.

tain some form of contingent capital to address the cyclicity that is characteristic of existing requirements.<sup>52</sup>

The CCMR and the Treasury also recommended that large institutions hold proportionately more capital because they are more likely to require taxpayer funds if they fail (even if debt and equity are wiped out).<sup>53</sup> Both of them also recommended maintaining and strengthening the leverage ratio—the best performing measure in the crisis.<sup>54</sup> The Basel committee is currently pursuing policies that are responsive to these recommendations.<sup>55</sup>

B. *CCMR Recommendations That Differ from the White Paper and Pending Legislation: How Much and What Type of Capital*

1. *How Much Capital: Regulation and Markets*

The most fundamental issue—how much capital banks or other financial institutions should be required to maintain—has gone largely unaddressed. Basel I “back-solved” into an 8% requirement in 1988 to prevent an increase in bank capital as a result of implementing its new regime.<sup>56</sup> Basel II basically adopted the same approach following several quantitative impact studies.<sup>57</sup> Although the House bill and Senate draft do not mandate particular capital levels, they would both require more stringent capital requirements for firms that are systemi-

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52. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 81; see also Mark Flannery, *No Pain, No Gain? Effecting Market Discipline via Reverse Convertible Debentures*, in CAPITAL ADEQUACY BEYOND BASEL: BANKING, SECURITIES, AND INSURANCE (Hal S. Scott ed., 2005); Anil K. Kashyap et al., *Rethinking Capital Regulation*, in MAINTAINING STABILITY IN A CHANGING FINANCIAL SYSTEM 431, 449–50 (2008), available at [www.kc.frb.org/publicat/sympos/2008/kashyapRajanStein.03.12.09.pdf](http://www.kc.frb.org/publicat/sympos/2008/kashyapRajanStein.03.12.09.pdf).

53. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 81; TREASURY WHITE PAPER, *supra* note 2, at 24.

54. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 81; TREASURY WHITE PAPER, *supra* note 2, at 80–81.

55. BASEL COMM. ON BANKING SUPERVISION, CONSULTATIVE DOCUMENT, STRENGTHENING THE RESILIENCE OF THE BANKING SECTOR 60 (2009), <http://www.bis.org/publ/bcbs164.pdf>.

56. BASEL COMM., *supra* note 35, at 13; CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 62.

57. Jacob Gyntelberg et al., *Overview: cautious optimism on gradual recovery*, BIS Q. REV., Sept. 2009, at 1, 2. The quantitative impact studies are available at <http://www.bis.org/bcbs/qis/index.htm>.

cally significant.<sup>58</sup> But basic questions remain unanswered: Regardless of how capital is measured, how much capital should be required? How much more capital do systemically important firms require? And most fundamentally, can regulation really determine what the right amount of capital is? Probably not, based on the failure of somewhat analogous endeavors to regulate prices of goods and services in the United States and elsewhere.<sup>59</sup> Even more daunting is the determination of the correct capital “price” on risk.

Not surprisingly, regulatory capital requirements have not acted as a binding constraint on the amount of capital banks actually hold, given the lack of a solid foundation.<sup>60</sup> In 2007, before the crisis, the regulatory capital ratio for the top twenty United States banks (accounting for almost two-thirds of the nation’s banking assets) averaged 11.7%.<sup>61</sup> This figure was nearly 50% above the minimum regulatory requirement of 8% and 17% above the “well capitalized” standard of 10%.<sup>62</sup> As a result, banks held more capital than regulation required due to the constraints of their own internal economic models and market demands.<sup>63</sup>

In light of the difficult challenges facing regulators that attempt to specify the appropriate amount of capital for a given quantum of risk, the CCMR believes the government should explore expanded use of market forces as a complement to regulation to address the capital problem for publicly traded financial institutions.<sup>64</sup> Market forces could impose greater discipline and give regulators a market-based warning for bank difficulties (signaled by the spread from a Treasury benchmark on the sub-

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58. See H.R. 4173, 111th Cong. § 1104(a)(2)(A)(i) (2009); SENATE PROPOSAL, *supra* note 3, § 165(b)(1)(A)(i).

59. See DWIGHT R. LEE & RICHARD B. MCKENZIE, FAILURE AND PROGRESS: THE BRIGHT SIDE OF THE DISMAL SCIENCE 56 (1993); H. Boissevain et al., *The Effectiveness of Phase II Price Controls*, 5 INTERFACES, Feb. 1975, at 33, 33 (maintaining that although Phase II of the Economic Stabilization Program of 1971 imposed successful price controls, most price controls fail); Fiona M. Scott Morton, *The Problems of Price Controls*, REGULATION, Spring 2001, at 50.

60. Andrew Kuritzkes & Hal Scott, Op-Ed., *Markets are the best judge of bank capital*, FT.COM, Sept. 23, 2009, <http://www.ft.com/cms/2ca160b0-a870-11de-9242-00144feabdc0.html>.

61. *Id.*

62. *Id.*

63. *Id.*

64. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 27.

ordinated debt yield) on two conditions: if the market had better information about the institutions' riskiness, and if investors in institutions were forced to bear some risk for their failure due to holding an "unbailable" credit instrument such as subordinated debt. The Shadow Financial Regulatory Committee recommended this approach in 2000,<sup>65</sup> although some have criticized this proposal as impractical given the poorly developed market in the United States for subordinated debt.<sup>66</sup> Hart and Zingales have proposed that market signals could alternatively be provided by the spreads on credit default swaps referencing banks, instruments where payment is triggered when banks default on their debt.<sup>67</sup> This proposal would sidestep the practicalities of banks issuing subordinated debt. If creditors of failing or failed banks do not experience losses, however, credit-default-swap (CDS) spreads will not be accurate. Losses for writers of CDSs depend on an event of default and on the value of auctioned debt under International Swaps and Derivatives Association protocols if there is a default because the more the debt is worth, the lower the CDS payoffs.<sup>68</sup> If debt is bailed out, the exposures of CDS writers will be distorted. Thus, it is imperative to design a resolution system, as discussed later in this Article, that imposes losses on debtholders.

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65. U.S. SHADOW FIN. REGULATORY COMM., REFORMING BANK CAPITAL REGULATION 42 (2000).

66. See, e.g., Bert Ely, *Sub debt - silver bullet or big dud?*, FIN. REG., Sept. 2000, at 32.

67. Oliver Hart & Luigi Zingales, *A New Capital Regulation for Large Financial Institutions* (Ctr. for Econ. Policy Research, Discussion Paper No. DP7298, 2009), available at [http://faculty.chicagobooth.edu/luigi.zingales/research/papers/a\\_new\\_capital\\_regulation.pdf](http://faculty.chicagobooth.edu/luigi.zingales/research/papers/a_new_capital_regulation.pdf). There would be significant issues with using these market signals as a basis for federal intervention into the affairs of a bank, as suggested by the authors, due to the unreliability of credit-default-swap (CDS) spreads in a crisis resulting from the lack of liquidity and trading in the instrument. This was the case during the past crisis when, for example, Goldman Sachs and Morgan Stanley saw their CDS spreads shift hundreds of points in a single trading day. Even JPMorgan, too, saw its spreads widen to levels approaching those of junk bonds. See Alistair Barr, *Fate of remaining big independent brokers in focus*, MARKETWATCH.COM, Sept. 15, 2008, <http://www.marketwatch.com/story/fate-of-remaining-big-brokers-in-focus-after-lehman-collapse>; John Beck, *CDS spreads tighten as bailout is revised*, RISK.COM, Oct. 1, 2008, <http://www.risk.net/risk-magazine/news/1503631/cds-spreads-tighten-bailout-revised>; Ryan Vlastelica, *Morgan Stanley CDS Spreads Plunge 183 BPS; Goldman Sachs, Merrill, Wachovia CDS Fall*, FORBES.COM, Sept. 19, 2008, <http://www.forbes.com/feeds/afx/2008/09/19/afx5446908.html>.

68. CFA INST., DERIVATIVES AND ALTERNATIVE INVESTMENTS, at G-11 (2008).

Market signaling through benchmark spreads is only as useful as the information on which the signals are based. There are critical deficiencies in the adequacy of information presently disclosed by banks. The results of supervisory examinations are generally not revealed to the market, and bank disclosures are quite difficult to compare from bank to bank. The 2009 Federal Reserve-conducted stress tests, however, were able to overcome these deficiencies. The stress tests compared bank capital levels using a common methodology and disclosed the results of the tests to the public (after much debate internally and with the affected banks).<sup>69</sup> Rather than spooking the market and triggering bank runs—a common reason for not revealing the result of examination reports—the disclosure had a calming effect. This effect may have arisen because the market abhors uncertainty even more than poor results, or the stress test results may have been generally positive. Periodic stress test results, revealed to the market, may significantly improve the reliability of CDS pricing and, in turn, market discipline.

## 2. *What Counts as Capital?*

A second fundamental question is how to define capital and for what purpose. Basel defines Tier I capital, which must be at least 50% of total capital, differently than tangible common equity, the capital measure investors seem to be most focused on today (and differently from Basel common equity used in the stress tests).<sup>70</sup> The main difference between tangible equity and the Basel measure is that Basel ignores equity losses or gains attributable to marking-to-market accounting rules. The difference is also based on the theory that mark-to-market changes do not fairly portray bank capital. This theory is highly debatable, but it also raises the key issue of whether there should be differences between regulatory and accounting measures of capital, and if so, what they should be. Since the thrift crisis, regulatory accounting principles (RAP) have generally had to conform to general accounting principles—the 1991 FDICIA legislation requires that RAP cannot be “less stringent” than

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69. See BD. OF GOVERNORS OF THE FED. RESERVE SYS., *THE SUPERVISORY CAPITAL ASSESSMENT PROGRAM: DESIGN AND IMPLEMENTATION* (2009).

70. BASEL COMM., *supra* note 35, at 4.

GAAP.<sup>71</sup> But this requirement has placed enormous regulatory and political pressure on accounting standards to accommodate regulatory and political concerns that stem from banks not having adequate capital, and therefore needing public money. Bifurcation of these two standards may be a better solution, while also ensuring that regulators cannot invoke this authority as an excuse for forbearance. A neutral third party—whose identity would have to be decided—would have to determine that a regulatory approach different from GAAP was reasonable.<sup>72</sup>

### III. CLEARINGHOUSES AND EXCHANGES FOR DERIVATIVES

Overall, the CCMR strongly believes that CDSs are an important tool for measuring and diversifying credit risk and counsels against efforts to prohibit CDS contracts.<sup>73</sup> CDSs allow lenders to hedge or diversify their exposures. CDSs also generally allow participants to take positive or negative credit views on specific reference entities. CDSs written on financial institutions send important signals to the market and regulators about the strength of financial institutions. The goal of regulation should be to ensure that CDSs can be traded without creating undue systemic risk.

In considering the role of clearinghouses, bear in mind that they have been historically used to clear exchange-traded instruments, such as securities, options, and futures markets. Thus, the identities of the instruments being cleared were not in doubt—they were the instruments traded on an exchange. In the context of derivatives, however, clearinghouses are being used to clear instruments that are not traded on an exchange, which poses special challenges for defining what instruments will be cleared and how their settlement risk will be controlled. One of the first clearinghouses for non-exchange-traded derivatives was LCH Clearnet's SwapClear. In 1999, SwapClear began clearing plain vanilla interest rate swaps of up to ten years maturity in dollars, euros, yen, and British pounds, recently expanding to encompass clearing a broad range of currencies

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71. Federal Deposit Insurance Corporation Improvement Act of 1991, 12 U.S.C. § 1831n (2006).

72. Herz, *supra* note 50, at 7.

73. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 56.

and major indices.<sup>74</sup> SwapClear attempts to reduce credit risk posed by these over-the-counter (OTC) derivatives through multilateral netting and daily margining.<sup>75</sup>

Clearinghouses for derivatives can play a valuable role in reducing systemic risk as a break on interconnectedness. If a financial institution fails, it may result in losses for counterparties to derivatives contracts. If these counterparties do not have adequate collateral, they may also fail, and others may later fail as well. Even if counterparties appear to have adequate collateral, a simultaneous sale of collateral could drive down collateral prices low enough to make the counterparties' collateral insufficient.<sup>76</sup> Bank positions are not fully collateralized. A recent Options Clearing Corporation (OCC) survey shows banks' collateral only covers 30 to 40% of their exposures, a Basel Supervisors Committee survey shows 44%, and an International Swaps and Derivatives Association (ISDA) survey shows 66%.<sup>77</sup> And collateral cannot cover all risk—price movements may occur on an intraday basis before more additions to collateral can be provided. In addition, those posting collateral may be entitled to take back all or some of their collateral as prices move in their favor, but the holder of collateral may fail before returning excess collateral.

A. *The Ability of the Clearinghouse to Reduce Counterparty Risk*

A clearinghouse reduces counterparty risk, fundamentally, by collectivizing losses by becoming the counterparty to each contract. Thus, the impact of the failure of one institution is borne by all the members of the clearinghouse, not just by in-

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74. LCH.Clearnet, Interest Rate Swaps, [http://www.lchclearnet.com/swaps/swapclear\\_for\\_clearing\\_members/](http://www.lchclearnet.com/swaps/swapclear_for_clearing_members/) (last visited Mar. 26, 2010).

75. *Id.*

76. The counterparty would not fail, of course, if it had cash collateral (apparently the case of Goldman Sachs with AIG). Failure would be highly unlikely if the collateral were treasury notes due to the depth of liquidity in that market. See Telephone Conference Call with David Viniar, CFO of Goldman Sachs, Goldman Sachs Business Update (Mar. 20, 2009), transcript available at <http://www.scribd.com/doc/13465855/Preliminary-GS-Conference-Call-Transcript>. In the case of AIG, Goldman Sachs had enough collateral to protect itself against an AIG default. Because the collateral was cash the value would not have been decreased by a "rush to the exits" as could occur if all counterparties simultaneously sold their non-cash collateral. Scott, *supra* note 16.

77. EUR. CENT. BANK, CREDIT DEFAULT SWAPS AND COUNTERPARTY RISK 48–49 (2009).

dividual counterparties. Of course, this pooling of risk will result in risk to the clearinghouse—if the clearinghouse were to fail central clearing would amplify, not reduce, systemic risk. Thus, the clearinghouse needs to take measures to reduce its own risk—including membership and capital adequacy requirements, and a backup clearing fund—and regulators must ensure that these measures are adequate.<sup>78</sup> The first line of defense, however, is margining requirements for out-of-the-money participants—those owing money on their contracts. Every day (and sometimes intraday), the clearinghouse must mark participants' contracts to current market prices, and participants whose contracts have declined in value must post collateral. This practice is common for derivatives that already trade on exchanges: futures and options. Currently, dealers in OTC derivatives, particularly CDSs, have formed and are clearing certain contracts through clearinghouses, both in the United States and in Europe.<sup>79</sup>

Clearinghouses can reduce but not eliminate systemic risk. A clearinghouse itself could fail despite its own risk prevention measures, and there is little doubt that the government would bail out a clearinghouse if it is already willing to bail out systemically important institutions. Once created, these clearinghouses need to be carefully regulated because of possible public exposure. In general, a clearing requirement makes sense only if the reduction in systemic risk resulting from mutualizing losses is greater than the increase in systemic risk posed by the prospect of insolvent clearinghouses that clear large portions of the derivatives market.

### 1. Customized or Illiquid Contracts

Contracts that are customized are poor candidates for central clearing due to the difficulty in pricing and setting margin requirements for such contracts.<sup>80</sup> If excluding a substantial number

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78. See CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 42; SCOTT, *supra* note 8, at 507–08.

79. Letter from Senior Mgmt. of Bank of America-Merrill Lynch et al. to William C. Dudley, President, Fed. Reserve Bank of N.Y. (Sept. 8, 2009), available at <http://www.newyorkfed.org/newsevents/news/markets/2009/ma090908c.pdf>.

80. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 46; Letter from the Sen. Comm. on Capital Mkts. Regulation to Chairman Christopher Dodd et al., Re: Centralized Clearing and Exchange Trading of Derivatives Contracts (Mar. 4, 2010) [hereinafter CCMR Derivatives Letter], available at <http://www.capmksreg.org/>.

of nonstandardized contracts from the clearinghouse poses significant systemic risk, the question then arises whether standardization should be mandated or measures taken to prevent the design of contracts as nonstandard to escape the clearinghouse regime (with its tough regulation and margin requirements).<sup>81</sup>

Although OTC derivatives contracts are becoming more standardized, there are still significant differences between contracts. For example, on CDSs, parties can choose how they define the "Credit Events" that trigger a settlement obligation. So, for example, one contract referencing XYZ Corporation may define a restructuring short of bankruptcy as a "Credit Event," while another contract written on the same reference entity may require an actual bankruptcy.<sup>82</sup> Although ISDA's recent "hardwiring" creates a mechanism to assure more certainty as to whether a Credit Event has occurred through the use of so-called Credit Derivatives Determination Committees,<sup>83</sup> there is no data on the percentage of standardized contracts, due in major part to the lack of a uniformly accepted standard as to what constitutes a standard contract. What is more, despite standard terms, a standardized CDS may not be liquid in the sense that there is very little transaction volume. These possible exclusions, for CDSs alone, are significant. Some sources estimate that 20 to 40% of CDSs are insufficiently liquid to be suitable for clearing, although industry practitioners have indicated that the percentage of currently traded CDSs sufficiently liquid for clearing is likely to be higher.<sup>84</sup> The overall value of the CDS market is \$36 trillion.<sup>85</sup>

The CCMR has recommended that centralized clearing be increased, but it has not gone so far as to call for all "standard-

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81. *Over-The-Counter Derivatives: Modernizing Oversight to Increase Transparency and Reduce Risks: Hearing Before the Subcomm. on Sec., Ins., and Inv. of the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. 6-7 (2009) (statement of Gary Gensler, Chairman, Commodity Futures Trading Comm'n).

82. See BMO Capital Markets, Credit Default Swaps, <http://www.bmocm.com/products/marketrisk/credit/swaps/default.aspx> (last visited Mar. 1, 2010).

83. See INT'L SWAPS & DERIVATIVES ASS'N, 2009 ISDA CREDIT DERIVATIVES DETERMINATIONS COMMITTEES AND AUCTION SETTLEMENT SUPPLEMENT TO THE 2003 ISDA CREDIT DERIVATIVES DEFINITIONS 5-7 (2009); Client Alert, White & Case, ISDA Announces Changes to Credit Default Swaps Due to Take Effect in March 2009 (Mar. 3, 2009), available at [www.whitecase.com/alert\\_securities\\_derivatives\\_isda.030309](http://www.whitecase.com/alert_securities_derivatives_isda.030309).

84. See Shane Kite, *Paper Plain: Default Pacts Resisting Electrons*, SEC. INDUSTRY NEWS, Nov. 16, 2009, [http://securitiesindustry.com/issues/21\\_21/-24255-1.html?pg=1](http://securitiesindustry.com/issues/21_21/-24255-1.html?pg=1).

85. *Statistical Annex*, BIS Q. REV., Dec. 2009, at A1, A10.

ized" contracts to be centrally cleared, which the Treasury's proposed legislation seemed to require.<sup>86</sup> The CCMR recognizes that centralized clearing requires the clearinghouse to set margin requirements on positions, which in turn requires reliable prices. Reliable pricing depends not only on standardized contracts but also on a base level of liquidity—a significant volume in the contract.

Thus, the central clearing requirement should be limited to contracts that are both standardized *and* liquid. Subject to this principle, the CCMR believes that the Federal Reserve, rather than the SEC or CFTC, on the one hand, or market participants or clearinghouses, on the other, should ultimately determine what types of contracts are centrally cleared.<sup>87</sup> It would be inappropriate to leave the decision to clearinghouses, because clearinghouses are largely controlled by dealers and dealers may have too little incentive to opt for central clearing if it results in a narrowing of their spreads. On the other hand, the Federal Reserve should undertake a cost-benefit analysis before deciding to require clearing of a new category of contracts beyond what clearinghouses are themselves offering to clear. Any such action should be subject to the same standards of review and challenge as any other similar regulatory action under existing law.

As a general matter, the Federal Reserve should have exclusive authority to regulate clearing due to its centrality to systemic risk,<sup>88</sup> and, therefore, the House bill errs by giving the CFTC and SEC discretion to determine which types of contracts are subject to clearing requirements.<sup>89</sup> The Senate draft is less clear on this point. Although Title VII of the Senate draft suggests that the CFTC's and SEC's authority over clearing would be similar to what it is in the House bill,<sup>90</sup> Title VIII gives the

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86. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 46; TREASURY WHITE PAPER, *supra* note 2, at 7; CCMR Derivatives Letter, *supra* note 80, at 10.

87. CCMR Derivatives Letter, *supra* note 80, at 11–12.

88. *Id.* at 11.

89. *See, e.g.*, H.R. 4173, 111th Cong. §§ 3102(a)(3), 3203(a).

90. For example, Sections 713(a)(3) and 753(a) of the Senate draft provide for a clearinghouse to submit to the CFTC or SEC for pre-approval any "group, category, type, or class" of swaps that the clearinghouse seeks to clear. These sections would also give the CFTC or SEC, in consultation with the Financial Stability Oversight Council, power to exempt from clearing requirements any swap where one of the counterparties (a) is not a swap or dealer or major swap participant and (b) is ineligible for membership in

Federal Reserve responsibility for “clearing activities” determined by the Financial Stability Oversight Council to be systemically important.<sup>91</sup> Jurisdictional lines may be clearer after the Senate Banking Committee completes its markup.

2. *Contracts Involving Nonparticipants in the Clearinghouse*

OTC derivative contracts (assuming they are standard and liquid) that only involve clearinghouse members should be centrally cleared.<sup>92</sup> Difficulties arise, however, when one of the parties to the contract is not a clearinghouse member. The number and value of these contracts may be significant. Estimates of the extent of dealer-to-dealer contracts vary (a very high percentage of dealer-to-dealer contracts would involve clearinghouse members). CCMR research indicates that 50 to 65% of CDS contracts<sup>93</sup> and approximately 40% of foreign exchange and interest rate derivatives contracts<sup>94</sup> are between dealers. Suffice it to say that a significant percentage of contracts may involve a counterparty that is not a clearinghouse participant.

The key issue is whether contracts involving a nonparticipant counterparty should be required to be centrally cleared with a guarantee by a clearinghouse member. The two leading

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any clearing organization that clears the swap. SENATE PROPOSAL, *supra* note 3, §§ 713(a)(3), 753(a).

91. *Id.* §§ 804(a)(1), 805.

92. Both the House and Senate proposals require contracts between “swap dealers” to be centrally cleared. See H.R. 4173, 111th Cong. § 3103(a)(4) (2009) (amending the Commodity Exchange Act by inserting § 2(j)(8)(A)); SENATE PROPOSAL, *supra* note 3, § 713(a)(3). Although clearinghouses are composed mainly of dealers, not all dealers who enter into swaps may be members and not all participants in a clearinghouse may be dealers. I focus on requiring participant rather than dealer contracts to be centrally cleared because a requirement that all dealer contracts be centrally cleared exposes the clearinghouse to potential risk from poorly capitalized dealers.

93. Discussions with industry sources indicate that the higher figure (65%) results from the classification of certain hedge-fund-to-prime-broker trades, as in effect, dealer-to-dealer. The Bank for International Settlements reports that in the first half of 2009 dealer-dealer CDS contracts were approximately 53% of outstanding CDS contracts by notional value. BANK FOR INT’L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE FIRST HALF OF 2009, at 8 (2009). The Depository Trust and Clearing Corporation (DTCC) reports that as of December 11, 2009, approximately 80% of the total notional value of CDSs in its Deriv/SERV Trade Information Warehouse are dealer-to-dealer swaps. The DTCC reports that approximately 90% of CDSs traded throughout the world are cleared through the Deriv/SERV Trade Information Warehouse. See DTCC, Deriv/SERV Trade Information Warehouse Reports, <http://www.dtcc.com/products/derivserv/data> (last visited Mar. 1, 2010).

94. BANK FOR INT’L SETTLEMENTS, *supra* note 93, at 6–7.

congressional approaches would require central clearing. The House bill would require all contracts between dealers (anyone in the business of trading in such contracts)<sup>95</sup> to be centrally cleared even if one or both of the dealers were not members of a clearinghouse.<sup>96</sup> The House bill would also require central clearing of any contract involving a “major swap participant,” defined as a person, other than a swap dealer<sup>97</sup> that maintains a substantial net position or whose positions could create substantial net exposure for its counterparties.<sup>98</sup> Finally, the House bill would require all other persons (even if not a dealer or swap participant) to centrally clear a contract unless the person was using swaps to hedge or mitigate commercial risks, such as when corporations use swaps to hedge business risk (the “corporate exemption”).<sup>99</sup>

The Senate draft follows a similar approach. Like the House bill, it requires central clearing of contracts where both counterparties are either dealers or major swap participants.<sup>100</sup> It then permits (but does not require) the regulators to exempt contracts where one of the counterparties is not a dealer or major swap participant and “does not meet the eligibility requirements of any derivatives clearing organization that clears the swap.”<sup>101</sup> Its definition of “major swap participant” focuses

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95. H.R. 4173, 111th Cong. § 3101(a)(3) (2009) (amending the Commodity Exchange Act by inserting § 1a(38)(A)).

96. *Id.* § 3103(a)(4) (amending the Commodity Exchange Act by inserting § 2(j)(8)(A)), § 3203(a) (amending the Securities Exchange Act by inserting § 3B(h)(1)).

97. A “swap dealer” means any person who—(i) holds itself out as a dealer in swaps; (ii) makes a market in swaps; (iii) regularly engages in the purchase of swaps and their resale to customers in the ordinary course of business; or (iv) engages in any activity that causes the person to be commonly known as a dealer or market maker in swaps. A person may be designated a swap dealer for an single type or single class of or category of swap and considered not a swap dealer for other types, classes or categories of swaps.” *Id.* § 3101(a)(3) (amending the Commodity Exchange Act by inserting § 1a(38)(A)).

98. *See id.* § 3101(a)(3) (amending the Commodity Exchange Act by inserting § 1a(39)(A)); *see also* SENATE PROPOSAL, *supra* note 3, § 711(a)(7).

99. The clearing requirement does not apply only if one of the counterparties is *not* a swap dealer or major swap participant *and* able to demonstrate the use of such swaps for mitigating business, operating, or commercial risk in a manner that accounts for the financial obligations associated with non-cleared swaps. H.R. 4173 § 3103(a)(4) (amending the Commodity Exchange Act by inserting § 2(j)(8)(A)); *id.* § 3203(a) (amending the Securities Exchange Act by inserting § 3B(h)(1)).

100. SENATE PROPOSAL, *supra* note 3, § 713(a)(3) (amending the Commodity Exchange Act by inserting § 2(j)).

101. *Id.* (amending the Commodity Exchange Act by inserting § (9)(B)).

solely on persons, other than swap dealers,<sup>102</sup> whose positions could create substantial net exposure for their counterparties.<sup>103</sup> Additionally, the Senate draft does not establish a special “corporate exemption” like the House bill does.<sup>104</sup>

The primary functions of a clearinghouse are to monitor the exposures of clearinghouse members and to allocate losses in the event a member defaults. Contracts involving nonmembers, whether “dealers,” “major swap participants,” or others, may only be cleared through clearinghouse members. Because the clearinghouse has limited information about and cannot control the risk of default of nonmembers, it will insist that a member guarantee any contract submitted by a nonmember. This arrangement reduces the risk for the counterparty member by replacing that member’s exposure to the nonmember with exposure to the clearinghouse. That same counterparty risk to the nonmember is then transferred to the guarantor member. Take an example: Corporation XYZ enters into an OTC derivatives contract with Dealer A, a clearinghouse member. The clearinghouse becomes a counterparty to A’s obligation to XYZ and also becomes a counterparty to XYZ’s obligation to A as guaranteed by Dealer B. Although the risk of A’s default is reduced because its counterparty is now the clearinghouse, Dealer B is now exposed to the risk of default of XYZ through its guarantee.

Because the losses arising from the default of a nonmember of a clearinghouse are borne entirely by the member guarantor, clearing contracts of nonmembers does not facilitate loss spreading. Therefore, proposed legislation could be simplified by generally requiring that only contracts between members of a clearinghouse be centrally cleared. One would want to make sure, however, that institutions with substantial trading activity in derivatives be members of a clearinghouse to assure maximum collectivization of failure risk.

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102. A “swap dealer” is “any person engaged in the business of buying and selling swaps for such person’s own account, through a broker or otherwise. . . . The term ‘swap dealer’ does not include a person that buys or sells swaps for such person’s own account, either individually or in a fiduciary capacity, but not as a part of a regular business.” *Id.* § 711(a)(5).

103. *See id.* § 711(a)(7).

104. *See id.* § 713(a)(3) (amending the Commodity Exchange Act by inserting § 2(j)).

How would one determine who should belong? One way is to assess the size of the net exposures created by counterparties to derivatives contracts. This assessment could be implemented by requiring clearinghouses to establish net counterparty exposure thresholds (positions in each swap category would be netted for each counterparty and then aggregated) for all swap categories in which they were active. Any counterparty that generated a net exposure above the relevant threshold would be eligible for, and could be required to obtain, membership in the relevant clearinghouse. Membership would also be subject to reasonable standards of solvency to ensure that the clearinghouse and its membership were adequately capitalized. Finally, regulators and antitrust officials should retain responsibility for monitoring membership criteria to ensure that existing clearinghouse members do not establish thresholds which unreasonably exclude systemically important nondealer counterparties.

Although many firms whose exposures exceed the defined net exposure thresholds could be admitted as clearinghouse members, some—including some dealers that have lower capital, some hedge funds, as well as most (if not all) mutual and pension funds—may not meet reasonable membership qualifications. When such firms do not qualify for clearinghouse membership, they should be required to clear their trades even if it means obtaining a member guarantee. Although the guarantee may increase the risk of the guarantor member, clearinghouse members will generally be subject to higher levels of supervision than the firms whose positions they are guaranteeing (such as highly leveraged hedge funds) and are, therefore, less likely to fail and set off a chain reaction of failures.

Apart from systemic risk concerns, there are efficiency gains from clearing, but only systemic risk concerns should warrant mandatory clearing. First, a clearinghouse facilitates dynamic readjustment of the initial margin attached to a contract in response to changes in the credit quality of the nonmember counterparty. Under current bilateral practice, a significant credit event that impairs the counterparty's solvency or jeopardizes its ability to perform, or a significant change in a contract's volatility, does not necessarily trigger readjustment of initial margin levels. But this lack of readjustment is a result of industry practice and perhaps better knowledge of counterparty individual risks for margin than is available through the homogenous margin practices of clearinghouses.

Second, a clearinghouse could alleviate the competitive pressure dealers face to attract business by reducing the amount of collateral they require from customers, whether in the form of initial or mark-to-market margins, eliminating a possible “race to the bottom” in collateral in the bilateral context. But requiring dealers to establish prudent collateral levels can be accomplished through regulation and supervision without requiring a clearinghouse.<sup>105</sup>

Third, clearinghouses could achieve economies of scale in providing trade processing services, such as segregation systems, the management of the provision of transfer of collateral, or dispute resolution procedures. These efficiencies may reduce operational risk. Both the House bill and Senate draft call for dealers to segregate funds or property associated with a non-cleared swap at their counterparties’ request.<sup>106</sup> The House bill cannot assure that pricing for segregation will be deemed competitive with the non-segregated—and arguably systemically riskier—holding of collateral directly by the dealers.<sup>107</sup> If counterparties are indeed interested in the use of segregation systems or any of the other services that clearinghouses can offer more cheaply than other providers, however, one can assume that, provided viable buy-side clearing options are available, these counterparties will insist on central clearing rather than resist it. These efficiencies do not per se provide a reason for imposing a clearing requirement on non-dealer counterparties.

Fourth, there are cases in which the use of clearinghouses can facilitate netting of derivatives trades, because cleared contracts are fully fungible within a clearing framework. They therefore continuously and automatically net down, whereas bilateral contracts require consent of all parties to novate or net. Some believe that the reduction of systematic risk by greater netting alone justifies a clearing requirement. But as Professors Duffie and Zhu observe, the use of a clearinghouse does not necessarily increase netting.<sup>108</sup> For example, a clearinghouse that clears

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105. See *infra* Part VI.

106. H.R. 4173, 111th Cong. § 3122 (2009) (amending the Commodity Exchange Act by inserting § 4u), § 3203(e) (amending the Securities Exchange Act by inserting § 3D); SENATE PROPOSAL, *supra* note 3, § 718 (amending the Commodity Exchange Act by inserting § 4t).

107. H.R. 4173 § 3122.

108. Darrell Duffie & Haoxiang Zhu, Does a Central Clearing Counterparty Reduce Counterparty Risk? (July 1, 2009) (unpublished manuscript), available at <http://www.stanford.edu/~duffie/DuffieZhu.pdf>.

one type of asset creates opportunities for multilateral netting in that asset class. Whether this results in an overall increase in netting turns on whether these gains are offset by the lost opportunities to net among different asset classes that might exist in the bilateral setting. Thus, whether the use of a clearinghouse increases netting depends on multiple factors, including the range of assets that clearinghouses clear, and the agreements among clearing members and their nonmember customers to net among cleared and uncleared contracts.

On the other hand, it is important to recognize that bilateral clearing may itself offer efficiency advantages, primarily by allowing more counterparty-specific margining that legitimately takes into account the underlying credit risk of the counterparty, something a clearinghouse cannot do. If the efficiencies of using a clearinghouse outweigh the costs, non-participants will volunteer to have their contracts centrally cleared without being mandated to do so. This statement assumes, however, that clearinghouses do not unreasonably exclude firms from using their facilities, so regulators and anti-trust officials should monitor clearinghouses to make sure unreasonable exclusion does not occur.

To repeat, the basic reason to mandate central clearing is to reduce systemic risk, not to increase the efficiency of the OTC market. If central clearing is more efficient, it may be important to encourage it, but without mandating it, and market participants will eventually demand it themselves, absent restraints of trade.

What should be done with respect to uncleared positions? Despite the recommendations above, there will still be a substantial number of nonstandardized or illiquid positions or positions held by nonparticipants of a clearinghouse. The Treasury White Paper suggests higher capital and margin requirements for such positions,<sup>109</sup> but the effectiveness of higher capital requirements is contingent on the regulator's ability to determine the amount of capital required. If the regulator's amount proves incorrect, we will either not eliminate the risk of failure or we will discourage valuable risk-reducing contracts. This problem is also present in the congressional calls for higher capital.

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109. TREASURY WHITE PAPER, *supra* note 2, at 48.

The House bill requires swap dealers and major swap participants to maintain capital and meet margin requirements set by prudential regulators (for banks) or the CFTC or SEC (for non-banks).<sup>110</sup> In the case of non-cleared swaps, regulators are directed to set capital and margin requirements that are appropriate to the risk associated with the non-cleared swaps.<sup>111</sup> Additionally, prudential regulators can set collateral and margin requirements for swaps where banks or bank holding companies are end users—with the CFTC and SEC doing the same where non-bank swap dealers or major swap participants, for which there is no prudential regulator, are end users.<sup>112</sup>

The Senate draft differs in its approach by imposing a capital requirement greater than zero for cleared swaps and substantially higher capital requirements for non-cleared swaps to offset the greater risks to dealers and major swap participants and to the financial system.<sup>113</sup> Capital requirements for non-bank holding companies, or entities within the jurisdiction of the CFTC or SEC, are prescribed to be as strict as those set for banks.<sup>114</sup>

Similarly, under the Senate draft, margin requirements are to be set by “primary financial regulatory agencies” for bank swap dealers and major swap participants—with the CFTC and SEC imposing as strict or stricter margin requirements on non-bank dealers and major swap participants.<sup>115</sup> The Senate draft provides for an exemption to the margin requirement for persons who are not a swap dealer nor major swap participant, are using swaps as an effective hedge under GAAP, and are predomi-

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110. H.R. 4173, § 3107 (amending the Commodity Exchange Act by inserting § 4s(d)), § 3204 (amending the Securities Exchange Act by inserting § 15F(d)).

111. *Id.* Prudential regulators will set collateral and margin requirements for swaps where banks or bank holding companies are end users, and the CFTC and SEC will do the same where non-bank swap dealers or major swap participants, for which there is no prudential regulator, are end users. *Id.* The Senate draft, in contrast, envisions that capital requirements will be set by “primary financial regulatory agencies,” with the CFTC and SEC doing so for all non-bank dealers and major swap participants. SENATE PROPOSAL, *supra* note 3, § 717 (amending the Commodity Exchange Act by inserting § 4s(e)(1)).

112. H.R. 4173, § 3107 (amending the Commodity Exchange Act by inserting § 4s(d)(1)(A)–(B)); *id.* § 3204 (amending the Securities Exchange Act by inserting § 15F(d)(1)(A)–(B)).

113. SENATE PROPOSAL, *supra* note 3, § 717 (amending the Commodity Exchange Act by inserting § 4s(e)(3)(A)).

114. *Id.* (amending the Commodity Exchange Act by inserting § 4s(e)(3)(B) & (C)).

115. *Id.* (amending the Commodity Exchange Act by inserting § 4s(e)(4)(A)(i)–(B)(i)).

nantly engaged in activities that are not financial in nature.<sup>116</sup> Noncash collateral may meet margin requirements to the extent it is consistent with preserving the financial integrity of the particular derivatives market and preventing systemic risk.<sup>117</sup>

*B. The Optimal Number and Scope of Clearinghouses*

Another issue connected to clearinghouses is the question of how many there should be and which derivatives contracts they should clear. Duffie and Zhu have pointed out that more risk reduction is possible through bilateral counterparty netting and collateral for all derivative contracts than from centralized clearing of just CDSs.<sup>118</sup> Yet the new clearinghouses under way, such as IntercontinentalExchange Inc. (ICE), are focused only on CDSs.<sup>119</sup> With respect to quantity of clearinghouses, one is more efficient than many, but its failure would pose more systemic risk. This issue is further complicated by the European Union's insistence that CDS contracts on European reference entities be cleared through a European clearinghouse.<sup>120</sup>

Although the CCMR has previously recommended that clearing occur through one or two facilities to take maximum advantage of netting, if clearing is to be spread into several facilities, the CCMR's current view is that there are benefits from having multiple clearinghouses organized by asset class.<sup>121</sup> First, a lower number of clearinghouses would imply a greater concentration of risk. To the extent feasible, it would be better to avoid having clearinghouses that are "Too Big to Fail." Second, having multiple clearinghouses would preserve competition that is potentially important, at the current early stage of

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116. *Id.* (amending the Commodity Exchange Act by inserting § 4s(e)(4)(A)(ii)).

117. *Id.* (amending the Commodity Exchange Act by inserting § 4s(e)(5)).

118. Darrell Duffie & Haoxiang Zhu, *Does a Central Clearing Counterparty Reduce Counterparty Risk?* 1 (Rock Ctr. For Corp. Gov. at Stanford Univ., Working Paper No. 46, Feb. 27, 2009).

119. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 43; CCMR Derivatives Letter, *supra* note 80, at 20.

120. See Jeremy Grant & Nikki Tait, *European CDS clearing hits hurdle*, FIN. TIMES, Jan. 13, 2009, at 23; Press Release, Charlie McCreevy, Eur. Comm'r for Internal Mkts. & Servs., Eur. Comm'n, Statement on Reviewing Derivatives Markets Before the end of the Year: Time for Regulators to get a Better View of Derivatives (Oct. 17, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/08/538&format=HTML&aged=0&language=EN&guiLanguage=fr>.

121. CCMR Derivatives Letter, *supra* note 80, at 21.

development, for evolving the best frameworks for clearing OTC derivatives.<sup>122</sup> And third, the Committee believes different asset classes have different risk profiles and are better handled by different risk management techniques. Assuming that it is more difficult for one clearinghouse to manage risk across multiple asset classes than it is for multiple clearinghouses to handle risk from one asset class each, having multiple clearinghouses organized by asset class could be the safer option.<sup>123</sup>

Of course, these points do not negate Duffie and Zhu's observation that a more limited number of clearinghouses leads to more efficient margining. However, less efficient margining will not lead to increased systemic risk as long as margining arrangements in each clearinghouse are adequate to protect against failure. The existence of multiple clearinghouses therefore does not contradict the goal of reducing systemic risk as long as regulators carefully scrutinize clearinghouse margin requirements. It is also worth noting that the efficiency gains from a reduced number of clearinghouses described by Duffie and Zhu will gradually create market pressure for clearinghouses to consolidate. Over time, the market will ensure that the number of clearinghouses is not excessive.

It may also be possible, in theory, to achieve the systemic risk reductions of multiple clearinghouses at the same time as the margining efficiency of a more limited number of clearinghouses. Insisting on interoperability between clearinghouses would allow a net position in one clearinghouse to be netted against a position in another. This interoperability, however, could be very costly; thus, the CCMR exercised caution with this recommendation because of the difficulties of establishing inter-clearinghouse accounts if the risk profiles and regulatory standards differ among interlinked clearinghouses.

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122. At the same time, the basic models should be consistent in terms of operational functionality. For example, clearing should be available on a same day basis given timely submission, clients should be able to engage multiple Futures Commission Merchants, and there should be options to the client in failure to clear situations.

123. The CCMR "acknowledges that some of its members do not believe there are risk management benefits to be gained by limiting clearinghouses to one asset class, and they are concerned that organizing [clearinghouses] by asset class will substantially increase the cost of clearing since there will be less risk diversification and netting, and because it will not be possible to spread the cost of capitalizing [clearinghouses]." CCMR Derivatives Letter, *supra* note 80, at 22.

Several studies have examined the risks that arise from linkages between clearinghouses.<sup>124</sup> The Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissioners have developed recommendations for the evaluation and management of risks that arise from clearinghouse linkages.<sup>125</sup> The Joint Regulatory Authorities of LCH.Clearnet prepared a more detailed analysis of the risks from linkages between clearinghouses.<sup>126</sup> Their analysis highlights operational, legal, liquidity, and settlement risks that arise from linkages between clearinghouses. They caution that linkages between clearinghouses may lead to an increase in systemic risks in the financial system. Actual experience with links between clearinghouses is limited. To date, several linkages have been established among European clearinghouses, although the overall level of integration remains low.<sup>127</sup>

### C. Ownership of Clearinghouses

The House bill would limit the combined control share of all restricted owners in a clearinghouse—swap dealers and major swap participants—to 20% of the votes to be cast on any matter.<sup>128</sup> Thus, all restricted owners combined cannot control a majority of board seats. These restrictions are intended to reduce conflicts among members, or reduce the risk that mem-

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124. Interoperability, flowing from a requirement that clearinghouses allow participants to move open positions from one clearinghouse to another, could bring benefits to the market. “In practice, however, operational, legal, and risk-management issues make interoperability difficult and costly for the foreseeable future. Interoperability should be a design element for [clearinghouses] for future consideration.” FED. RESERVE BANK OF N.Y., POLICY PERSPECTIVES ON OTC DERIVATIVES MARKET INFRASTRUCTURE 14 (2010).

125. BANK FOR INT’L SETTLEMENTS, RECOMMENDATIONS FOR CENTRAL COUNTERPARTIES (2004).

126. JOINT REGULATORY AUTHS. OF LCH.CLEARNET GROUP, INVESTIGATION OF RISKS ARISING FROM THE EMERGENCE OF MULTI-CLEARED TRADING PLATFORMS (2008). The Joint Regulatory Authorities include regulators in Belgium, France, the Netherlands, Portugal, and the UK that have supervisory authority over LCH.Clearnet Group.

127. See George Kalogeropoulos, Daniela Russo & Andreas Schönenberger, *Link Arrangements of Central Counterparties in the EU—Results of an ESCB Survey*, in THE ROLE OF CENTRAL COUNTERPARTIES 50 (2007) (providing a listing of linkages between CCPs).

128. H.R. 4173, 111th Cong. § 3306(a)(2)(D) (2009) (amending the Commodity Exchange Act by revising § 5d(15)); *id.* § 3306(b)(2)(D) (amending the Securities Exchange Act by inserting § 17A(b)(3)(J)).

bers will act in their own self-interest rather than the interest of the clearinghouse. However, the limitation in the control rights of restricted owners means that the members that are restricted owners would be contributing capital and bearing risk but without exercising rights relevant to managing risks to which their capital is exposed. This disjunction of risk and control creates an incentive not to create clearinghouses in the first place. The Senate draft does not impose this limitation.<sup>129</sup>

This control restriction may also give rise to poor governance. A primary function of a clearinghouse is the management of the risks from derivatives transactions. These transactions are activities in which swap dealers and major swap participants have particular expertise. The control restrictions in the House bill, however, would limit the ability of swap dealers and major swap participants, who are the parties with the greatest expertise in risk management, to exercise influence over the policies and operations of a clearinghouse.

On the other hand, the restrictions could be ineffective at limiting “restricted owners” from controlling a clearinghouse since one can exercise control without ownership if one is the major value-added source for running a business. A better approach would be for regulators to review clearinghouse rules and practices to ensure that membership and access policies are not discriminatory.

#### *D. Collection and Publication of Data*

In the interest of having better price information, the CCMR has further recommended that certain volume and position data be made publicly available to reduce risk for traders and clearinghouses. To achieve that objective, the CCMR has recommended that within the CDS market, regulators should facilitate the adoption of a transaction reporting system similar to the Financial Industry Regulatory Authority’s TRACE system for corporate bonds.<sup>130</sup> The CCMR also supports measures in the proposed legislation that mandate the reporting of derivatives transactions to data repositories and for clearinghouses and data repositories to disseminate aggregate data on trading

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129. See SENATE PROPOSAL, *supra* note 3, § 719.

130. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 48–49; CCMR Derivatives Letter, *supra* note 80, at 24. TRACE stands for “Trade Reporting and Compliance Engine.”

volume, transaction prices, quotations, and open interest to the public.<sup>131</sup> However, due to the high costs of implementing a TRACE-like system, the CCMR believes a reasonable tradeoff between transparency and cost would be to allow regulators to permit block reporting of transactions on a modestly delayed basis as an acceptable means of implementing the transaction reporting requirement and to generally allow some bunching of normal trades to reduce cost.

The CCMR is also aware of the potential damage from applying continuous reporting requirements to large derivatives trades. The issues are analogous to those involved in reporting “block trades” in the equity context. If traders know someone is shopping or seeking to acquire a large position, traders will take advantage of this knowledge. This, in turn, will make block sales or purchases less likely and reduce liquidity. The CCMR thus recommends that the Federal Reserve permit delayed reporting for transactions that are large compared to average volume or that involve contracts that infrequently trade.

The House bill and the Senate draft both provide for public reporting of aggregate data on swap trading volumes and positions from clearinghouses, swap repositories, and—for non-cleared swaps whose data was not accepted by a swap repository—submitted transaction reports.<sup>132</sup> The Senate draft goes further by calling for the terms and conditions of contracts, agreements, and transactions cleared and settled by the organization, including daily settlement prices, to be made publicly available by clearing organizations.<sup>133</sup>

### E. Exchange Trading

A highly contested issue among dealers and exchanges is whether there is a need for derivatives, particularly CDSs, to be exchange-traded over and above the need for clearinghouses.<sup>134</sup>

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131. H.R. 4173 §§ 3103(a)(3), 3103(b)(3), 3109, 3203(a); SENATE PROPOSAL, *supra* note 3, §§ 713(a)(3), 713(b)(4), 753(a).

132. H.R. 4173 § 3104 (amending the Commodity Exchange Act by inserting § 8(j)), § 3203(a) (amending the Securities Exchange Act by inserting § 3B(j)(2)); SENATE PROPOSAL, *supra* note 3, § 713(a)(2) (amending the Commodity Exchange Act by inserting § 3(j)(6)).

133. SENATE PROPOSAL, *supra* note 3, § 713(b)(3) (amending the Commodity Exchange Act by inserting § 5b(c)(2)(L)).

134. See Donna Block, *Swap Meet*, DEAL MAG., Oct. 31, 2008, at 18.

Although dealers are generally opposed to exchange-trading because it would narrow their spreads, dealers' interest in maintaining spreads cannot be a basis for policy. There is, however, a legitimate issue as to whether exchange-trading is desirable or feasible. The argument for exchange-trading is that it would further improve the ability to price derivatives, which is important not only to traders but to the clearinghouses as well to settle margin requirements. Currently, pricing information with respect to quotes is available from vendors like Markit on both an end-of-day and intraday basis. Although the clearinghouses already utilize this information, no current intraday collection of pricing data is based on actual transactions. Although only an estimated 60% of trades are reported to the Depository Trust and Clearing Corporation warehouse by the end of the day, this percentage is rapidly increasing. An exchange would provide continuous data on the prices of transactions.<sup>135</sup>

The exchange trading provisions in the House bill and the Senate draft are closely related to the requirements on clearing. In the House bill, derivatives contracts that are required to be cleared would need to be traded on a regulated exchange or "registered swap execution facility."<sup>136</sup> While the Senate draft also requires derivatives contracts that are required to be cleared to be traded on a regulated exchange or registered "alternative swap execution facility," the Senate draft's definition of "alternative swap execution facility" is more restrictive than the definition of "registered swap execution facility" in the House bill.<sup>137</sup> As a result, a voice brokerage between two per-

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135. See CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 50; CCMR Derivatives letter, *supra* note 80, at 26.

136. H.R. 4173 § 3103(a)(4) (amending the Commodity Exchange Act by inserting § 2(k)(1)), § 3203(c) (amending the Securities Exchange Act by inserting § 5A(a)(1)). The House bill defines a "swap execution facility" as a "person or entity that facilitates the execution or trading of swaps between two persons through any means of interstate commerce, but which is not a designated contract market, including any electronic trade execution or voice brokerage facility." *Id.* § 3101(a)(3) (amending the Commodity Exchange Act by inserting § 1a(49)), § 3201(a)(6) (amending the Securities Exchange Act by inserting § 3(a)(77)). To be registered, such a swap execution facility would need to comply with certain requirements, including a requirement to maintain rules designed to prevent market manipulation. *Id.* § 3109 (amending the Commodity Exchange Act by inserting § 5h(d)), § 3203(d) (amending the Securities Exchange Act by inserting § 3C(d)).

137. SENATE PROPOSAL, *supra* note 3, §§ 713(a)(3), 753(a). The Senate draft defines an "alternative swap execution facility" as an "electronic trading system with pre-trade and post-trade transparency in which multiple participants have

sons would likely satisfy the House bill's exchange trading requirement but not the exchange trading requirement in the Senate. The requirements in both approaches apply only when an exchange-traded contract is available. One cannot force people to trade contracts that exchanges do not want to trade.

Pricing of CDSs in which a credit event has occurred raises further problems. The ISDA has an auction procedure to determine the cash settlement price of these contracts, essentially what the seller is required to pay, but these auctions only occur thirty days after the determination that a credit event has occurred. Recent market events bear witness that thirty days is entirely too long to wait for price determination in the fast-paced CDS market. Exchanges could improve the ability to price these contracts.

Exchanges may also improve liquidity, which is not only important to traders but also to clearinghouses seeking to close out the position of a defaulting member. An exchange would likely add liquidity to what is presently achievable in the OTC market.<sup>138</sup> Bear in mind that the class of derivatives that would be exchange-traded, however, is a subset of those that would be cleared through a clearinghouse due to lack of trading interest. In addition, even contracts normally required to be exchange-traded would require exceptions for "block trades" to avoid the usual block trade problem resulting from a dealer disclosing its entire trading position.

The current view of the CCMR is that exchange trading should not be required, but encouraged where appropriate. To the extent that legislation includes an exchange-trading requirement, the House bill and Senate draft properly give regulators authority to determine which contracts would be subject

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the ability to execute or trade swaps by accepting bids and offers made by other participants that are open to multiple participants in the system, but which is not an exchange." *Id.* § 720. As under the House bill, to be registered, such an "alternative swap execution facility" must set position limits or position accountability requirements for contracts that are meant to stop market manipulation and congestion. *See id.* §§ 720, 753(b).

138. In the case of CDSs, for example, exchange-trading would increase liquidity in the CDS market and would allow small investors to trade credit risk more easily. Mike Jakola, Credit Default Swap Index Options: Evaluating the Viability of a New Product for the CBOE 8 (June 2, 2006) (unpublished manuscript), available at <http://www.kellogg.northwestern.edu/research/fimrc/papers/jakola.pdf>.

to exchange-trading requirements.<sup>139</sup> Further, to the extent that legislation involves an exchange-trading requirement, the only alternative to trading on an organized exchange should be trading on a platform along the lines of an “alternative trading system”—which the SEC defines as an organization, association, person, or system that provides a marketplace or facilities for bringing together buyers and sellers<sup>140</sup>—or another venue that is appropriately regulated in light of the transparency objectives of the legislation.

#### *F. The International Dimension*

There is a challenging international dimension to this problem. First, uncoordinated international action could lead to suboptimal clearing arrangements, as previously discussed in the case of the European Union. Second, traders may seek out less regulated clearinghouses or exchanges because no one country can ensure that derivatives will be cleared under the rules it devises.

Perhaps the United States should penalize or restrict its own financial institutions from seeking more friendly climes, but it seems extreme to penalize foreign institutions and foreign countries for having what the United States deems to be lower standards or reckless markets. Under the House bill, the Federal Reserve (in deciding whether to allow a foreign bank to establish a branch in the United States), and the SEC (in deciding whether to allow a foreign broker-dealer to register as a broker-dealer in the United States) would consider whether the home country of the bank or broker-dealer has adopted, or is progressing toward, “an appropriate system of financial regulation” to mitigate sys-

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139. See SYLVIE A. DURHAM, *TERMINATING DERIVATIVE TRANSACTIONS: RISK MITIGATION AND CLOSE-OUT NETTING* § 6.9 (2009).

140. The SEC’s formal definition of an “alternative trading system” is any organization, association, person, group of persons, or system: (1) [t]hat constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange within the meaning of Rule 3b-16 under the Securities Exchange Act of 1934; and (2) [t]hat does not: (i) [s]et rules governing the conduct of subscribers other than the conduct of such subscribers’ trading on such organization, association, person, group of persons, or system; or (ii) [d]iscipline subscribers other than by exclusion from trading.

Regulation of Exchanges and Alternative Trading Systems, 17 C.F.R. § 242.300 (2009).

temic risk.<sup>141</sup> Moreover, the Federal Reserve and the SEC may decide to terminate the activities of a bank or broker-dealer based on their judgment that the home country has not adopted, or made demonstrable progress toward adopting, such a system of financial regulation.<sup>142</sup> But why should a British bank or broker-dealer be excluded from the United States financial system (including access to United States payment systems) because an American or even an Italian hedge fund sought to clear or trade derivatives in a less regulated United Kingdom market? Such unilateral action by the United States might result in resentment and ultimately retaliation. A better approach involves more coordinated international action, the approach we have already followed for capital regulation.

#### IV. RESOLUTION PROCEDURES

##### A. *The Importance of Resolution Procedures*

Sound resolution procedures are necessary for two principal reasons. First, poor procedures may increase systemic risk. Some believe this economic crisis was a result of using the poor procedures of general bankruptcy law for resolving Lehman Brothers. Second, the lack of adequate procedures may preserve institutions that should otherwise be restructured, sold, or liquidated. Preservation of such institutions is undesirable because it may increase taxpayer cost and moral hazard by failing to impose costs on investors or counterparties. The institutions that received TARP funds may fall into this category. Thus, the inability to inject public funds as part of the bankruptcy process and the placement of crucial decisions of administration in the hands of courts rather than regulators appear to be primary reasons why authorities sought to avoid bankruptcy for systemically important institutions, including bank holding companies, particularly after the Lehman experience.

There is also concern about how derivatives are handled by the Bankruptcy Code. The Code permits counterparties to liq-

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141. H.R. 4173 § 1951(a)(3) (amending the International Banking Act of 1978 by inserting § 7(d)(3)(E)), § 1951(c) (amending the Securities Exchange Act by inserting § 15(k)).

142. *Id.* § 1951(b)(3) (amending the International Banking Act of 1978 by inserting § 7(e)(1)(C)), § 1951(c) (amending the Securities Exchange Act by inserting § 15(l)).

update collateral on in-the-money contracts,<sup>143</sup> which can drive collateral prices sufficiently downward for collateral to become inadequate, triggering a chain reaction of possible failures of counterparties.<sup>144</sup> In an FDIC conservatorship,<sup>145</sup> the derivatives book can be (and routinely is) held by the government as conservator or transferred within one business day to third parties without triggering the right of counterparties to liquidate collateral.<sup>146</sup> Concerns with AIG's derivatives book were critical to placing the company into an ad hoc receivership rather than bankruptcy, even though AIG's failure came only two days after Lehman's.<sup>147</sup>

The avoidance of bankruptcy for insolvent institutions—even for banks whose holding companies are not subject to the Federal Deposit Insurance Act (FDIA)<sup>148</sup> receivership provisions—has the potential to create a zombie financial system at the taxpayers' expense. Placing insolvent banks and their holding companies into an FDIA receivership to be restructured (while being kept open if necessary) would impose losses on equity and debt holders instead of the taxpayer,<sup>149</sup> as was done in the cases of Washington Mutual and IndyMac through the FDIA Act.<sup>150</sup> This is not to say we have not imposed losses on equity and debtholders through TARP. In the case of TARP infusions, equity was substantially diluted and debtholders were subordinated to the new government preferred investment. In

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143. See 11 U.S.C. §§ 362(b)(6), 555, 556 (2006).

144. FED. DEPOSIT INS. CORP., ADJUSTING THE RULES: WHAT BANKRUPTCY REFORM WILL MEAN FOR FINANCIAL MARKET CONTRACTS, FYI: AN UPDATE ON EMERGING ISSUES IN BANKING (2005).

145. FDIC conservatorship extends to an institution's qualified financial contracts (QFCs), including derivatives products. See 12 U.S.C. § 1822 (2006); FED. DEPOSIT INS. CORP., STATEMENT OF POLICY ON QUALIFIED FINANCIAL CONTRACTS (1989).

146. See Carol J. Loomis, *Derivatives: The Risk that Still Won't Go Away*, FORTUNE, July 6, 2009, at 55, 57–58 (describing the handling of Lehman's derivatives book as it neared bankruptcy); Scott, *supra* note 16.

147. Eric S. Rosengren, President & CEO, Fed. Reserve Bank of Boston, Remarks at the Institute of Regulation and Risk North Asia: Challenges in Resolving Systemically Important Financial Institutions (May 5, 2009), available at <http://www.bos.frb.org/news/speeches/rosengren/2009/050509.htm>.

148. 12 U.S.C. §§ 1811–1835a (2006).

149. Sheila Bair, Chairman, Fed. Deposit Ins. Corp., Remarks to the Economic Club of New York (Apr. 27, 2009), available at <http://www.fdic.gov/news/news/speeches/chairman/spapr2709.html>.

150. See R. Glenn Hubbard, Hal Scott & Luigi Zingales, Editorial, *Banks Need Fewer Carrots and More Sticks*, WALL ST. J., May 6, 2009, at A15.

addition to equity dilution, TARP recipients including Goldman Sachs and Morgan Stanley were subject to multiyear limitations on common dividend and stock repurchase policies, and significant restrictions were imposed on executive compensation.<sup>151</sup> Nonetheless, more substantial losses could be imposed through the use of resolution procedures. As observed earlier, the imposition of such losses is particularly important for achieving more market discipline with respect to required levels of capital.

B. *What Institutions Should be Subject to Special Resolution Procedures?*

The CCMR has recommended that the FDIA be expanded to provide comprehensive and unified resolution procedures for all financial institutions.<sup>152</sup> The Treasury White Paper falls short in achieving this goal.<sup>153</sup> It would create a new procedure for only some financial institutions—“systemically important” holding companies of regulated entities and their subsidiaries. Hedge funds and insurance companies are not covered, and broker-dealers remain covered by the Securities Investor Protection Act of 1970 (SIPA).<sup>154</sup>

The House bill and the Senate draft are similar to the Treasury proposal in the following respect: Subject to exceptions, the resolution procedures in both the House bill and the Senate draft are potentially applicable to bank holding companies, companies that have been made subject to stricter prudential regulation, companies predominantly engaged in activities that are financial in nature or incidental thereto for purposes of the Bank Holding Company Act, and any subsidiaries of the foregoing.<sup>155</sup> The resolution procedures in the Senate draft would also be applicable to brokers-dealers.<sup>156</sup> Before applying the

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151. U.S. DEP'T OF THE TREASURY, TARP CAPITAL PURCHASE PROGRAM: SENIOR PREFERRED STOCK AND WARRANTS (2008).

152. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 113.

153. See TREASURY WHITE PAPER, *supra* note 2, at 76–78.

154. 15 U.S.C. §§ 78aaa–78lll (2006).

155. See H.R. 4173, 111th Cong. § 1602(9) (2009); SENATE PROPOSAL, *supra* note 3, § 201(7), (8), (11). For an explanation of which companies are subject to stricter prudential regulation, see *infra* notes 241–47 and accompanying text.

156. See SENATE PROPOSAL, *supra* note 3, § 201(6). However, the bill also provides that the FDIC will appoint the SIPC to act as a trustee for any covered broker or dealer that has entered into receivership. Thus, subject to certain limitations, broker-dealers

resolution procedures, however, the Secretary of the Treasury must make a series of determinations, including the determination that the failure of any such company would have “serious adverse effects on financial stability or economic conditions in the United States.”<sup>157</sup>

In the Senate draft, the Secretary of the Treasury must petition the “Orderly Liquidation Panel” for an order authorizing receivership under the draft’s provisions, and it is only in receivership that public money can be used to support an institution.<sup>158</sup> Although the Panel, composed of three judges from the United States Bankruptcy Court for the District of Delaware,<sup>159</sup> has twenty-four hours to determine whether the company is in default or in danger of default,<sup>160</sup> its judgment can be appealed to the United States Court of Appeals, which need not reach a decision for another thirty days.<sup>161</sup> The appeals court decision can then be appealed to the Supreme Court, which has an additional thirty days to consider the matter.<sup>162</sup>

Thus, the Treasury, House, and Senate approaches only apply to institutions whose failure is determined to have important systemic effects at that time.<sup>163</sup> Although avoidance of *advance* branding of institutions as systemically important does sidestep an increase of moral hazard and cost-of-funds advantage for such institutions arising out of the implicit government guarantee that goes with the brand,<sup>164</sup> it also makes it difficult for investors or counterparties to know in advance which regime will apply to its positions. Furthermore, it may be very difficult to determine whether an institution is systemically important in a timely manner. The Senate draft’s multistep judicial review process raises issues of this kind in a particularly pointed form.

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are governed by SIPA under the Senate draft. SENATE PROPOSAL, *supra* note 3, § 205(a)–(b).

157. H.R. 4173, § 1603(b); *accord* SENATE PROPOSAL, *supra* note 3, § 203(b).

158. SENATE PROPOSAL, *supra* note 3, § 202(b)(1).

159. *Id.* § 202(a)(2).

160. *Id.* § 202(b)(1)(A)(iii).

161. *Id.* § 202(b)(2)(A)(i).

162. *Id.* § 202(b)(2)(B)(i).

163. H.R. 4173 § 1603(a)–(b); SENATE PROPOSAL, *supra* note 3, § 203(a)–(b).

164. In contrast, the White Paper’s proposal for advance branding of institutions for the purpose of deciding what institutions the Federal Reserve would supervise—so-called Tier I financial service holding companies—does create these problems. *See* TREASURY WHITE PAPER, *supra* note 2, at 76.

The resolution procedures in the House bill and Senate draft also leave out certain types of financial institutions. Under the House bill, insured depository institutions,<sup>165</sup> certain insurance companies,<sup>166</sup> and certain government-sponsored entities, including Fannie Mae and Freddie Mac,<sup>167</sup> would be excluded. The House bill would also exclude hedge funds and broker-dealers, even when broker-dealers are the subsidiaries of firms that are otherwise within the scope of the resolution procedures.<sup>168</sup> The Senate draft would exclude insured depository institutions<sup>169</sup> as well as insurance companies that are regulated by a state insurance regulator and covered by a state law that is designed to deal with the rehabilitation, liquidation, or insolvency of an insurance company.<sup>170</sup>

The CCMR recommended a very different approach—the creation of a comprehensive Financial Company Resolution Act applicable to all financial companies, not just those whose failure was determined to be systemically important,<sup>171</sup> which is the same approach we take today with banks. This approach allows more certainty of outcome. It makes sense to handle all banks under special procedures, regardless of systemic importance, and the CCMR believes the same is true for all financial companies. Flexible procedures deployed by knowledgeable regulators ensure the proper functioning of the financial system better than the litigation- and rules-based approach of the Bankruptcy Code.

Not every financial company subject to this Act would be eligible for public support,<sup>172</sup> as with banks, support would require a special determination. Without such a determination, normal least-cost procedures would be used. In the case of failed banks, the basic expense is paying off insured depositors (normally funded by industry from the deposit insurance fund). Of course,

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165. H.R. 4173 § 1602(9)(F).

166. *Id.* § 1604(e).

167. *See id.* § 1602(9)(D).

168. *See id.* § 1602(9)(B)(v).

169. SENATE PROPOSAL, *supra* note 3, § 201(7)(b).

170. *Id.* § 203(e).

171. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 124.

172. Peter J. Wallison, *Reinventing GSEs: Treasury's Plan for Financial Restructuring*, AEI FIN. SERVICES OUTLOOK, Mar./Apr. 2009, at 3, 5. This might be true for the Treasury proposal, which would only be used for “systemically important” institutions, but not under the CCMR’s proposed regime for handling failed financial companies that do not pose a systemic risk.

for non-banks, this insurance cost would be absent. Public expense would be limited to the administrative cost of liquidating or selling the failed institution, with the exception of institutions requiring assistance to continue functioning.

The CCMR would also permit financial companies now eligible for resolution under the Bankruptcy Code to petition for reorganization under Chapter 11 of the Code, provided that the regulator would be empowered to convert such a proceeding into a disposition under the CCMR's proposed Financial Company Resolution Act.<sup>173</sup> Thus, the regulators could decide when and if it would be preferable to use the Bankruptcy Code to handle a particular resolution.

Instead, the Senate draft would expand the scope of the Bankruptcy Code to include many small banks that are not systemically important.<sup>174</sup> In addition to the drawbacks discussed in the preceding paragraph regarding the general shortcomings of the bankruptcy process, the expansion of the Bankruptcy Code's scope raises some key questions about the authority of the FDIC. For example, the FDIC currently has the ability to take "prompt corrective action" when it believes that a bank is in danger of failing. Will the FDIC continue to have this authority if the resolution of small banks is handled under the Bankruptcy Code? Also, consistent with its mandate to employ a "least cost resolution approach,"<sup>175</sup> the FDIC can now use its funds to assist with the resolution of insolvent banks. For example, where it is cheaper to subsidize the purchase of an insolvent bank than to liquidate and pay off depositors, the FDIC can use its funds to provide such a subsidy. Will the FDIC continue to do so once small banks are subject to the bankruptcy process? It is unclear what the answers to these questions might be under the Senate draft.

### *C. Imposition of Losses under Special Resolution Procedures*

A pivotal issue that legislation needs to address is how to impose costs on counterparties to derivatives contracts within the special resolution procedures. Although the Bankruptcy Code faces the systemic disadvantage of potentially triggering unde-

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173. See CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 125.

174. SENATE PROPOSAL, *supra* note 3, § 202(d)(1).

175. 12 U.S.C. § 1823(c)(4) (2006).

sirable fire sales of collateral, it does expose counterparties to losses on uncollateralized positions, which is beneficial to the reduction of moral hazard. The FDIA, on the other hand, makes counterparties whole, regardless of collateral, by transferring positions to solvent third parties, which increases moral hazard. A mechanism needs to be found to impose some losses on counterparties without unduly creating systemic risk, particularly for non-banks. The Treasury, House, and Senate approaches fall short on this issue. The House bill mandates involuntary bankruptcy for defaulting on an FDIC-guaranteed obligation, but the FDIC's new resolution authority for systemically important firms applies different rules governing creditors' rights, borrowed from bank resolution provisions rather than from the Bankruptcy Code, including rules regarding treatment of contingent claims, avoidance of security interests, repudiation of contracts, and damages determinations.<sup>176</sup> Since the Senate draft provides that the resolution of non-systemically-important firms is handled under the Bankruptcy Code,<sup>177</sup> derivatives counterparties of small banks will face the possibility of loss if they do not have sufficient collateral. However, the same incentive will not exist for counterparties of systemically important firms because the Senate draft provides, as under current law governing FDIC-insured banks,<sup>178</sup> for the transfer of the derivatives book of systemically important firms to healthy companies,<sup>179</sup> extending the time period from one to five days.<sup>180</sup>

The pending legislation does, however, address losses for shareholders and creditors (a matter not addressed by the Treasury). The House bill permits the FDIC to make loans to a company in receivership, purchase debt securities or assets from such a company, and assume or guarantee such company's obligations only if it ensures that shareholders do not receive payments until all other claims are fully paid, all taxpayer funds are repaid before payments are made to creditors, and unsecured creditors bear losses.<sup>181</sup> Second, consistent with

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176. See H.R. 4173, 111th Cong. § 1609 (2009).

177. SENATE PROPOSAL, *supra* note 3, § 202(d)(1).

178. 12 U.S.C. § 1821(e)(9).

179. SENATE PROPOSAL, *supra* note 3, § 210(c)(9).

180. *Id.* § 210(c)(10)(B)(i).

181. H.R. 4173 §§ 1604(d)(1)-(4), 1604(f)(2)-(4); see also H.R. 4173 § 1609(b)(1) (establishing a priority of claims whereby unsecured claims would be paid only after "ad-

commercial bankruptcy practices, creditors whose claims are partially secured would be treated as unsecured creditors with respect to the portion of their claim that exceeds the fair market value of their collateral.<sup>182</sup> Third, and more controversially, the House bill provides that up to 10% of a secured creditor's claim may be treated as unsecured if amounts realized from the dissolution are insufficient to repay any amounts owed to the United States or the systemic dissolution fund; if a secured creditor has a claim arising under a "qualified financial contract"—which includes certain securities contracts, forward contracts, repurchase agreements, and swap agreements—with a term of one calendar month or less; and if the collateral that secures the claim is not a security issued by the U.S. government.<sup>183</sup>

The Senate draft follows the House bill in permitting the FDIC to take action to stabilize a financial company only if shareholders do not receive payments until all other claims are satisfied and unsecured creditors bear losses.<sup>184</sup> Also like the House bill, the Senate draft empowers the receiver to treat a partially secured creditor as unsecured with respect to the portion of the claim that exceeds the value of the creditor's collateral.<sup>185</sup> But the current Senate draft does not incorporate a provision like the one in the House bill that would subject secured creditors to the possibility of a haircut.

Although it is crucial to reduce moral hazard, legislation must also ensure that the resolution procedures do not exacerbate the problem they were designed to address by excessively burdening creditors. By imposing a haircut of up to 10% on certain secured creditors, which would essentially deprive them of the value of their security, the House bill commits a serious error. If lenders know they will have to take a haircut, they will be less likely to extend credit to the institutions that are most in need. This could increase the risk of a chain reaction of failures among financial institutions.<sup>186</sup>

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ministrative expenses of the receiver" and "any amounts owed to the United States, unless the United States agrees or consents otherwise").

182. H.R. 4173 § 1609(a)(4)(D)(ii)(I).

183. H.R. 4173 § 1609(a)(4)(D)(iv), (v).

184. SENATE PROPOSAL, *supra* note 3, § 206.

185. *Id.* § 210(a)(3)(D).

186. See Scott, *supra* note 16.

In light of the losses that would be imposed on shareholders and creditors under both the House bill and Senate draft, some objections to the new resolution procedures appear overstated. For example, Peter Wallison has argued that the resolution procedures would weaken market discipline:

Given that bailouts are going to be much more likely than liquidations, especially for systemically important firms, a special government resolution or rescue process will also undermine market discipline and promote more risk-taking in the financial sector. In bailouts, the creditors will be saved in order to prevent a purported systemic breakdown, reducing the risks that creditors believe they will be taking in lending to systemically important firms. Over time, the process of saving some firms from failure will weaken all firms in the financial sector.<sup>187</sup>

Although the CCMR agrees that it is crucial to preserve market discipline, Wallison's view that the resolution procedures would undermine market discipline is mistaken. A significant motivating factor for introducing the resolution procedures is to increase the losses that could be imposed on shareholders and creditors by allowing firms to fail. As we have seen, the House bill provides that neither shareholders nor creditors receive payments until taxpayer funds have been repaid; under the Senate draft, shareholders would not receive payments until taxpayers have been repaid, while unsecured creditors would be required to bear losses.

It is true, however, that the special resolution procedures envision the possible public injection of funds in an institution, a possibility not available in bankruptcy. But the pending legislation envisions such bailouts as a possibility only for systemically important firms whose failure would have "serious adverse effects on financial stability or economic conditions."<sup>188</sup> This determination would be made by the Secretary of the Treasury, upon the recommendation of the Federal Reserve Board and the FDIC that the resolution would avoid or mitigate such adverse effects, taking into account, among other things, the potential to increase moral hazard or excessive risk taking on the part of creditors, counterparties, and sharehold-

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187. Wallison, *supra* note 172, at 5.

188. H.R. 4173 § 1603(b)(2); SENATE PROPOSAL, *supra* note 3, § 202(a)(2)(B).

ers in the financial company.<sup>189</sup> Even if all financial companies were covered by special resolution procedures, as advocated by the CCMR, legislation could provide that no institution receive public support unless it was determined to be systemically important and only after a full measure of losses was imposed on investors and counterparties.

#### D. Funding the Cost of New Procedures

How should the cost of the new procedures for non-banks be funded given that the regularly imposed deposit insurance premiums that normally fund bank resolutions would not exist? Under the Treasury proposal, the FDIC would borrow funds from the Treasury, which would later be repaid through an assessment on certain bank holding companies.<sup>190</sup> The Senate draft and the House bill, on the other hand, each provide for a resolution fund that would be capitalized primarily through assessments on qualifying financial institutions. The Senate draft mandates the establishment of an “Orderly Liquidation Fund” with a target size of \$50 billion.<sup>191</sup> Although the Senate draft also authorizes the FDIC to borrow from the Treasury,<sup>192</sup> during the Fund’s initial capitalization period the FDIC is required to impose risk-based assessments on “eligible financial companies,”<sup>193</sup> defined as bank holding companies with assets greater than or equal to \$50 billion and non-bank financial companies supervised by the Federal Reserve Board.<sup>194</sup> Similarly, while also enabling the FDIC to borrow from the Treasury,<sup>195</sup> the House bill would establish a systemic resolution fund of up to \$150 billion that would be pre-funded through assessments on non-hedge-fund financial companies<sup>196</sup> with at least \$50 billion and hedge funds with at least \$10 billion of assets.<sup>197</sup>

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189. H.R. 4173 § 1603(b)(3); SENATE PROPOSAL, *supra* note 3, § 202(b)(3).

190. U.S. DEP’T OF THE TREASURY, PROPOSED RESOLUTION AUTHORITY FOR SYSTEMICALLY SIGNIFICANT FINANCIAL COMPANIES ACT OF 2009, at 59–60 (2009), available at <http://www.ustreas.gov/press/releases/reports/032509legislation.pdf>.

191. SENATE PROPOSAL, *supra* note 3, § 210(n)(5).

192. *Id.* § 210(n)(9)(A).

193. *Id.* § 210(n)(6).

194. *Id.* § 210(o)(1)(B).

195. H.R. 4173, 111th Cong. § 1609(o)(1)(A) (2009).

196. Under the House bill, “financial companies” include bank holding companies, companies that have been subjected to stricter prudential regulation by the Financial Services Oversight Council, insurance companies, companies “predominantly en-

Under all three proposals, large bank holding companies could be required to pay for resolutions of systemically important non-bank institutions that are subject to the resolution procedures, which include systemically important hedge funds under the Treasury proposal, House bill, and Senate draft, as well as systemically important insurance companies under the Treasury proposal and the Senate draft.

While recognizing the need for further study of these issues, the CCMR believes that the pre-funded approach embraced by the House bill and the Senate draft is misguided in at least two respects. First, *ex ante*, it is not clear how much any resolution procedure will cost, so a pre-raised \$50 or \$150 billion fund may prove to be insufficient or excessive. It would thus be preferable to adopt an as-needed approach, whereby resolution assessments are levied in an amount equal to what is then required to resolve an institution. Second, whether or not the total magnitude of pre-raised assessments is appropriate, the amount imposed on a particular company may not be. The Senate draft provides that financial companies with greater assets will be assessed at a higher rate,<sup>198</sup> but also empowers the FDIC to take into account several other factors when imposing assessments on a specific company, including the risk posed by the company and the extent to which the company might benefit from the proposed liquidation.<sup>199</sup> The House bill lists a similar set of factors and requires “that the assessments charged equitably reflect the risk posed to the Fund by particular classes of financial companies.”<sup>200</sup> Notwithstanding the importance of such a provision, the CCMR fears that companies may still end up bearing burdens that they should not have to bear.

For example, under the Senate draft and likely the House bill as well, even if only large banks fail, systemically important hedge funds with negligible ties to these institutions will not be entitled to a refund of their assessments but instead must bear

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gaged in activities that are financial in nature or incidental thereto,” and any subsidiary of the foregoing; provided, however, that the term does not include broker-dealer subsidiaries, insured depository institutions, or certain government-sponsored entities (including Fannie Mae and Freddie Mac). *Id.* § 1602(9).

197. *Id.* § 1609(n)(6)(C).

198. SENATE PROPOSAL, *supra* note 3, § 210(o)(2).

199. *Id.* § 210(o)(4).

200. H.R. 4173 § 1609(n)(7)–(8).

the costs of resolving these entities. Alternatively, heavily regulated banks could end up paying for the resolution of less regulated, but systemically important, hedge funds. Although analogous problems arise in the context of FDIC insurance, they are much less severe because banks are more evenly regulated than the range of institutions within the scope of the new resolution authority.

As an alternative, legislators should consider having the creditors and counterparties of particular failed institutions fund the cost of resolution. This approach has the advantages of encouraging market discipline and avoiding the cross-subsidization problems discussed in the preceding paragraph. Although some worry that creditors and counterparties of failed institutions may not be able to bear potentially high resolution costs, this concern can be reduced by allowing such costs to be amortized over an appropriate period of time.

#### E. *The International Dimension*

Finally, there is an important international dimension to resolution, as many of the most important financial institutions operate in multiple jurisdictions. Coordination of outcomes among these jurisdictions has proven difficult and time consuming in the court-based resolution of Lehman. International coordination would probably be easier, albeit still difficult, in an administrative system. In any event, the CCMR report, Treasury proposal, House bill, and Senate draft support increased international coordination for resolving multinational financial institutions.<sup>201</sup>

### V. EMERGENCY FEDERAL RESERVE LENDING

The first responder to the financial crisis in the United States was the Federal Reserve.<sup>202</sup> As matters worsened during 2007,

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201. See H.R. 4173 § 1609(a)(1)(L); SENATE PROPOSAL, *supra* note 3, § 210(a)(1)(N); CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 212; TREASURY WHITE PAPER, *supra* note 2, at 80.

202. Although the Federal Reserve is the primary lender of last resort in the U.S. financial system, other government agencies play a supporting role. For example, on September 19, 2008, the Treasury Department announced that it would temporarily guarantee the share price of all institutional and retail money market funds willing to pay a fee to participate in the guarantee program. Press Release, U.S. Dept. of the Treasury, Treasury Announces Temporary Guarantee Program for Money Market Funds (Sept. 29, 2008), *available at* <http://www.treas.gov/press/>

the Federal Reserve reduced interest rates generally and reduced the penalty rate for borrowing at the discount window from fifty to twenty-five basis points.

The Federal Reserve also created a number of new liquidity facilities:<sup>203</sup> (1) In December 2007, the term auction facility (TAF) in which the Federal Reserve auctioned off Federal Reserve funds for twenty-eight days;<sup>204</sup> (2) on March 11, 2008, the term securities lending facility (TSLF) under which the Federal Reserve offered to loan primary dealers (dealers qualified to bid on treasury securities including investment banks) Treasury securities for twenty-eight days;<sup>205</sup> (3) on March 16, 2008, concomitantly with the provision of assistance to JPMorgan Chase to acquire Bear Stearns, the extension of the discount window to primary dealers;<sup>206</sup> (4) on September 19, 2008, the asset-backed commercial paper (ABCP) money market fund liquidity facility (AMLF), to allow banks to purchase ABCP, providing assistance to money market funds seeking to sell their ABCP assets to fund accelerated redemptions;<sup>207</sup> (5) on October 7, 2008, the commercial paper funding facility (CPFF) under which the Federal Reserve began to buy corporate commercial paper after the private market had all but seized up;<sup>208</sup> (6) on October 21, 2008, the money market investor funding facility (MMIFF) under which the Federal Reserve provided senior secured financing to a series of special purpose vehicles (SPVs) to finance the purchase of certain assets from money market funds

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releases/hp1161.htm. The Treasury allowed the guarantee to expire approximately one year later. Press Release, U.S. Dept. of the Treasury, Treasury Announces Expiration of Guarantee Program for Money Market Funds (Sept. 18, 2009), available at <http://www.ustreas.gov/press/releases/tg293.htm>.

203. Press Release, Bd. of Governors of the Fed. Reserve Sys. (June 25, 2009), available at <http://www.federalreserve.gov/monetarypolicy/20090625a.htm>.

204. Scott, *supra* note 16. Although TAF does not have a definite expiration date, the Federal Reserve has announced that it expects TAF to continue to be scaled back during early 2010. Press Release, Fed. Open Mkt. Comm. of the Bd. of Governors of the Fed. Reserve Sys. (Dec. 16, 2009) [hereinafter Fed. Open Mkt. Comm.].

205. HAL S. SCOTT, THE GLOBAL FINANCIAL CRISIS 21–32 (2009). TSLF was set to expire on February 1, 2010. Fed. Open Mkt. Comm., *supra* note 204.

206. SCOTT, *supra* note 205. This program, which is referred to as the “Primary Dealer Credit Facility,” was set to expire on February 1, 2010. Fed. Open Mkt. Comm., *supra* note 204.

207. SCOTT, *supra* note 205. AMLF was set to expire on February 1, 2010. Fed. Open Mkt. Comm., *supra* note 204.

208. SCOTT, *supra* note 205. CPFF was set to expire on February 1, 2010. Fed. Open Mkt. Comm., *supra* note 204.

in addition to ABCP;<sup>209</sup> (7) on November 25, 2008, the asset-backed securities loan facility (TALF) (which became operational in March 2009) under which the Federal Reserve would lend on a non-recourse basis to investors in highly rated newly issued asset-backed securities;<sup>210</sup> and (8) on November 25, 2008, a program to purchase the direct mortgage-backed obligations (MBS) of government sponsored enterprises (GSEs)—Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.<sup>211</sup>

In addition to these facilities, the Federal Reserve extended aid in connection with the failure of Bear Stearns and AIG. It assisted the JPMorgan Chase (JPM) acquisition of Bear Stearns on March 16, 2008, by providing JPM with a non-recourse loan of \$30 billion, subject to absorption by JPM of the first \$1 billion of losses.<sup>212</sup> On September 17, 2008, just two days after Lehman Brothers declared bankruptcy, the Federal Reserve loaned \$85 billion to AIG through a two-year credit facility. The Federal Reserve's exposure was subsequently restructured on November 10, 2008, after the Treasury used its TARP fund to purchase \$25 billion of the Federal Reserve's debt, reducing its debt to \$60 billion, and then once again on March 2, 2009, when the Federal Reserve's exposure was reduced to about \$33 billion after the Treasury assumed more of the Federal Reserve's debt.<sup>213</sup> In addition, on November 23, 2008, the Federal Reserve,

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209. SCOTT, *supra* note 205. MMIFF expired on October 30, 2009. Federalreserve.gov, Money Market Investor Funding Facility, <http://www.federalreserve.gov/monetarypolicy/mmiff.htm> (last visited Feb. 11, 2010).

210. Although previously expected to expire on December 30, 2009, the period for TALF loans extended against newly issued ABS and legacy CMBS was extended to March 31, 2010, and the period for TALF loans against newly issued CMBS to June 30, 2010. Fed. Reserve Bank of N.Y., Term Asset-Backed Securities Loan Facility: Frequently Asked Questions, [http://www.newyorkfed.org/markets/talf\\_faqs.html](http://www.newyorkfed.org/markets/talf_faqs.html) (last visited Mar. 27, 2010).

211. The Federal Reserve has indicated that it anticipates purchasing \$1.25 trillion of agency mortgage-backed securities by the end of the first quarter of 2010. Press Release, Bd. of Governors of the Fed. Reserve Sys., FOMC statement (Dec. 17, 2009), *available at* <http://www.federalreserve.gov/newsevents/press/monetary/20091216a.htm>. It is unclear whether the Federal Reserve will continue to purchase GSE mortgage-backed securities after this point.

212. As of September 2009, the Federal Reserve marked down this loan to \$4 billion. Henry Sender, *Fed carrying losses from Bear portfolio*, FIN. TIMES, Feb. 16, 2010, at 8.

213. Press Release, Bd. of Governors of the Fed. Reserve Sys. & Dep't of the Treasury, U.S. Treasury and Federal Reserve Announce Participation in AIG Restructuring Plan (Mar. 2, 2009), *available at* <http://www.federalreserve.gov/newsevents/press/other/20090302a.htm>; Press Release, Bd. of Governors of the Fed. Reserve Sys. (Nov. 10, 2008), *available at* <http://www.federalreserve.gov/>

in partnership with the Treasury and FDIC, guaranteed \$306 billion of losses on a pool of Citigroup's bad assets, and on January 16, 2009, \$118 billion on a pool of Bank of America's bad assets (mostly accumulated in the acquisition of Merrill Lynch).<sup>214</sup>

These facilities and transactions had a significant impact on the Federal Reserve's balance sheet as set forth below:

Table 1: Federal Reserve Balance Sheet: \$2.0 trillion  
(June 3, 2009) (billions of dollars)<sup>215</sup>

Treasury securities	606,168	29% of total (2006: 91% of \$852B)
GSE securities	81,971	
MBS securities	427,633	February 2010: \$970,327B <sup>216</sup>
Discount Window	124,239	Including loans to primary dealers
TAF	372,540	
CPFF	142,635	
Maiden Lanes (Bear/AIG)	72,560	
Central Bank \$ Swaps	175,712	
Other Assets	85,772	
Total	2,079,241	

Total Federal Reserve assets have more than doubled to over \$2 trillion as compared with \$852 billion in 2006. Although Treasury securities were over 90% of Federal Reserve assets in 2006, they were only 29% in June 2009, reflecting the extraordi-

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[newsevents/press/other/20081110a.htm](http://www.federalreserve.gov/newsevents/press/other/20081110a.htm); Press Release, Bd. of Governors of the Fed. Reserve Sys. (Sept. 16, 2008), *available at* <http://www.federalreserve.gov/newsevents/press/other/20080916a.htm>.

214. Press Release, Bd. of Governors of the Fed. Reserve Sys. et al., Treasury, Federal Reserve, and the FDIC Provide Assistance to Bank of America (Jan. 16, 2009), *available at* <http://www.federalreserve.gov/newsevents/press/bcreg/20090116a.htm>; Press Release, Bd. of Governors of the Fed. Reserve Sys. et al., Joint Statement by Treasury, Federal Reserve, and the FDIC on Citigroup (Nov. 23, 2008), *available at* <http://www.federalreserve.gov/newsevents/press/bcreg/20081123a.htm>.

215. BD. OF GOVERNORS OF THE FED. RESERVE SYS., FEDERAL RESERVE STATISTICAL RELEASE H.4.1 FACTORS AFFECTING RESERVE BALANCES OF DEPOSITORY INSTITUTIONS AND CONDITION STATEMENT OF FEDERAL RESERVE BANKS, JUNE 4, 2009 (2009).

216. BD. OF GOVERNORS OF THE FED. RESERVE SYS., FEDERAL RESERVE STATISTICAL RELEASE H.4.1 FACTORS AFFECTING RESERVE BALANCES OF DEPOSITORY INSTITUTIONS AND CONDITION STATEMENT OF FEDERAL RESERVE BANKS, FEBRUARY 4, 2010 (2010).

nary funding of the financial system. Traditional loans by a lender of last resort are adequately collateralized to prevent moral hazard and to reduce risk to the central bank. However, the adequacy of the collateralization of these positions (the CPFF is entirely unsecured) is unclear due to the lack of transparency on this issue.<sup>217</sup> Needless to say, the potential risk to the Federal Reserve from these positions is substantial.<sup>218</sup>

Given the expansion of the money supply, driven by lending through the new programs, the Federal Reserve took steps to limit the potential inflationary impact by selling Treasury bills to the banking system as a whole to absorb the expanded liquidity. This policy faced increasing resistance because of insufficient Treasury bills held on the Federal Reserve's books as a percentage of total assets. This issue was addressed in two ways. First, the Treasury, at the Federal Reserve's request, sold special issues of Treasuries and deposited the proceeds with the Federal Reserve, under the Supplementary Financing Program.<sup>219</sup> The issue of these Treasuries drained reserves from the banking system;<sup>220</sup> in effect, the Treasury was selling Treasuries not to raise revenue but as part of the conduct of monetary policy. As of June 3, 2009, the Supplementary Financing Account of the Treasury was about \$200 billion compared to Treasuries of about \$475 billion, indicating that the Treasury had become a significant player in monetary policy.<sup>221</sup> In addition, the Federal Reserve began paying interest on bank reserves. It had acquired the power to do so under the Financial Services Regulatory Relief Act of 2006,<sup>222</sup> originally to be effective beginning October 1, 2011. The Treasury had traditionally opposed granting this power to the Federal Reserve as its use would decrease the size-

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217. In March 2009, the Senate twice voted to require the Federal Reserve to release more details of its lending program, including collateral. Steven Sloan, *With Senate Demands, Fed's Role in Jeopardy*, AM. BANKER, Apr. 6, 2009, at 1, 5.

218. See KENNETH N. KUTTNER, COMM. ON CAPITAL MKTS. REGULATION, THE FEDERAL RESERVE AS LENDER OF LAST RESORT DURING THE PANIC OF 2008, at 7–8 (2008).

219. Press Release, U.S. Dep't of the Treasury, Treasury Announces Supplementary Financing Program (Sept. 17, 2008), available at <http://www.treas.gov/press/releases/hp1144.htm>.

220. Press Release, Fed. Reserve Bank of N.Y., Statement Regarding Supplementary Financing Program (Sept. 17, 2008), available at [http://www.newyorkfed.org/markets/statement\\_091708.html](http://www.newyorkfed.org/markets/statement_091708.html).

221. Glenn Hubbard, Hal Scott & John Thornton, Op-Ed., *The Fed's independence is at risk*, FIN. TIMES, Aug. 21, 2009, at 9.

222. Pub. L. No. 109-351, §§ 201–203, 120 Stat. 1966, 1968–69 (2006).

able contributions the remittance of Federal Reserve profits makes to government revenue—about \$46.1 billion in 2009.<sup>223</sup> The Emergency Economic Stabilization Act of 2008 had accelerated the effective date to October 1, 2008.<sup>224</sup> Again, however, the Federal Reserve had to seek new authority from Congress to conduct monetary policy, further jeopardizing its independence.

Much of the emergency Federal Reserve lending was based on Section 13(3) of the Federal Reserve Act.<sup>225</sup> This Section allows the Federal Reserve in “unusual and exigent circumstances” to lend to “any individual, partnership or corporation,” against “notes” that are “secured to the satisfaction of the Federal Reserve Bank.”<sup>226</sup> This provision does not restrict who can borrow or specify particular levels of collateral; instead, judgment of the adequacy of collateral is left entirely to the Federal Reserve. However, former Federal Reserve Chairman Paul Volcker—as well as many members of Congress who are dissatisfied with bailing out the banks—questioned the Federal Reserve’s authority to engage in much of the emergency lending. Former Chairman Volcker voiced his concerns to the Eco-

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223. Press Release, Bd. of Governors of the Fed. Reserve Sys. (Jan. 9, 2009), *available at* <http://www.federalreserve.gov/newsevents/press/other/20090109a.htm>. A new statistic is available at Press Release, Bd. of Governors of the Fed. Reserve Sys. (Jan. 12, 2010), *available at* <http://www.federalreserve.gov/newsevents/press/other/20100112a.htm>.

224. See Pub. L. No. 110-343, § 128, 122 Stat. 3765, 3796 (2008).

225. *Id.* § 129, 122 Stat. at 1396–97.

226. The full section, entitled, “Discounts for Individuals, Partnerships and Corporations,” provides:

In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System, by the affirmative vote of not less than five members, may authorize any Federal Reserve Bank, during such periods as the said board may determine, at rates established in accordance with the provisions of section 14, subdivision (d), of this Act, to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are endorsed or otherwise secured to the satisfaction of the Federal Reserve Bank: *Provided*, That before discounting any such note, draft, or bill of exchange for an individual, partnership, or corporation the Federal Reserve Bank shall obtain evidence that such individual, partnership, or corporation is unable to secure adequate credit accommodations from other banking institutions. All such discounts for individuals, partnerships, or corporations shall be subject to such limitations, restrictions, and regulations as the Board of Governors of the Federal Reserve System may prescribe.

12 U.S.C. § 343 (2006).

conomic Club of New York in April 2008 (even before the creation of many of the programs described above):

Simply stated, the bright new financial system—for all its talented participants, for all its rich rewards—has failed the test of the market place. To meet the challenge, the Federal Reserve judged it necessary to take actions that extend to the very edge of its lawful and implied powers, transcending certain long embedded central banking principles and practices. The extension of lending directly to non-banking financial institutions—while under the authority of nominally “temporary” emergency powers—will surely be interpreted as an implied promise of similar action in times of future turmoil. What appears to be in substance a direct transfer of mortgage and mortgage-backed securities of questionable pedigree from an investment bank to the Federal Reserve seems to test the time honored central bank mantra in time of crisis—“lend freely at high rates against good collateral”—to the point of no return.<sup>227</sup>

Quite apart from the legal issue, the Federal Reserve’s assumption of credit risk by lending against insufficient collateral may compromise its independence by making the Federal Reserve more dependent on the Treasury for support in carrying out its core functions including the conduct of monetary policy (see the example of the Supplemental Finance Facility discussed above), jeopardizing its ability of the Federal Reserve to finance its own operations and thus increasing the need to look for budgetary support from the government, tarnishing its image and financial credibility in the event that the Federal Reserve ends up with minimal or negative capital, and making it more subject to political pressures.

It is because of these concerns that the CCMR recommended that any existing Federal Reserve loans to the private sector that are uncollateralized or insufficiently collateralized should be transferred in an orderly fashion to the balance sheet of the federal government through asset purchases by the Treasury from the Federal Reserve.<sup>228</sup> The Federal Reserve cannot go bank-

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227. Paul Volcker, Former Chairman, Fed. Reserve Sys., Speech at the Economic Club of New York (Apr. 8, 2008).

228. COMM. ON CAPITAL MKTS. REGULATION, RECOMMENDATIONS FOR REORGANIZING THE U.S. FINANCIAL REGULATORY STRUCTURE 4 (2009); *see also* KUTTNER, *supra* note 218, at 12; WILLEM BUTTER, CTR. FOR ECON. POL’Y RESEARCH, CAN CENTRAL BANKS GO BROKE? 11 (2008).

rupt because it can always discharge its liabilities by creating money; however, any losses of the Federal Reserve are ultimately losses for United States taxpayers. The Federal Reserve regularly remits billions in profits to the Treasury,<sup>229</sup> and without this revenue, taxpayers would have to make further contributions to the general revenue if spending cuts were not forthcoming.

With respect to requiring collateral for emergency loans, the House bill would amend Section 13(3) to prevent the Federal Reserve from extending credit based on low-quality assets.<sup>230</sup> Similarly, the Senate draft requires the Federal Reserve, in consultation with the Secretary of the Treasury, to establish policies to ensure that “the collateral for emergency loans is of sufficient quality to protect taxpayers from loss.”<sup>231</sup> The CCMR agrees with Senator Dodd that taxpayers should be protected from loss by requiring the Federal Reserve to make adequately collateralized loans. Indeed, the Senate draft could be improved through the addition of even stronger language requiring Section 13(3) loans to be fully collateralized. However, the focus in both the House bill and Senate draft on the “quality” of collateral received is misplaced. For example, a junk bond with a par value of one hundred might be adequate collateral if only valued at twenty for such purpose.

The Treasury, House, and Senate approaches would also place substantial procedural hurdles in the way of the Federal Reserve’s exercise of its lender-of-last-resort functions. The Treasury White Paper recommends legislation to amend Section 13(3) of the Federal Reserve Act to require the written ap-

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229. Federal Reserve Act, 12 U.S.C. §§ 289–290 (2006); *see also* BD. OF GOVERNORS OF THE FED. RESERVE SYS., 95TH ANNUAL REPORT 428–29 (2008) (noting recent remittances to the Treasury, which included approximately \$18.1 billion in 2004, \$21.5 billion in 2005, \$29.1 billion in 2006, \$34.6 billion in 2007, and \$31.7 billion in 2008).

230. H.R. 4173, 111th Cong. § 1701 (2009) (amending the Federal Reserve Act by inserting § 13(c)(3)(A)–(D)). The bill defines “low quality assets” as

(A) [Assets] that would be classified as “substandard,” “doubtful,” or “loss,” or treated as “special mention” or “other transfer risk problems,” in a [bank examination or in an internal classification system]. (B) An asset in a nonaccrual status. (C) An asset on which principal or interest payments are more than 30 days past due. (D) An asset whose terms have been renegotiated or compromised due to the deteriorating financial condition of the obligor unless such asset has been performing for at least 6 months since the renegotiation.

*Id.*

231. SENATE PROPOSAL, *supra* note 3, § 1151(6).

proval of the Secretary of the Treasury for any extension of credit under that Section.<sup>232</sup> The House bill would amend Section 13(3) so that extensions of credit would require a two-thirds vote of the Financial Stability Oversight Council, written consent of the Secretary of the Treasury, and certification by the President that an emergency exists.<sup>233</sup> In addition, the House bill would prohibit the Federal Reserve from authorizing, and the Secretary of the Treasury from approving, any Section 13(3) extension of credit without the belief that there is a “99 percent likelihood that all funds disbursed or put at risk,” together with “all interest due on any funds,” will be repaid to the Federal Reserve System.<sup>234</sup> The Senate draft would require the Federal Reserve to obtain the approval of the Secretary of the Treasury before establishing new liquidity facilities.<sup>235</sup> To the extent that the Federal Reserve is loaning against adequate high quality collateral, these procedural safeguards are overkill and unnecessarily limit the independence and flexibility of the Fed to respond to crisis.

Finally, the House bill and Senate draft appropriately seek to prevent the Fed from making bailout loans to single institutions. Under the House bill, the Federal Reserve would only be able to extend credit under Section 13(3) as “part of a broadly available credit or other facility and may not authorize a Federal Reserve bank to discount notes, drafts, or bills of exchange for only a single and specific individual, partnership, or corporation.”<sup>236</sup> The Senate draft would amend Section 13(3) such that extensions of credit thereunder would be available to “financial market utilit[ies] that the Financial Stability Oversight Council determines [are], or [are] likely to become, systemically important, or any program or facility with broad-based eligibility.”<sup>237</sup> The Senate draft would also require the Federal Reserve, in consultation with the Secretary of the Treasury, to implement policies to ensure that emergency lending authority is

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232. TREASURY WHITE PAPER, *supra* note 2, at 16.

233. H.R. 4173 § 1701 (amending the Federal Reserve Act by inserting § 13(c)(1)).

234. *Id.* (amending the Federal Reserve Act by inserting § 13(c)(2)(A)-(B)).

235. SENATE PROPOSAL, *supra* note 3, § 1151(6).

236. H.R. 4173 § 1701 (amending the Federal Reserve Act by inserting § 13(c)(4)).

237. SENATE PROPOSAL, *supra* note 3, § 1151(2)-(5).

used “for the purpose of providing liquidity to the financial system, and not to aid a failing financial company.”<sup>238</sup>

In short, the Federal Reserve needs authority to lend in a crisis to avoid systemic risk arising through the chain reaction of financial institution failures that could result in a complete economic collapse. On the other hand, the Federal Reserve’s own credibility and independence should not be jeopardized. These objectives can be achieved by giving the Federal Reserve full authority to lend against good collateral—a traditional power of a central bank—while requiring the government to give support where there is a bailout or good collateral is not available.

## VI. REGULATORY REORGANIZATION

There are two key questions with respect to regulatory reorganization that affect systemic risk: who should be responsible for systemic risk regulation, and who should supervise various financial institutions?

### A. Regulation of Systemic Risk

Under the Treasury proposal, the Federal Reserve would generally keep all of its current regulatory powers and would be granted additional authority to regulate all systemically important payment, clearing, and settlement systems and activities.<sup>239</sup> Additionally, Federal Reserve Discount Window access for payment, clearing, and settlements systems would exist for emergency purposes, with systemically important systems “expected to meet applicable standards for liquidity risk management.”<sup>240</sup>

The House bill and Senate draft follow a similar approach, generally preserving the Fed’s existing regulatory powers and increasing some as well. Under the House bill, the Federal Reserve, acting on behalf of the Financial Services Oversight Council, is authorized to impose stricter prudential standards on any firm if the Council deems it necessary after considering certain criteria.<sup>241</sup> Such additional standards include stress testing,<sup>242</sup>

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238. *Id.* § 1151(6).

239. TREASURY WHITE PAPER, *supra* note 2, at 51–52.

240. *Id.* at 54.

241. H.R. 4173 § 1104(b)(1).

242. *Id.* § 1104(g)(1).

imposing and defining higher capital standards,<sup>243</sup> dismissing executive officers and board members,<sup>244</sup> and restricting compensation.<sup>245</sup> Likewise, the Financial Stability Oversight Council established in the Senate draft could require the Federal Reserve to impose stricter prudential standards on non-bank financial firms the Oversight Council deems systemically significant.<sup>246</sup> Stricter prudential standards contemplated by the Senate draft include more rigorous capital requirements, leverage limits, liquidity requirements, resolution plan and credit exposure report requirements, and concentration limits, as well as contingent capital requirements, enhanced public disclosure, and overall risk management requirements.<sup>247</sup>

Nonetheless, there are differences between the Oversight Councils called for in the House bill and Senate draft. One concern is that the Financial Stability Oversight Council created by the Senate draft would give too little authority to bank regulators. First, although a simple majority is the default rule for decisions made by the Council,<sup>248</sup> some decisions require a two-thirds majority. For example, two-thirds of the Council is needed to determine that a liquidity event exists such that the FDIC would be permitted to create a “widely available program to guarantee obligations of solvent [banks and bank holding companies] during times of severe economic distress.”<sup>249</sup> In addition, when the Federal Reserve determines that a bank holding company with \$50 billion or more in assets poses a “grave threat to the financial stability of the United States,” a two-thirds majority of the Council is required to approve a Federal Reserve decision to require that bank holding company to terminate certain activities or sell assets or off-balance-sheet items.<sup>250</sup> These decisions should be left to bank regulators alone. Moreover, unlike the House bill, the Senate draft would not include the head of the National Credit Union Administration on the Oversight Council, but it

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243. *Id.* § 1104(a)(2)(A)(i), (a)(4), (e)(2)(A)(i).

244. *Id.* § 1104(e)(7)(B)(v)(II).

245. *Id.* § 1104(e)(7)(D).

246. SENATE PROPOSAL, *supra* note 3, § 113.

247. *Id.* § 115(b)(1).

248. *Id.* § 111(f).

249. *Id.* §§ 1154(b), 1155(a).

250. *Id.* § 121(a).

would include an independent member with insurance expertise. Given the two-thirds majority voting requirements and composition of the Council's membership—four of the nine members of the Council would be the Chairman of the Bureau of Consumer Financial Protection, the Chairman of the Securities and Exchange Commission, the Chairperson of the Commodity Futures Trading Commission, and the independent member with insurance expertise<sup>251</sup>—non-bank regulators could prevent the Council from acting properly on issues that pertain mainly to banks.

Because the CCMR believes the Federal Reserve should have an enhanced role in regulating systemic risk generally, it has proposed that the Federal Reserve have exclusive control over capital requirements for all financial institutions and margin requirements for clearing.<sup>252</sup> This proposal differs from the Administration's, which would leave capital requirements to the multiple bank regulators and envisions the Federal Reserve as only having overlapping authority with the SEC and CFTC over clearing arrangements.<sup>253</sup> Similarly, a range of "prudential regulators," in the case of the House bill, and "primary financial regulatory agencies," in the case of the Senate draft, are directed to set capital requirements for banks, with the CFTC and SEC doing so for non-banks.<sup>254</sup> In both approaches to regulatory structure, regulatory power remains dispersed and fragmented.<sup>255</sup> To its credit, however, the Senate draft would give

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251. *Id.* § 111(b)(1).

252. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 204.

253. See TREASURY WHITE PAPER, *supra* note 2, at 4.

254. H.R. 4173, 111th Cong. § 3107 (2009) (amending the Commodity Exchange Act by inserting § 4s(d)), § 3204 (amending the Securities Exchange Act inserting § 15F(d)); SENATE PROPOSAL, *supra* note 3, § 717 (amending the Commodity Exchange Act by inserting § 4s(e)(1)).

255. The Treasury, House, and Senate approaches all advocate the creation of a Consumer Financial Protection Agency (CFPA) with broad and sweeping powers to regulate and enforce substantive standards for financial activities involving consumer financial products or services. H.R. 4173 § 4201; SENATE PROPOSAL, *supra* note 3, § 1021; TREASURY WHITE PAPER, *supra* note 2, at 57–58. The Treasury proposal places a greater emphasis on control by a Board of Directors, whereas the House bill and Senate draft concentrate greater authority in the agency's director. H.R. 4173, §§ 4201–4202; SENATE PROPOSAL, *supra* note 3, § 1011(b); TREASURY WHITE PAPER, *supra* note 2, at 58. The House bill also exempts small financial institutions (insured depository institutions with total assets of \$10 billion or less and all insured credit unions with total assets of \$1.5 billion or less) from CFPA examination and enforcement. H.R. 4173 § 4203(a)(1)(B). The Senate draft, instead, vests the CFPA with the authority to exempt

the Federal Reserve the authority to set margin and collateral requirements, as well as capital requirements, for financial market utilities, such as clearinghouses, that are designated systemically important by the Financial Stability Oversight Council.<sup>256</sup>

The CCMR did not recommend, as the Treasury does, the creation of a systemic risk council (the Financial Services Oversight Council, in the House bill, or the Financial Stability Oversight Council, in the Senate draft) to monitor systemic risk,<sup>257</sup> but it is unlikely that the CCMR would oppose this idea, as long as the Council had no operational role. Here the CCMR would agree with the Treasury (and Ben Bernanke, the Chairman of the Federal Reserve),<sup>258</sup> but not Sheila Bair, the Chairman of the FDIC, who favors the Council.<sup>259</sup> The CCMR would also probably not object to the approaches in the House bill and Senate draft, which would also create Oversight Councils that do not have responsibility for day-to-day management of the financial system.

Generally, regulatory agencies, trade groups other than those representing the largest banks (like the American Bankers Association or Community Bankers Associations), and many in Congress have opposed this systemic risk role for the Federal Reserve. Regulators do not want to lose jurisdiction.<sup>260</sup> Many

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small institutions on a case-by-case basis. SENATE PROPOSAL, *supra* note 3, § 1022(b)(3). The current Senate proposal would place the CFPB within the Federal Reserve. SENATE PROPOSAL, *supra* note 3, § 1105(a). This raises a number of important issues. However, the CFPB does not involve systemic risk regulation, and so is outside the scope of this Article.

256. SENATE PROPOSAL, *supra* note 3, § 805(c)(2), (5).

257. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 20.

258. *Federal Reserve Perspectives on Financial Regulatory Proposals: Hearing Before the H. Comm. on Fin. Servs.*, 111th Cong. 5–6 (2009) (statement of Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys.); *Regulatory Perspectives on the Obama Administration's Financial Regulatory Reform Proposals-Part Two: Hearing Before the H. Comm. on Fin. Servs.*, 111th Cong. 10–12 (2009) (statement of Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys.).

259. *Establishing a Framework for Systemic Risk Regulation: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 111th Cong. 4–6 (2009) (statement of Sheila Bair, Chairman, Fed. Deposit Ins. Corp.).

260. See, e.g., *Regulatory Perspectives on the Obama Administration's Financial Regulatory Reform Proposals-Part Two: Hearing Before the H. Comm. on Fin. Servs.*, 111th Cong. 13–16 (2009) (statement of John E. Bowman, Acting Dir., Office of Thrift Supervision); Press Release, Am. Bankers Ass'n, ABA Statement on Proposals to Expand the Role of Federal Reserve (July 9, 2008), available at <http://www.aba.com/Press+Room/070908RoleFederalReserve.htm>; Press Release, Sen. Jim Bunning, Bunning Statement to the Senate Banking Committee on the Federal Reserve Monetary

banks prefer their own choice of regulator (currently they can choose to be regulated at the federal level by the Federal Reserve, the Office of the Comptroller of the Currency (OCC), or the FDIC),<sup>261</sup> and Congress is responding to its political advantage by criticizing the Federal Reserve as the agency that gave money to the “bad” banks.<sup>262</sup>

### B. Supervisory Authority

The House bill basically leaves the fragmented regulatory structure entirely in place.<sup>263</sup> Fragmentation hinders the ability to prevent systemic risk by permitting matters to fall through the cracks and allowing regulatory arbitrage (institutions changing their legal form to choose their preferred regulators). On the other hand, the House bill preserves the Federal Reserve’s current supervisory authority over bank holding companies and substantially expands its authority by giving the Federal Reserve supervisory authority over so-called Tier I financial services holding companies, financial firms that are systemically important.<sup>264</sup> This proposal was in line with the Treasury’s proposals and an option that the CCMR thought should be considered.<sup>265</sup>

The initial Senate draft released by Senator Dodd in November took a very different approach, creating a new Financial Institutions Regulatory Administration (FIRA) as an independent consolidated banking supervisor. This agency would have taken over the powers of the Federal Reserve with respect to the supervision of bank holding companies and member banks, the OCC with respect to national banks, the Office of Thrift Su-

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Policy Report (July 15, 2008), available at [http://bunning.senate.gov/public/index.cfm?FuseAction=NewsCenter.NewsReleases&ContentRecord\\_id=2753fd62-c45e-4a40-5ca8-66fa83d52a00&Region\\_id=&Issue\\_id=](http://bunning.senate.gov/public/index.cfm?FuseAction=NewsCenter.NewsReleases&ContentRecord_id=2753fd62-c45e-4a40-5ca8-66fa83d52a00&Region_id=&Issue_id=).

261. For a discussion of the options banks have when selecting their regulatory structure, see Am. Bankers Ass’n, Charter Choice, Dual Banking & Business Flexibility, [http://www.aba.com/Issues/Issues\\_CharterChoice.htm](http://www.aba.com/Issues/Issues_CharterChoice.htm) (last visited Feb. 26, 2010).

262. See Anne Flaherty, *House Pushes for Sweeping Audit of the Fed*, ASSOCIATED PRESS, Sep. 25, 2009.

263. There is one minor consolidation. Under the House bill all Office of Thrift Supervision powers will be transferred to either the OCC or the FDIC after first consulting with each other. H.R. 4173, 111th Cong. § 1208 (2009). The House bill also establishes a Division of Thrift Supervision within the OCC with a thrift charter continuing to exist. *Id.* § 1202(b)(1) (amending the Home Owners’ Loan Act by replacing § 3(a)).

264. TREASURY WHITE PAPER, *supra* note 2, at 22.

265. CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 203–05.

pervision (OTS) with respect to federal thrifts, and the FDIC with respect to nonmember banks.<sup>266</sup> FIRA would have been the supervisor of any branch, agency, representative office, or commercial lending company of a foreign bank. The Federal Reserve was to be left with monetary policy and the role of lender of last resort, while the FDIC was to be left with the deposit insurance fund.<sup>267</sup> This approach had the virtue of addressing fragmentation in a significant way. The more recently released Senate draft authored by Senator Dodd represents a step backward, however. The new draft would essentially reallocate banking supervision among the existing hodgepodge of bank regulators.<sup>268</sup>

In terms of the Federal Reserve's supervisory authority, the current Senate draft would give the Federal Reserve supervisory authority over banks with more than \$50 billion in assets.<sup>269</sup> Because it is implausible to suppose that all such banks are systemically significant, this approach has the advantage of avoiding the implication that all firms supervised by the Federal Reserve can rely on bailouts.<sup>270</sup> On the other hand, the current Senate draft also gives the Federal Reserve supervisory authority over any firm that the Financial Services Oversight Council, by a two-thirds vote, deems systemically important.<sup>271</sup> This approach would create an unfair funding advantage for some firms. For instance, a hedge fund regulated by the Federal Reserve (and thus more likely to be bailed out) will likely be able to borrow more cheaply than an unregulated hedge fund.

The CCMR has proposed that a new U.S. Financial Services Authority (USFSA), modeled on the U.K.'s Financial Services Authority (FSA), be created to regulate in areas not considered to be systemically important. The CCMR also thought that it was a serious option to charge the USFSA with the supervision of all financial institutions (as compared to the option of letting the Federal Reserve supervise systemically important ones).<sup>272</sup> The consolidated option is better because it avoids the thorny

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266. STAFF OF S. COMM. ON BANKING, HOUS. & URBAN AFFAIRS, 111TH CONG., RESTORING AMERICAN FINANCIAL STABILITY ACT OF 2009 §§ 311, 322, 331 (2009).

267. *Id.* § 322.

268. SENATE PROPOSAL, *supra* note 3, § 312.

269. *Id.* § 312(b)(1)(A).

270. One drawback of this approach, however, is that it could encourage banks to manage their asset levels just below the \$50 billion threshold.

271. SENATE PROPOSAL, *supra* note 3, § 113(a)(1).

272. See CCMR PLAN FOR REGULATORY REFORM, *supra* note 1, at 203–05.

problem of identifying, initially and over time, systemically important institutions. As suggested in the previous paragraph, it also avoids the moral hazard problems and unfair cost-of-funds advantages that exist when certain firms are branded “systemically important.” Of course, this problem would be much less significant if investors and counterparties to systemically important failing and failed institutions experienced the same losses as those with relationships with less important institutions, a recommendation discussed above.<sup>273</sup> This USFSA supervisory proposal has the additional advantage of keeping the Federal Reserve focused on monetary policy and regulation of systemic risk. While the Federal Reserve and the Treasury have argued for a supervisory role on the grounds that they need to supervise institutions to which they may have to lend,<sup>274</sup> this goal could be accomplished by giving the Federal Reserve the right to obtain all supervisory information obtained by the USFSA and the power to design examinations of large institutions to the required extent for improvements.

### C. International Developments

One must note, however, that two major markets are moving in the opposite direction. The new Merkel coalition government in Germany has indicated that it will transfer the bank supervisory powers of BaFin to the Bundesbank,<sup>275</sup> and a similar plan has been put forward for dismantling the supervisory power of the U.K. FSA by the opposition party, the Tories, who currently hold a substantial lead over Labour in the polls.<sup>276</sup> Both of these recommendations seem largely motivated by the advantages politicians can acquire by blaming those in charge during the crisis for the supervisory failures. This blame shifting has a particularly ironic twist in the United Kingdom be-

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273. See *supra* Part IV.

274. See, e.g., Brian F. Madigan, Dir., Div. of Monetary Affairs, Bd. of Governors of the Fed. Reserve Sys., Remarks at the Federal Reserve Bank of Kansas City's Annual Economic Symposium: Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis (Aug. 21, 2009), available at <http://www.federalreserve.gov/newsevents/speech/madigan20090821a.htm>.

275. Beate Preuschoff & Andrea Thomas, *Bigger Role Eyed for Bundesbank*, WALL ST. J., Oct. 9, 2009, at A26.

276. Alistair MacDonald & Laurence Norman, *Tory Plan Would Nix U.K. Market Regulator*, WALL ST. J., July 20, 2009, at C4. The next election must be held on or before June 3, 2010. *Id.*

cause the FSA itself was born out of the supervisory failures of the Bank of England, Barings, and BCCI, as well as the election of the new Labour Blair government in 1997.<sup>277</sup> These developments do not have any bearing on the desirability of creating a United States FSA.

#### CONCLUSION

Many seem to believe regulatory reform has been stalled because of the stabilization of the financial system and what appears to be the beginning of an economic recovery. I think they are right, but I do not think this stalling is necessarily a bad thing.

All of the possible reforms can do little to deal with the crisis or insure a faster economic recovery; they are forward-looking. One can argue that the salience of future reform will diminish as we distance ourselves from the crisis, but I doubt it. The economic crisis severely affected the American people with unforgettable consequences. The Administration and Congress will be at political risk unless they can convincingly claim that they have taken measures to avoid or at least greatly decrease the chances of repeating such crises.

Nonetheless, at the moment, there is an increased risk of inaction. The bipartisan approach reflected in the negotiations between Senators Dodd and Shelby fell apart. On March 22, the Senate Banking Committee voted along party lines to approve Senator Dodd's "Manager's Amendment" and reported the Dodd draft to the Senate floor.<sup>278</sup> The politicization of the process may result in no legislation at all. Such an outcome would be very undesirable. The financial system needs new rules and we need to avoid the continued uncertainty produced by needless delays and squabbles.

Unfortunately the main point of contention between the two political parties is the creation of a new consumer regulator. While important, consumer protection was not the central issue of the financial crisis—systemic risk was. We should not allow disagreement on consumer protection to block reforms needed to decrease systemic risk. In any event, a reasonable resolution

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277. See SCOTT, *supra* note 8, at 759; Hal S. Scott, *Supervision of International Banking Post-BCCI*, 8 GA. ST. U. L. REV. 487 (1992); Fin. Serv. Auth., History, <http://www.fsa.gov.uk/Pages/About/Who/History/index.shtml> (last visited on Feb. 26, 2010).

278. Sewell Chan, *Bank Panel Clears Bill on Overhaul*, N.Y. TIMES, Mar. 23, 2010, at B2.

of the consumer protection issue should be found. The second major dividing point is the possibility of future bailouts. Many Senators (including some Democrats) want to say that we will never again need to "bail out" financial institutions. But this position is irresponsible as long as interconnectedness can lead to a chain reaction of financial institution failures. Using the congressional jargon, we must be able to put "foam on the runway." The Dodd draft and House bill provide for this protection, as they must. What we need to do is to minimize the need for foam through better regulation and insist that losses be fully imposed on holders of equity and unsecured debt, as well as counterparties, before public funds are used. The counterparties are the crux of the interconnectedness problem, and while counterparties are connected, many have controlled exposures and collateral sufficient to avoid chain reaction effects. We should do everything we can to increase the use of these safeguards.