Current Developments in Monetary and Financial Law
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The IMF Legal Department and the Ministry of Finance of Japan, the Financial Services Agency of Japan, and the Bank of Japan, with the assistance of the IMF Institute, co-hosted a seminar on Current Developments in Monetary and Financial Law in Washington, D.C., on November 30–December 3, 2009. The seminar’s theme was “Restoring Financial Stability—The Legal Response.” The seminar was the eleventh in a series that started in 1988 and was the first since the start of the recent global financial crisis.

Presentations were given by a range of individuals from the public and private sectors, including officials of the IMF, other international organizations, central banks, supervisory and regulatory agencies, and standard-setting bodies; private sector representatives; lawyers practicing in the fields of banking and financial law; and academics. The papers published in this volume are based on these presentations. Some have been updated by their authors to account for developments after the seminar. The views expressed by the authors should not be attributed to the IMF, the abovementioned agencies of Japan, or the institutions with which the authors are affiliated.

The participants of the seminar were senior officials of IMF member countries, most of whom were lawyers, with responsibilities in monetary and financial regulation. Reflecting the diversity of institutional structures, the entities these officials represented included ministries of finance, regional and national central banks, financial supervisory and regulatory agencies, and deposit insurance agencies.

I wish to express our profound gratitude to Mr. Rintaro Tamaki, Vice Minister of Finance for International Affairs, Ministry of Finance of Japan, and his staff, for facilitating organizational and financial support for the seminar by the co-hosting agencies in Tokyo. The financial support enabled the IMF Legal Department to invite more participants from developing countries than would otherwise have been possible. In Washington, D.C., Mr. Daisuke Kategawa, then IMF Executive Director for Japan, Mr. Hiromi Yamaoka, then Alternate Executive Director for Japan, and Mr. Nobuyuki Imamura, then Advisor to the Office of Executive Director for Japan, ensured
timely and smooth communications between Japanese and IMF officials.

I also wish to acknowledge the invaluable contributions of various IMF staff teams, whose diligence and dedication made the seminar a success. The organization and structure of the seminar benefited in particular from the ideas of Ross Leckow, Barend Jansen, Thomas Laryea, Isaac Lustgarten, and Roy Baban. External funding for the seminar was coordinated by the staff of the IMF Office of Technical Assistance Management, particularly Alfred Kammer and Harish Mendes. Budgetary and personnel management were provided by Cristina Hayashi and Sue Edwards of the IMF Legal Department, and Natalie Kerby-Lachnani of the IMF Institute. Interpretation services were arranged by Susana Eri and Sergei Chernov. Administrative support was provided by Maria Mercedes Hernandez, Kajal Jagatsing, Katherine Nelson-Indre, Olga Penova, Carolina Usandivaras, and Henry Wright. This volume was prepared by Roy Baban, under the oversight of Barend Jansen and with the assistance of Eric Robert, Myrtho Mercier, and Jacqui Wade of the Legal Department. Patty Loo of the External Relations Department coordinated its publication.

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The chapters in this volume are based on presentations made at the Seminar on Restoring Financial Stability—The Legal Response. For this publication, some chapters include references to developments that occurred after the seminar. This introduction provides an overview of the volume.

The papers in Section I deal with frameworks and regulatory reforms in the United States, European Union, and Japan that address systemic risk. In Chapter 1, entitled “What is the Right Response to the Too-Big-to-Fail Problem?” Professor Arthur Wilmarth of George Washington University Law School argues that the primary objective of reform must be to eliminate or greatly reduce explicit and implicit subsidies for “too big to fail” (TBTF) institutions. This would force large, complex financial institutions (LCFIs) to internalize their activities’ risks and costs. He proposes the following five-point program: (1) strengthen current statutory restrictions on the growth of LCFIs, (2) create a special resolution process to manage the orderly liquidation or restructuring of systemically important financial institutions (SIFIs), (3) establish a consolidated supervisory regime and enhanced capital requirements for SIFIs, (4) create a special insurance fund for SIFIs in order to cover the costs of resolving failed SIFIs, and (5) rigorously insulate banks that are owned by LCFIs from the activities and risks of their nonbank affiliates.

In “The Dodd-Frank Act and the Financial Crisis: A Retrospective Assessment of the Act’s Systemic Risk Regulation Provisions” (Chapter 2), Ms. D. Jean Veta and Mr. Michael Nonaka of Covington and Burling LLP examine certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 pertaining to systemic risk. While citing the perils of counterfactuals, the authors suggest that the Financial Stability Oversight Council established by the Act likely would have designated, based on the criteria set forth in the Dodd-Frank Act, Bear Stearns, Lehman Brothers, AIG, and other firms as systemically important financial firms because of large asset sizes, interconnectedness with other significant financial institutions, and important roles in the mortgage securitization markets. If designated, such firms would have been subject to limits on leverage.
and short-term indebtedness, increased oversight and monitoring, and requirements to disclose their risk profiles, capital adequacy, and risk management capabilities. The authors conclude that had this framework been in place before 2008, warnings of the deteriorating financial condition of systemically important financial institutions would have arisen earlier.

Professor Guido Ferrarini and Mr. Filippo Chiodini of the University of Genoa examine recent developments in European banking regulation from the point of view of multinational banks in “Regulating Multinational Banks in Europe: An Assessment of the New Supervisory Framework” (Chapter 3). Noting the mismatch between national bank regulation and international operations of banking groups, they analyze the weaknesses of EU cross-border supervision with respect to both branch and subsidiary structures of multinational banks, the enhancement of consolidated supervision by the Directive 2009/111/EC (CRD II), the new European supervisory architecture (consisting of the European Systemic Risk Board, the European Banking Authority, and the European System of Financial Supervisors) to enhance macro- and microprudential supervision, and the crisis management tools available for European bank intervention and resolution. While recognizing the remarkable progress made, the authors believe that the reforms are insufficient and, going forward, prefer the approach of strengthening the infrastructures for supervision and crisis management, while further harmonizing and centralizing them, rather than limiting the size or scope of multinational banks.

In “The Legal Response to the Financial Crisis Between 2008 and 2010: The Role and Initiatives of the European Central Bank” (Chapter 4), Dr. Chiara Zilioli of the European Central Bank focuses on the main instruments used by the ECB and the Eurosystem to increase liquidity in financial markets and thereby contribute to financial stability in Europe. These instruments consisted of: the temporary widening of Eurosystem rules for the eligibility of collateral; provision of liquidity in foreign currencies; the Covered Bond Program under which outright purchases of covered bonds in the primary and secondary markets could be done; and the Securities Markets Program under which the ECB and national banks could make outright purchases in the secondary market of eligible marketable debt instruments issued by central governments or public entities within the euro area and in the primary
and secondary markets of eligible marketable debt instruments issued by private entities incorporated in the euro area. In addition, Dr. Zilioli examines European initiatives to strengthen the European micro- and macroprudential supervisory framework and to support a distressed euro area member State. Concerning the legal basis, she highlights the tension between, on the one hand, treaty clauses prohibiting “privileged access” by a member State to financial institutions and providing for “no bailout” and, on the other hand, the principle of “solidarity” toward a member State in distress.

In “The Legal Framework for Central Banking in a Crisis: Japan’s Experiences” (Chapter 5), Mr. Hiromi Yamaoka of the Bank of Japan (BOJ) describes the legal framework under which the BOJ may take a measure not specified in the Bank of Japan Act provided that it would achieve the purpose of the BOJ under the Act and is authorized by the Minister of Finance and the Prime Minister. The author underscores that such a framework provides the BOJ with flexibility to take extraordinary measures without new laws and yet remain accountable to the public. Measures taken with specific authorization by the Minister of Finance and Prime Minister have included purchases of stocks held by banks, and provision of subordinated loans to banks. Also, the BOJ may provide loans to financial institutions on an uncollateralized basis, if requested from the prime minister and the minister of finance.

In “Some Thoughts on Macroprudential Supervision” (Chapter 6), Mr. Toshiyuki Miyoshi of the Financial Services Agency (FSA) of Japan, points to instances of awareness since the late 1990s by national and international authorities of the need to address systemic risk and to adopt macroprudential supervision. However, the idea of macroprudential supervision had lost traction and warnings on the buildup of systemic risk, particularly from securitization, were treated lightly prior to the 2008 crisis. To make macroprudential supervision operational, it is essential to have robust analytical frameworks, a strong will to translate assessments into action, and consensus on the need for forward-looking prudential policies. For its part, the FSA has taken various supervisory measures since the time of Japan’s banking crisis in the 1990s with due consideration to their impact on the overall economy and financial stability. They include a blanket guarantee of bank deposits in the 1990s to prevent contagion and, in the absence of an effective bank resolution framework, a forward-looking response to a possible asset price bubble in 2006–07.
Section II focuses on the international dimension of financial stability. In “Toward a New Financial Order, What Are the Key Issues?” (Chapter 7), Mr. José Viñals of the IMF Monetary and Capital Markets Department underscores the need to improve cooperation and coordination across national borders and endorses a separate insolvency code for financial institutions and the greater use of supervisory colleges, which involve supervisors of key countries in which a given global institution operates.

Mr. Mark Sobel of the U.S. Treasury examines the G-20’s broad policy agenda in “Restoring Growth, the Role of the IMF, and Strengthening Financial Regulation and Supervision Globally” (Chapter 8). On growth, he pointed to the challenges facing G-20 countries of designing exit strategies from extraordinary governmental support during the crisis and cooperating to achieve durable, balanced growth, in part through mutual assessments. Economies with large and sustained surpluses must shift from exports to domestic demand as a source for growth. While noting IMF initiatives to create the Flexible Credit Facility and enlarge the New Arrangements to Borrow, Mr. Sobel encouraged examination of excessive reserve accumulation in certain countries and the desirability and feasibility of the IMF discouraging such accumulation by offering “insurance” to countries through contingent financing, swaps or other instruments. On the regulatory front, Mr. Sobel describes the sweep of regulatory reforms to include greater oversight over nonbank financial institutions, credit rating agencies, and hedge funds, building high quality capital, reducing leverage, mitigating pro-cyclicality in financial regulations, sounder executive compensation policies, improving over-the-counter derivatives markets, and strengthening national and cross-border resolution systems.

Mr. Sean Hagan of the IMF examines recent developments at the IMF in “Reforming the IMF” (Chapter 9). In response to the 2008 crisis, the IMF established the Flexible Credit Line (FCL). The facility was designed to provide funds to a member country facing liquidity pressures, but whose strong track record of policy performance did not require adjustment policies. In contrast to other IMF facilities, the FCL imposes ex ante rather than ex post conditionality and provides liquidity without phasing. Mr. Hagan examines other initiatives at the IMF, including a readjustment of quotas, an increase in the basic votes of low-income members, the sale of a portion of gold holdings, expansion
of authority to invest IMF assets, an increase in the number of Alternate Directors from one to two that may be appointed by Executive Directors elected by at least 19 members, and country contributions for technical assistance.

In “Restoring Financial Stability: Japan’s Perspective” (Chapter 10), Mr. Toshiyuki Miyoshi of the Financial Services Agency of Japan argues that the evolution of the 2008 crisis has a number of commonalities to Japan’s banking crisis in the 1990s and that removing uncertainties about the soundness of financial firms’ balance sheets is vital to normalize financial markets. Regarding regulatory reform, Mr. Miyoshi warns against excessive emphasis on raising the level of capital, stressing the importance of enhanced risk capture. He also proposes a holistic approach in dealing with SIFIs. Rather than merely identifying such institutions and imposing a capital surcharge upfront, he argues for intensive supervision of risk management practices, more focus on liquidity, a robust resolution framework, and realistic burden sharing of the cost of the financial crisis.

Section III deals with the regulation of complex financial products. In Chapter 11, Professor Jerry Markham of Florida International University College of Law provides a paper entitled “Regulating Credit Default Swaps in the Wake of the Subprime Crisis.” The author reviews the role played by credit default swaps (CDS) in the subprime crisis and the financial crisis of 2008, described how the subprime crisis caused a sharp, probably unjustified, devaluation in the so-called “Super Senior” component of collateralized debt obligations (CDOs), which were at the heart of the crisis, and which in many instances were covered by CDS. The author also addresses ongoing governmental efforts to regulate the CDS market, noting the worldwide consensus on the standardization of instruments and establishment of clearinghouses. He argues that focus on CDS should not divert attention from the role of government housing and interest rate policies and fair value accounting requirements in the crisis.

Professor Toshiki Yotsuzuka of Waseda University, in “Complex Financial Products in Japan: Evolution of Structured Products and Regulatory Responses” (Chapter 12), identified the factors that mitigated dangerous excesses in Japan’s structured credit markets. First, traditional bank loans dominate Japan’s credit markets and crowd out corporate
bonds and structured credit products. Second, investors unfamiliar with credit products favored relatively simple structures. Third, painful memories of the collapse of the real estate bubble in the 1990s made the Japanese investors wary of foreign and domestic securitizations. Fourth, highly leveraged institutions in Japan did not have large positions in Japanese credit products, thus limiting the damage from severe deleveraging during the global liquidity crisis. In search of higher yield in a low-interest rate environment, Japanese investors flocked to structured non-credit products (mainly currency-linked and equity-linked notes), rather than to structured credit products (such as CDOs), and this tendency had its own implications for the stability of the financial system.

Professor Linda M. Beale of Wayne State University Law School provides a paper entitled “Roots of the 2008 Financial Crisis, Fair Value Accounting, and Regulatory Reform” (Chapter 13). In the paper, she analyzes the various factors that led to the financial crisis. She argues that fair value accounting was not the villain and proposals to restrict or eliminate it are wrong. Rather, the off-balance sheet treatment of securitization vehicles was a genuine factor in the crisis. She examines proposals for reform in the United States and sets forth the case for democratic egalitarianism as a tempering restraint to address the structural flaws of the deregulated, financialized economy that developed over four decades of laissez-faire market capitalism.

Section V deals with cross-border banking supervision. Mr. Richard H. Neiman of PricewaterhouseCoopers provides a paper entitled “Effective Cross-Border Supervision: From Imperative to Implementation” (Chapter 14). On how to promote cross-border supervision that is conducted primarily by national regulators, he proposes a three-pronged strategy of harmonization of standards, expanded use of supervisory colleges, and a resolution process that provides for the orderly unwinding of systemically significant nonbank financial firms.

Professor Jeffery Atik of the Loyola Law School, in “Basel II and Extreme Risk Analysis” (Chapter 15), states that Basel II largely addressed risk as faced by individual financial institutions, not whether there was adequate capital across the banking system. Thus, regulatory capital may not be adequate to absorb a strong shift in the correlation of defaults, as in the 2008 financial crisis. However, in revisiting what bank capital is expected to do, it must be acknowledged that there are
limits on the increase in the amount of capital that financial institutions could be required to hold. The effect of a low probability, high impact event may be so severe as to overwhelm any prudential measure.

Professor Naoyuki Yoshino and Mr. Tomohiro Hirano of the Keio University and the Financial Research and Training Center of the Financial Services Agency of Japan, and the University of Tokyo, respectively, provide a paper entitled “Counter-Cyclical Buffer of the Basel Capital Requirement and Its Empirical Analysis” (Chapter 16). The paper presents a general equilibrium model in which capital requirements are flexible and dependent on various macroeconomic factors, including land price, stock price, GDP, and interest rates. Using the model, the authors estimate how much capital requirements should have been countercyclically increased or reduced in expansionary and recessionary times, respectively, in Japan, U.S., and Canada.

In “Regulating the Credit Rating Agencies” (Section VII, Chapter 17), Ms. Rita Bolger (Standard and Poor’s) proposes goals that any new regulatory architecture for credit rating agencies should focus on. Among these goals are: effective management of conflicts of interest, transparency regarding the nature of rating opinions and information used in the ratings process, disclosure of ratings performance across asset classes and locales, disclosure of criteria and methodologies for assigning and updating ratings, differentiation of ratings on structured finance securities, avoidance of disclosure and misuse of confidential information, oversight of rating agencies’ regulatory compliance without interference in the substance of rating opinions, and a registration regime that follows globally consistent standards.

In Chapter 18 (Section VIII), Professor Friedrich Kübler of the University of Pennsylvania Law School provides a paper entitled “European Initiatives for the Regulation of Nonbank Financial Institutions: The EU Directive on Alternative Investment Fund Managers.” The Directive covers hedge funds, private equity funds, real estate funds, commodity funds, and other types of institutional funds and has, as its core elements, registration, rules on operating conditions, and disclosure and transparency requirements. The author examines the views and interests that shaped the public debate, the legislative reasons and policy objectives motivating the European Commission, the estimated costs of implementation, and the balance of costs and benefits.
Four papers in Section IX deal with corporate and household debt restructuring. In “Out of Court Corporate Debt Restructuring Framework in India–An Overview” (Chapter 19), Mr. Sumant Batra of INSOL International examines the pros and cons of recourse in India to out-of-court, nonstatutory corporate debt restructuring (CDR) in light of the failure of formal insolvency law to provide quick and timely restructuring. Providing the legal foundation of CDR in India are two agreements, the Debtor-Creditor Agreement and the Inter-Creditor Agreement. The edifice of the CDR mechanism stands on the strength of a three-tier structure consisting of the CDR Standing Forum in which all banks and financial institutions participating in the CDR system are represented, the CDR Empowered Group that decides individual cases, and the CDR cell entrusted with fact finding and making proposals for rehabilitation. Despite areas in which the process could be improved, CDR has worked well in India.

In Chapter 20, Professor Soogeun Oh of the Ehwa Womans University Law School contributes a paper entitled “Corporate Restructuring During Times of Crisis in South Korea.” The author compares uses of the Workout in the U.S. subprime mortgage crisis with the South Korean foreign currency crisis of 1997, explains the historical and economic background of the Workout, examines how the Workout evolved and its efficiency as an insolvency scheme, and views executive measures and judicial proceedings in Korea as demonstrating a learning curve of the rule of law in the market.

In Chapter 21, Dr. Shinjiro Takagi of Nomura Securities provides a paper entitled “Quasi-Governmental Special Purpose Vehicles to Restructure Ailing Business Corporations in Extraordinary Times: A Proposal Based on Japan’s Experiences.” A key feature of such special purpose vehicles in Japan is that the government contributes funds or guarantees, but the restructurings are run by eminent turnaround experts not related to the government. From Japanese experience, the author sets forth rules of organization and proceedings that may be useful for other countries.

In “Principles of Household Debt Restructuring” (Chapter 22), Messrs. Luc Laeven and Thomas Laryea of the IMF and SNR Denton, respectively, assess the case for government intervention in household debt restructuring and presents key principles for household debt
restructuring that could be adapted to individual country circumstances. Such restructuring should incorporate a number of basic features: turning troubled loans into performing loans, selectivity in scope, proportionality of government intervention to the scale of the problem, voluntary lender participation, simplicity, and transparency and accountability. Additionally, a program may include incentives for borrowers and lenders. In light of these principles, the authors examine actual debt restructuring in a number of countries.
I. SYSTEMIC RISK AND REGULATORY REFORM IN THE UNITED STATES, EUROPEAN UNION, AND JAPAN
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Introduction

The ongoing financial crisis—widely viewed as the worst since the Great Depression—has inflicted tremendous damage on financial markets and economies around the world. The crisis has revealed fundamental weaknesses in the financial regulatory systems of the United States (“U.S.”), the United Kingdom (“U.K.”), and other European nations, making regulatory reforms an urgent priority. Publicly-funded bailouts of “too big to fail” (“TBTF”) financial institutions have provided indisputable proof that (i) TBTF institutions benefit from large explicit and implicit public subsidies, and (ii) those subsidies undermine market discipline and distort economic incentives for large, complex financial institutions ("LCFIs"). Accordingly, a primary
The Right Response to the Too-Big-to-Fail Problem

objective of regulatory reforms must be to eliminate (or at least greatly reduce) TBTF subsidies, thereby forcing LCFIs to internalize the risks and costs of their activities.

The first two sections of this chapter survey the consequences and causes of the financial crisis. As discussed in those sections, LCFIs received the lion’s share of support from government programs established to preserve financial stability, and they were also the primary private-sector catalysts for the financial crisis. Public alarm over the severity of the financial crisis and public outrage over government bailouts of LCFIs have produced a strong consensus in favor of reforming financial regulation in the U.S., the U.K., and other developed nations.4

As the third section of this chapter explains, governmental rescues of LCFIs have highlighted the economic distortions caused by TBTF policies, as well as the urgent need to reduce public subsidies created by those policies. The final section proposes five reforms that are designed to prevent excessive risk-taking by LCFIs and to shrink TBTF subsidies in the U.S. financial system. The proposed reforms would (1) strengthen current statutory restrictions on the growth of LCFIs, (2) create a special resolution process to manage the orderly liquidation or restructuring of systemically important financial institutions (“SIFIs”), (3) establish a consolidated supervisory regime and enhanced capital requirements for SIFIs, (4) create a special insurance fund for SIFIs in order to cover the costs of resolving failed SIFIs, and (5) rigorously insulate banks that are owned by LCFIs from the activities and risks of their nonbank affiliates.

to engage, either directly or through affiliates, in a combination of banking, securities and insurance activities). See Wilmarth, supra note 1, at 968 n.15.

4 On June 30, 2010, the U.S. House of Representatives passed comprehensive financial reform legislation, which had been approved the previous day by a House-Senate conference committee. At the time this chapter was completed, it was not clear whether the U.S. Senate would vote to approve the legislation. Damien Paletta & Greg Hitt, “U.S. News: House Vote Sends Financial Overhaul to Senate,” Wall Street Journal, July 1, 2010, at A6; Alison Vekshin & Phil Mattingly, “U.S. Regulatory Bill’s Support May Weaken as Senate Delays Vote,” Bloomberg.com, July 1, 2010; David M. Herszenhorn, “Bank Tax Is Dropped in Overhaul of Industry,” New York Times, June 30, 2010, at B1. This chapter does not attempt to analyze the potential impact of the proposed reform legislation on the U.S. financial services industry if it is ultimately enacted.
The Severity and Persistence of the Financial Crisis

The financial crisis caused governments and central banks around the globe to provide more than $11 trillion of assistance to financial institutions and to spend more than $6 trillion on economic stimulus programs. The largest financial support and economic stimulus programs were implemented by the U.S., the U.K., and other European nations, where the financial crisis inflicted the greatest harm.5 By October 2009, the U.S. had provided more than $6 trillion of assistance to financial institutions through central bank loans and other government loans, guarantees, asset purchases and capital infusions, while the U.K. and other European nations gave more than $4 trillion of similar assistance.6 The U.S. Congress passed an $800 billion economic stimulus bill in early 2009, and many other nations approved comparable measures to support their economies.7

Government agencies have acted most dramatically in rescuing LCFIs that were threatened with failure. U.S. authorities bailed out two of the three largest U.S. banks and the largest U.S. insurance company.8


6 Blundell-Wignall et al., supra note 5, at 15 tbl.4 (showing that the U.S. provided $6.4 trillion of assistance to financial institutions, while the U.K. and other European nations provided $4.3 trillion of assistance).


8 For discussions of the federal government’s bailouts of Citigroup, Bank of America (“BofA”) and American International Group (“AIG”), see Andrew (continued)
In addition, (i) federal regulators provided financial support for emergency acquisitions of two other major banks, the two largest thrifts, and two of the five largest securities firms, and (ii) regulators approved emergency conversions of two other leading securities firms into bank holding companies (“BHCs”), thereby placing those institutions under the protective umbrella of the Federal Reserve Board (“FRB”). Federal regulators conducted “stress tests” on the nineteen largest BHCs—each with more than $100 billion of assets—and injected more than $220 billion of capital into eighteen of those companies. Before regulators performed the stress tests, they announced that the federal government would provide any additional capital that the nineteen banking firms needed but could not raise on their own. By giving that public assurance, regulators indicated that all nineteen firms were presumptively TBTF, at least for the duration of the current financial crisis.


10 Wilmarth, supra note 2, at 713.

11 In announcing the “stress test” for the 19 largest banking firms in early 2009, federal regulators “emphasized that none of the banks would be allowed to fail the test, because the government would provide any capital that was needed (continued)
Similarly, the U.K. and other European nations adopted more than eighty rescue programs to support their financial systems. Those programs included costly bailouts of several very large European banks, including ABN Amro, Commerzbank, Fortis, ING, Lloyds HBOS (“Lloyds”), Royal Bank of Scotland (“RBS”) and UBS.12

Notwithstanding these extraordinary measures of governmental support, financial institutions and investors suffered huge losses in the U.S. and other developed nations. Between the outbreak of the crisis in the summer of 2007 and the spring of 2010, LCFIs around the world recorded $1.5 trillion of losses on risky loans and investments made during the preceding credit boom.13 During 2008 alone, the value of global financial assets fell by an estimated $50 trillion, equal to a year of the world’s gross domestic product.14 The financial crisis pushed the economies of the U.S., the U.K., and other EU nations into deep recessions during 2008 and the first half of 2009.15

12 For descriptions of governmental support measures for financial institutions in the U.K. and other European nations, see authorities cited in Wilmarth, supra note 2, at 714.
13 Rodney Yap & Dave Pierson, “Subprime Mortgage-Related Losses Exceed $1.77 Trillion: Table,” Bloomberg News, May 11, 2010 (showing that global banks, securities firms and insurers incurred $1.51 trillion of writedowns and credit losses due to the financial crisis, while Fannie Mae and Freddie Mac suffered an additional $270 billion of losses).
Economies in all three regions began to improve in the second half of 2009, but the recoveries were tentative and fragile. During the first half of 2010, economies in all three areas continued to face significant challenges, including (i) high unemployment rates and shortages of bank credit that caused consumers to reduce spending and businesses to forgo new investments; and (ii) large budget deficits, caused in part by the massive costs of financial rescue programs, which impaired the ability of governments to provide additional fiscal stimulus.

A major threat to economic recovery appeared in the spring of 2010, as Greece and several other deeply indebted European nations...
struggled to avoid defaulting on their sovereign debts. In May 2010, the European Union (“EU”) and the International Monetary Fund (“IMF”) announced a $1 trillion emergency package of loan guarantees to reassure investors that EU nations would continue to meet their debt obligations. However, many analysts questioned the rescue package’s adequacy, and bond investors shunned financial institutions with large exposures to heavily indebted countries.

The European sovereign debt crisis, along with high unemployment rates, growing budget deficits and declining bank credit, created serious concerns about the prospects for continued economic growth in both the U.S. and Europe. The severity of the financial crisis and the rising costs of supporting troubled LCFIs also triggered public outrage and created a strong consensus in favor of reforming financial regulation in the U.S., the U.K., and other developed nations.


22 See, e.g., Phil Mattingly, “Frank Says Senate’s Stronger Rules Will Sway Financial Bill,” Bloomberg.com, May 17, 2010 (describing public pressure for stronger reform measures during the Senate’s consideration of financial reform legislation, because “[t]he public has gotten a lot angrier and the game has changed due to a rise in anti-bank fever”) (quoting Robert Litan); Simon Clark, “‘Lepers’ in London Defend Right To Make Money as Election Looms,” Bloomberg.com, Feb. 25, 2010 (describing public anger directed against large U.K. banks “after British taxpayers assumed liabilities of more than [$1.23 trillion] to bail out the country’s lenders”).

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LCFIs Played Key Roles in Precipitating the Financial Crisis

In order to design regulatory reforms that could prevent a similar crisis in the future, it is essential to understand that LCFIs were the primary private-sector catalysts for the current financial crisis. This section briefly summarizes the crucial roles played by LCFIs in helping to produce the financial and economic conditions that led to the crisis, as well as governmental policies that compounded the disastrous errors of LCFIs.

LCFIs Originated Huge Volumes of Risky Loans and Helped to Infl ate a Massive Credit Boom That Precipitated the Crisis

During the past two decades, and especially between 2000 and 2007, LCFIs helped to generate an enormous credit boom that set the stage for the current financial crisis. LCFIs used securitization techniques to earn large amounts of fee income by (i) originating high-risk loans, including nonprime residential mortgages, credit card loans, commercial mortgages, and leveraged buyout (“LBO”) loans, and (ii) pooling those loans to create securities that could be sold to investors. LCFIs ostensibly followed an “originate to distribute” (“OTD”) business model, which caused regulators and market analysts to assume that LCFIs were successfully transferring the risks embedded in their securitized loans to widely dispersed investors.23

Securitization allowed LCFIs—with the blessing of regulators—to reduce their capital requirements and offload much of their apparent

23 Wilmarth, supra note 1, at 988–91, 1037–40 (reporting that, in 2007, residential mortgage-backed securities accounted for nearly two-thirds of all U.S. residential mortgages, while commercial mortgage-backed securities represented almost a quarter of domestic commercial mortgages, asset-backed securities accounted for more than a quarter of domestic consumer loans, and collateralized loan obligations included more than a tenth of global leveraged syndicated loans); id. at 1025-30, 1040-43 (discussing widespread belief that the OTD business model enabled LCFIs to transfer the risks of securitized loans to investors); James Crotty, “Structural Causes of the Global Financial Crisis: A Critical Assessment of the ‘New Financial Architecture,’” 33 Cambridge Journal of Economics 563, 567-68 (2009) (same).
credit risk.24 LCFIs created structured-finance securities that typically included senior, mezzanine and junior (or equity) “tranches.” Those tranches represented a hierarchy of rights (along a scale from the most senior to the most subordinated) to receive cash flows produced by the pooled loans. LCFIs marketed the tranches to satisfy the demands of various types of investors for different combinations of yield and risk. Structured-finance securities included (1) asset-backed securities (“ABS”), which represented interests in pools of credit card loans, auto loans, student loans and other consumer loans; (2) residential mortgage-backed securities (“RMBS”), which represented interests in pools of residential mortgages; and (3) commercial mortgage-backed securities (“CMBS”), which represented interests in pools of commercial mortgages.25

LCFIs created “second-level securitizations” by bundling tranches of ABS and MBS into cash flow collateralized debt obligations (“CDOs”), and they similarly packaged syndicated loans for corporate leveraged buyouts (“LBOs”) into collateralized loan obligations (“CLOs”).26 LCFIs also created third-level securitizations by


26 Wilmarth, supra note 1, at 990–91. The term “CDOs” is hereinafter used to refer collectively to CDOs and CLOs as well as collateralized bond obligations (“CBOs”). Stowell, supra note 9, at 105–06, 456. As Frank Partnoy has noted, many CDOs functioned as “‘second-level’ securitizations of ‘first-level’ (continued)
assembling pools of tranches from cash flow CDOs to construct “CDOs-squared.”27 The IMF estimated that private-sector financial institutions issued about $15 trillion of ABS, MBS, and CDOs in global markets between 2000 and 2007, including $9 trillion issued in the U.S.28 Another study determined that $11 trillion of structured-finance securities were outstanding in the U.S. market in 2008.29

LCFIs intensified the risks of securitization by writing over-the-counter (“OTC”) credit derivatives known as “credit default swaps” (“CDS”). CDS provided “the equivalent of insurance against default events” that might occur with reference to loans in securitized pools or tranches of ABS, MBS and CDOs.30 While CDS could be used for hedging purposes, financial institutions and other investors increasingly used CDS to speculate on the default risks of securitized loans

27 LCFIs frequently used mezzanine tranches of CDOs to create CDOs-squared, because the mezzanine tranches were the least attractive (in terms of their risk-yield tradeoff) to most investors. Wilmarth, supra note 1, at 990–91, 1027–30. See also Scott, supra note 25, at 7–8, 8 slide 3. CDOs and CDOs-squared are sometimes hereinafter collectively referred to as “CDOs.”

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

29 Benmelech & Dlugosz, supra note 25, at 1.


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and structured-finance securities. LCFIs further increased the financial system’s aggregate exposure to the risks of securitized loans by using pools of CDS to create synthetic CDOs. Synthetic CDOs were generally constructed to mimic the performance of cash flow CDOs, and synthetic CDOs issued yet another series of tranched, structured-finance securities to investors. By 2007, the total notional amounts of CDS and synthetic CDOs written with reference to securitized loans, ABS, MBS or cash flow CDOs may have exceeded $15 trillion.

Thus, based on available estimates, approximately $25 trillion of structured-finance securities and related derivatives were outstanding in the U.S. financial markets at the peak of the credit boom in 2007. Eighteen giant LCFIs, including ten U.S. and eight foreign financial institutions, originated the lion’s share of those complex instruments.

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31 Crotty, supra note 23, at 569 (citing (i) a 2007 report by Fitch Ratings, concluding that “58 percent of banks that buy and sell credit derivatives acknowledged that ‘trading’ or gambling is their ‘dominant’ motivation for operating in this market, whereas less than 30 percent said that ‘hedging/credit risk management’ was their primary motive,” and (ii) a statement by New York superintendent of insurance Eric Dinallo, concluding that “80 percent of the estimated $62 trillion in CDS outstanding in 2008 were speculative”); Manns, supra note 30, at 1036–37 (noting the use of CDS as “speculative instruments”); Michael Lewis, “Betting on the Blind Side,” Vanity Fair, April 2010 (explaining that “[i]n the beginning, credit-default swaps had been a tool for hedging . . . . Very quickly, however, the new derivatives became tools for speculation”).

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

33 Id. at 994 n.126, 1032 (citing estimates indicating that, at the peak of the credit boom, $1.25 to $6 trillion of synthetic CDOs were outstanding, and that about one-third of the $45 trillion of outstanding CDS were written to protect holders of CDOs, CLOs and other structured-finance instruments).

34 See supra notes 28-29, 33 and accompanying text.

35 During the credit boom that led to the financial crisis, the 18 leading LCFIs in global and U.S. markets for securities underwriting, securitizations, structured-finance products and OTC derivatives (the “big eighteen”) included the four largest U.S. banks (BofA, Chase, Citigroup and Wachovia), the five largest U.S. securities firms (Bear, Goldman, Lehman Brothers (Lehman), Merrill and Morgan Stanley), the largest U.S. insurer (AIG), and eight foreign universal banks (Barclays, BNP Paribas, Credit Suisse, Deutsche, HSBC, RBS, (continued)
Structured-finance securities and related derivatives not only financed, but also far exceeded, about $9 trillion of risky private-sector debt that was outstanding in U.S. financial markets when the credit crisis broke out. The combined volume of MBS, cash flow CDOs, CDS and synthetic CDOs created an “inverted pyramid of risk,” which enabled investors to place “multiple layers of financial bets” on the performance of high-risk loans in securitized pools. Consequently, when the underlying loans began to default, the leverage inherent in this “pyramid of risk” produced losses that were far larger than the face amounts of the defaulted loans.

Société Générale and UBS. See Wilmarth, supra note 1, at 980–84, 989–90, 994–95, 1019–20, 1031–33; Wilmarth, supra note 2, at 721, 721 n.45. See also Dwight Jaffee et al., “Mortgage Origination and Securitization in the Financial Crisis,” in Restoring Financial Stability, supra note 24, at 61, 69 tbl.1.4 (showing that 11 of the “big eighteen” LCFIs ranked among the top 12 global underwriters of CDOs between 2004 and 2008); Anthony Saunders, Roy C. Smith & Ingo Walter, “Enhanced Regulation of Large, Complex Financial Institutions,” in Restoring Financial Stability, supra note 24, at 139, 142 tbl.5.2 (showing that all of the “big eighteen” LCFIs, except for AIG, ranked among the top 23 global providers of wholesale financial services in 2006 and 2007).

About $6.3 trillion of nonprime residential mortgage loans, credit card loans and CRE loans were outstanding in the U.S. market in 2008. Of that amount, about $2.8 trillion of loans were held in securitized pools, and many of the securitized loans and other loans were referenced by CDS. See Wilmarth, supra note 1, at 988–94, 1024–41. In addition, about $2.5 trillion of LBO loans and high-yield (“junk”) bonds were outstanding in the U.S. market in 2008, and a significant portion of that debt was securitized or referenced by CDS. Id. at 1039–43. See also Charles R. Morris, The Two Trillion Dollar Meltdown: Easy Money, High Rollers, and the Great Credit Crash 123–26, 134–39 (New York: PublicAffairs, 2d ed. 2008).

See Morris, supra note 36, at 73–79, 113–14, 123–32; Michael Lewis, “The End,” Portfolio.com, Nov. 11, 2008, available at http://www.portfolio.com/news-markets/national-news/portfolio/2008/11/11/The-End-of-Wall-Streets-Boom/?print=true” (quoting hedge fund manager Steve Eisman, who explained that Wall Street firms built an “engine of doom” with cash flow CDOs and synthetic CDOs, because those instruments created “several towers of debt” on top of “the original subprime loans,” and “that’s why the losses are so much greater than the loans”).

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LCFIs Used Credit Ratings to Promote the Sale of Risky Structured-Finance Securities

LCFIs made structured-finance securities attractive to investors by paying large fees to credit rating agencies (“CRAs”) in order to secure investment-grade ratings (BBB- and above) for most tranches of those securities. CRAs charged fees for their ratings based on an “issuer pays” business model, which required issuers of securities to pay fees to CRAs in order to secure credit ratings for their securities. The “issuer pays” model created an obvious conflict of interest between a CRA’s desire to earn fees from issuers of securities and the CRA’s stake in preserving its reputation for making reliable risk assessments. Structured-finance securitizations heightened this conflict of interest because LCFIs often paid additional consulting fees to obtain advice from CRAs on how to structure securitizations to produce the maximum percentage of AAA-rated securities.

Moreover, a small group of LCFIs dominated the securitization markets and, therefore, were significant repeat players in those markets. Accordingly, LCFIs could strongly influence a CRA’s decision on whether to assign favorable ratings to an issue of structured-finance securities by threatening to switch to other CRAs to obtain higher ratings for subsequent issues of the same type of securities. Given the generous fees CRAs received from LCFIs for rating structured-finance securities and for providing additional consulting services, it is not


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surprising that CRAs typically assigned AAA ratings to three-quarters or more of the tranches of ABS, RMBS, CDOs and CDOs-squared. The

Investors relied heavily on credit ratings and usually did not perform any meaningful due diligence before deciding to buy structured-finance securities. In addition, regulations issued by the Securities and Exchange Commission (“SEC”) allowed issuers to sell ABS, RMBS and CDOs to investors based on limited disclosures beyond the instruments’ credit ratings. Many issuers provided descriptions of the underlying loans that were incomplete or misleading. The complexity of structured-finance transactions made it difficult for investors to evaluate the risks of first-level securitizations and nearly impossible for investors to ascertain the risks of second- and third-level securitizations.

Investors also had strong incentives not to question the ratings assigned to structured-finance securities by CRAs. AAA-rated structured-finance securities paid yields that were significantly higher than other AAA-rated securities. Structured-finance securities were therefore very attractive to investors who were seeking the highest available yields on supposedly “safe” debt securities during the low-interest, low-inflation environment of the pre-crisis period. The

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42 Benmelech & Dlugosz, supra note 25, at 4; Jaffee et al., supra note 35, at 73–74; Wilmarth, supra note 1, at 1028-29.
45 Wilmarth, supra note 1, at 1026–28; Jaffee et al., supra note 35, at 73–74; Scott, supra note 25, at 7–8, 16; October 2009 IMF GFS Report, supra note 5, at 81.
46 See Coval et al., supra note 25, at 4, 19; Wilmarth, supra note 1, at 1028–29; October 2009 IMF GFS Report, supra note 5, at 81. See also Acharya & (continued)
AAA ratings issued by CRAs enabled LCFIs to transform “trillions of dollars of risky assets . . . into securities that were widely considered to be safe . . . [and] were eagerly bought up by investors around the world.”

The CRAs’ pervasive conflicts of interest encouraged them to issue credit ratings that either misperceived or misrepresented the true risks embedded in structured-finance securities. CRAs, along with the LCFIs that issued the securities, made the following crucial errors: (i) giving too much weight to the benefits of diversification from pooling large numbers of high-risk loans; (ii) failing to recognize that RMBS and CDOs became more risky as mortgage lending standards deteriorated between 2004 and 2007; (iii) failing to appreciate that RMBS and CDOs often contained dangerous concentrations of loans from high-risk states like California, Florida, and Nevada; (iv) underestimating the risk that a serious economic downturn would trigger widespread correlated defaults among risky loans of similar types; (v) relying on historical data drawn from a relatively brief period in which benign economic conditions prevailed; and (vi) assuming that housing prices would never decline on a nationwide basis. By mid-2009, CRAs had cut their ratings on tens of thousands


47 Coval et al., supra note 25, at 3–4.

48 Coval et al., supra note 25, at 3–4, 8–21; Benmelech & Dlugosz, supra note 25, at 2, 13–15, 21–23, 25; Partnoy, supra note 26, at 6–11; Wilmarth, supra note 1, at 1034; Lowenstein, supra note 41.
of investment-grade tranches of RMBS and CDOs, and securitization markets had collapsed.\footnote{October 2009 IMF GFS Report, \textit{supra} note 5, at 93 fig.2.12 (reporting that, as of June 30, 2009, Standard & Poor’s ("S&P") had (i) cut its ratings on 90 percent of AAA-rated tranches of ABS CDOs issued from 2005 to 2007, and 80 percent of those tranches were reduced to noninvestment-grade ratings of BB or lower, and (ii) lowered its ratings on 63 percent of AAA-rated tranches of private-label RMBS issued during the same period, and 52 percent of those tranches were reduced to noninvestment-grade ratings); Benmelech & Dlugosz, \textit{supra} note 25, at 8–9, 31 tbl.2 (reporting that Moody’s issued 45,000 downgrades affecting 36,000 tranches of structured-finance securities during 2007 and the first nine months of 2008, and Moody’s average downgrade during that period was 5.2 rating notches).}

\textbf{LCFIs Promoted an Unsustainable Credit Boom That Set the Stage for the Financial Crisis}

The LCFIs’ large-scale securitizations of credit helped to create an enormous credit boom in the U.S. financial markets between 1991 and 2007. Nominal domestic private-sector debt nearly quadrupled, rising from $10.3 trillion to $39.9 trillion during that period, and the largest increases occurred in the financial and household sectors.\footnote{Wilmarth, \textit{supra} note 1, at 1002, 1002 nn.174–76 (reporting that financial sector debt accounted for $13 trillion of the increase in domestic nongovernmental debt between 1991 and 2007, while household debt grew by $10 trillion and nonfinancial business debt increased by $6.4 trillion).} Total U.S. private-sector debt as a percentage of gross domestic product ("GDP") rose from 150 percent in 1987 to almost 300 percent in 2007 and, by that measure, exceeded even the huge credit boom that led to the Great Depression.\footnote{Turner Review, \textit{supra} note 46, at 18 exh. 1.10. See also Stowell, \textit{supra} note 9, at 456 exh.5 (showing the rapid growth of total domestic nongovernmental debt as a percentage of GDP between the mid-1980s and the end of 2007); Wilmarth, \textit{supra} note 1, at 974, 974 n.26 (referring to the credit boom of the 1920s that precipitated the Great Depression).} Financial sector debt as a percentage of GDP rose from 40 percent in 1988 to 70 percent in 1998 and 120 percent in 2008.\footnote{“The Gods Strike Back: A Special Report on Financial Risk,” \textit{Economist}, Feb. 13, 2010, at 3, chart 1.}
Meanwhile, household sector debt grew from two-thirds of GDP in the early 1990s to 100 percent of GDP in 2008.53

The credit boom greatly enhanced the financial sector’s importance within the broader economy. Financial sector earnings doubled from thirteen percent of total corporate pretax profits in 1980 to twenty-seven percent of such profits in 2007.54 Stocks of financial firms included in the S&P 500 index held the highest aggregate market value of any industry sector of that index from 1995 to 1998, and again from 2002 to 2007.55

As the credit boom inflated and the financial sector grew in size and importance to the overall economy, LCFIs also became more leveraged, more fragile, and more vulnerable to a systemic crisis. At the end of 2007, the ten largest U.S. financial institutions—all of which were leading participants in structured-finance securitization—had an average leverage ratio of 27:1 when their off-balance-sheet (“OBS”) commitments were taken into account.56

As I noted in a previous article, “[b]y 2007, the health of the U.S. economy relied on a massive confidence game—indeed, some might say, a Ponzi scheme—operated by its leading financial institutions.”57 This “confidence game,” which sustained the credit boom, could continue only as long as investors were willing “to keep buying new debt

56 Wilmarth, supra note 2, at 725-26.
57 Wilmarth, supra note 1, at 1008 (footnote omitted).
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instruments that would enable overstretched borrowers to expand their consumption and service their debts.\(^{58}\) In the summer of 2007, when investors lost confidence in the ability of subprime borrowers to meet their obligations, “the game collapsed and a severe financial crisis began.”\(^{59}\)

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

During the credit boom, as explained above, LCFIs pursued a securitization strategy that produced highly leveraged risk-taking through the use of complex structured-finance products, CDS and OBS vehicles.\(^{60}\) This securitization strategy was highly attractive in the short term, because LCFIs (as well as the mortgage brokers, nonbank lenders and CRAs who worked with LCFIs) collected lucrative fees at each stage of originating, securitizing, rating and marketing the risky residential mortgages, commercial mortgages, credit card loans and LBO loans.\(^{61}\) Based on the widespread belief that LCFIs were following an OTD strategy, both managers and regulators of LCFIs operated under the illusion that the credit risks inherent in the securitized loans were being transferred to the ultimate purchasers of structured-finance securities.\(^{62}\) In significant ways, however, LCFIs actually pursued an “originate to not really distribute” program.\(^{63}\)

For example, LCFIs decided to keep large amounts of highly-rated, structured-finance securities on their balance sheets because regulators allowed LCFIs to do so with a minimum of capital. In the U.S., LCFIs

\(^{58}\) Id.
\(^{59}\) Id.
\(^{61}\) Crotty, *supra* note 23, at 565–66; Wilmarth, *supra* note 1, at 984–87, 995–96, 1017–20, 1034–42. See also id. at 995 (noting that “[f]ee income at the largest U.S. banks (including BofA, Chase and Citigroup) rose from 40 percent of total earnings in 1995 to 76 percent of total earnings in 2007”).
\(^{62}\) Wilmarth, *supra* note 1, at 995–96, 1030.
took advantage of a regulation issued by the federal banking agencies in November 2001, which greatly reduced the risk-based capital charge for structured-finance securities rated “AAA” or “AA” by CRAs. The 2001 regulation assigned a risk weighting of only twenty percent to such securities in determining the amount of risk-based capital that banks were required to hold.64 As a practical matter, the 2001 rule cut the risk-based capital requirement for highly-rated tranches of RMBS and related CDOs from four percent to only 1.6 percent.65

In Europe, LCFIs similarly retained AAA-rated structured-finance securities on their balance sheets because the Basel I and Basel II capital accords assigned very low risk weights to such securities. In contrast to the U.S., European nations did not require banks to maintain a minimum leverage capital ratio and instead required banks only to meet the Basel risk-weighted capital standards. As a result, European banks did not incur significant capital charges for holding on-balance-sheet, AAA-rated instruments, due to their low risk weights under Basel rules.66

65 Kling, supra note 64, at 25 fig.4.
66 Acharya & Schnabl, supra note 60, at 94–98; Andrew G. Haldane, “Banking on the State,” Bank Int’l Settlements Review 5–8 (Nov. 11, 2009), available at http://www.bis.org/review/r091111e.pdf. Because European banks did not have to comply with a minimum leverage capital ratio, the 13 largest European banks operated in 2008 with an average leverage ratio of 2.68 percent, compared to an average leverage ratio of 5.88 percent for the ten largest U.S. banks (which were required to maintain a leverage capital ratio of at least 4 percent). Similarly, the four largest U.S. securities firms had an average leverage ratio of only 3.33 percent, because the SEC did not require those firms to comply with a minimum leverage ratio. Adrian Blundell-Wignall & Paul Atkinson, “The Sub-prime Crisis: Causal Distortions and Regulatory Reform,” in Lessons from the Financial Turmoil of 2007 and 2008: Proceedings of a Conference on 14–15 July 2008, at 55, 93–94, 95 tbl.6 (Paul Bloxham & Christopher Kent eds., 2008), available at http://www.rba.gov.au/publications/confx/2008/ conf-vol-2008.pdf; McCoy et al., supra note 8, at 1358–60 (explaining that the SEC allowed the five largest U.S. securities firms to determine their capital (continued)
LCFIs also had revenue-based incentives to keep highly-rated structured finance securities on their balance sheets. As the credit boom reached its peak, LCFIs found it difficult to locate investors to purchase all of the AAA-rated tranches they were producing. Managers at aggressive LCFIs decided to assume “warehouse risk” by keeping AAA-rated tranches on their balance sheets, because they wanted to complete more securitization deals, earn more fees, produce higher short-term profits, and distribute larger compensation packages to executives and key employees.67 By 2007, Citigroup, Merrill, and UBS together held more than $175 billion of AAA-rated CDOs on their books.68 The huge losses suffered by those institutions on retained CDO exposures were a significant reason why all three needed extensive governmental assistance to avoid failure.69

In addition, LCFIs retained risk exposures for many of the assets they ostensibly transferred to OBS entities through securitization. Regulators in the U.S. and Europe allowed LCFIs to sponsor structured investment vehicles (“SIVs”) and other OBS conduits, which were frequently used as dumping grounds for RMBS and CDOs that LCFIs were unable to sell to arms-length investors. The sponsored conduits sold asset-backed commercial paper (“ABCP”) to investors and used the proceeds to buy structured-finance securities underwritten by the sponsoring LCFIs. The conduits faced a potentially dangerous funding mismatch between their longer-term, structured-finance assets and their shorter-term, ABCP liabilities. The sponsoring LCFIs covered that mismatch (in whole or in part) by providing explicit credit enhancements (including lines of credit) or implicit commitments to

requirements based on internal risk models, with the result that leverage at the five firms increased to about 30:1 by 2008).

67 Wilmarth, supra note 1, at 1032–33. See also Gian Luca Clementi et al., “Rethinking Compensation in Financial Firms,” in Restoring Financial Stability, supra note 24, at 197, 198–200; Crotty, supra note 23, at 568–69; Jaffee et al., supra note 35, at 71–73.

68 Clementi et al., supra note 67, at 198–200.

ensure the availability of liquidity if the sponsored conduits could not roll over their ABCP.\textsuperscript{70}

U.S. regulators adopted capital rules that encouraged the use of ABCP conduits. Those rules did not assess any capital charges against LCFIs for transferring securitized assets to sponsored conduits. Instead, the rules required LCFIs to post capital only if they provided explicit credit enhancements to their conduits.\textsuperscript{71} Moreover, a 2004 regulation approved a very low capital charge for sponsors’ lines of credit, equal to only one-tenth of the usual capital charge of eight percent, as long as the lines of credit had maturities of one year or less.\textsuperscript{72}

ABCP conduits sponsored by LCFIs grew rapidly during the peak years of the credit boom. As a result, the ABCP market in the United States nearly doubled after 2003 and reached $1.2 trillion in August 2007. Three-quarters of that amount was held in 300 conduits sponsored by U.S. and European LCFIs.\textsuperscript{73} Citigroup was the largest conduit sponsor, and seven of the top ten sponsors were members of the “big eighteen” club of LCFIs.\textsuperscript{74} As a result of their risk exposures to conduits and their other OBS commitments, many of the leading LCFIs were much more highly leveraged than their balance sheets indicated.\textsuperscript{75}

After the financial crisis broke out in August 2007, conduits suffered large losses on their holdings of structured-finance securities. Many conduits were faced with imminent default because they

\textsuperscript{70} For discussion of the risk exposures of LCFIs to SIVs and other sponsored conduits, see Tett, supra note 69, at 97–98, 127–28, 136, 196–98; Acharya & Schnabl, supra note 60, at 88–94; Wilmarth, supra note 1, at 1033.

\textsuperscript{71} Acharya & Schnabl, supra note 60, at 89.

\textsuperscript{72} Risk-Based Capital Guidelines, 69 Federal Register 44908, 44910-11 (July 28, 2004). See also Acharya & Schnabl, supra note 60, at 89 (noting that capital requirements for short-term “liquidity enhancements” were “only 0.8 percent of asset value”).


\textsuperscript{74} Acharya & Schnabl, supra note 60, at 93 tbl.2.1 (listing Citigroup, BofA, Chase, HSBC, Société Générale, Deutsche and Barclays among the top 10 conduit sponsors); supra note 35 (listing the “big eighteen” LCFIs).

\textsuperscript{75} Tett, supra note 69, at 97–98; Crotty, supra note 23, at 570.
could not roll over their ABCP. Investors refused to buy new issues of ABCP because of the presumed exposure of ABCP to losses from subprime mortgages. In order to avoid damage to their reputations, most LCFI sponsors went beyond their legal obligations and either brought conduit assets back onto their balance sheets or provided explicit credit enhancements that enabled conduits to remain in business.

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

LCFIs Were the Most Important Private-Sector Catalysts for the Financial Crisis

Excessive risk-taking by LCFIs was not the only cause of the current financial crisis. Several additional factors played important roles. First, many analysts have criticized the FRB for maintaining an excessively loose monetary policy during the second half of the 1990s and again between 2001 and 2005. Critics charge that the FRB’s monetary policy mistakes produced speculative asset booms that led to the

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dotcom-telecom bust in the stock market between 2000 and 2002 and the bursting of the housing bubble after 2006.\footnote{For critiques of the FRB’s monetary policy, see Wilmarth, supra note 1, at 1005–06 (summarizing analysis by various critics of the FRB); John B. Taylor, Getting Off Track: How Government Actions and Interventions Caused, Prolonged and Worsened the Financial Crisis 1–6, 11–13 (Hoover Institution Press, 2009) (contending that the FRB’s “extra-easy [monetary] policy accelerated the housing boom and thereby ultimately led to the housing bust”); Kling, supra note 64, at 38–39. For an impassioned attack on the FRB’s monetary policy between the mid-1990s and 2005, see William A Fleckenstein & Frederick Sheehan, Greenspan’s Bubbles: The Age of Ignorance at the Federal Reserve (2008).}

Second, during the past decade several Asian nations that were large exporters of goods (including China, Japan, and South Korea) maintained artificially low exchange rates for their currencies against the dollar, the pound sterling, and the euro. Those nations preserved advantageous exchange rates for their currencies (thereby boosting exports) by purchasing Western government securities and investing in Western financial markets. In addition, many oil exporting countries invested large amounts in Western assets. Thus, nations with significant balance-of-trade surpluses provided large amounts of credit and investment capital that boosted the value of Western currencies, supported low interest rates, and thereby promoted asset booms in the U.S., the U.K., and other European countries.\footnote{For discussions of the impact of large purchases of Western government securities and other investments in Western financial markets by Asian nations and oil exporting countries, see Morris, supra note 36, at 88–104; Wilmarth, supra note 1, at 1006–07; Astley et al., supra note 46, at 180–82.}

Third, Robert Shiller and others have argued that “bubble thinking” caused home buyers, LCFIs, CRAs, investors in structured-finance securities and regulators to believe that the housing boom would continue indefinitely and “could not end badly.”\footnote{Robert J. Shiller, The Subprime Solution 48–54 (2008). See also Morris, supra note 36, at 65–69; Wilmarth, supra note 1, at 1007–08; Astley et al., supra note 46, at 181.} According to these analysts, a “social contagion of boom thinking” helps to explain both why the housing bubble continued to inflate for several years, and why regulators failed to stop LCFIs from making high-risk loans to
borrowers who had no capacity to repay or refinance their loans unless their properties continued to appreciate in value.84

Finally, Fannie Mae ("Fannie") and Freddie Mac ("Freddie") contributed to the housing bubble by purchasing large quantities of nonprime mortgages and RMBS beginning in 2003. Those government-sponsored entities ("GSEs") purchased nonprime mortgages and RMBS because (i) Congress pressured them to fulfill affordable housing goals, (ii) large nonprime mortgage lenders (including Countrywide) threatened to sell most of their mortgages to Wall Street firms if the GSEs failed to purchase more of their nonprime loans, and (iii) Fannie's and Freddie's senior executives feared the loss of additional market share to LCFIs that were aggressively securitizing nonprime mortgages into private-label RMBS. By 2007, the two GSEs held risk exposures to more than $400 billion of nonprime mortgages, representing a fifth of the nonprime market. Heavy losses on those risk exposures contributed to the collapse of Fannie and Freddie in 2008.85

Notwithstanding the significance of the foregoing factors, LCFIs were clearly "the primary private-sector catalysts for the destructive credit boom that led to the subprime financial crisis, and they [became] the epicenter of the current global financial mess."86 As indicated above, the "big eighteen" LCFIs were dominant players in global securities and derivatives markets during the credit boom.87 Those LCFIs included most of the top underwriters for nonprime RMBS, ABS,

84 Shiller, supra note 83, at 41–54. See also Wilmarth, supra note 1, at 1007–08, and sources cited therein.
86 Wilmarth, supra note 1, at 1046.
87 See supra note 35 and accompanying text.
CMBS and LBO loans as well as related CDOs, CLOs and CDS. 88 While Fannie and Freddie funded about a fifth of the nonprime mortgage market between 2003 and 2007, they did so primarily by purchasing nonprime mortgages and private-label RMBS that were originated or underwritten by LCFIs. 89 LCFIs provided most of the rest of the funding for nonprime mortgages, as well as much of the financing for risky credit card loans, CRE loans and LBO loans. 90

The central role of LCFIs in the financial crisis is confirmed by the enormous losses they suffered and the huge bailouts they received. The “big eighteen” LCFIs accounted for three-fifths of the $1.5 trillion of total worldwide losses recorded by banks, securities firms and insurers between the outbreak of the financial crisis in mid-2007 and the spring of 2010. 91 The list of leading LCFIs is “a who’s who of the current financial crisis” that includes “[m]any of the firms that either went bust . . . or suffered huge write-downs that led to significant government intervention.” 92 Lehman failed, while two other members of the “big eighteen” LCFIs (AIG and RBS) were nationalized and three others (Bear, Merrill, and Wachovia) were acquired by other LCFIs with substantial governmental assistance. 93 Three additional members of the group (Citigroup, BofA, and UBS) survived only because they received costly government bailouts. 94 Chase, Goldman, and Morgan

88 Wilmarth, supra note 1, at 982–84, 989–91, 1019–20, 1031–35, 1039–42. See also Jaffee, supra note 35, at 69 tbl.1.4 (showing that the “big eighteen” LCFIs included eleven of the twelve top global underwriters of CDOs during 2006 and 2007).
89 See supra note 85 and accompanying text; Peterson, supra note 85, at 167–69.
90 See supra notes 23–36 and accompanying text; Jaffee et al., supra note 35, at 68–73; Saunders, Smith & Walter, supra note 35, at 143–45.
91 Yap & Pierson, supra note 13 (showing that the “big eighteen” LCFIs accounted for $892 billion, or 59 percent, of the $1.51 trillion of losses suffered by banks, securities firms and insurers). See also Saunders, Smith & Walter, supra note 35, at 144–45 tbl.5.3 (showing writedowns by nine of the “big eighteen” LCFIs as of mid-2008).
92 Jaffee, supra note 35, at 69.
93 Stowell, supra note 9, at 182–84, 398–405, 408–17; Wilmarth, supra note 1, at 1044–45; Wilmarth, supra note 9, at 28–30.
94 Wilmarth, supra note 1, at 1044–45 (stating that Citigroup and BofA received “huge bailout packages from the U.S. government that included $90 billion of (continued)
Stanley received substantial infusions of capital under the federal government’s Troubled Asset Relief Program (“TARP”). Goldman and Morgan Stanley also quickly converted to BHCs to secure permanent access to the FRB’s discount window as well as “the Fed’s public promise of protection.”

Thus, only Lehman failed of the “big eighteen” LCFIs, but the U.S., the U.K. and European nations provided extensive assistance to ensure the survival of at least twelve other members of the group. In the U.S., the federal government guaranteed the viability of the nineteen largest BHCs as well as AIG. Those institutions received $290 billion of capital infusions from the federal government, and they also issued $235 billion of debt that was guaranteed (and thereby subsidized) by the Federal Deposit Insurance Corporation (“FDIC”). In contrast, smaller banks received only $41 billion of capital assistance and capital infusions and more than $400 billion of asset guarantees,” while UBS “received a $60 billion bailout package from the Swiss government”). See also Wessel, supra note 8, at 239–41, 259–63 (discussing bailouts of Citigroup and BofA).

95 Wessel, supra note 8, at 217–18, 227, 236–40 (noting that Chase received $25 billion of TARP capital while Goldman and Morgan Stanley each received $10 billion).

96 Because Lehman’s collapse created a severe disruption in global financial markets, federal authorities decided to take all necessary measures to prevent other major LCFIs from suffering comparable failures. That decision led to the federal government’s bailouts of AIG, Citigroup and BofA, the infusions of TARP capital into other LCFIs and other extraordinary measures of support for the financial markets. See generally Sorkin, supra note 8, at 373–537 (2009); Wessel supra note 8, at 189–241. See also supra notes 93-95 and accompanying text (explaining that Bear, Merrill and Wachovia avoided failure due to government-assisted acquisitions, while AIG, RBS, BofA, Citigroup, UBS, Chase, Goldman and Morgan Stanley received varying amounts of direct governmental assistance); Fabio Benedetti-Valentini, “SocGen Predicts ‘Challenging’ 2009, Posts Profit,” Bloomberg.com, Feb. 18, 2009 (reporting that the French government provided financial assistance to Société Générale by purchasing subordinated debt and preferred stock from the bank).

97 See supra notes 8-11 and accompanying text; Robert Schmidt, “Geithner Slams Bonuses, Says Banks Would Have Failed (Update 2),” Bloomberg.com, Dec. 4, 2009 (quoting statement by Treasury Secretary Timothy Geithner that “none” of the biggest U.S. banks would have survived if the federal government had not intervened to support the financial system).
issued only $11 billion of FDIC-guaranteed debt. A prominent Federal Reserve official observed in 2009 that LCFIs “were central to this crisis as it expanded and became a global recession. . . . [S]tockholders and creditors of these firms enjoyed special protection funded by the American taxpayer.” He further remarked, “It is no longer conjecture that the largest institutions in the United States have been determined to be too big to fail. They have been bailed out.”

Recent Government Bailouts Demonstrate That LCFIs Benefit from Huge TBTF Subsidies

As shown above, LCFIs pursued aggressive and speculative business strategies that exposed them to huge losses and potential failures when asset bubbles in U.S. and European housing markets, CRE markets and LBO markets burst in the second half of 2007. The systemic risk created by LCFIs during the credit boom caused the U.S. and other nations to implement massive bailouts of LCFIs, including leading securities firms and insurance companies as well as banks.

98 Wilmarth, supra note 2, at 737-38.
101 Wilmarth, supra note 1, at 1032–43; Saunders, Smith & Walter, supra note 35, at 143-45.
102 See supra notes 8–12, 93-100 and accompanying text (describing rescues of LCFIs by the U.S. and foreign governments); Liam Pleven & Dan Fitzpatrick, (continued)
At the height of the financial crisis in March 2009, FRB Chairman Bernanke declared that the federal government was committed to ensure the survival of “systemically important financial institutions” (“SIFIs”) in order to prevent a systemic collapse of the financial markets and an economic depression. Chairman Bernanke defended the federal government’s decision to ensure “the continued viability” of SIFIs in the following terms:

In the midst of this crisis, given the highly fragile state of financial markets and the global economy, government assistance to avoid the failures of major financial institutions has been necessary to avoid a further serious destabilization of the financial system, and our commitment to avoiding such a failure remains firm.\(^{104}\)

Chairman Bernanke admitted that “the too-big-to-fail issue has emerged as an enormous problem” because “it reduces market discipline and encourages excessive risk-taking” by TBTF firms.\(^{105}\) Several months later, Governor Mervyn King of the Bank of England condemned the perverse incentives created by TBTF subsidies in even stronger terms. Governor King maintained that “[t]he massive support extended to the banking sector around the world, while necessary to avert economic disaster, has created possibly the biggest moral hazard in history.”\(^{106}\) He further argued that TBTF subsidies provided a partial

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\(^{104}\) Id.

\(^{105}\) Id.


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explanation for decisions by LCFIs to engage in high-risk strategies during the credit boom:

Why were banks willing to take risks that proved so damaging to themselves and the rest of the economy? One of the key reasons—mentioned by market participants in conversations before the crisis hit—is that incentives to manage risk and to increase leverage were distorted by the implicit support or guarantee provided by government to creditors of banks that were seen as ‘too important to fail.’ ... Banks and their creditors knew that if they were sufficiently important to the economy or the rest of the financial system, and things went wrong, the government would always stand behind them. And they were right.107

Industry studies and anecdotal evidence confirm that TBTF subsidies create significant economic distortions and promote moral hazard. In recent years, and particularly during the present crisis, LCFIs have operated with much lower capital ratios, and have benefited from a much lower cost of funds, compared with smaller banks.108 In addition, CRAs and bond investors have given a harm [due to insurance], you no longer have an incentive to take precautions against it”).

107 King 2009 Speech, supra note 106, at 3.

108 See Allen Berger et al., “How Do Large Banking Organizations Manage Their Capital Ratios?” 34 Journal of Financial Services Research 123, 138–39, 145 (2008) (finding that banks with more than $50 billion of assets maintained significantly lower capital ratios, compared to smaller banks, between 1992 and 2006); Hoenig August 6, 2009 Speech, supra note 100 (observing that the ten largest U.S. banks operated with a Tier 1 common stock capital ratio of 3.2 percent during the first quarter of 2009, compared to a ratio of 6.0 percent for banks smaller than the top-20 banks); David Cho, “Banks ‘Too Big to Fail’ Have Grown Even Bigger; Behemoths Born of the Bailout Reduce Consumer Choice, Tempt Corporate Moral Hazard,” Washington Post, Aug. 28, 2009, at (reporting that “[l]arge banks with more than $100 billion in assets are borrowing at interest rates 0.34 percentage points lower than the rest of the industry,” compared to a borrowing advantage of 0.08 percent in 2007); Gretchen Morgenson, “The Cost of Saving These Whales,” New York Times, Oct. 4, (continued)
preferential treatment to TBTF institutions because of the explicit and implicit government backing they receive. The preferential status of TBTF institutions is confirmed by the fact that they received by far the largest share of governmental assistance in the form of TARP capital assistance and FDIC debt guarantees. As

2009, § BU, at 1 (reporting on a study by Dean Baker and Travis McArthur, finding that (i) from 2000 through 2007, the average cost of funds for smaller banks was 0.29 percent higher than the average cost of funds for banks with $100 billion or more in assets, and (ii) “this spread widened to an average of 0.78 percentage point” from 2008 through June 2009, “when bailouts for large institutions became expected”); Arthur E. Wilmarth, Jr., “The Transformation of the U.S. Financial Services Industry, 1975–2000: Competition, Consolidation, and Increased Risks,” 2002 University of Illinois Law Review 215, 295, 301–02 (citing additional studies finding that large banks operated with capital ratios that were much lower than those of smaller banks, and that large banks also paid significantly lower interest rates on their deposits in comparison with smaller banks), available at http://ssrn.com/abstract=315345.


110 See supra notes 97–98 and accompanying text (stating that the 19 largest BHCs and AIG received $290 billion of TARP capital assistance and issued $235 billion of FDIC-guaranteed debt, while smaller banks received only $41 billion of capital infusions and issued only $11 billion of FDIC-guaranteed debt). In addition, “[d]uring the second half of 2007, the Federal Home Loan Bank System (FHLBS) provided more than $200 billion of secured credit to Citigroup, Countrywide, Merrill, Wachovia and Wamu after those institutions suffered severe losses from subprime mortgages and related assets . . . Advances from the FHLBS helped Countrywide to survive until it received an emergency takeover offer from [BofA].” Arthur E. Wilmarth, Jr., “Subprime (continued)
noted above, the federal government publicly announced in early 2009 that it would ensure the survival of the nineteen largest BHCs, thereby certifying their TBTF status.\footnote{See supra notes 10–11, 97–100 and accompanying text.}

Recognizing the enormous benefits of TBTF status, LCFIs pursued aggressive growth strategies during the past two decades in order to reach a size at which they would be presumptively TBTF.\footnote{See, e.g., Robert De Young et al., “Mergers and Acquisitions of Financial Institutions: A Review of the Post-2000 Literature,” 36 Journal of Financial Services Research 87, 96–97, 104 (2009) (reviewing studies and finding that “subsidies associated with becoming ‘too big to fail’ are important incentives for large bank acquisitions”); Elijah Brewer & Julapa Jagtiani, How Much Would Banks Be Willing to Pay to Become ‘Too-Big-to-Fail’ and to Capture Other Benefits? 9–20, 25–26 (Fed. Res. Bank of Kansas City Econ. Dep’t Research Working Paper 07-05, 2007) (determining that large banks paid significantly higher premiums to acquire smaller banks when (i) the acquisition produced an institution that crossed a presumptive TBTF threshold, such as $100 billion in assets or $20 billion in market capitalization, or (ii) a bank that was already TBTF acquired another bank and thereby enhanced its TBTF status); Todd Davenport, “Understanding the Endgame: Scale Will Matter, But How Much?” American Banker, Aug. 30, 2006, at 1 (describing the widespread belief among banking industry executives that “size is the best guarantor of survival” and that “[t]he best way—and certainly the quickest way—to achieve scale is to buy it”); Wilmarth, supra note 108, at 300–08 (citing additional evidence for the conclusion that “TBTF status allows megabanks to operate with virtual ‘fail-safe’ insulation from both market and regulatory discipline”).} All of today’s four largest U.S. banks (BofA, Chase, Citigroup and Wells Fargo) are the products of serial acquisitions and explosive growth since 1990.\footnote{Wilmarth, supra note 2, at 746.} BofA’s and Citigroup’s rapid expansions led them to brink of failure, from which they were saved by huge federal bailouts.\footnote{See supra notes 8, 94 and accompanying text.} Wachovia (the fourth-largest U.S. bank at the beginning of the crisis) pursued a similar path of frenetic growth until it collapsed in 2008 and was rescued by Wells Fargo in a federally-assisted merger.\footnote{Wilmarth, supra note 2, at 745.}
pattern of rapid expansion, collapse and bailout occurred among several European LCFIs.\textsuperscript{116}

Unfortunately, the emergency acquisitions of LCFIs arranged by U.S. regulators have produced domestic financial markets in which the largest institutions hold even greater dominance.\textsuperscript{117} The four largest U.S. banks (BofA, Chase, Citigroup and Wells Fargo) now control 56 percent of domestic banking assets, up from 35 percent in 2000,\textsuperscript{118} while the top ten U.S. banks control 75 percent of domestic banking assets, up from 54 percent in 2000.\textsuperscript{119} The four largest banks also control a majority of the product markets for home mortgages, home equity loans, and credit card loans. Together with Goldman, the same four banks account for 97 percent of the aggregate notional values of OTC derivatives contracts written by U.S. banks.\textsuperscript{120} Thus, as Nomi Prins observed in September 2009, “[n]othing has changed [as a result of the financial crisis] except that we have larger players who are more powerful, who are more dependent on government capital and who are harder to regulate than they were to begin with.”\textsuperscript{121}

\textbf{Financial Regulation Must Be Reformed to Shrink TBTF Subsidies}

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

\textsuperscript{116} Id. at 746 n.153.
\textsuperscript{117} See supra notes 9, 93 and accompanying text (discussing acquisitions of Countrywide and Merrill by BofA, of Bear and Wamu by Chase, and of Wachovia by Wells Fargo).
\textsuperscript{118} Peter Eavis, “Finance Fixers Still Living in Denial,” \textit{Wall Street Journal}, Dec. 16, 2009, at C18. Compare Peter Boone & Simon Johnson, “Shooting Banks,” \textit{New Republic}, Mar. 11, 2010, at 20 (stating that the six largest U.S. banks currently have combined assets exceeding 63 percent of GDP, while the combined assets of the six largest banks in 1995 were equal to only 17 percent of GDP).
\textsuperscript{120} Wilmarth, supra note 2, at 747.
of both supervisory and market discipline, and it creates moral hazard incentives for managers, depositors and other uninsured creditors of LCFIs. During the current financial crisis, the U.S. and European nations followed a TBTF policy that embraced the entire financial sector. Recent studies have shown that the TARP capital infusions and FDIC debt guarantees announced in October 2008 represented very large transfers of wealth from taxpayers to the shareholders and creditors of the largest U.S. LCFIs.

The enormous competitive advantages enjoyed by TBTF institutions must be eliminated (or at least significantly reduced) in order to restore a more level playing field for smaller financial institutions and to encourage the voluntary breakup of inefficient and risky financial conglomerates. The financial crisis has proven, beyond any reasonable doubt, that large universal banks operate based on a dangerous business model that is riddled with conflicts of interest and prone to speculative risk-taking.

Accordingly, U.S. and European governments must rapidly adopt reforms that will (i) greatly reduce the scope of governmental safety

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122 Wilmarth, supra note 108, at 475.
124 As I have argued in a previous article, large financial conglomerates have never proven their ability to achieve superior performance without relying on the extensive TBTF subsidies they currently receive. Wilmarth, supra note 2, at 740–44, 748–49.
nets and thereby significantly diminish the subsidies currently provided to LCFIs, and (ii) facilitate the orderly failure and liquidation of LCFIs under governmental supervision, with consequential losses to managers, shareholders and creditors of LCFIs. I believe that five key reforms are needed to accomplish those objectives: (1) strengthening current statutory restrictions on the growth of LCFIs, (2) creating a special resolution process to manage the orderly liquidation or restructuring of SIFIs, (3) establishing a consolidated supervisory regime and enhanced capital requirements for SIFIs, (4) creating a special insurance fund for SIFIs, in order to cover the costs of resolving failed SIFIs, and (5) rigorously insulating FDIC-insured banks that are owned by LCFIs from the activities and risks of their nonbank affiliates. The following sections provide an overview of my proposed reforms.

Statutory Limits on the Growth of LCFIs Should Be Strengthened

Congress authorized nationwide banking—via interstate branching and interstate acquisitions of banks by BHCs—when it passed the Riegle-Neal Interstate Banking and Branching Act of 1994 ("Riegle-Neal Act"). To prevent the emergence of dominant megabanks, the Riegle-Neal Act imposed nationwide and statewide deposit concentration limits ("deposit caps") on interstate expansion by large banking organizations. Under the Riegle-Neal Act, a BHC may not acquire a bank in another state, and a bank may not merge with another bank across state lines, if the resulting banking organization (together with all affiliated FDIC-insured depository institutions) would hold (i) ten percent or more of the total deposits of all depository institutions in the U.S., or (ii) thirty percent or more of the total deposits of all depository institutions in any state.

Unfortunately, the effectiveness of Riegle-Neal’s nationwide and statewide deposit caps is undermined by three major loopholes. First, the Riegle-Neal deposit caps do not apply to intrastate bank acquisitions or intrastate bank mergers. Second, the deposit caps do not apply to acquisitions of, or mergers with, thrift institutions and industrial banks, because those institutions are not treated as “banks” under the Riegle-Neal Act. Third, the deposit caps do not apply to acquisitions of, or mergers with, banks that are “in default or in danger of default” (the “failing bank” exception).

The emergency acquisitions of Countrywide, Merrill, Wamu and Wachovia in 2008 demonstrated the significance of Riegle-Neal’s loopholes and the necessity of closing them. In reliance on the “non-bank” loophole, the FRB allowed BofA to acquire Countrywide and Merrill even though (i) both firms controlled FDIC-insured depository institutions (a thrift, in the case of Countrywide, and a thrift and industrial bank, in the case of Merrill), and (ii) both transactions allowed BofA to exceed the ten percent nationwide deposit cap. Similarly, after the FDIC seized control of Wamu as a failed depository institution, the FDIC sold the giant thrift to Chase even though the transaction enabled Chase to exceed the ten percent nationwide deposit.
Finally, although the FRB determined that Wells Fargo’s acquisition of Wachovia gave Wells Fargo control of just under ten percent of nationwide deposits, the FRB probably could have approved the acquisition in any case by designating Wachovia as a bank “in danger of default.”

The foregoing acquisitions enabled BofA, Chase and Wells Fargo to surpass the ten percent nationwide deposit cap. To prevent further breaches of the Riegle-Neal concentration limits, Congress should extend the nationwide and statewide deposit caps to cover all intra-state and interstate transactions involving any type of FDIC-insured depository institution, including thrifts and industrial banks. In addition, Congress should significantly narrow the failing bank exception by requiring federal regulators to make a “systemic risk determination” (“SRD”) in order to approve any transaction involving a failing FDIC-insured depository institution that would exceed the nationwide or statewide deposit caps.

Congress should establish the following procedural requirements for an SRD. First, the FRB and FDIC should determine jointly, with the concurrence of the Treasury Secretary, that the proposed transaction is necessary to avoid a substantial threat of severe injury to the banking system, the financial markets or the national economy. Second, each SRD should be audited by the Government Accountability Office (“GAO”) to determine whether regulators satisfied the criteria for an SRD.

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133 See “Statement by the Board of Governors of the Federal Reserve System Regarding the Application and Notices by Wells Fargo & Company to Acquire Wachovia Corporation and Wachovia’s Subsidiary Banks and Non-banking Companies (Wells Fargo & Company),” *Federal Reserve Bulletin* B40, B41–42 (Mar. 2009) (determining that “the combined organization would not control an amount of deposits that would exceed the nationwide deposit cap on consummation of the proposal”); *id.* at B48 (concluding that “expeditious approval of the proposal was warranted in light of the weakened condition of Wachovia”).
134 See Matt Ackerman, “Big 3 Deposit Share Approaches 33 percent,” *American Banker*, Oct. 28, 2008, at 16 (reporting the nationwide deposit shares for BofA, Chase and Wells Fargo as 11.3 percent, 10.2 percent and 11.2 percent, respectively).
SRD. Third, each SRD should be reviewed in a joint hearing held by the House and Senate committees with oversight of the financial markets. The foregoing procedure for approving and reviewing an SRD (the “SRD Procedure”) would ensure much greater public transparency of, and scrutiny for, (i) any federal agency order that invokes the failing bank exception to the Riegle-Neal deposit caps, and (ii) regulatory decisions of similar importance, as described below.

The Obama Administration has announced its support for a proposal by former FRB Chairman Paul Volcker to prohibit mergers and acquisitions that would allow a single financial institution to acquire control of more than ten percent of total bank liabilities other than insured deposits (the “Volcker liabilities cap”). The Volcker liabilities cap would supplement the existing Riegle-Neal deposit caps and would be subject to the same exemption for acquisitions of banks “in default or in danger of default.”\(^{135}\) If enacted, the Volcker liabilities cap would present a significant barrier to further acquisitions of banks by BofA, Chase, and Citigroup.\(^{136}\) The Volcker liabilities cap would have the greatest impact on Citigroup, because Citigroup currently is not close to exceeding the Riegle-Neal nationwide deposit cap. In contrast, the Riegle-Neal nationwide deposit cap already blocks the three major rivals of Citigroup (BofA, Chase and Wells Fargo) from making further interstate acquisitions of banks.\(^{137}\)

The Volcker liabilities cap has been criticized as vague and unworkable.\(^{138}\) It remains to be seen whether the proposal can be clarified in


\(^{136}\) Id. (reporting that U.S. banks held $10.4 trillion of liabilities, while Chase, BofA and Citigroup held liabilities of $1.5 trillion, $1.3 trillion and $1 trillion, respectively).

\(^{137}\) See supra note 134 and accompanying text (citing news article reporting that BofA, Chase and Wells exceeded the Riegle-Neal 10 percent nationwide deposit cap); Kevin Dobbs, “Even After Infusion, Citi Seen Needing Fix,” American Banker, Nov. 25, 2008, at 1 (reporting that Citigroup had only $200 billion of domestic deposits, compared to the more than $600 billion of domestic deposits held by each of its three major rivals).

a manner that would give it a utility and ease of application comparable to the Riegle-Neal deposit caps. If it is appropriately clarified, the Volcker liabilities cap should be adopted as a supplemental method of restricting the growth of very large BHCs (e.g., Citigroup, Goldman, and Morgan Stanley) that rely mainly on the capital markets, rather than deposits, for their funding.\textsuperscript{139} For the reasons stated above with regard to the Riegle-Neal deposit caps, the Volcker liabilities cap should apply to all interstate and intrastate acquisitions of FDIC-insured depository institutions (including thrifts and industrial banks), and regulators should not be able to invoke the “failing bank” exception unless they comply with the SRD Procedure.

A Special Resolution Regime Should Be Established for Systemically Important Financial Institutions

During the financial crisis—as shown by the FRB’s assistance for Chase’s acquisition of Bear, the traumatic bankruptcy of Lehman, and the federal government’s massive bailout of AIG—federal regulators confronted a “Hobson’s choice of bailout or disorderly bankruptcy” when they decided how to respond to a SIFI’s potential failure.\textsuperscript{140} A statutory resolution process for SIFIs, similar to the existing resolution regime for FDIC-insured depository institutions, would be a highly beneficial “third way, between bankruptcy and bailout, that would either euthanize [SIFIs] peacefully or resuscitate them under new management.”\textsuperscript{141} The special resolution regime for SIFIs should include three essential elements.

\textsuperscript{139} See Heather Landy, “Review/Preview: Goldman and Morgan Stanley Ditch Banking Script, So Far,” \textit{American Banker}, Dec. 30, 2009, at 1 (reporting that Goldman and Morgan Stanley relied primarily on the capital markets for funding, as each firm had less than $70 billion of deposits in 2009); \textit{supra} notes 136–137 and accompanying text (stating that Citigroup had $1 trillion of liabilities but only $200 billion of domestic deposits).


First, Congress should establish a Financial Stability Oversight Council (“FSOC”) with voting members that include the leaders of the federal financial regulatory agencies and with additional non-voting members that represent state regulators of state-chartered banks, insurance companies and securities firms. By a two-thirds vote, the FSOC should be authorized to determine that a BHC or a nonbank financial company should be designated as a SIFI and should be subject to the special resolution regime for SIFIs. The criteria for identifying a financial firm as a SIFI should be based on factors relevant to systemic risk, including the firm’s size and the risk of contagion from the firm’s failure due to (i) the firm’s interconnectedness or correlations of risk exposures with other important financial institutions or financial markets or (ii) the firm’s role as a key participant within one or more important sectors of the financial markets.

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

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142 See Senate Report No. 111-176, at 47 (explaining the Senate Banking Committee’s proposal for an FSOC, which would be chaired by the Secretary of the Treasury and would include the following additional voting members: the chairmen of the FRB and the FDIC, the Comptroller of the Currency, the chairmen of the Commodity Futures Trading Commission and the SEC, the director of the National Credit Union Administration, the chairman of the Federal Housing Finance Agency, the director of a proposed new Bureau of Consumer Financial Protection, and an independent member with insurance experience appointed by the President.


As a result of this massive and explicit governmental support, CRAs, depositors, and bondholders are currently giving highly preferential treatment to LCFIs that are viewed as TBTF.

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

Second, the FDIC should have authority to initiate the new special resolution regime for a failing SIFI by making an SRD (concurrently with the FRB and the Treasury Secretary). The SRD should follow the SRD Procedure and should require a finding that the SIFI either (i) has fallen below a specified minimum capital threshold or (ii) is facing a near-term risk of insolvency or bankruptcy due to a lack of adequate liquidity or a threatened acceleration of outstanding creditor claims. In addition, the SRD should include a finding that the systemic resolution process is needed to prevent the SIFI’s imminent failure from posing a risk of serious harm to the banking system, the financial markets or the national economy. The resolution process for a failed SIFI should

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145 See supra notes 8–12, 93-100, 110-11 and accompanying text.
146 See supra notes 108-09 and accompanying text.
147 Thomson, supra note 143, at 8–9 (rejecting the former policy of “constructive ambiguity” and advocating public identification of SIFIs).
148 In March 2010, Treasury assistant secretary Herbert Allison received a hostile reception when he claimed at a hearing before the Congressional Oversight Panel (“COP”) that “[t]here is no ‘too big to fail’ guarantee on the part of the U.S. government.” Members of the COP responded to Mr. Allison’s claim with derision and disbelief. COP member Damon Silvers declared, “I do not understand why it is that the United States government cannot admit what everyone in the world knows.” Cheyenne Hopkins, “Pandit Sees a New Citigroup, But Others Aren’t Convinced,” American Banker, Mar. 5, 2010, at 1 (noting that Mr. Allison’s claim “angered and baffled the panelists”).

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be administered by the FDIC, given its experience in resolving large bank failures.149

Third, the resolution process for SIFIs should incorporate the following principles: (A) stockholders must lose their entire investment if the SIFI is unable to pay all valid creditor claims, (B) senior managers must be dismissed, together with other employees who were responsible for the SIFI’s failure, and (C) unsecured creditors must be required to accept meaningful “haircuts,” either in the form of a significant reduction in the amount of their debt claims or an exchange of a substantial amount of their debt claims for equity interests in a successor institution. In other words, the resolution process for a SIFI should resemble, to the maximum extent feasible, the outcome of a Chapter 11 bankruptcy proceeding.150 The FDIC should be required to prepare an SRD, and to comply with the SRD Procedure, if it decides either that (A) it must depart from any of the foregoing principles, or (B) it must advance funds to support the SIFI’s resolution without a reasonable assurance of repayment from the proceeds of the resolution. Any net proceeds realized by the FDIC from a SIFI’s resolution (over and above the FDIC’s expenses in carrying out the resolution) should be added to the Systemic Risk Insurance Fund (“SRIF”), described below.

**SIFIs Should Be Subject to Consolidated Supervision by the FRB and Enhanced Prudential Requirements**

Congress should designate the FRB as the consolidated supervisor for SIFIs, subject to the oversight of the FSOC. Given the FRB’s experience as the regulator of BHCs and as the “umbrella supervisor”

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149 See Edward R. Morrison, *Is the Bankruptcy Code an Adequate Mechanism for Resolving the Distress of Systemically Important Institutions?* 10–16 (Columbia L. & Econ. Working Paper No. 362, 2009), available at http://ssrn.com/abstract=1529802 (concluding that creation of a new regulatory process for regulating SIFIs and resolving their failures would be preferable to an approach that would rely on Chapter 11 bankruptcy proceedings to resolve such failures). See also Carnell, Macey & Miller, supra note 106, ch. 13 (discussing the FDIC’s resolution regime for failed banks).

150 See Wilmarth, supra note 2, at 757.
for financial holding companies ("FHCs"), it is the logical choice as the consolidated supervisor for SIFIs.\textsuperscript{151}

As consolidated supervisor, the FRB should have power to examine, and require reports from, SIFIs and their subsidiaries and affiliates. The FRB should also have authority to take enforcement actions (including cease-and-desist orders, civil money penalty orders, and orders removing directors and officers) against SIFIs and their subsidiaries and affiliates. The FRB's authority in these matters should be direct. The FRB should not be required (as it is under current law) to rely primarily on actions taken by regulators of functionally regulated subsidiaries (e.g., banks, securities broker-dealers and insurance companies).\textsuperscript{152}

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

The FRB should also have authority, with the concurrence of the FDIC, to establish systemic risk capital requirements ("SRCRs") for SIFIs. The FDIC should be given a concurrent role in establishing


\textsuperscript{152} Under current law, the FRB is required to rely “to the fullest extent possible” on reports provided and examinations conducted by primary regulators of functionally regulated subsidiaries of BHCs and FHCs. The FRB has only limited authority to require reports from, to conduct examinations of, or to take enforcement actions against, functionally regulated subsidiaries of BHCs and FHCs. \textit{See} 12 U.S.C. §§ 1844(c), 1844(e), 1844(g), 1848a; Carnell, Macey & Miller, \textit{supra} note 106, at 457–60.
SRCRs in view of its role as administrator of the SRIF. The FDIC’s responsibilities for administering the SRIF would encourage the FDIC to apply strict discipline against SIFIs in order to protect the SRIF’s solvency. Accordingly, the FDIC’s tendency toward supervisory stringency would serve as a desirable counterweight against the FRB’s tendency toward supervisory forbearance (which arises out of the FRB’s concern with preserving the stability of the financial markets). If the FRB and the FDIC disagreed over the appropriate level of SRCRs, the FSOC could resolve the disagreement and specify SRCRs by a vote of at least a majority of its voting members other than the representatives of the FRB and FDIC.

SRCRs should include a leverage capital requirement, which would be calculated based on the total (unweighted) assets of each SIFI. A leverage requirement is a useful tool for limiting excessive risk-taking by financial institutions, and it is an essential supplement to risk-based capital requirements. In 2007, European banks and U.S. investment banks operated with very high asset-to-equity ratios (usually above

153 For example, the conduct of the FRB and the FDIC during the negotiations that led to the Basel II international capital accord indicated that the FRB was more inclined than the FDIC to accommodate the interests and concerns of large banks. During those negotiations, the FRB actively supported an “advanced internal risk-based” (A-IRB) method for establishing capital requirements for the largest banks. The A-IRB method was favored by major banks because it allowed each bank to calculate its capital needs based on internal quantitative risk models, as long as those models satisfied supervisory criteria. Major banks supported the A-IRB method because that approach held out the possibility of significantly reducing their capital requirements. In contrast to the FRB, the FDIC expressed great skepticism about the A-IRB approach. The FDIC therefore insisted that federal regulations implementing Basel II must include transitional, phased-in capital floors to prevent any rapid drop in risk-based capital requirements under the A-IRB method. In addition, the FDIC fought hard to preserve the U.S. leverage capital requirement as an essential safeguard that would help maintain adequate capital levels at all U.S. banks, even though the Basel II accord did not include any leverage requirement. Daniel K. Tarullo, Banking on Basel: The Future of International Financial Regulation 99–130 (Washington, DC: Peterson Institute for Int’l Economics, 2008). See also Wilmarth, supra note 108, at 470-73 (describing the extraordinary actions taken by the FRB to preserve financial market stability between 1970 and 2001).
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30:1) because they were subject only to risk-based capital rules and did not have to satisfy a leverage capital requirement. By contrast, asset-to-equity ratios for U.S. commercial banks were typically below 25:1 because those banks had to comply with a leverage requirement as well as risk-based capital rules. To provide an additional margin for safety, the minimum leverage capital requirement for SIFIs should be increased to a level well above the current requirement of five percent for well-capitalized institutions.154

In addition to a leverage requirement, SRCRs should incorporate risk-based components, including rules that emphasize “the importance of common equity” as well as the need to “reduce pro-cyclical tendencies by establishing special capital buffers that would be built up in boom times and drawn down as conditions deteriorate.”155 The marginal rates for risk-based SRCRs should become progressively higher as a SIFI poses greater systemic risk due to (a) increases in its size, complexity or interconnectedness with other LCFIs, (b) hazards created by an aggressive compensation structure for managers or for key employees who work in high-risk areas (e.g., proprietary trading), and/or (c) weaknesses in the SIFI’s liquidity.156 In addition, SRCRs should take full account of all risk exposures of a SIFI, whether those exposures are held on the SIFI’s balance sheet or are linked to OBS entities.157

One intriguing proposal would require each SIFI to issue “contingent capital” as one component of its SRCR. This contingent capital

154 For sources supporting the imposition of a leverage capital requirement, and noting the disparity between the asset-to-equity ratios at U.S. commercial banks and the significantly higher (and more risky) ratios at U.S. investment banks and European banks in 2007, see Blundell-Wignall & Atkinson, supra note 66, at 93–96; Blundell-Wignall et al., supra note 5, at 18–22; Haldane, supra note 66, at 7 (stating that “[o]ne simple means of altering the rules of the asymmetric [risk] game between banks and the state is to place heavier restrictions on leverage”).

155 Tarullo Regulatory Reform Speech, supra note 140.

156 For one approach to calculating SRCRs, see Acharya et al., “Regulating Systemic Risk,” supra note 143, at 289–93.

157 See supra notes 70–80 and accompanying text (describing how LCFIs retained large risk exposures to OBS conduits during the credit boom that led to the current financial crisis).
would be issued in the form of convertible subordinated debt. That debt would convert automatically into common stock upon the occurrence of a designated event of financial stress, such as (i) a decline in the SIFI’s capital below a specified level that would “trigger” an automatic conversion, or (ii) the initiation by the FRB and the FDIC of the special resolution process for a SIFI. One advantage of contingent capital is that the SIFI’s common equity would be increased (due to the mandatory conversion of subordinated debt) at a time when the SIFI would face significant financial stress and probably could not sell stock in the market. Additionally, mandatory conversion would encourage holders of convertible subordinated debt to exercise greater discipline over the SIFI’s management, since those holders would risk losing their entire investment if mandatory conversion occurred.\footnote{For discussion of proposals for a contingent capital requirement, see, e.g., Christopher L. Culp, “Contingent Capital vs. Contingent Reverse Convertibles for Banks and Insurance Companies,” \textit{Journal of Applied Corporate Finance}, Fall 2009, at 17, 23–27; Emily Flitter, “Push for ‘Contingent Capital’ Has Momentum,” \textit{American Banker}, Oct. 2, 2009, at 1; David Henry, “The Second Coming of ‘Safer’ Securities,” \textit{Business Week}, Dec. 7, 2009, at 56.}

The biggest problem with the contingent capital proposal is that outside investors would be reluctant to purchase convertible subordinated debt unless the terms of the debt included a relatively high interest rate or other investor-friendly features (e.g., a voluntary conversion option on favorable terms) that would offset the risk of forfeiture due to a mandatory conversion event. SIFIs and outside investors therefore might not be able to agree on an interest rate and other terms for contingent capital that would acceptable to both sides.\footnote{See Culp, \textit{supra note} 158, at 27; Flitter, \textit{supra note} 158; Henry, \textit{supra note} 158.}

As I suggested in a previous article, contingent capital would be a particularly attractive option for compensating senior managers and other key employees. Managers and key employees should be required to accept convertible subordinated debentures in payment of a significant portion (e.g., one-third) of their annual compensation. Managers and key employees should not be allowed to make voluntary conversions of their subordinated debentures into common stock until the expiration of a minimum holding period (e.g., three years) after the
termination date of their employment. Such a minimum post-employment holding period would discourage managers and key employees from taking excessive risks to boost the value of the conversion option during the term of their employment. At the same time, managers and key employees would know that their debentures are subject to mandatory conversion into common stock upon the occurrence of a designated event of financial stress. Thus, requiring managers and key employees to hold a significant portion of contingent capital would give them positive incentives to avoid excessive risk-taking and to manage their SIFI prudently in accordance with the interests of creditors as well as shareholders. Such a requirement would also force managers and key employees to share a significant portion of the loss if their SIFI was threatened with failure.160

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

To accomplish a further reduction of TBTF subsidies, Congress should require SIFIs to pay risk-based insurance premiums to establish the SRIF.161 The FDIC should be required to assess risk-based SRIF premiums in order to establish, within a period not to exceed five years, a SRIF that would provide reasonable protection to taxpayers against the cost of a future systemic financial crisis. As explained above, federal regulators provided $290 billion of capital assistance to the nineteen


161 The following discussion of my proposal to establish a SRIF, funded by risk-based premiums paid by SIFIs, is adapted from Wilmarth, supra note 2, at 761-64. See also Arthur E. Wilmarth, Jr., “Viewpoint: Prefund a Systemic Resolution Fund,” American Banker, June 11, 2010, at 8.
largest BHCs (each with assets of more than $100 billion) and to AIG during the current crisis.\textsuperscript{162} It therefore appears that (i) $300 billion (appropriately adjusted for inflation) would be the minimum acceptable size for the SRIF, and (ii) SRIF premiums should be paid by all BHCs with assets of more than $100 billion (also adjusted for inflation) and by all other designated nonbank SIFIs. As with SRCRs, the marginal rates for SRIF premiums should become progressively higher as SIFIs pose greater systemic risk, adopt riskier compensation structures and/or maintain inadequate liquidity.\textsuperscript{163} In addition, the FDIC should impose additional assessments on SIFIs in order to replenish the SRIF within three years after the SRIF incurs any loss due to the failure of a SIFI.

For at least four reasons, it is essential to establish a pre-funded SRIF. First, it is unlikely that most SIFIs would have adequate financial resources to pay large SRIF premiums after one or more of their peers failed during a financial crisis. LCFIs are frequently exposed to highly correlated risk exposures during a serious financial disruption, because they followed similar high-risk business strategies (“herding”) during the credit boom that led to the crisis.\textsuperscript{164} Many LCFIs are therefore

\textsuperscript{162} See supra notes 8–11, 97–98 and accompanying text.

\textsuperscript{163} Acharya et al., “Regulating Systemic Risk,” supra note 143, at 293–94. See also Xin Huang et al., “A Framework for Assessing the Systemic Risk of Major Financial Institutions,” 33 Journal of Banking and Finance 2036 (2009) (proposing a stress testing methodology for calculating an insurance premium sufficient to protect against losses of more than 15 percent of the total liabilities of twelve major U.S. banks during the period 2001–2008, and concluding that the hypothetical aggregate insurance premium would have had an “upper bound” of $250 billion in July 2008).

\textsuperscript{164} A recent study concluded that market returns of the 100 largest banks, securities firms, insurers and hedge funds became “highly interconnected,” and their risk exposures became “highly interrelated,” during the current financial crisis as well as during (i) the dotcom-telecom bust of 2000–2002 and (ii) the crisis surrounding Russia’s debt default and the threatened failure of Long-Term Capital Management, a major hedge fund, in 1998. Monica Billio et al., Measuring Systemic Risk in the Finance and Insurance Sectors 16–17, 40–47 (MIT Sloan Sch. Mgmt. Working Paper 4774-10, 2010), available at http://ssrn.com/abstract=1571277. For additional evidence indicating that banks and other financial institutions engage in herding behavior that can trigger systemic financial crises, see Viral V. Acharya & Tanju Yorulmazer,
likely to suffer severe losses and to face a substantial risk of failure during a major disturbance in the financial markets. Consequently, a post-funded SRIF (i) would probably not be able in the short term to collect enough premiums from surviving SIFIs to cover the costs of resolving one or more failed SIFIs, and (ii) would therefore have to borrow large sums from the federal government to cover short-term resolution costs. Even if the SRIF ultimately repaid the borrowed funds by imposing ex post assessments on surviving SIFIs, the public and the financial markets would understandably conclude that the federal government provided bridge loans to bail out creditors of the failed SIFIs. Accordingly, a post-funded SRIF would not be successful in eliminating many of the implicit subsidies (and associated moral hazard) that our current TBTF policy has created.

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


See supra notes 91–100 and accompanying text (showing that the “big eighteen” LCFIs accounted for nearly three-fifths of the $1.5 trillion of losses incurred by global banks, securities firms and insurers during the current crisis, and twelve of those institutions were bailed out or received substantial governmental assistance).


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

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

To further reduce the potential TBTF subsidy for SIFIs, the SRIF should be strictly separated from the existing Deposit Insurance Fund (“DIF”). To ensure this separation, Congress should repeal the “systemic-risk exception” that is currently included in the Federal Deposit Insurance Act (“FDI Act”). The FDIC relied on that exception when it joined with the Treasury Department and the FRB in providing more than $400 billion of asset guarantees to Citigroup and BofA. The

169 12 U.S.C. § 1823(c)(4)(G) (2006) (allowing the FDIC, with the concurrence of the Treasury Secretary and the FRB, to disregard the least-cost requirement for bank resolutions if the failure of a bank “would have serious adverse effects on economic conditions or financial stability”). See also Carneal, Macey & Miller, supra note 106, at 731–32 (discussing “systemic-risk exception”).
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DIF should no longer be available as a potential source of protection for shareholders and creditors of SIFIs. Instead, the SRIF should be designated as the exclusive source of future funding for resolutions of failed SIFIs. Thus, the systemic-risk exception for the DIF should be repealed, and the FDIC should be required to apply the least-cost test in resolving all future bank failures. Repeal of the systemic-risk exception would ensure that the DIF is no longer viewed as a potential bailout fund for TBTF banking organizations.

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

In January 2010, President Obama announced his support for the “Volcker rule” proposed by former FRB Chairman Paul Volcker. The Volcker rule would prohibit FDIC-insured banks and companies controlling such banks from owning or controlling hedge funds or private equity funds or from engaging in proprietary trading (i.e., buying and selling securities, derivatives and other tradable assets for their own account). Trading in the capital markets by banks and their holding companies would be limited to “market making” activities conducted on behalf of clients. The primary purpose of the Volcker rule is to prevent government safety nets from “protecting and supporting essentially proprietary and speculative activities.” As this article went to press, it was uncertain whether Congress would adopt the Volcker rule. One of the most frequently-stated critiques of the rule was the difficulty in distinguishing between permissible activities conducted on behalf of clients.

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


market-making for clients and prohibited proprietary trading for a bank’s own account.174

In my view, the most feasible way to accomplish the basic purpose of the Volcker rule—namely, to prevent SIFIs from using the federal safety net to subsidize their speculative activities in the capital markets—would be to create a two-tiered structure of bank regulation and deposit insurance. As described below, the first tier of “traditional” banking organizations would provide a relatively broad range of banking-related services, but those organizations would not be allowed to engage, or to affiliate with firms engaged, in securities underwriting or dealing, insurance underwriting or derivatives dealing. In contrast, the second tier of “narrow banks” could affiliate with “nontraditional” firms engaged in capital markets activities, except for private equity investments. However, “narrow banks” would be prohibited from making any extensions of credit or other transfers of funds to their non-bank affiliates, except for lawful dividends paid to their parent holding companies. The “narrow bank” approach provides the most practicable method for ensuring that banks cannot transfer their safety net subsidies to affiliated companies engaged in speculative activities in the capital markets, and it is therefore consistent with the spirit of the Volcker rule.175

174 Wilmarth, supra note 2, at 765. See Carnell, Macey & Miller, supra note 106, at 130, 528–29 (describing the roles of “dealers” (i.e., proprietary traders) and “market makers” and indicating that the two roles frequently overlap).

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The First Tier of Traditional Banking Organizations

Under my proposal, the first tier of regulated banking firms would be “traditional” banking organizations that limit their activities (including the activities of all holding company affiliates) to lines of business that meet the “closely related to banking” test under Section 4(c)(8) of the Bank Holding Company Act (“BHC Act”).176 For example, this first tier of traditional banks could take deposits, make loans, offer fiduciary services, and act as agents in selling securities, mutual funds and insurance products underwritten by non-affiliated firms. Additionally, they could underwrite and deal solely in “bank-eligible” securities that national banks are permitted to underwrite and deal in directly.177 First-tier banking organizations could also purchase, as end-users, derivatives solely for bona fide hedging transactions that qualify for hedging treatment under Financial Accounting Standard (“FAS”) Statement No. 133.178

Most first-tier banking firms would probably be small and mid-sized community-oriented banks. Those banks do not have any comparative advantage—and therefore have not shown any substantial interest—in engaging as principal in insurance underwriting, securities underwriting or dealing, derivatives dealing or other capital markets activities. Community banks are well positioned to continue their established business of attracting core deposits, providing relationship loans to consumers as well as small and medium-sized business firms, and offering wealth management services to local customers through their fiduciary operations.179

In order to provide reasonable flexibility for this first tier of traditional banks, Congress should amend Section 4(c)(8) of the BHC Act by permitting the FRB to expand the list of “closely related”

176 See 12 U.S.C. § 1843(c)(8) (2006); Carnell, Macey & Miller, supra note 106, at 442–44 (describing “closely related to banking” activities that are permissible for nonbank subsidiaries of BHCs under § 4(c)(8)).
177 See Wilmarth, supra note 108, at 225, 225–26 n.30 (discussing “bank-eligible” securities that national banks are authorized to underwrite or purchase or sell for their own account); Carnell, Macey & Miller, supra note 106, at 132–34 (same).
178 See Wilmarth, supra note 2, at 766 (discussing FAS 133).
179 For a discussion of the business strategies typically followed by community banks, see, e.g., Wilmarth, supra note 108, at 268–72.
activities that are permissible for holding company affiliates of traditional banks.\textsuperscript{180} However, Congress should prohibit first-tier BHCs from engaging as principal in underwriting or dealing in securities, underwriting any type of insurance (except for credit insurance), dealing in OTC derivatives or making private equity investments. Furthermore, traditional banks and their holding companies should continue to operate under their current supervisory arrangements, and all of the banks’ deposits (up to the current statutory limit of $250,000) should be covered by deposit insurance.

**The Second Tier of Nontraditional Banking Organizations**

In contrast to first-tier banking firms, the second tier of “nontraditional” banking organizations would be allowed to engage in (i) underwriting and dealing (i.e., proprietary trading) in “bank-ineligible” securities, (ii) underwriting insurance, and (iii) dealing or trading in derivatives. Second-tier organizations would include: (A) FHCs registered under Sections 4(k) and 4(l) of the BHC Act,\textsuperscript{181} (B) holding companies owning grandfathered “nonbank banks,” and (C) grandfathered “unitary thrift” holding companies.\textsuperscript{182} In addition, firms controlling

\textsuperscript{180} Unfortunately, the Gramm-Leach-Bliley Act (GLBA) prohibits the FRB from approving any new “closely related” activities for bank holding companies under Section 4(c)(8) of the BHC Act. See Carnell, Macey & Miller, supra note 106, at 444 (explaining that GLBA does not permit the FRB to expand the list of permissible activities under Section 4(c)(8) beyond the activities that were approved as of Nov. 11, 1999). Congress should revise Section 4(c)(8) by authorizing the FRB to approve a limited range of new activities that are “closely related” to the traditional banking functions of accepting deposits, extending credit, discounting negotiable instruments and providing fiduciary services. See Wilmarth, supra note 2, at 767.


\textsuperscript{182} See Carnell, Macey & Miller, supra note 106, at 468-70 (discussing activities authorized for FHCs under the GLBA); Arthur E. Wilmarth, Jr., “Walmart and the Separation of Banking and Commerce,” 39 Connecticut Law Review 1539, 1569-71, 1584-86 (2007) (explaining that (i) during the 1980’s and 1990’s, many securities firms, life insurers and industrial firms used the “nonbank bank” loophole or the “unitary thrift” loophole to acquire FDIC-insured institutions, and (ii) those loopholes were closed to new acquisitions (continued)
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industrial banks should be required either to register as FHCs or to divest their ownership of such banks if they cannot comply with the BHC Act’s prohibitions against commercial activities. Second-tier holding companies would thus encompass all of the largest banking organizations, most of which are heavily engaged in capital markets activities, together with other financial conglomerates that control FDIC-insured depository institutions.

Congress Should Require a “Narrow Bank” Structure for Second-Tier Banks

Under my proposal, FDIC-insured depository institutions that are subsidiaries of second-tier holding companies would be required to operate as “narrow banks.” The purpose of the narrow bank structure would be to prevent a “nontraditional” second-tier holding company from transferring the bank’s deposit insurance subsidy to its nonbank affiliates.

Narrow banks could offer FDIC-insured deposit accounts, including checking and savings accounts and certificates of deposit. Narrow banks would hold all of their assets in the form of cash and marketable, short-term debt obligations, including qualifying government securities, highly-rated commercial paper and other liquid, short-term debt instruments that are eligible for investment by money market mutual funds (“MMMFs”) under the SEC’s rules. Narrow banks could not hold any other types of loans or investments, nor could they accept any uninsured deposits. Narrow banks would present a very small risk to the DIF, because (i) each narrow bank’s non-cash assets would consist solely of short-term securities that could be “marked to market” on a


183 For a discussion of my reasons for proposing that commercial firms should be prohibited from owning industrial banks, see Wilmarth, supra note 182, at 1543-44, 1554–1620 (arguing that commercial firms should not be permitted to acquire industrial banks because such acquisitions (i) undermine the long-established U.S. policy of separating banking and commerce, (ii) threaten to spread federal safety net subsidies to the commercial sector of the U.S. economy, (iii) threaten the solvency of the DIF, (iv) create competitive inequities between commercial firms that own industrial banks and other commercial firms, and (v) increase the likelihood of federal bailouts of commercial companies).

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daily basis, and the FDIC could therefore readily determine whether a narrow bank was threatened with insolvency, and (ii) the FDIC could promptly convert a narrow bank’s assets into cash if the FDIC decided to liquidate the bank and pay off the claims of its insured depositors.184

Thus, narrow banks would effectively operate as FDIC-insured MMMFs. In order to prevent unfair competition with narrow banks, and to avoid future government bailouts of uninsured MMMFs, MMMFs should be prohibited from representing, either explicitly or implicitly, that they will redeem their shares based on a “constant net asset value” (“NAV”) of $1 per share.185 Currently, the MMMF industry (which manages $3.3 trillion of assets) leads investors to believe that their funds will be available for withdrawal (redemption) based on “a stable price of $1 per share.”186 Not surprisingly, “the $1 share price gives investors the false impression that money-market funds are like [FDIC-insured] banks accounts and can’t lose money.”187 However, “[t]hat myth was shattered in 2008” when Lehman’s default on its commercial paper caused Reserve Primary Fund (a large MMMF that invested heavily in Lehman’s paper) to suffer large losses and to “break the buck.”188 Reserve Primary Fund’s inability to redeem its shares based on a NAV of $1 per share caused an investor panic that precipitated runs on several MMMFs. The Treasury Department responded by establishing the Money Market Fund Guarantee Program

185 Cf. Daisy Maxey, “Money Funds Exhale After New SEC Rules, But Should They?” Wall Street Journal, Feb. 2, 2010, at C9 (describing the SEC’s adoption of new rules governing MMMFs, and reporting on concerns expressed by representatives of the MMMF industry that the SEC might someday force the industry to adopt a “floating NAV” in place of the industry’s current practice of quoting a constant NAV of $1 per share).
187 Id. See also Kay, supra note 125, at 65 (arguing that an MMMF with a constant NAV of $1 per share “either confuses consumers or creates an expectation of government guarantee”).
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(“MMFGP”), which protected investors in participating MMMFs between October 2008 and September 2009.189

Critics of MMMFs maintain that the Treasury’s MMFGP has created an expectation of similar government bailouts if MMMFs “break the buck” in the future.190 In addition, former FRB chairman Paul Volcker has argued that MMMFs weaken banks because of their ability to offer bank-like products without equivalent regulation. MMMFs typically offer accounts with check-writing features, and they provide returns to investors that are higher than bank checking accounts because MMMFs do not have to pay FDIC insurance premiums or to comply with other bank regulations.191 A Group of Thirty report, which Mr. Volcker spearheaded, proposed that MMMFs “that want to offer bank-like services, such as checking accounts and withdrawals at $1 a share, should reorganize as a type of bank, with appropriate supervision and government insurance.”192

189 Reilly, supra note 186 (describing “panic” that occurred among investors in MMMFs after Lehman’s collapse forced the Reserve Primary Fund to “break the buck”); Malini Manickavasagam, “Mutual Funds: Citing Stability, Treasury Allows Expiration of Money Market Fund Guarantee Program, 93 Banking Report (BNA) 508 (Sept. 22, 2009) (reporting that “[t]o prevent other money market funds from meeting the Reserve fund’s fate, Treasury launched its [MMFGP] in October 2008” and continued that program until Sept. 18, 2009).

190 Jane Bryant Quinn, “Money Funds Are Ripe for ‘Radical Surgery’,” Bloomberg.com, July 29, 2009. See also Reilly, supra note 186 (arguing that the failure of federal authorities to reform the regulation of MMMFs “creates the possibility of future market runs and the need for more government bailouts”).

191 Condon, supra note 188; Quinn, supra note 190 (observing that “[b]anks have to hold reserves against demand deposits and pay for [FDIC] insurance” while “[m]oney funds offer similar transaction accounts without being burdened by these costs. That’s why they usually offer higher interest rates than banks”).

192 Quinn, supra note 190 (summarizing recommendation presented in a January 2009 report by the Group of Thirty). See Group of Thirty, Financial Reform: A Framework for Financial Stability 29 (2009) (recommending that “[m]oney market mutual funds wishing to continue to offer bank-like services, such as transaction account services, withdrawals on demand at par, and assurances of maintaining a stable net asset value (NAV) at par, should be required to reorganize as special-purpose banks, with appropriate prudential regulation and supervision, government insurance, and access to central bank lender-of-last resort facilities”) (Recommendation 3.a.), available at http://www.group30.org/pubs/reformreport.pdf.

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wish to operate as banks “should not maintain the implicit promise that investors’ money is always safe” and should be required to base their redemption price on a floating NAV.¹⁹³

For the above reasons, uninsured MMMFs should be prohibited from representing, explicitly or implicitly, that they will redeem shares based on a stable NAV. If Congress imposed this prohibition on MMMFs and adopted my proposal for a two-tiered structure of bank regulation, many MMMFs would probably reorganize as FDIC-insured narrow banks and would become subsidiaries of second-tier FHCs.¹⁹⁴ As noted above, rules restricting the assets of narrow banks to commercial paper, government securities and other types of marketable, highly-liquid investments would protect the DIF from any significant loss if a narrow bank failed.

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

Four supplemental rules are needed to prevent second-tier holding companies from exploiting their narrow banks’ safety net subsidies. First, narrow banks should be prohibited from making any extensions of credit or other transfers of funds to their affiliates, except for the payment of lawful dividends out of profits to their parent holding

¹⁹³ Quinn, *supra* note 190 (summarizing recommendation of Group of Thirty). See Group of Thirty, *supra* note 192, at 29 (Recommendation 3.b., stating that MMMFs “should be clearly differentiated from federally insured instruments offered by banks” and should base their pricing on “a fluctuating NAV”). *See also* Reilly, *supra* note 186 (supporting the Group of Thirty’s recommendation that MMMFs “either use floating values—and so prepare investors for the idea that these instruments can lose money—or be regulated as if they are bank products”); Kay, *supra* note 125, at 65 (similarly arguing that “[i]t is important to create very clear blue water between deposits, subject to government guarantee, and [uninsured MMMFs], which may be subject to market fluctuation”).

¹⁹⁴ See Quinn, *supra* note 190 (describing strong opposition by Paul Schott Stevens, chairman of the Investment Company Institute (the trade association representing the mutual fund industry), against any rule requiring uninsured MMMFs to quote floating NAVs, because “[i]nvestors seeking guaranteed safety and soundness would migrate back to banks” and “[t]he remaining funds would become less attractive because of their fluctuating price”).
companies. During times of financial crisis, the FRB has repeatedly waived the current restrictions on affiliate transactions mandated by Sections 23A and 23B of the Federal Reserve Act. Those waivers allowed bank subsidiaries of FHCs to provide extensive support to affiliated securities broker-dealers and MMMFs. By granting those waivers, the FRB enabled banks controlled by FHCs to transfer the safety net subsidy provided by low-cost, FDIC-insured deposits to their nonbank affiliates. With respect to second-tier banking organizations, my proposal would replace Sections 23A and 23B with an absolute prohibition on any extensions of credit or other transfers of funds by second-tier banks to their nonbank affiliates. That reform would effectively prevent the FRB from approving any similar transfers of safety net subsidies by narrow banks to their affiliates.

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

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195 Scott, supra note 184, at 929; Wilmarth, supra note 2, at 771.
197 Wilmarth, supra note 108, at 456–57, 472–73 (discussing the FRB’s waiver of § 23A restrictions so that major banks could make large loans to their securities affiliates after the terrorist attacks on September 11, 2001); Wilmarth, supra note 110, at 9 (describing the FRB’s waiver of § 23A restrictions in August 2007, so that major banks could provide credit to support their securities affiliates following the outbreak of the subprime lending crisis). See also Transactions Between Member Banks and Their Affiliates: Exemption for Certain Purchases of Asset-Backed Commercial Paper by a Member Bank From an Affiliate, 74 Fed. Reg. 6226 (Feb. 6, 2009) (to be codified at 12 C.F.R. pt. 223) (approving waivers of §§ 23A and 23B in order to “increase the capacity” of banks to purchase ABCP from affiliated MMMFs, and explaining that such waivers—which had originally been granted in September 2008—were justified “[i]n light of ongoing dislocations in the financial markets, and the impact of such dislocations on the functioning of the ABCP markets and on the operations of [MMMFs]”).
198 See supra notes 169-71 and accompanying text.
Insulating the DIF from any possibility of TBTF bailouts would have important benefits. It would make clear to the financial markets that the DIF could only be used to protect depositors of failed banks. Uninsured creditors of FHCs—regardless of their size—would no longer have any reasonable expectation of being protected by the DIF. Shareholders and creditors of FHCs and their nonbank subsidiaries would therefore have stronger incentives to monitor the financial condition of such entities.

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

Third, second-tier narrow banks should be prohibited from dealing in derivatives or from purchasing derivatives except as end-users for bona fide hedging purposes pursuant to FAS 133. All other derivatives activities of second-tier banking organizations must be conducted through separate nonbank affiliates. This rule would prevent FHCs from continuing to exploit federal safety net subsidies by conducting risky derivatives activities within their FDIC-insured bank subsidiaries.

I have previously pointed out that bank dealers in OTC derivatives enjoy significant competitive advantages over nonbank dealers because of the banks’ explicit and implicit safety net subsidies. Banks typically borrow funds at significantly lower interest rates than

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201 Id.
202 See supra note 178 and accompanying text (discussing FAS 133).
their holding company affiliates because (i) banks can obtain direct, low-cost funding through FDIC-insured deposits, and (ii) banks present lower risks to their creditors because of their direct access to other federal safety net resources, including (A) the FRB’s discount window lending facility, (B) the FRB’s guarantee of interbank payments made on Fedwire, and (C) the greater potential availability of TBTF bailouts for uninsured creditors of banks (as compared to creditors of BHCs). The OCC has confirmed that FHCs generate higher profits when they conduct derivatives activities directly within their banks, in part because the “favorable [funding] rate enjoyed by the banks” is lower than “the borrowing rate of their holding companies.” Such an outcome may be favorable to FHCs, but it is certainly not beneficial to the DIF and taxpayers, since they are exposed to a higher risk of losses when derivatives activities are conducted directly within banks instead of within nonbank holding company affiliates.

Fourth, second-tier banks and their affiliates should be prohibited from making private equity investments. To accomplish this reform, Congress must repeal Sections 4(k)(4)(H) and (I) of the BHC Act, which allow FHCs to make merchant banking investments and insurance company portfolio investments. Private equity investments by second-tier banking organizations should be banned because they involve a high degree of risk and have inflicted significant losses on FHCs in the past. In addition, private equity investments “could potentially...

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204 Carnell, Macey & Miller, supra note 106, at 492; Wilmarth, supra note 110, at 5–7, 16 n.39.


206 Wilmarth, supra note 108, at 372–73. For general discussions of the risks posed by OTC derivatives to banks and other financial institutions, see, e.g., id. at 337–78; Richard Bookstaber, A Demon of Our Own Design: Markets: Hedge Funds, and the Perils of Financial Innovation 7–147 (New York: John Wiley & Sons, 2007); Tett, supra note 69, passim.


208 See Carnell, Macey & Miller, supra note 106, at 483–85 (explaining that “through the merchant banking and insurance company investment provisions, [GLBA] allows significant nonfinancial affiliations” with banks).

weaken the separation of banking and commerce” by allowing FHCs “to maintain long-term control over entities that conduct commercial (i.e., nonfinancial) businesses.”\footnote{210} Such affiliations between banks and commercial firms are undesirable because they are likely to create serious competitive and economic distortions, including the spread of federal safety net benefits to the commercial sector of our economy.\footnote{211}

In combination, the four supplemental rules described above would help to ensure that narrow banks cannot transfer their federal safety net subsidies to their nonbank affiliates. Restricting the scope of safety net subsidies is of utmost importance in order to restore a more level playing field between small and large banks, and between banking and nonbanking firms. Safety net subsidies have increasingly distorted our regulatory and economic policies over the past three decades. During that period, nonbanking firms have pursued every available avenue to acquire FDIC-insured depository institutions so that they can secure the funding advantages provided by low-cost, FDIC-insured deposits. At the same time, nonbank affiliates of banks have made every effort to exploit the funding advantages and other safety net benefits conferred by their affiliation with FDIC-insured institutions.\footnote{212} The enormous benefits conferred by federal safety net subsidies are conclusively shown by the following facts: (i) no major bank organization has ever voluntarily surrendered its banking charter, and (ii) large nonbanking firms have aggressively pursued strategies to secure control of FDIC-insured depository institutions.\footnote{213}

The most practicable way to prevent the spread of federal safety net subsidies, as well as their distorting effects on regulation and economic activity, is to establish strong barriers that prohibit narrow banks

\footnote{210} Wilmarth, supra note 182, at 1581–82.
\footnote{211} For further discussion of this argument, see id. at 1588–1613; supra note 183.
\footnote{212} Wilmarth, supra note 182, at 1569–70, 1584–93; Wilmarth, supra note 110, at 5–8. See also Kay, supra note 125, at 43 (stating: “The opportunity to gain access to the retail deposit base has been and remains irresistible to ambitious deal makers. That deposit base carries an explicit or implicit government guarantee and can be used to leverage a range of other, more exciting, financial activities. The archetype of these deal-makers was Sandy Weill, the architect of Citigroup”).
\footnote{213} Wilmarth, supra note 182, at 1590–93.
from transferring their subsidies to their nonbanking affiliates, including those engaged in speculative capital markets activities. The narrow bank structure and the supplemental rules described above would force financial conglomerates to prove that they can produce superior risk-related returns to investors without relying on governmental subsidies. As I have previously explained elsewhere, economic studies have failed to confirm the existence of favorable economies of scale or scope in financial conglomerates, and those conglomerates have not been able to generate consistently positive returns, even under the current regulatory system that allows them to capture extensive federal subsidies.

In late 2009, a prominent bank analyst suggested that if Congress enacted new rules that imposed severe restrictions on affiliate transactions, and thereby prevented nonbank subsidiaries of FHCs from relying on low-cost deposit funding provided by their affiliated banks, large FHCs would not be economically viable and would be forced to break up voluntarily. It is noteworthy that many of the largest commercial and industrial conglomerates in the U.S. and Europe have been broken up through hostile takeovers and voluntary divestitures during the past three decades because they proved to be “less efficient and less profitable than companies pursuing more focused business strategies.” It is long past time for financial conglomerates to be stripped of their safety net subsidies so that they will be subject to the same type of scrutiny and discipline that the capital markets have applied to commercial and industrial conglomerates during the past thirty years. The narrow bank concept provides a workable plan to impose such scrutiny and discipline on FHCs.

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214 See Kay, supra note 125, at 57–59.
215 Wilmarth, supra note 2, at 748–49.
216 Karen Shaw Petrou, the managing partner of Federal Financial Analytics, explained that “[i]nteraffiliate restrictions would limit the use of bank deposits on nonbanking activities,” and “[y]ou don’t own a bank because you like branches, you own a bank because you want cheap core funding.” Ms. Petrou therefore concluded that proposed federal legislation, which would impose tough restrictions on affiliate transactions, “really strikes at the heart of a diversified banking organization” and “I think you would see most of the very large banking organizations pull themselves apart” if Congress passed such legislation. Stacy Kaper, “Big Banks Face Most Pain Under House Bill,” American Banker, Dec. 2, 2009, at 1 (quoting Ms. Petrou).
217 Wilmarth, supra note 108, at 284. See also Wilmarth, supra note 2, at 776.
Responses to Critiques of the Narrow Bank Proposal

Critics have raised three major objections to the narrow bank concept. First, critics point out that the asset restrictions imposed on narrow banks would prevent them from acting as intermediaries of funds between depositors and most borrowers. As noted above, many narrow bank proposals would require such banks to invest their deposits in safe, highly marketable assets such as those permitted for MMMFs. Narrow banks would therefore be largely or entirely barred from making commercial loans. As a result, critics warn that a banking system composed exclusively of narrow banks could not provide credit to small and midsized business firms that lack access to the capital markets and depend on banks as their primary source of outside credit.\(^{218}\)

However, my two-tiered proposal would greatly reduce any disruption of the traditional role of banks in acting as intermediaries between depositors and bank-dependent firms, because my proposal would allow first-tier “traditional” banks (primarily community-oriented banks) to continue making commercial loans that are funded by deposits. Community banks make most of their commercial loans in the form of longer-term “relationship” loans to small and midsized firms. Community banks have significant advantages in making such loans, because (i) their main offices are located in the communities where they make most of their commercial loans and their employees have superior access to information about the character, reputation, and skills of local business owners, (ii) they maintain greater continuity in their branch managers and loan officers, thereby creating stronger relationships with local business owners, and (iii) they typically provide greater flexibility to their loan officers and business customers.\(^{219}\)

Under my proposal, community banks could carry on their deposit-taking and lending activities as first-tier banking organizations without any change from current law, and their primary commercial lending customers would continue to be smaller, bank-dependent firms.


In contrast to community banks, most big banks do not make a substantial number of relationship loans to small firms. Instead, big banks primarily make loans to large and well-established firms. In addition, when big banks do provide credit to smaller firms they primarily do so through automated “transaction-based” programs that (A) disburse loans in relatively small amounts (usually under $100,000), (B) use centralized, impersonal approval methods based on credit scoring, and (C) enable loans to be securitized into asset-backed securities sold to investors in the capital markets. \(^{220}\) Under my proposal, as indicated above, most large banks would operate as subsidiaries of second-tier “nontraditional” banking organizations. Second-tier holding companies would conduct their business lending programs through nonbank finance subsidiaries that are funded by commercial paper and other debt instruments sold to investors in the capital markets. This operational structure should not create a substantial disincentive for the small business lending programs offered by big banks, because major segments of those programs (e.g., business credit card loans) are already financed by the capital markets through securitization. Accordingly, my two-tier proposal should not cause a significant reduction in bank loans to bank-dependent firms, as big banks have already moved away from traditional relationship-based lending funded by deposits.

The second major criticism of the narrow bank proposal is that it would lack credibility because federal regulators would retain the inherent authority (whether explicit or implicit) to organize bailouts of major financial firms during periods of severe economic distress. Accordingly, some critics maintain that the narrow bank concept would simply shift the TBTF problem from the insured bank to its nonbank affiliates. \(^{221}\) However, the force of this objection would be greatly diminished if Congress establishes a new comprehensive regime for regulating SIFIs as described above, including a special resolution process, SRCRs, consolidated supervision, and mandatory payment of SRIF insurance premiums. This proposed systemic risk supervision

\(^{220}\) Wilmarth, supra note 108, at 264–66. See also Berger et al., supra note 219, at 240–41, 266.

\(^{221}\) See Scott, supra note 184, at 929–30 (noting the claim of some critics that there would be “irresistible political pressure” for bailouts of uninsured “substitute-banks” that are created to provide the credit previously extended by FDIC-insured banks).
regime would ensure that all nonbanking firms that might be considered for TBTF bailouts are designated and regulated as SIFIs. In addition, all SIFIs would be required to pay premiums to fund the SRIF, and a fund separate from the DIF would therefore exist to resolve the failure of major nonbanking firms.

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

The third principal objection to the narrow bank proposal is that it would place U.S. FHCs at a significant disadvantage in competing with foreign universal banks that are not required to comply with similar constraints.222 Again, there are persuasive rebuttals to this objection. For one thing, government officials in the U.K. are giving serious consideration to the possible adoption of a narrow banking structure based on a proposal developed by John Kay.223 If the U.S. and the U.K. both decided to implement a narrow banking structure (together with other needed systemic risk regulations), their combined leadership in global

222 See Kay, supra note 125, at 71–74; Scott, supra note 184, at 931.
223 See Kay, supra note 125, at 51–69 (describing the narrow bank proposal as a means for accomplishing “the separation of utility from casino banking”); King 2009 Speech, supra note 106, at 6–7 (expressing support for Kay’s narrow bank proposal and for the Volcker rule as two alternative possibilities for separating the “utility aspects of banking” from “some of the riskier financial activities, such as proprietary trading”); Treasury Committee, Too Important to Fail—Too Important to Ignore, 2009-10, H.C. 9-Vol. 1, at 52, 59, available at http://www.publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/261/261i.pdf [hereinafter 2009 U.K. Treasury Committee Report] (expressing qualified support for Kay’s narrow banking proposal); Ali Qassim, “International Banking: U.K.’s Ruling Coalition to Investigate Separating Investment, Retail Banks,” 94 Banking Report (BNA) 1055 (May 25, 2010) (reporting that “the United Kingdom’s new coalition government . . . announced it will establish an independent commission to investigate separating retail and investment banking” in line with the views expressed by Bank of England Governor Mervyn King).
financial markets would place considerable pressure on other developed countries to adopt similar financial reforms.224

Moreover, the financial sector accounts for a large share of the domestic economies of the U.S. and U.K., and both economies have suffered severe injuries from two financial crises during the past decade (the dotcom-telecom bust and the subprime lending crisis). Both crises were produced by the same set of LCFIs that continue to dominate the financial systems in both nations. Accordingly, regardless of what other nations may do, the U.S. and the U.K. have compelling national reasons to make sweeping changes to their financial systems in order to protect their domestic economies from the threat of a similar crisis in the future.225

Finally, the view that the U.S. and the U.K. must refrain from implementing fundamental financial reforms until all other major developed nations have agreed to do so rests upon two deeply flawed arguments: (i) the U.S. and the U.K. should allow foreign nations with the weakest systems of financial regulation to dictate the level of supervisory constraints on LCFIs, and (ii) until a comprehensive international agreement on reform is achieved, the U.S. and the U.K. should continue to provide TBTF bailouts and other safety net subsidies that impose huge costs, create moral hazard problems and distort economic incentives, simply because other nations provide similar benefits to their LCFIs.226 Both arguments are unacceptable and must be rejected.

Conclusion

The TBTF policy remains “the great unresolved problem of bank supervision,” more than a quarter century after the policy was

224 Kay, supra note 125, at 74; 2009 U.K. Treasury Committee Report, supra note 223, at 70–71 (quoting views of former FRB Chairman Paul Volcker). See also Tarullo, supra note 153, at 45–54 (describing how the U.S. and U.K. reached agreement on risk-based bank capital rules and then pressured other developed nations to agree to the Basel I international capital accord).


invoked to justify the federal government’s rescue of Continental Illinois in 1984.\textsuperscript{227} The current financial crisis has proven, once again, that TBTF institutions “present formidable risks to the federal safety net and are largely insulated from both market discipline and supervisory intervention.”\textsuperscript{228} The crisis has also confirmed that TBTF institutions “pursue riskier and opaque activities and . . . increase their leverage, through capital arbitrage, if necessary, as they grow in size and complexity.”\textsuperscript{229} Accordingly, as I observed in 2002, “fundamentally different approaches for regulating financial conglomerates and containing safety net subsidies are urgently needed.”\textsuperscript{230}

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

In combination, my proposed reforms would strip away many of the safety net subsidies that are currently exploited by LCFIs and would subject them to the same type of market discipline that the capital markets have applied to commercial and industrial conglomerates over the past thirty years. Financial conglomerates have never demonstrated that they can provide beneficial services to their customers and attractive returns to their investors without relying on safety net subsidies and massive taxpayer-funded bailouts. It is long past time for LCFIs to prove—based on a true market test—that their claimed superiority is a reality and not a myth.

\textsuperscript{227} Wilmarth, supra note 108, at 475. See also id. at 300–01, 314–15.
\textsuperscript{228} Id. at 476.
\textsuperscript{229} Id.
\textsuperscript{230} Id.
The Dodd-Frank Wall Street Reform and Consumer Protection Act (hereafter “Dodd-Frank”) was signed into law by President Obama on July 21, 2010. Less than two and a half years earlier, Bear Stearns and Companies, one of Wall Street’s most storied and venerated investment banks, was merged with JP Morgan in a government-orchestrated transaction designed to avoid the firm’s impending failure. A few months later, Lehman Brothers would file for Chapter 11 bankruptcy and American International Group, Inc. would receive billions of dollars in loans from the federal government. The three companies, and Dodd-Frank’s passage, will forever be entwined in the recent financial crisis.

The near-failure of Bear Stearns, the failure of Lehman Brothers and the government rescue of AIG are often portrayed as impetuses for the Dodd-Frank provisions on systemic risk regulation. This article assesses, in a retrospective manner, the role that Dodd-Frank’s systemic risk regulation provisions could have played in monitoring these companies and mitigating the 2008 financial crisis.

Section I describes some of the relevant events occurring in 2008 that presented systemic risk implications for the U.S. economy and financial system. Section II summarizes the systemic risk provisions in Dodd-Frank. Section III presents evidence of the impact that Bear Stearns’ near-failure, Lehman Brothers’ failure, and AIG’s rescue had on Congress’s deliberations over Dodd-Frank, and section IV analyzes the potential impact that Dodd-Frank could have had, were it enacted at the time, in addressing the 2008 financial crisis.

The Financial Crisis in 2008

The precise start and end dates of the recent financial crisis cannot be identified with any degree of certainty. However, the year 2008, in particular fall 2008, often is viewed as the beginning of the financial crisis due to the sheer number of seismic financial events that occurred. The near-failure of Bear Stearns, the failure of Lehman Brothers, and the government rescue of AIG each illustrated that a single financial firm experiencing volatility could have significant consequences for the U.S. economy.

The Near-Failure of Bear Stearns

Bear Stearns’s stock price exceeded $150 per share in January 2007; in the month preceding its rescue, the share price was $93; and in early March 2008, Bear Stearns’ shares were trading at $30 and the company was faced with insolvency. Bear Stearns’ near-failure was not attributable to a single event or circumstance, but the sharp decline in its share price shows how quickly the market reacted to the company’s instability.

The Bear Stearns High-Grade Structured Credit Fund (“Structured Credit Fund”) and Bear Stearns High-Grade Structured Credit Enhanced Leverage Fund (“Enhanced Leverage Fund”) were hedge funds with exposure to the U.S. residential mortgage market. The Structured Credit Fund was started in 2004 and had posted positive returns for 41 months equal to approximately 1.5 percent per month by investing heavily in mortgage-backed securities. The Enhanced Leverage Fund, which was created less than a year before its ultimate liquidation, similarly invested in mortgage-backed securities. Both funds purchased substantial quantities of collateralized debt obligations (CDOs) with a combination of capital and leverage. When the value of these CDOs declined due to volatility in the U.S. housing market, the funds’ lenders demanded additional collateral to secure the loans used to acquire the CDOs. These demands forced the funds to sell off CDOs at significant losses. On July 17, 2007, Bear Stearns informed investors that the funds were close to worthless and would be liquidated.

Bear Stearns was highly leveraged and owned a significant volume of mortgage-backed securities. The beginning of 2008 marked a steady increase in market turmoil and fear that broader financial stability could result from the significant decline in the U.S. housing market.

On Monday, March 10, 2008, rumors circulated that Bear Stearns was out of cash. These rumors set in motion a “self-fulfilling feedback loop” that caused creditors to demand additional collateral from Bear Stearns. By Thursday, Bear Stearns’ liquidity reserves had decreased to $5.9 billion, of which $2.4 billion was owed to Citigroup.

That Thursday, the Federal Reserve agreed to guarantee a $30 billion loan from JP Morgan to Bear Stearns through its emergency lending authority under section 13(3) of the Federal Reserve Act. The Federal Reserve’s guarantee ultimately enabled Bear Stearns to survive long enough to be acquired by JP Morgan at a significantly depressed price. Chairman of the Federal Reserve Ben Bernanke defended the federal government’s actions in terms of systemic risk:

Our financial system is extremely complex and interconnected, and Bear Stearns participated extensively in a range of critical markets. The sudden failure of Bear Stearns likely would have led to a chaotic unwinding of positions in those markets and could have severely shaken confidence. The company’s failure could also have cast doubt on the financial positions of some of Bear Stearns’ thousands of counterparties and perhaps of companies with similar businesses. Given the exceptional pressures on the global economy and financial system, the damage

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3 Id. at 474 (citing Bear Stearns’ Form 10-K).
4 See Jeff Kearns & Yalman Onaran, Bear Stearns Shares Fall on Liquidity Speculation, Bloomberg.com (Mar. 10, 2008) (“There’s an insolvency rumor and concerns on liquidity, that they just have no cash,’ said Michael Mainwald, head of equity trading at Lek Securities Corp. in New York.”).
7 Section 13(3) of the Federal Reserve Act authorizes the FRB to make loans to any person, partnership, or corporation in “in unusual and exigent circumstances.”
caused by a default by Bear Stearns could have been severe and extremely difficult to contain. Moreover, the adverse impact of a default would not have been confined to the financial system but would have been felt broadly in the real economy through its effects on asset values and credit availability.8

Bear Stearns was eventually sold to JP Morgan at a purchase price of $10 per share in JP Morgan common stock.

The Failure of Lehman Brothers

Lehman Brothers filed for Chapter 11 bankruptcy on September 15, 2008. Like Bear Stearns, Lehman Brothers had a considerable investment in subprime mortgages and mortgage-backed securities. Lehman Brothers also was highly leveraged—in the August preceding Lehman Brothers’ bankruptcy filing, the firm had approximately $600 billion in assets and $30 billion in equity.9 Accordingly, even a small decline in the firm’s assets would have a significant effect on the firm’s capital.10

In the summer of 2008, Lehman Brothers discussed options that would insulate the firm’s assets from the drag of the firm’s mortgage-related assets.11 In former CEO Richard Fuld’s testimony before the House Committee on Oversight and Government Reform, Mr. Fuld described a “bad bank” proposal that would have removed certain troubled assets from the firm’s balance sheet:

After the second quarter, Lehman Brothers developed a series of options to strengthen the firm, including working

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8 Statement by Ben Bernanke, Chairman of the Federal Reserve Board, Hearing Before the Senate Committee on Banking, Housing, and Urban Affairs (Apr. 3, 2008).
9 See CNBC.com, Lehman Brothers Files For Bankruptcy, Scrambles to Sell Key Business (Sept. 16, 2008) available at http://www.cnbc.com/id/26708143/Lehman_Brothers_Files_For_Bankruptcy_Scrambles_to_Sell_Key_Business.
10 Id.
11 See Statement of Richard Fuld, Chief Executive Officer of Lehman Brothers, Hearing Before the House Committee on Oversight and Government Reform (Oct. 6, 2008).
with regulators to develop a plan to separate the vast majority of our commercial real estate assets from our core business by spinning off those assets to our shareholders in an independent, publicly traded entity. We believed this plan would have improved our balance sheet while preserving shareholder value. The spinoff entity would have been able to manage the assets for economic value maximization over a longer time horizon.

Under the proposal, Lehman Brothers would have transferred approximately $30 billion in mortgage related assets to a separate, publicly traded company. The company would have been capitalized with capital injections from the firm as well as debt financing. Lehman Brothers did not have sufficient time to implement the proposal.

The firm also pursued a strategic investment with the Korea Development Bank (KDB). Reports indicated that the KDB was willing to inject up to $6 billion in capital into Lehman Brothers and would lead a consortium of Korean private investors. Korean regulators criticized the investment and negotiations with the KDB eventually fell through.

Lehman Brothers’ share price dropped immediately after talks ceased with the KDB. On September 9, 2008, the firm’s shares lost 45 percent of their value, and the U.S. stock market declined 3.5 percent. The firm’s bankruptcy filing on September 15, 2008 was the largest bankruptcy filing in history, with the petition reporting $613 billion in debt.

Government Rescue of AIG

The U.S. economy had very little time to process the meaning of a Lehman Brothers bankruptcy before reports emerged that American

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\(^13\) Id.


\(^15\) See Bomi Lim & Seonjin Cha, Korea Development Bank Ends Talks for Stake in Lehman, Bloomberg.com, Sept. 10, 2008.

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International Group, Inc. (AIG) could be the next casualty in the financial crisis. AIG also had substantial exposure to the U.S. housing market in the form of mortgage backed securities and credit default swaps.

On September 16, 2008, the three primary credit rating agencies, Standard & Poor’s, Moody’s, and Fitch Ratings, downgraded AIG’s credit rating over concerns about increasing residential mortgage-related losses. The downgrades triggered provisions in AIG’s credit default swap contracts that potentially required AIG to post an additional $14.5 billion in collateral for the benefit of counterparties. The collateral calls implicated AIG’s liquidity resources. AIG’s share price decreased 21 percent for a total decrease in 2008 of approximately 94 percent.

The U.S. federal government took action to prevent an AIG failure. On September 16, 2008, the Federal Reserve Bank of New York established an $85 billion credit facility for the firm collateralized by the firm’s assets in exchange for warrants amounting to 79.9 percent of AIG’s stock. The credit facility was increased to $122.8 billion in October 2008. On November 10, 2008, the Department of the Treasury purchased $40 billion in AIG preferred shares as part of the Emergency Economic Stabilization Act’s Troubled Asset Relief Program.

Systemic Risk Regulation in Dodd-Frank

Article I of Dodd-Frank provides for systemic risk regulation. The Act establishes a new council of federal and state financial regulators—the Financial Stability Oversight Council—to monitor risks to U.S. financial stability, designate systemically important financial firms for enhanced prudential regulation by the Federal Reserve, and make recommendations to primary financial regulatory agencies to apply new or heightened prudential standards to existing financial institutions or existing financial activities.

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16 See James Quinn, “AIG’s Credit Ratings Slashed as Wall Street Drama Intensifies,” The Telegraph, Sept. 16, 2008.
Systemically important financial firms designated by the Council and bank holding companies with more than $50 billion in assets are subject to enhanced prudential regulation, including enhanced risk-based capital, liquidity, leverage, risk-management, and resolution plan requirements. This section summarizes the systemic risk provisions in Dodd-Frank.

Financial Stability Oversight Council

The Financial Stability Oversight Council ("FSOC" or "Council") is chaired by the Secretary of the Treasury, and its voting members consist of the Chairman of the Federal Reserve Board of Governors, Comptroller of the Currency, Director of the newly created Bureau of Consumer Financial Protection, Chairman of the Securities and Exchange Commission, Chairperson of the Federal Deposit Insurance Corporation, Chairperson of the Commodity Futures Trading Commission, Director of the Federal Housing Finance Agency, Chairman of the National Credit Union Administration Board, and an independent director with insurance expertise appointed by the President. The Council's non-voting members are the Director of the newly created Office of Financial Research, the Director of the newly created Federal Insurance Office, a state insurance commissioner, a state banking supervisor, and a state securities commissioner.

The purposes of the Council are to identify risks to the financial stability of the United States that could arise from the material financial distress or failure, or ongoing activities, of large, interconnected bank holding companies or nonbank financial companies, or that could arise outside the financial services marketplace; to promote market discipline by eliminating expectations on the part of shareholders, creditors, and counterparties of such companies that the government will shield them from losses in the event of failure; and to respond to emerging threats to the stability of the United States financial system.

19 Dodd-Frank § 111(b)(1).
20 The Act establishes the Office of Financial Research within the Department of the Treasury to serve as the Council's economic and statistical research arm and to collect information on the U.S. economy and from systemically important financial firms. See Dodd-Frank, Subtitle B.
21 Dodd-Frank § 111(b)(2).
22 See Dodd-Frank § 112(a).
Designation of Systemically Important Firms for Enhanced Prudential Regulation

The Council, by a vote of at least two-thirds of the voting members, including an affirmative vote by the Secretary of the Treasury, may designate a “U.S. nonbank financial company” or “foreign nonbank financial company” for supervision and prudential regulation by the Federal Reserve if the Council determines that material financial distress at the company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the company, could pose a threat to the financial stability of the United States.23 A “U.S. nonbank financial company” is a company incorporated or organized under the laws of the United States or any state that is predominantly engaged in financial activities.24 A “foreign nonbank financial company” is a company incorporated or organized in a country other than the United States that is predominantly engaged in, including through a branch in the United States, financial activities.25

A company is “predominantly engaged in financial activities” if (1) the annual gross revenues of the company and all of its subsidiaries from activities that are financial in nature—as defined in section 4(k) of the Bank Holding Company Act—represent 85 percent or more of the company’s consolidated annual gross revenues, or (2) the consolidated assets of the company and all of its subsidiaries related to activities that are financial in nature—as defined in section 4(k) of the Bank Holding Company Act—represent 85 percent or more of the company’s consolidated assets.26

In designating a nonbank financial company for supervision and prudential regulation by the Federal Reserve, the Council must consider the company’s leverage; the extent and nature of the company’s off-balance sheet exposures; and the extent and nature of the company’s transactions and relationships with other significant nonbank

23 Dodd-Frank § 113(a)(1).
25 Dodd-Frank § 102(a)(4)(A).
26 Dodd-Frank § 102(a)(6).
financial companies and significant bank holding companies. The Council also must consider the importance of the company as a source of credit for households, businesses, and state and local governments and as a source of liquidity for the U.S. financial system; the importance of the company as a source of credit for low-income, minority, or underserved communities; the extent to which the company’s assets are managed rather than owned by the company; the nature, scope, size, scale, concentration, interconnectedness, and mix of the activities of the company; the degree to which the company is already regulated by a primary financial regulatory agency (e.g., the Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Securities and Exchange Commission, the Commodity Futures Trading Commission), the amount and types of the company’s liabilities, including the company’s reliance on short-term funding; and any other risk-related factors that the Council deems appropriate.

As part of its anti-evasion authority, the Council is authorized upon a vote of at least two-thirds of the Council, including an affirmative vote of the Secretary of the Treasury, to subject any company’s financial activities to supervision and prudential regulation by the Federal Reserve if material financial distress at the company or the company’s nature, scope, size, scale, concentration, interconnectedness, or mix of financial activities would pose a threat to U.S. financial stability and the company is organized or operates in such a manner as to evade designation by the Council. The Federal Reserve also is required to promulgate regulations on behalf of the Council setting forth criteria for exempting certain types or classes of U.S. nonbank financial companies or foreign nonbank financial companies from supervision by the Federal Reserve.

After the Council votes to designate a nonbank financial company for supervision and prudential regulation by the Federal Reserve, the Council must provide written notice of the proposed determination to the company. The company may request a written or oral hearing to contest the Council’s determination within 30 days of receipt of the Council’s written notice. If a hearing is requested, the Council must

27 Dodd-Frank § 113(a)(2).
28 Id.
29 Dodd-Frank § 113(c).
30 Dodd-Frank § 170.
provide one within 30 days of the request. The Council must make a final determination not later than 60 days after the hearing. The Council can waive or modify this timeframe if such waiver or modification is necessary or appropriate to prevent or mitigate threats posed by the nonbank financial company to the financial stability of the United States. A nonbank financial company may, within 30 days of the Council’s final determination, bring an action in the U.S. district court for the district in which the company’s home office is located or in the U.S. District Court for the District of Columbia for an order requiring that the Council’s final determination be rescinded on the grounds that the determination is arbitrary and capricious.31

**Prudential Regulation for Designated Companies and Bank Holding Companies with over $50 Billion in Assets**

The Federal Reserve is required to establish for nonbank financial companies designated for Federal Reserve supervision (“Designated Companies”) and bank holding companies with more than $50 billion in assets (“Interconnected Bank Holding Companies”) prudential standards with respect to risk-based capital, leverage limits, liquidity requirements, risk management requirements, resolution plans, credit exposure report requirements, and concentration limits that are more stringent than the standards applicable to financial companies and bank holding companies that do not present similar risks to U.S. financial stability.32 The Federal Reserve may also establish additional prudential standards with respect to contingent capital requirements, enhanced public disclosure requirements, and short term debt limits.33 The Federal Reserve may establish an asset threshold above $50 billion in defining what is an Interconnected Bank Holding Company, but only in regard to requirements relating to contingent capital, resolution plans, credit exposure reporting, concentration limits, enhanced public disclosure, and short-term debt limits.34 The Council is authorized

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31 See Dodd-Frank § 113(e).
33 Dodd-Frank § 165(b)(1)(B).
34 Dodd-Frank § 165(a)(2)(B).
to make recommendations to the Federal Reserve concerning these prudential standards as well as an asset threshold higher than $50 billion for bank holding companies.

Designated Companies may be required to submit reports under oath to the Federal Reserve concerning the company’s financial condition and compliance with the Act, and the Federal Reserve also can examine Designated Companies. The Federal Reserve is authorized to take enforcement action against a Designated Company in the same manner as if the Designated Company were a bank holding company. Designated Companies are treated as bank holding companies for purposes of Section 3 of the Bank Holding Company Act, which regulates bank acquisitions. Designated Companies, as well as Interconnected Bank Holding Companies, must provide written notice to the Federal Reserve in advance of acquiring a direct or indirect ownership interest in a company with $10 billion in assets or more that is engaged in activities that are financial in nature.

If the Federal Reserve determines that a Designated Company or Interconnected Bank Holding Company poses a “grave threat” to U.S. financial stability, the Federal Reserve, upon a two-thirds vote of the Council, may limit the company’s ability to merge with, acquire, consolidate with, or become affiliated with another company; restrict the company’s ability to offer certain financial product or products; require the company to terminate one or more activities; impose conditions on the manner in which the company conducts one or more activities; or, if these actions are inadequate, require the company to sell assets or off-balance-sheet items to unaffiliated entities.

Designated Companies and Interconnected Bank Holding Companies must submit a plan for the company’s rapid and orderly resolution in the event of material financial distress, as well as submit reports on the company’s credit exposure to other Designated Companies and Interconnected Bank Holding Companies as well as other Designated Companies’ and Interconnected Bank Holding Companies’ exposure to

35 Dodd-Frank § 161(a).
36 Dodd-Frank § 162(a).
37 Dodd-Frank § 163(a).
38 See Dodd-Frank § 121.
the company.\textsuperscript{39} The Council may make recommendations to the Federal Reserve concerning this requirement. The Federal Reserve is required to prescribe standards that prohibit Designated Companies and Interconnected Bank Holding Companies from having credit exposure to any unaffiliated company that exceeds 25 percent of the capital stock and surplus of the company.\textsuperscript{40} The Federal Reserve also may prescribe limitations on the amount of short-term debt, including off-balance sheet exposures, that may be held by a Designated Company or Interconnected Bank Holding Company.\textsuperscript{41} The Council is authorized to make recommendations to the Federal Reserve concerning these requirements.

The Federal Reserve must require Designated Companies that are publicly traded to establish a risk committee to be responsible for the oversight of the enterprise-wide risk management practices of the Designated Company and that has a minimum number of independent directors as prescribed by the Federal Reserve.\textsuperscript{42} Designated Companies and Interconnected Bank Holding Companies must submit to annual stress tests to be conducted by the Federal Reserve to evaluate whether the company has capital necessary to absorb losses that result from adverse economic conditions.\textsuperscript{43} In addition, all financial companies with more than $10 billion in assets and that are regulated by a primary Federal financial regulatory agency must conduct self-stress tests, to be prescribed and defined by regulations issued by such agencies.\textsuperscript{44}

The Federal Reserve must require Designated Companies and Interconnected Bank Holding Companies to maintain a debt-to-equity ratio of no more than 15-to-1, upon a determination that the company poses a grave threat to U.S. financial stability and that such requirement is necessary to mitigate risks presented by such company to U.S. financial stability.\textsuperscript{45} The Federal Reserve, in consultation with the Council and


\textsuperscript{40} Dodd-Frank § 165(e)(2).

\textsuperscript{41} Dodd-Frank § 165(g).

\textsuperscript{42} Dodd-Frank § 165(h).

\textsuperscript{43} Dodd-Frank § 165(i)(1).

\textsuperscript{44} Dodd-Frank § 165(i)(2); see 77 Fed. Reg. 594 (Jan. 5, 2012) (Notice of Proposed Rulemaking regarding stress test requirement).

\textsuperscript{45} Dodd-Frank § 165(j)(1).
FDIC, is to prescribe regulations establishing requirements for early remediation of financial distress at a Designated Company or Interconnected Bank Holding Company.\textsuperscript{46}

The Federal Reserve may require Designated Companies that conduct both financial and non-financial activities to establish and conduct all financial activities in or through an intermediate holding company established by Federal Reserve regulation.\textsuperscript{47} Internal financial activities, such as internal treasury, investment, and employee benefit functions, may continue to be performed in the Designated Company itself.\textsuperscript{48} The Council may provide for more stringent regulation of a financial activity by issuing recommendations to the primary financial regulatory agencies, including state insurance regulators, to apply new or heightened standards and safeguards for a particular financial activity or practice conducted by a financial institution.\textsuperscript{49}

**The 2008 Crisis’s Impact on Dodd-Frank**

The need for systemic risk regulation in the U.S. financial regulatory framework was articulated in the Department of the Treasury’s *Blueprint for a Modernized Regulatory Structure* in March 2008. The Blueprint called for a “market stability regulator” to “focus on the stability of the overall financial sector in an effort to limit spillover effects to the overall economy.”\textsuperscript{50} However, the Blueprint was issued before the full magnitude and scope of the financial crisis became fully known later in 2008.

In October 2008, Congress enacted the Emergency Economic Stabilization Act,\textsuperscript{51} which authorized Treasury to purchase troubled assets from financial institutions and provided the statutory basis that Treasury would use to purchase preferred shares in banks, thrifts, and bank and thrift holding companies through the Troubled Asset Relief

\textsuperscript{46} Dodd-Frank § 166.
\textsuperscript{47} Dodd-Frank § 167(b)(1)(A).
\textsuperscript{48} Dodd-Frank § 167(b)(2).
\textsuperscript{49} See Dodd-Frank § 120.
\textsuperscript{50} Department of the Treasury, *Blueprint for a Modernized Regulatory Structure* 146 (Mar. 2008).
Program’s Capital Purchase Program. A little-noticed provision in the Emergency Economic Stabilization Act eventually would provide much of the impetus for Congress’s consideration of financial regulatory reform. Section 105(c) of the Act required Treasury to “review the current state of the financial markets and the regulatory system” and to submit a report “analyzing the current state of the regulatory system and its effectiveness at overseeing the participants in the financial markets ... .”

In June 2009, Treasury released its report, *Financial Regulatory Reform: A New Foundation*, providing an overview of financial regulatory reform proposals including systemic risk regulation and resolution of systemically important firms. Bear Stearns, Lehman Brothers, and AIG are referenced several times in the *New Foundation* report, including in connection with the need to subject investment banks to more stringent, consolidated supervision and regulation by the Federal Reserve and for a resolution regime for large, systemically important financial firms.\(^{52}\)

Throughout the summer of 2009, Treasury released draft legislation that would carry out the reforms outlined in the *New Foundation* report. Treasury’s draft systemic risk regulation was released on July 22, 2009. The House Financial Services Committee would be the first legislative panel to take up financial regulatory reform.

The House Financial Services Committee held dozens of hearings related to Treasury’s financial regulatory reform proposals. Understandably, the 2008 financial crisis was frequently raised as a cautionary tale of what could happen again without financial regulatory reform. The failure to regulate large, systemically important entities was cited as one of the main arguments for systemic risk regulation.

When the Committee started drilling down into the specific legislative provisions, the specific conditions and circumstances that precipitated the three companies’ financial troubles and the 2008 financial crisis generally came into focus. Secretary Geithner, in testimony before the Committee, noted systemically important institutions’

\(^{52}\) See, e.g., Department of the Treasury, *Financial Regulatory Reform: A New Foundation* 34 (June 2009).
excess leverage, stating that “[t]he biggest part of the failure of our system was to allow very large institutions to take on leverage without constraint. . . . And that is why a centerpiece of any reform effort has to be the establishment of more conservative constraints on leverage applied to institutions whose future could be critical to the economy as a whole.”

Representative Kenny Marchant (R-TX) focused his questions during a September hearing on short-term overnight funding as a particular type of leverage that could pose risk to institutions. Rep. Marchant posited that over-reliance on short-term overnight funding was another symptom of the 2008 financial crisis. Secretary Geithner readily agreed: “I think you are exactly right, that it is not just the scale of leverage but the extent to which we are reliant on very short-term funding that can flee in a heartbeat. And that is what brought the system crashing down.”

The House Financial Services Committee approved the systemic risk regulation provisions of legislation in November 2009, and the House passed the consolidated financial reform legislation in December 2009. The Senate Banking Committee took up financial regulatory reform in 2010.

The Senate Banking Committee’s consideration of systemic risk regulation also used the three companies as illustrations and used the 2008 financial crisis as a focal point. Chairman of the Senate Banking Committee Christopher Dodd (D-CT) referenced Bear Stearn’s near-failure to criticize the delay in adopting financial regulatory reform: “But nearly two years after the collapse of Bear Stearns, we still have not updated the laws governing our financial sector, leaving our fragile economy with the same vulnerabilities that led to the economic crisis in the first place.”

When Congress deliberated financial regulatory reform legislation in 2009 and 2010, it confronted a series of failures and near-failures of large systemically financial institutions. These episodes formed a

53 See Statement of Timothy Geithner, Secretary of the Treasury, Hearing Before the House Financial Services Committee p. 16 (Sept. 23, 2009).
54 Id at 41.
55 See Prepared Remarks of Senator Christopher Dodd, Hearing Before the Senate Banking Committee (Feb. 4, 2010).
constellation of financial regulatory gaps that provided a roadmap for Congress in drafting the systemic risk regulation provisions in Dodd-Frank. The 2008 financial crisis highlighted the need for careful consideration of issues such as leverage and short-term funding and played a considerable role in Dodd-Frank’s passage.

Dodd-Frank’s Potential Impact on the 2008 Financial Crisis

It is difficult, if not perilous, to pose counterfactuals for economic events such as the financial crisis in 2008. The crisis cannot be attributed to a single event or series of events. Indeed, the events at issue were not limited solely to the activities of systemically important nonbank financial institutions. But even as to that particular slice of the crisis, which is the subject of this article, the complex interplay of economic, political, and social forces affecting Bear Stearns, Lehman Brothers, and AIG in 2007 and leading up to September of 2008 is not readily unpacked into various inflection points that can be analyzed, in isolation, in the context of recently-enacted legislation. Accordingly, the aim of this section is not to render a verdict on whether Dodd-Frank, had it been enacted at all relevant points prior to the 2008 financial crisis, would have prevented the demise of Bear Stearns, Lehman Brothers, or AIG. Instead, this section more manageably seeks answers to a few key questions relating to Dodd-Frank and the 2008 financial crisis in general:

- Would the Financial Stability Oversight Council have designated Bear Stearns, Lehman Brothers, or AIG as systemically important financial firms?

- How would the restrictions on leverage in Dodd-Frank have affected the 2008 financial crisis?

- What other provisions in Title I of Dodd-Frank may have been relevant to the 2008 financial crisis?

Would the Financial Stability Oversight Council Have Designated Bear Stearns, Lehman Brothers, or AIG as Systemically Important Financial Firms?

It is likely that Bear Stearns, Lehman Brothers, and AIG would have been designated by the FSOC for enhanced prudential supervision
by the Federal Reserve based on the considerations set forth in section 113(a)(2) of Dodd-Frank. All three firms were large institutions by asset size, interconnected with other significant financial institutions, and an important source of credit for households given their roles in the mortgage securitization markets.

With regard to the specific factors in section 113(a) of the Act, as of November 30, 2007, Bear Stearns had over $395 billion in assets, Lehman Brothers had over $691 billion in assets, and as of December 31, 2007, AIG had over $1.06 trillion in assets. Bear Stearns was highly leveraged by all accounts in 2007 and 2008, with a debt-to-equity ratio of approximately 33-to-1 at one point, and Lehman Brothers had a debt-to-equity ratio of 30-to-1. These companies also had a considerable amount of off-balance sheet exposures. They engaged in a significant number of major transactions with other significant nonbank financial companies. The compa-

56 In October 2008, the two largest investment banks—Goldman Sachs and Morgan Stanley—converted from the traditional investment bank structure to the commercial bank holding company structure. Bank holding companies with $50 billion in assets automatically are subject to enhanced prudential supervision by the Federal Reserve under Dodd-Frank. Accordingly, it is unlikely that the FSOC will have cause to assess in the near-term whether a large investment bank like Bear Stearns should be designated for enhanced prudential supervision.

57 See supra pp. 8-9.

58 See Bear Stearns & Co. Form 10-K (for the period ending November 30, 2007).

59 See Lehman Brothers, Report of Q1 2008 Results.

60 See American International Group, Form 10-K (for the period ending December 31, 2007).

61 See Davidoff & Zaring, 61 Admin. L. Rev. at 474.


63 See, e.g., Bear Stearns & Co. Form 10-K (for the period ending November 30, 2007) (stating that Bear Stearns’ available liquidity pool accounted for “financing haircuts for certain off-balance sheet financing transactions.”).

64 See Reuters, Merrill Lynch Seizes Bear Stearns Fund Assets (June 16, 2007); Andrea Felsted & Kate Burgess, “AIG Forms Keystone of Financial System,” Financial Times, Sept. 15, 2008 (“I don’t know of a major bank that doesn’t have some significant exposure to AIG. That would be a much bigger problem than most that we’ve looked at.”).
nies also were an important source of credit for households, businesses, and state and local governments. The firms played a major role in purchasing and securitizing mortgage backed securities and underwriting credit default swaps on such securities. This role helped facilitate a steady source of liquidity for mortgage lenders to make mortgage loans.

Although Bear Stearns and Lehman Brothers also were regulated by the Securities and Exchange Commission, neither one was subject to consolidated bank-like supervision. Similarly, AIG was subject to various forms of regulation from insurance supervisors and by the Office of Thrift Supervision, but the oversight by this thrift regulator was generally limited to AIG’s federal savings bank, AIG FSB, and the impact that AIG’s activities as a whole could have on AIG, FSB. The firms also had a substantial amount of liabilities, a significant amount of which was short-term, overnight funding.65

The FSOC is authorized to consider any other “risk-related factors” that it deems appropriate in determining whether to subject a nonbank financial company to enhanced prudential regulation by the Federal Reserve. This confers discretion upon the FSOC to assess the company’s potential impact on U.S. financial stability in light of factors not articulated in Dodd-Frank. Therefore, in the event that the FSOC’s weighing of the statutorily-mandated considerations did not support subjecting the companies to enhanced prudential regulation by the Federal Reserve, the FSOC would have been free to consider other factors and to make a designation on the basis of such factors.

As shown in the previous section, Congress was influenced by the 2008 financial crisis in setting forth the considerations in section 113(a)(2) to be weighed by the Council. The financial crisis in 2008 supplied Congress with many of the symptoms that it sought to monitor in the future, and Dodd-Frank empowers the FSOC to subject nonbank financial firms to enhanced prudential regulation on the basis of such symptoms. It follows that hypothetical application of those same considerations to the three companies that personified the 2008 financial crisis would in all likelihood result

65 See supra pp. 5-6.
How Would the Restrictions on Leverage in Dodd-Frank Have Affected the Financial Crisis in 2008?

Systemically important financial companies in 2008 such as Bear Stearns, Lehman Brothers, and AIG would have been subject to leverage limits established by the Federal Reserve pursuant to section 165(b)(1)(A). The Federal Reserve’s authority to prescribe a leverage limit for nonbank financial companies allows it to prescribe limits on an individual company basis. Therefore, the Federal Reserve presumably would have prescribed a leverage limit based on the firms’ financial condition, of which the Federal Reserve would have had a complete picture given the Federal Reserve’s periodic examinations. These leverage limits probably would have made it more difficult for systemically important firms to grow portfolios of mortgage backed securities and similarly would have likely improved the firms’ liquidity profiles by mitigating the destabilizing effect of creditors’ margin calls (at the cost of lost earnings from less leverage).

Moreover, the firms would have been subject to a mandatory 15-to-1 debt-to-equity ratio in the event that the FSOC determined that the firms posed a grave threat to U.S. financial stability and that such a limitation was necessary to mitigate the risk posed.\textsuperscript{66} Finally, the Federal Reserve also would have been authorized to establish by regulation a limit on short-term debt, including off-balance sheet exposures. If the Federal Reserve decided that such a limit was necessary to mitigate the risk that over-accumulation of short-term debt posed, the firms would have been subject to such limitations. The impact of this short-term debt limit may have forced systemically important financial firms to turn to other sources of credit with longer maturities. Replacing short-term debt with longer-term debt presumably would have better aligned the maturities of the firms’ debts with the maturities of their assets, which consisted heavily of mortgage-backed securities tied to 30-year home mortgages.

The financial industry’s leverage problems resulted not simply from the amount and type of leverage, but also from the market’s lack

\textsuperscript{66} See Dodd-Frank § 165(j).
of information on large systemically important institution’s leverage profiles. Because the full extent of the industry’s leverage problems was unknown, rumors circulating in the market leading up to September 2008 gained traction and compounded liquidity problems. Enhanced prudential regulation of systemically important firms likely would have mitigated the extent of such leverage problems. Leverage limitations similarly would have improved the industry’s liquidity profile from a volatility perspective, and the Federal Reserve’s examination of systemically important firms could have given regulators a better sense of the firms’ risk exposure to disruption in short-term funding.

What Other Provisions in Title I of Dodd-Frank May Have Been Relevant to the 2008 Financial Crisis?

Several provisions in Dodd-Frank would have increased oversight and monitoring of systemically important financial firms. In particular, nonbank financial companies subject to Federal Reserve prudential regulation would have been subject to mandatory stress tests designed to evaluate whether the firms had the capital, on a consolidated basis, to absorb losses as a result of adverse economic conditions. The Federal Reserve’s stress tests of the 15 largest bank holding companies in May 2009 used indicative loss rates for mortgage loans and mortgage-backed securities that were much higher than the loss rates used by banks before the collapse of the U.S. housing market. A similar stress test for systemically important firms could have shown the need for additional capital to weather more adverse economic scenarios, and also could have given the Federal Reserve a better sense of the firms’ exposure to the U.S. housing market.

Dodd-Frank also authorizes the Federal Reserve to require nonbank financial companies to make periodic public disclosures to support the market’s evaluation of the company’s risk profile, capital adequacy, and risk management capabilities. If the Federal Reserve promulgated regulations under this provision, the enhanced disclosures that systemically important firms would have been required to make may have made sufficient information available to the market to mitigate rumor-inspired margin calls.

Finally, the Federal Reserve’s authority under section 121 of Dodd-Frank to take extraordinary actions with respect to a nonbank financial

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company when it determines that such company poses a grave threat to U.S. financial stability may have provided the Federal Reserve with sufficient tools to prevent systemically important firms from being so vulnerable to market rumors.

Conclusion

The economic crisis in 2008 can be attributed, in part, to over-leveraging, over-reliance on short-term funding, and under-reporting of systemically important firms’ financial condition to the market. Dodd-Frank addresses the systemic risk posed by nonbank financial companies in two distinct manners: first, by imposing Federal Reserve-prescribed prudential standards, including limitations on leverage and short-term funding, and second, by providing for enhanced disclosure of information to the market and by subjecting nonbank financial firms to examination and supervision. These constraints in all likelihood could have prevented firms from rapidly increasing leverage and could have at least given the Federal Reserve more warning of systemically important firms’ condition.
In this chapter, we examine recent developments and new perspectives of European banking regulation from the viewpoint of multinational banks. Our approach is justified on at least three grounds. First, cross-border banking groups were at the centre of the recent financial turmoil, which seriously affected many of them. Multinational banks are, relative to domestic banks, more exposed to wholesale funding and capital market related activities, which were most affected by the financial downturn. Indeed, on the one hand the interbank market dried up during the crisis, making short term funding more difficult for multinational banks and thus causing major problems to their liquidity management. On the other hand, trading revenues, which made up a significant part of their total operating income, “fell as capital..."
market conditions were very unfavourable, causing further substantial markdowns on structured finance portfolios. The collapse in 2008 of some of the largest multinational banks and financial institutions and the bail-outs which followed both in the United States and in Europe put the model of cross-border banking, which seemed to dominate over the last decade, under pressure. Moreover, national fragmentation of regulatory requirements and supervision made the identification and assessment of risks more difficult and, consequently, cross-border crisis management and resolution measures could not be effectively taken. Therefore, the only feasible option to address crisis situations, in order to avoid systemic disruption, was the national bailout of ailing institutions. This, in turn, threatens to reverse the financial integration process, as national solutions prevail over international cooperation and credit and liquidity risks affect cross-border activities more profoundly than domestic ones, due to increased information asymmetries.

Second, and as a consequence, recent reform proposals in Europe and elsewhere were particularly addressed to cross border banking groups and other systemically relevant institutions. The proposed reforms include regulatory measures for cross-border institutions, such as higher capital requirements; limitations to their size or to the activities banks may engage in (i.e., return to narrow banking); organizational and governance requirements, such as better risk and liquidity management and recovery plans; and measures addressed to regulatory

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6 See ECB, “Financial Integration in Europe” April 2009, for an empirical analysis of the impact of the recent financial turmoil on the financial integration process.
7 For a definition of systemic importance, see IMF, BIS, FSB, “Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments,” November 2009.
and supervisory infrastructures, such as a single rule book, (more) centralized supervisory architecture, cross-border cooperation and coordination mechanisms between authorities, resolution plans and burden sharing agreements. While not denying that certain changes in regulatory requirements may be justified, and that there is still room for enhancements in the governance of financial institutions, we argue that major reforms in the regulatory and supervisory architecture are essential to fill the gap between the cross-border scope of multinational banks’ activities and the national character of their regulation and supervision.

Third, traditional European harmonization was largely built along the model of the (stand-alone) cross-border bank mainly operating through branches, whereas European financial markets see cross-border banking groups with subsidiaries in several countries as major players. Economic literature shows the costs and benefits of cross-border operations through branches and subsidiaries, however, current regulation neither allows institutions to grasp the full benefits of subsidiary structures, nor makes them internalize the full costs of branch structures. In particular, centralized group management and (fully) consolidated supervision are not permitted for European multinational banking groups with a subsidiary structure. Conversely, the European single license and mutual recognition do not take into consideration risks and possible negative externalities in host Member States, due to the crisis of foreign owned and supervised branches. The newly proposed European regulations partially address similar loopholes, providing for more convergence of subsidiary and branch structures.

In the next section, after introducing the mismatch between national banking supervision and international banking groups, we analyze the recent developments of EU cross-border supervision with respect to both branch and subsidiary structures of multinational banks. We argue that the lack of an appropriate framework for effective cross-border supervision and crisis management and resolution is itself a major source of systemic risk. Since the 1975 Basel Concordat cross-border and consolidated supervision have been addressed at international and European level. However, the progress achieved did not keep pace with market globalization and cross-border activity of multinational banks and

8 See, for example, G. Dell’Arriccia and R. Marquez, “Risk and the Corporate Structure of Banks,” Journal of Finance, June 2010, vol. 65, 1075-1096.
financial institutions. The recent crisis has underlined the weaknesses of the current regulatory and supervisory framework, based on minimum harmonization of prudential requirements and supervisory powers and cooperation between national authorities. Similar shortcomings have been addressed at European level, providing European authorities with enhanced mechanisms of cooperation and, to a certain extent, more centralized powers to the consolidating supervisor of cross-border groups.

In the third section, we examine the proposed new regulatory architecture, which is based on the distinction between macro- and micro-prudential supervision, and includes new European bodies and a network of European financial supervisors. This new architecture will be addressed to the banking and financial system in general, but its impact will be felt particularly by multinational banks and systemically relevant institutions. In the fourth section, we examine the current regulatory framework for cross-border early intervention, crisis management and resolution and comment upon new possible tools which should be made available to authorities. We suggest that, due to the specificities of multinational banks and the unique features of their corporate governance, similar devices would be essential for effective cross-border (and consolidated) supervision. Moreover, they would complement supervisory powers in the going concern with a set of regulatory actions in the gone concern. Furthermore, governments and authorities should be provided with alternatives to the bail-out of ailing institutions, which could allow for a reduction of systemic disruption without hampering market discipline. This, in turn would preserve the stability of the financial system without increasing moral hazard in systemically relevant institutions and their creditors. The fifth section concludes.

Cross-Border Supervision of Banks

A Lesson from the Crisis: Global in Life, But National in Death

The recent financial crisis highlighted the mismatch between cross-border banks’ business operations and the national scope of their supervision.9


See also G-30, “The structure of Financial Supervision Approaches and Challenges in a Global Marketplace” (2008), acknowledging that “a number of supervisors interviewed expressed concern that the international architecture of supervisory coordination and communication has not kept up with the changes in the nature and structure of the global financial marketplace. Supervisors worry that the current ad hoc international coordination system may not be able to handle the failure of a systemically important global financial firm and the concomitant tremors such an event would send around the world” (p.12), available at: http://www.group30.org/pubs/GRP30_FRS_ExecSumm.pdf (last accessed March 2010).

See the European Commission, Financial Integration Monitor, Background document (2005), defining financial integration as “a process, driven by market forces, in which separate national financial markets gradually enter into competition with each other and eventually become one financial market, characterized by converging prices, product supply and converging efficiency/profitability among the financial services providers. Several distinct and parallel channels can further financial integration, namely: cross-border ownership, establishment or cross-border service provision” 1. Available at: http://ec.europa.eu/internal_market/finances/docs/cross-sector/fin-integration/050708background.pdf (last accessed March 2010).

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supervisory authorities were in place, those have proven ineffective and/or politically unfeasible. During the recent crises of cross-border banks, fragmentation at national level was a great obstacle to the prompt identification and addressing of risks and efficient crisis management and resolution. Members States were forced to bail out cross-border banks to avoid the worsening of the crisis, with great costs to deposit guarantee schemes and the disruption of payment systems. This led to the consideration that bailout would be the only viable way, due to the size of banks (too big to fail), their complexity (too complex to fail) and systemic implications (too interconnected to fail) or, even, the number of ailing banks (too many to...

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18 See E. Huepkes, “Form Follows Function”—A New Architecture for Regulating and Resolving Global Financial Institutions,” EBOR, 10:3, 2009, 369 et ss. An incisive summary of these issues and possible solutions in an article by Bob Wessel, “Three Theories on Solving the ‘Too Big to Fail’ Problem,” WSJ 29 Oct. 2009, page A12, available also online at: http://online.wsj.com/article/SB125668497563411667.html (last accessed December 2010). For the recently debated definition of systemic significance of banks, due to size but...
The perception that, under those circumstances, governments were to bail out banks in any case generated moral hazard problems in banks and their creditors, harming market discipline. Moreover, the absence of an adequate supervisory framework caused market participants and consumers to lose confidence in the cross-border banking model, so compromising its survival.

The size of a cross-border bank can be (and in fact was) an obstacle to its resolution and bail out by a single Member State (too big to save), especially where the Member State and its deposit guarantee scheme are relatively small as opposed to the size of the ailing bank. also other factors such as complexity and interconnectedness see J. Thomson, “On Systemically Important Financial Institutions and Progressive Systemic Mitigation,” Federal Reserve Bank of Cleveland Policy Discussion Paper 27 (August 2009) available at: http://www.clevelandfed.org/research/policydis/pdp27.pdf; and J. Thomson an J. Haubrich, “Too Big to Fail and the Definition of Systemic Significance” on FinReg 21, available at: http://www.finreg21.com/news/too-big-fail-and-definition-systemic-significance (both last accessed December 2010).


21 Ibid., Stiglitz argues that the largest financial institutions have reached a size that made them “not just too big to fail but also too big to save and too big to manage” (p. 5).

22 In the crisis of Icelandic banks, the government was not able to meet the liabilities arising to the Icelandic deposit guarantee scheme. In the case of Landsbanki, given the size of its cross-border operations though branches (£4.5 billion of retail deposits outstanding at the time of failure in the U.K. only), the total initial costs of retail depositor protection arising from the collapse of Landsbanki’s U.K. branch were therefore met by the U.K. government and the U.K. Financial Services Compensation Scheme (FSCS). See the Turner Review (cit. note 14) 37. In the case of Kaupthing, a bank operating mainly across borders through subsidiaries and branches, the group’s business was split along national lines and ring fenced, with the national deposit guarantee schemes having to cover the bank’s liabilities vis-à-vis depositors within national borders, irrespective of the legal structure of the established entity (branch or subsidiary). See Basel Committee (2009) cit. (note 16) 12-13.
Complexity, on the other hand, can make coordination of public intervention among Member States very difficult,23 with collective action problems. This can lead to delays where urgent decision-making is required and to under-provision of public funds, with increased social costs from the crisis.24 The absence of an appropriate supervisory framework and crisis management for cross-border banks, therefore, is itself a major cause of systemic risk.25 Recent proposals for either increased regulatory capital requirements26 or break-up of large cross-border banks try to address this problem.27 However, similar measures increase the overall cost of banking services28 (which will be shifted to

23 Complexity is recognized as an obstacle to effective crisis management and orderly resolution by the Basel Committee (2009) cit. (note 16) Recommendation 5. See also E. Huepkes, cit. (note 18).
25 See the IMF, BIS, FSB, cit. (note 7) 7, acknowledging that “robust crisis resolution frameworks and clearing and settlement systems can mitigate the potential externalities on the rest of the financial system due to failures in institutions and markets. The presence (absence) of such elements may act as potential mitigants (amplifiers) of the systemic importance of institutions, markets or instruments in the financial system.” The document is available at: http://www.bis.org/publ/othp07.pdf?noframes=1 (last accessed December 2010).
26 A similar solution has been adopted in Switzerland, where the two largest banks will be required to hold in “good times” 200 percent of the minimum capital ratio required by Basel (i.e., 16 percent). The buffer will then be (partially) available in “bad times” when the ratio is reduced to 150 percent (i.e., 12 percent). Such additional capital requirements will have to be complied with gradually until the year 2013. See the Swiss Federal Banking Commission Decree, November 2008. Available at: www.finma.ch/archiv/ebk/e/publik/medienmit/20081204/mm-em-leverageratio-20081204-e.pdf (last accessed December 2010).
consumers) and hamper market integration. Effective cross-border supervision and crisis management would be a more efficient solution, as it could allow for risky banks to be identified earlier and more properly. Measures would be taken ad hoc and only where needed, making risky banks (their managers, share- and bondholders) internalize the (social or systemic) costs of their risky activities.

**Cross-Border Consolidated Supervision**

Cross-border supervision of banks was addressed both at international and European level, while its importance increased over the last decades. Starting with the 1975 Concordat, the Basel Committee set guidelines for consolidated supervision of cross-border banks. These were aimed, initially, at emphasizing the importance of cooperation between authorities in the supervision of banks operating internationally. The 1975 Concordat pointed out the different responsibilities of home (or parent) and host authorities, depending on the legal structure of cross-border banking establishments and the different areas of prudential supervision. The 1983 Concordat (which replaced the 1975 one) underlined the importance of adequate consolidated supervision, as a result of the right allocation of responsibilities between home and host authorities, cooperation and information exchange. In 1992, the Basel Committee set “Minimum standards for the supervision of international banking

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groups and their foreign establishments” suggesting that (i) each cross-border bank or banking group should be supervised by a home country authority that capably performs consolidated supervision; (ii) the creation of cross-border establishments should be authorized by the host country, the home country and (if different) the consolidating authority; (iii) home country authorities should possess the right to gather information from cross-border establishments and host authorities; (iv) the host authority should be able to impose restrictive measures (including denying or revoking authorization) on cross-border establishments, if it determines that the home authority does not satisfy minimum standards of prudential supervision. Moreover, the relevant flows of information within group entities and home and host supervisors were specified, the relevant obstacles addressed and criteria for the assessment of effective capability of supervision by foreign home authorities laid down.

More recently, the impact on consolidated supervision of centralized key functions within a banking group was addressed. The Basel Committee suggested in 2003 that, where “mind and management” are centralized in a banking group, “the host country supervisor may choose to rely entirely on approval work conducted by the home country supervisor” so as to avoid overlaps in supervision, preserve authorities’ supervisory resources and reduce implementation burdens for cross-border banks. Indeed, in similar circumstances “the home country supervisor will probably be better placed to lead approval work.”

At European level, those guidelines were implemented through the Banking Directives and are now contained in the CRD. Moreover, the

33 Ibid., 17.
34 See also the European Commission (COM (2008) 602 final), cit. (note 9) 12, suggesting that “current nationally-based supervision risks delivering a collection of customized and ‘gold plated’ national rather than a single set of best EU prudential policies and practices. This generates additional compliance costs for large cross-border financial institutions that have increasingly reorganised their internal organisational set-up, especially by centralising important business functions such as risk and liquidity management.”
36 The Capital Requirements Directive (CRD), comprising Directive 2006/48/EC and Directive 2006/49/EC, was published in the Official Journal on Friday (continued)
Treaty’s fundamental freedoms (concerning movement of capital, provision of services and right of establishment), as reflected by the single license and mutual recognition regimes, further contributed to the extension of banking services across borders. This was accomplished mainly through the establishment of subsidiaries and branches by cross-border banks. While subsidiaries are legally separated entities, facing limited liability under their national law, branches are not legally separated from their head office and face joint liability. The choice between subsidiaries and branches for cross-border operations has a deep impact on the supervision of the entities involved and their regulation, particularly in crisis. In fact, subsidiaries are regulated and supervised by the authorities of their State of incorporation, and to a limited extent by the consolidating supervisor of their parent credit institution. Full consolidation of supervision on a cross-border group, with prudential requirements applying to the group as a whole on a consolidated basis rather than to subsidiaries individually, is left to Member States as an option and subject to several conditions, including that assets are promptly

30 June 2006. In the following, if not otherwise specified, we will refer as CRD to Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions.


38 Subsidiaries are controlled companies that are incorporated within (and authorized by) the State where their registered office is located, whereas branches are offices (without legal personality) that operate in the host Member State under the laws and upon authorization of the home Member State where the head office of the bank is incorporated.

39 See recital 21 of the CRD stating: “Responsibility for supervising the financial soundness of a credit institution, and in particular its solvency, should lay (sic) with its home Member State. The host Member State’s competent authorities should be responsible for the supervision of the liquidity of the branches and monetary policies. The supervision of market risk should be the subject of close cooperation between the competent authorities of the home and host Member States.”

40 See articles 124 et seq. of the CRD.

41 See article 69 of the CRD.

42 Article 69 of the CRD exempts subsidiaries from compliance on an individual basis with the following prudential requirements: governance and organizational structure (article 22 of the CRD), minimum level of own funds (article 75 of the CRD) and large exposures (Section 5 of the CRD).
transferable between group entities. However, Member States may limit the consolidated application of prudential requirements to nationally authorized parent institutions and their domestic subsidiaries, while asset transfers between group entities face several obstacles in the banking, company and insolvency laws of Member States. Moreover, in the case of a crisis, separate insolvency procedures may be started for each subsidiary according to the laws of its State of incorporation (as foreseen by Directive 2001/24 on the reorganization and winding up of credit institutions), with ring fencing of assets at subsidiary level.

Branches, on the contrary, are supervised by the home state authority and only to a limited extent by the host supervisor. Areas in which host authorities retain responsibility (together with the home

43 The following conditions are foreseen by article 69 CRD:
(a) “there is no current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities by its parent undertaking;
(b) either the parent undertaking satisfies the competent authority regarding the prudent management of the subsidiary and has declared, with the consent of the competent authority, that it guarantees the commitments entered into by the subsidiary, or the risks in the subsidiary are of negligible interest;
(c) the risk evaluation, measurement and control procedures of the parent undertaking cover the subsidiary; and
(d) the parent undertaking holds more than 50 percent of the voting rights attaching to shares in the capital of the subsidiary and/or has the right to appoint or remove a majority of the members of the management body of the subsidiary.”


45 See article 40 of the CRD. For a more detailed list of competences of the home supervisors in relation to branches see Committee of European Banking Supervisors (CEBS), “CEBS’ Advice on information required to be exchanged under Article 42 CRD” (June 2009) 2. Available at http://www.c-ebsonline.org/Supervisory-Colleges/Publications/CEBS-today-published-its-advice-on-the-information.aspx (last accessed December 2010).

46 See article 41 of the CRD. For a more detailed list of the responsibilities of host authorities in relation to branches, see CEBS, “CEBS’ Advice on information required to be exchanged under Article 42 CRD” (June 2009), cit. (note 45) 3.
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supervisor) for the supervision of branches are liquidity management and monetary policy. However, in the euro area, this responsibility is limited as a result of centralization of monetary policy to the European Central Bank (ECB), whereas the importance of liquidity supervision of branches was shown by the recent financial turmoil. Indeed, the borders between illiquidity and insolvency are often blurred, as a liquidity crisis can turn into a solvency one very rapidly. Nonetheless, in the case of a crisis, the main procedure for reorganization or winding up of a bank applies also to its (European) cross-border branches, under the supervision of the home country authorities (see Directive 2001/24).

In conclusion, home supervisors of cross-border banks centralize supervision to a greater extent when a branch structure is in place. This does not reflect economic reality, as cross-border banks are generally organized along business lines, irrespective of whether a branch or

47 According to article 41 of the CRD, subparagraph 1, host country authorities shall retain responsibility for the liquidity supervision of branches, “pending further coordination” and “in cooperation with the competent authorities of the home Member State.”


49 See the European Commission (EC), “Commission services’ feasibility report on “asset transferability” within cross border banking groups” cit. (note 44) 14.

50 See the European Commission (COM (2008) 602 final), cit. (note 9) 12, acknowledging that “in pan-European institutions, risk, liquidity and capital management are increasingly executed centrally for all organisational units, (continued)
a subsidiary structure is adopted. Moreover, cross-border supervision must rely on cooperation and coordination mechanisms between national authorities. As shown by the recent crisis, however, the allocation of responsibilities between home and host supervisors does not reflect the complexity of group structures and functioning. This is also true of the division of tasks relating to crisis management and resolution. The Basel Committee recently recognized that “these complexities and the potential confusion regarding responsibilities may affect the effectiveness and even the willingness of authorities to cooperate and share information.”

and groups are increasingly organized according to business lines. Consequently, it is becoming increasingly difficult to organize supervision on a predominantly national basis.”


On the other hand, concerns have been expressed that, at both international and European levels, the allocation of supervisory powers and responsibilities on cross-border groups excessively favors home authorities at the expense of host countries. An enhancement of host authorities’ powers to protect domestic financial stability has been suggested by K. Pistor, “Host’s Dilemma: Rethinking EU Banking Regulation in Light of the Global Crisis” (June 28, 2010), ECGI - Finance Working Paper No. 286/2010; Columbia Law and Economics Working Paper No. 378. Available at SSRN: http://ssrn.com/abstract=1631940. (Last accessed December 2010).

52 See the Basel Committee (2009) cit. (note 16) 33. See also the European Commission (COM (2008) 602 final), cit. (note 9) 13, highlighting that, “as financial supervision under the current framework is organized on a predominantly national basis (despite the fact that the 46 largest cross-border groups held about 68 percent of EU banking assets) with each Member State responsible for ensuring financial stability in its jurisdiction, Member States’ incentives to develop EU principles and procedures for cross-border crisis prevention may be limited.” K Pistor, cit. (note 51), argues that, in order to make cross-border coordination among regulators more effective, host authorities should with additional powers, “to have something to bargain over” with home authorities (p. 27). However, we argue that a similar solution could also have the opposite effect of increasing national bias, possibly leading to strategic behavior and even protectionism.
The Current European Framework for Cooperation

The current European framework for cooperation between supervisory authorities is based on (a) information exchange; (b) consultation on supervisory action; (c) joint model validation under the consolidating supervisor; and (d) written cooperation and coordination agreements between supervisors.53

(a) Information exchange

As regards information exchange, article 132 of the CRD states that home and host authorities “shall cooperate closely with each other” providing one another with “any information which is essential or relevant for the exercise of the other authorities’ supervisory tasks”. Information shall be considered essential if it “could materially influence the assessment of the financial soundness of a credit institution or financial institution in another Member State.”54 Such information has to be provided by authorities on their own initiative to other competent authorities, while other relevant information shall be delivered upon request. Competent authorities responsible for the supervision of group entities placed in different Member States shall “communicate to each other all relevant information which may

54 Article 132.1 subparagraph 4 states that “the essential information referred to in the first subparagraph shall include, in particular, the following items:
(a) identification of the group structure of all major credit institutions in a group, as well as of the competent authorities of the credit institutions in the group;
(b) procedures for the collection of information from the credit institutions in a group, and the verification of that information;
(c) adverse developments in credit institutions or in other entities of a group, which could seriously affect the credit institutions; and
(d) major sanctions and exceptional measures taken by competent authorities in accordance with this Directive, including the imposition of an additional capital charge under Article 136 and the imposition of any limitation on the use of the Advanced Measurement Approach for the calculation of the own funds requirements under Article 105.”
allow or aid the exercise of supervision on a consolidated basis.”

Essential and relevant information for the purposes of consolidated supervision in going concern or emergency situations shall be gathered from and disseminated to the competent authorities concerned under the coordination of the consolidating supervisor. The CRD provides for cooperation and information exchange also among home and host supervisors of branches. Article 42 requires an ongoing flow of information from host to home, and from home to host supervisors, necessary to enable each of them to perform their respective tasks timely and effectively.

Relevant information for the purposes of the group’s consolidated supervision has also to be exchanged between group entities, and Member States shall remove obstacles to the information exchange.

(b) Consultation on supervisory decisions

In addition to exchanging information, relevant competent authorities shall consult each other, under article 132.3 of the CRD, before taking decisions which could significantly impact the supervisory tasks of other competent authorities. In particular, they shall consult prior to enacting changes in the shareholder, organizational or management structure of group entities and before the adoption of major sanctions or exceptional measures by competent authorities. Consultation may be avoided in the case of urgency or where it may jeopardize the effectiveness of the relevant decisions, but in similar circumstances the competent authority shall inform the other competent authorities without delay.

55 Article 139.2 of the CRD.
56 See article 129.1 a) of the CRD.
57 See CEBS, “CEBS’ Advice on information required to be exchanged under Article 42 CRD” (June 2009), cit. (note 45) 4, also for a list of information that has to be provided from home to host supervisors (page 8) and from host to home supervisors (page 19).
58 Article 139.1 of the CRD.
59 Article 132.3 of the CRD includes among exceptional measures “the imposition of an additional capital charge under Article 136 and the imposition of any limitation on the use of the Advances Measurement Approaches for the calculation of the own funds requirements under Article 105.”
60 See article 132.3, subparagraph 3 of the CRD.
(c) Joint model validation

Another significant area where the consolidating supervisor and the authorities responsible for the supervision of single group entities shall closely cooperate is the process of joint model validation set by article 129 of the CRD. In this case competent authorities shall consult each other to reach a joint decision on whether (and under which terms and conditions) to grant permission to a banking group to use advanced modeling of credit, market and operational risks for regulatory purposes. The application for permission shall be submitted to the consolidating supervisor by the relevant consolidated entity. During the consultation on whether to grant permission to the applicant “the competent authorities shall do everything within their power to reach a joint decision” within six months from the receipt of the application. The joint decision shall be explained in a document and provided to the applying entity.

Should no joint decision be reached within six months, despite the best effort of the competent authorities, the consolidating supervisor shall take its own decision on the application, taking into account the views and reservations of other competent authorities expressed during the six months period. Again, the decision shall be explained in a document to be provided by the consolidating supervisor to the applicant and to other competent authorities. Whether taken jointly by all competent authorities or separately by the consolidating supervisor, the decision shall be recognized as determinative and applied by the competent authorities in the Member States concerned.

(d) Written cooperation and coordination arrangements

In view of facilitating more effective consolidated supervision, article 131 of the CRD requires competent authorities to engage in “written coordination and cooperation arrangements”. These arrangements, also known as Memoranda of Understanding (MoUs), are used to delegate supervisory tasks and specify the procedures for adoption of joint decisions and for cooperation between competent authorities. MoUs usually establish colleges

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61 See articles 84.1 and 87.9 of the CRD, regarding internal ratings based approach.  
62 See article 105 and Annex III, Part 6, of the CRD.
of supervisors,\textsuperscript{63} aimed at facilitating information flows and consultation processes between relevant authorities in order to reach consensus on supervisory actions and decisions on subjects of common interest. Although effective in ordinary times, MoUs did not prevent, throughout the recent crisis, ring fencing and the split up of cross-border banks along national borders.\textsuperscript{64} Indeed, MoUs were not legally binding and enforceable,\textsuperscript{65} while colleges of supervisors lacked the powers and political influence to perform effective coordination of national supervisors in times of crisis.

**Strengthening the Framework**

In an attempt to address the weaknesses of the European supervisory framework shown by the recent crisis\textsuperscript{66}, the European Commission


\textsuperscript{64} See Huepkes, cit. (note 48), pointing out that “while such memoranda provide an adequate framework for cooperation in normal times, in a crisis situation they may not ensure that all necessary information is exchanged on a timely basis and that action is coordinated accordingly.” This was confirmed in the cases of Fortis and Dexia.

\textsuperscript{65} See the “Memorandum of Understanding on Cooperation Between the Financial Supervisory Authorities, Central Banks and Finance Ministries of the European Union on Cross-Border Financial Stability” (1 June 2008), which affirms that “as the provisions of this Memorandum are not legally binding on the Parties, they may not give rise to any legal claim on behalf of any Party or third parties in the course of their practical implementation.” Moreover, “the provisions of the Memorandum do not prejudice or assume any particular decisions or remedies to be taken in crisis situations” (page 10).

\textsuperscript{66} Recital (1) of the “Directive 2009/111/EC of the European Parliament and of the Council amending Directives 2006/48/EC, 2006/49/EC and 2007/64/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management” (hereinafter “CRD II”) states that “this Directive represents a first important step to address shortcomings revealed by the financial crisis.” The press release IP/09/1347 “Commission adopts legislative proposals to strengthen financial supervision in Europe” of 23 September 2009 recognizes that “the current financial crisis has highlighted weaknesses in the EU’s supervisory (continued)
proposed and the Parliament and Council recently adopted a Directive amending (amongst others) the CRD as to coordination and cooperation of home, host and consolidating supervisors (the “CRD II”). The CRD II emphasizes the role of consolidated supervision and of the relevant authorities by introducing the definition of “consolidating supervisor.” It also requires supervisors to duly consider cross-border externalities and spillover effects of their decisions on other Member States’ financial systems, especially in crisis situations. The CRD II further addresses the problem, also raised by the Turner Report, of a more effective involvement in supervision and increased powers of host supervisors with respect to systemically relevant branches. For this purpose, the Directive entitles the host Member State to make a reasoned request to the home or consolidating supervisor for a branch of a credit institution to be considered as significant. The competent authorities shall do everything in their power to reach a joint decision on a similar request. Should a joint decision not be reached within two months, the host authority concerned shall take the decision individually within the following two months. The procedure laid down for the joint model validation framework, which remains fragmented along national lines despite the creation of a European single market more than a decade ago and the importance of pan-European institutions.” It is available at: http://europa.eu/rapid/press-ReleasesAction.do?reference=IP/09/1347 (last accessed December 2010).


68 See article 1.2 of the CRD II, which adds the following point to article 4 of the CRD:
“(48) ‘consolidating supervisor’ means the competent authority responsible for the exercise of supervision on a consolidated basis of EU parent credit institutions and credit institutions controlled by EU parent financial holding companies.”

69 See article 1.3 of the CRD II, which adds a third paragraph to article 40 of the CRD.

70 See FSA (2009) cit. (note 14) pointing out the need for “Gathering far more extensive information from banks and from home country supervisors on the whole bank liquidity of banks operating in the UK, including those operating as branches,” p. 99.

71 See article 1.4 of the CRD II, which introduces article 42a of the CRD.
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The CRD II enhances supervisory convergence by emphasizing the role of CEBS as a standard setter. Under new article 42b, relevant authorities are required to participate in CEBS’ activities and, despite their national mandate, follow the latter’s guidelines, recommendations and standards or explain any deviation from the same. Moreover, the Directive strengthens cooperation and coordination between supervisors by extending the joint decision making process to other issues regarding consolidated supervision. In particular, new article

72 Again, the competent host supervisor shall take the views and reservations expressed by the other relevant supervisors and provide them with a fully reasoned decision on a written document.

73 See the article 130.1 of the CRD, as replaced by article 1.32 of the CRD II.

74 The emergency situations referred to by the newly introduced article 129.1(c), include “adverse developments in credit institutions or in financial markets.” Thus, they relate to micro- and macroprudential issues, respectively. See article 1.31(a) of the CRD II.

75 For a more detailed list of the implications related to the designation of a branch as significant, see CEBS, “CEBS’ Advice on information required to be exchanged under Article 42 CRD” (June 2009), cit. (note 45). For skeptical view as to the effectiveness of the designation of a branch as systemically significant in the host country see K. Pistor, cit. (note 51), describing the relevant powers of the host as “only nominal participation of affected member states in the colleges of supervisors” (p. 30).

76 See article 1.4 of the CRD II, introducing article 42b of the CRD.
129(3) of the CRD\textsuperscript{77} establishes that joint decisions shall be taken by the consolidating supervisor and each competent authority with reference to the risk management assessment process\textsuperscript{78}, review and evaluation\textsuperscript{79}; the decision of imposing additional own funds requirements on a group entity as a result of the breach of certain prudential requirements\textsuperscript{80}; a negative determination under the risk management review and evaluation\textsuperscript{81} of the group entity concerned.\textsuperscript{82} Again, relevant authorities shall do what is in their power to reach a joint decision. Should they fail to do so within four months, despite their best efforts:

(a) the consolidating supervisor shall be entitled to adopt its decision on a consolidated basis, after duly considering the risk assessment of subsidiaries performed by each competent authority on an individual basis; and

(b) each authority responsible for the supervision of subsidiaries on an individual or sub-consolidated basis shall take their decisions regarding each respective subsidiary (for which they are responsible),

\textsuperscript{77} See article 1.31 (b) of the CRD II, which adds paragraph 3 to article 129 of the CRD.
\textsuperscript{78} See article 123 of the CRD.
\textsuperscript{79} See article 124 of the CRD that requires at least an annual review and evaluation of the credit institution’s risk management procedures. Supervisory review and evaluation is part of the Pillar 2 of the CRD, which “covers the review and evaluation of the credit institution’s fulfilment of the requirements of the CRD by the supervisor and any resulting action; new rules include requirements for an ‘internal capital assessment’ by financial institutions, whereby they would need to assess their capital needs considering all the risks they face. These rules also require supervisors to evaluate institutions’ overall risk profile to ensure that they hold adequate capital.” See the European Commission (COM (2008) 602 final), cit. (note 9), 4–5. The division in Pillars of the CRD reflects and implements Basel II.
\textsuperscript{80} Those prudential requirements relate to organizational structure and governance (article 22 of the CRD); administrative and accounting procedures (article 109 of the CRD); and the risk management assessment process (article 123 of the CRD).
\textsuperscript{81} See article 124.3 of the CRD.
\textsuperscript{82} See article 136.2. of the CRD.
after duly considering the views and reservations expressed by the consolidating supervisor. A written document providing the fully reasoned decision shall in any case be drafted and handed to each competent authority and group entities concerned.

Decisions under new article 129.3 (taken either jointly or separately, as stated under (a) and (b) above) shall be reviewed on an annual basis. Only in exceptional circumstances, can decisions on the application of article 136.2 be reviewed upon a fully reasoned request to the consolidating supervisor by the competent authority responsible for the subsidiary’s supervision. In a similar case, the requesting authority and the consolidating supervisor may address such update on a bilateral basis, without the participation of other authorities.

The joint decision-making process under new article 129.3 reflects those laid down by articles 129.1 and 42a, besides CEBS’s possible involvement in the decision. In fact, the CRD II introduced a voluntary consultation of CEBS, upon the initiative of any competent authority concerned, in the case of disagreement. The advice expressed by CEBS, though not binding, shall be taken into consideration by national authorities, which shall explain any significant deviation from the same in the written document providing their fully reasoned decision.

Another area where the CRD II strengthened the framework for cooperation and coordination are emergency situations, including adverse developments either in financial markets, which might jeopardize market liquidity and the stability of the financial system, or

83 Article 136.2 states that: “A specific own funds requirement in excess of the minimum level laid down in Article 75 shall be imposed by the competent authorities at least on the credit institutions which do not meet the requirements laid down in Articles 22 [organizational structure and governance], 109 [administrative and accounting procedures] and 123 [risk management assessment process], or in respect of which a negative determination has been made on the issue described in Article 124, paragraph 3 [review and evaluation of risk management], if the sole application of other measures is unlikely to improve the arrangements, processes, mechanisms and strategies sufficiently within an appropriate timeframe.”
in individual institutions.\textsuperscript{84} When the consolidating supervisor has notice of similar adverse developments in the financial markets of any Member State, where a subsidiary or a systemically significant branch is located, it shall promptly communicate all relevant information to the competent authority.\textsuperscript{85} Moreover, consistently with the possible macro-prudential impact of similar adverse developments, Member States shall allow competent authorities to hand such information to central banks of the ESCB when it is deemed “relevant for the exercise of their statutory tasks, including the conduct of monetary policy and related liquidity provision, oversight of payments, clearing and settlement systems and the safeguarding of financial stability”\textsuperscript{86} and to “other departments of their central government administrations responsible for legislation on the supervision of credit institutions.”\textsuperscript{87}

Furthermore, in the case of adverse developments regarding either financial markets or individual credit institutions, the consolidating supervisor shall plan and coordinate supervisory activities in cooperation with the competent authorities involved, and if necessary with central banks.\textsuperscript{88} This can result in exceptional measures being taken under article 132.3,\textsuperscript{89} joint assessments, implementation of contingency plans and communication to the public. However, according to article

\textsuperscript{84} Recital (6) of the CRD II emphasizes that “for the purpose of strengthening the crisis management framework of the Community, it is essential that competent authorities coordinate their actions with other competent authorities and, where appropriate, with central banks in an efficient way, including with the aim of mitigating systemic risk. In order to strengthen the efficiency of the prudential supervision of a banking group on a consolidated basis, supervisory activities should be coordinated in a more effective manner.”

\textsuperscript{85} See article 130.1 of the CRD, as replaced by article 1.32 of the CRD II.

\textsuperscript{86} See article 49.2 of the CRD, introduced by article 1.5(b) of the CRD II.

\textsuperscript{87} See article 50.2 of the CRD as introduced by article 1.6 of the CRD II.

\textsuperscript{88} See article 129.1(c), as replaced by article 1.31(a) of the CRD II.

\textsuperscript{89} Article 132.3 of the CRD includes among exceptional measures “the imposition of an additional capital charge under Article 136 and the imposition of any limitation on the use of the Advanced Measurement Approaches for the calculation of the own funds requirements under Article 105.” Note that those measures have to be adopted in consultation with competent authorities involved. See above, paragraph 3(b).
129.1(c), the consolidating supervisor shall, where possible, use “existing defined channels of communication for facilitating crisis management.” These “channels,” although not defined by the CRD II, may be the “written arrangements” required by article 131 of the CRD and colleges of supervisors.90

This leads to the last significant change to the CRD brought about by the CRD II. Colleges of supervisors,91 under new article 131a, are now mandatory for banks and banking groups with significant cross-border branches and/or subsidiaries. The consolidating (or the home92) supervisor shall establish them to facilitate the exercise of the tasks referred to in articles 12993

90 See CEBS “Template for a Multilateral Cooperation and Coordination Agreement” (January 2009), for a list of the possible issues addressed in “written arrangements” according to article 131 of CRD, including the tasks of colleges of supervisors in going concern and in crisis situations.

91 CEBS “Good Practices on the Functioning of Colleges of Supervisors for Cross-Border Banking Groups” (April 2009) 3, defines colleges of supervisors as “permanent, although flexible, structures for cooperation and coordination among the authorities responsible for and involved in the supervision of the different components of cross-border banking groups. Colleges provide a framework for the consolidating supervisor and the other competent authorities to carry out the tasks established in the CRD.” Available at: http://www.c-ebs.org/getdoc/2d057c7c-da56-4f7c-a575-ed58cbea1fe/College-Good-Practices-Paper_2-April-2009.aspx (last accessed December 2010).

92 See article 42a.3 of the CRD, requiring the establishment of colleges of supervisors by the competent authorities of a credit institution with significant branches in other Member States. The establishment and functioning of the college shall be based on written arrangements determined by the home supervisor after consultation with the competent host authorities. The home supervisor also determines which authorities shall participate to meetings and activities of the college.

93 Article 129 of the CRD refers to the following tasks by the consolidating supervisor: gathering from and disseminating to competent authorities of relevant or essential information in going concern and emergency situations; planning and coordination of supervisory activities in cooperation with other competent authorities in going concern and emergency situations; joint decisions with competent authorities in relation to review and evaluation of the credit institution’s fulfilment of prudential requirements according to Pillar 2 of the CRD in addition to imposing an additional capital requirement in the case of negative determination of the review and evaluation.

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and 130.1\(^a\) of the CRD. Moreover, colleges of supervisors shall provide a framework for the competent authorities to perform the following tasks: information exchange; voluntary delegation of supervisory responsibilities; supervisory examination programs based on risk assessment of the group\(^b\); more efficient direction of requests of information\(^c\); consistent application of prudential requirements, without prejudice to discretionary implementation of Community legislation left to Member States; consideration of relevant fora that may be established in the area of crisis management. The consolidating supervisor has a central role within colleges,\(^d\) which are established and function according to written agreements determined by the consolidating supervisor after consultation with relevant competent authorities. The consolidating supervisor chairs the meetings of the college, decides which competent authorities shall each time participate and is responsible for keeping competent authorities fully and timely informed of actions and measures carried out by the college.

However, colleges of supervisors are solely aimed at facilitating the cooperation and coordination of supervisory decisions and activities between competent authorities in going concern and emergency situations.\(^e\) They have no powers to adopt binding resolutions, nor an

\(^{a}\) Article 130.1 of the CRD relates to the duty of the consolidating supervisor to alert as soon as possible competent authorities (including, where necessary, central banks and other bodies) in an emergency situation which could potentially harm the market liquidity and the financial stability of the financial system of the Member States where subsidiaries or significant branches of the group are located.

\(^{b}\) See article 124 of the CRD.

\(^{c}\) See articles 130.2 and 132.2 of the CRD.

\(^{d}\) Among a set of different policy options the one based on “formal colleges of supervisors with involvement of CEBS and reinforced powers of consolidating supervisor” was preferred as it is deemed more effective with regard to the objective of reducing compliance burden. See the European Commission (COM (2008) 602 final), cit. (note 9) 113.

\(^{e}\) See recital (6) of the CRD II, suggesting that “in order to strengthen the efficiency of the prudential supervision of a banking group on a consolidated basis, supervisory activities should be coordinated in a more effective manner. Colleges of Supervisors should therefore be established. The establishment of Colleges of Supervisors should not affect the rights and responsibilities of the competent authorities under Directive 2006/48/EC. Their establishment (continued)
explicit role on joint decision making processes or direct supervisory responsibilities.\(^9\) It is therefore questionable whether, under the current European supervisory architecture, colleges of supervisors introduced by the CRD II will prove more effective than those that were in place in the past. The absence of direct supervisory responsibilities of colleges and of binding mediation mechanisms in cases of disagreement between authorities might provide the same with insufficient incentives for effective cooperation, especially in crisis situations.

Nonetheless, as recognized by the CRD II, “cooperation between supervisory authorities, dealing with groups and holdings and their subsidiaries and branches, by means of colleges is a phase in a development towards further regulatory convergence and supervisory integration.”\(^1\) The European Parliament and the Council have recently adopted the legislative acts establishing a new European supervisory framework, which is aimed at fostering regulatory convergence and supervisory integration, and will be commented upon in the next section.

**The New European Supervisory Architecture**

**Context of the Reform Proposal**

The new legislation proposed by the EC Commission to reform the European supervisory architecture, recently adopted by the European Parliament and the Council,\(^1\) represents an essential step towards

should be an instrument for stronger cooperation by means of which competent authorities reach agreement on key supervisory tasks. The Colleges of Supervisors should facilitate the handling of ongoing supervision and emergency situations.”\(^9\) See article 131a.1 of the CRD, inserted by article 1.33 of the CRD II, affirming that “the establishment and functioning of colleges of supervisors shall not affect the rights and responsibilities of the competent authorities under this Directive.”

\(^1\) Recital (12) of the CRD II.

\(^1\) For an overview of the reform proposals and other relevant documents of the European Commission on the reform of the European supervisory framework see http://ec.europa.eu/internal_market/finances/committees/index_en.htm#communication (last accessed December 2010). See also the European Commission “Commission Staff Working Document” (continued)
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regulatory convergence and supervisory integration. Also the CRD II, despite introducing enhanced cooperation and coordination arrangements in the CRD, acknowledged that “in order to achieve the necessary level of supervisory convergence and cooperation at the European Union level, and to underpin the stability of the financial system, further wide-ranging reforms of the regulatory and supervisory model of the European Union’s financial sector are highly needed and should be put forward swiftly by the Commission, with due consideration of the conclusions presented by the de Larosière Group on 25 February 2009.”


102 See recital (13) of the CRD II suggesting that “the crisis in international financial markets has demonstrated that it is appropriate to examine further the need for reform of the regulatory and supervisory model of the European Union’s financial sector.”

103 The group of experts, chaired by Jacques de Larosière (the de Larosière Group), was set up by the Commission with the aim of assessing the organizational structure of European financial institutions and propose appropriate measures “to ensure prudential soundness, the orderly functioning of markets and stronger European cooperation on financial stability oversight, early warning mechanisms and crisis management, including the management of cross-border and cross-sectoral risks, and also to look at cooperation between the European Union and other major jurisdictions to help safeguard financial stability at the global level.” See the European Commission “From financial crisis to recovery: A European framework for action” (29 October 2008). Available at: http://ec.europa.eu/commission_barroso/president/pdf/press_20081029_en.pdf (last accessed March 2010).

104 Recital (15) of the CRD II.
The de Larosière Report\textsuperscript{105} suggested a distinction between macro-\textsuperscript{106} and microprudential\textsuperscript{107} supervision emphasizing that, although intertwined, these two types of prudential supervision focus on different objectives. The former type is aimed at monitoring and assessing potential threats to the stability of the financial system as a whole that


\textsuperscript{106} \textit{See} the European Commission, “Commission Staff Working Document accompanying document to the Communication from the Commission ‘European financial supervision’ impact assessment” (27 May 2009) 9, which defines macro-prudential supervision noting that “macro-prudential supervision focuses on limiting risks to the financial system as a whole that may arise from broad developments in the economy (e.g., excessive domestic credit expansion).” Available at: http://ec.europa.eu/internal_market/finances/docs/committees/supervision/communication_may2009/impact_assessment_fulltext_en.pdf (last December March 2010). A slightly different and more comprehensive view is offered by R. Herring, J. Carmassi, “The Structure of Cross-Sector Financial Supervision,” \textit{Financial Markets, Institutions & Instruments}, Vol. 17, No. 1 (2008) 52, arguing that macro-prudential supervision, while pursuing the same objectives described above, “focuses on systemically important institutions and the consequences their behaviour may have for financial markets. It tends to be top down surveillance with emphasis on the exposures of systemically important institutions to a variety of shocks. This involves not only monitoring the compliance of these institutions with safety and soundness standards, but also evaluating whether these standards are sufficient to protect the rest of the economy adequately from financial distress in a systemically important firm.” The authors admit, however, that “the microprudential function is closely related to the macroprudential function, but focuses on the solvency of individual institutions rather than the financial system as a whole” (p. 53).

\textsuperscript{107} For a definition of microprudential supervision, \textit{ibid.}: “the main objective of microprudential supervision is to supervise and limit the risk of distress in individual financial institutions. By preventing the failure of individual financial institutions, microprudential supervision attempts to protect the clients of the institutions and prevent (or at least mitigate) the risk of contagion and the subsequent negative externalities in terms of confidence in the overall financial system.”
derive from macroeconomic developments, global systemic risks and correlated shocks triggered by common exposure of numerous financial institutions to the same risk factors. The latter is concerned with the soundness of individual financial institutions and aims at limiting the contagion effects and systemic impact deriving from the crisis of an individual institution, especially if large or significantly interconnected.\textsuperscript{108}

The European Commission agreed\textsuperscript{109} on the supervisory architecture suggested by the de Larosière Group\textsuperscript{110} and proposed an EC

\textsuperscript{108} See the de Larosière Report, cit. (note 105) 38, para. 146-147.

\textsuperscript{109} The reform proposals of the de Larosière Group, were specified in the Commission’s Communication of 27 May. See “Communication from the Commission. European financial supervision” (27 May 2009) 3, stating that “this Communication is a key milestone and sets out the basic architecture for a new European financial supervisory framework.” The document is available at: http://ec.europa.eu/internal_market/finances/docs/committees/supervision/communication_may2009/C-2009_715_en.pdf (last accessed December 2010).

The Commission also conducted two open consultations on the proposed macro- and microprudential supervisory framework. A first consultation was launched following publication of the de Larosière report and extended from 10 March to 10 April 2009, as input to the Commission Communication 27 May 2009, cit. (note 109). A summary of the public submissions received can be found at http://ec.europa.eu/internal_market/consultations/docs/2009/fin_supervision/summary_en.pdf. A second consultation was conducted over the period from 27 May to 15 July 2009, inviting all financial services sector operators and their representative bodies, regulators, supervisors, other interested parties, to comment on the more detailed reforms presented in the May 2009 Communication. See the summary of the submitted responses at: http://ec.europa.eu/internal_market/consultations/docs/2009/fin_supervision_may/replies_summary_en.pdf (last accessed December 2010).


\textsuperscript{110} The de Larosière Report proposed to assign macroprudential supervision to an independent, newly established European Systemic Risk Council, working (continued)
Regulation,\textsuperscript{111} which was later adopted, assigning macro prudential supervision to a newly established European Systemic Risk Board (ESRB)\textsuperscript{112} and micro-prudential supervision to a new European System of Financial Supervisors (ESFS), i.e., a network of national supervisors in connection with the ECB and the ESCB. This body is not charged with microprudential supervisory responsibilities, which would be left to national authorities, forming a European System of Financial Supervisors coordinated by European Supervisory Authorities resulting from the conversion of existing level 3 committees.

\textsuperscript{111} The proposals were adopted by the Commission on 23 September 2009. The legal basis of the proposed regulations is provided by article 114 TFEU, which allows the Council through co-decision procedure (following article 294.3 TFUE) with the European Parliament to take “the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.” As clarified by the European Court of Justice, similar measures include the establishment of new European bodies, provided that the same are “responsible for contributing to the implementation of a process of harmonisation” and their “tasks [are] closely linked to the subject matter of the acts approximating the laws, regulations and administrative provisions of the Member States.” See the European Court of Justice, Case C-217/04 “United Kingdom of Great Britain and Northern Ireland v. European Parliament and Council of the European Union,” paras. 44-45. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62004J0217:EN:HTML (last accessed December 2010). The tasks assigned to the newly established authorities are closely linked to the measures of further integration and enhancement of cooperation required as a response to the current crisis for a more stable and well functioning European financial system. They comply, therefore, with the conditions set forth by the ECJ under article 95 of the Treaty.

coordinated by the new European Supervisory Authorities, deriving from the transformation of existing European Supervisory Committees. The creation of a centrally coordinated network is aimed at enhancing effective cooperation between competent authorities in the supervision of cross-border financial institutions, while leaving day-to-day supervision to national authorities, in conformity with the principles of subsidiarity and proportionality laid down in Article 5 of the Treaty on the European Union.

The remainder of this section will analyze, in some detail, the tasks and responsibilities of the new European bodies.


114 The MEMO/09/404 “European System of Financial Supervisors (ESFS): Frequently Asked Questions” (23 September 2009) clarifies that: “day-to-day supervision is best done on national level, close to the ground, where there are strong local traditions. There will always be a pivotal role for national supervisors.” Available at: http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/404&format=HTML&aged=0&language=EN&guiLanguage=en (last accessed December 2010).
Macroprudential Oversight: The European Systemic Risk Board (ESRB)

A widely shared view of the financial crisis argues that the current supervisory framework relies excessively on (nationally fragmented) microprudential supervision. Indeed, prudential supervisors seriously misunderstood macroeconomic trends by focusing on individual institutions rather than on common exposures generating systemic risk.115 Given the degree of integration and

115 Lord Turner at his “Speech at the City of London Corporation’s Annual Reception for the City Office, 6 October 2009,” pointed out that: “one of the most crucial things that went wrong in the run-up to the crisis was that the global central banking and regulatory community, those in different ways responsible for financial stability, failed to see the big picture of emerging financial risks: the regulators too exclusively focused on institution by institution threats, and the central banks too exclusively focused on meeting the sole objective of low and stable inflation over the medium term.” Available at: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/1006_at.shtml (last accessed December 2010). See also F. Recine and P. G. Teixeira, “Towards a new regulatory model for the single European financial market” RTDF N. 4/2009, 1; C. Stephanou, “The Reform Agenda: Charting the Future of Financial Regulation” (June 29, 2009), The World Bank Group, Financial and Private Sector Development Vice Presidency, Crisis Response Policy Brief 2. Available at SSRN: http://ssrn.com/abstract=1427398, (last accessed December 2010); C. Goodhart and D. Schoenmaker, “De Larosière Report: Two Down, Two to Go” (30 March 2009) on FT.com/economistforum. Available at: http://blogs.ft.com/economistforum/2009/03/the-de-larosiere-report-two-down-two-to-go/ (last accessed December 2010). See also recital 6 of the new version of the ESRB Regulation adopted by the European Parliament, cit (note 112) pointing out that: “The present Union arrangements place too little emphasis on macro-prudential oversight and on inter-linkages between developments in the broader macroeconomic environment and the financial system. Responsibility for macro-prudential analysis remains fragmented, and is conducted by various authorities at different levels with no mechanism to ensure that macro-prudential risks are adequately identified and that warnings and recommendations are issued clearly, followed up and translated into action. A proper functioning of Union and global financial systems and the mitigation of threats thereto require enhanced consistency between macro and micro supervision.”
interconnectedness of European financial markets, cross-sectoral macro-prudential oversight of systemic stability should be performed by a European body with the involvement of central banks.


118 Such a body would be essential for a cross-sectoral, integrated EU macro-prudential supervisory structure “necessary to promote timely and consistent policy responses among Member States thus preventing diverging approaches and so improve the functioning of the Internal Market.” See the “Proposal for a Regulation of the European Parliament and of the Council on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board,” cit. (note 112) 3.

119 See F. Recine and P. G. Teixeira, cit. (note 115) for a list of countries that decided, following the crisis, to entrust the central bank (or related authorities) with prudential supervisory powers. Note that in Germany, where the supervision of banks was shared between the Bundesbank (the German central bank) and the Bafin (Bundesanstalt für Finanzdienstleistungsaufsicht—the financial markets supervisory authority), the government has recently decided to appoint the central bank as sole supervisor over the banking sector. See FT, “Bundesbank to have sole banking oversight” published online 8 October 2009 and available at: http://www.ft.com/cms/s/0/e7bd8cc8-b43e-11de-bec8-00144feab49a.html?catid=4&S=google (last accessed March 2010).

Accordingly, under the new legislation, the European Systemic Risk Board\textsuperscript{120} shall be responsible for macroprudential oversight over the EU financial system. The ESRB shall develop a common approach to the identification of systemic risks, solving the problem of nationally fragmented individual risk assessment. It shall also establish effective early warning mechanisms and allow for greater interaction between micro- and macroprudential analyses, promoting micro-prudential supervisory actions of competent authorities upon the identification and assessment of systemic risks.\textsuperscript{121}

The ESRB shall have no legal personality, nor binding powers; however, given the high profile of its members,\textsuperscript{122} it shall function as a

\begin{footnotesize}

\textsuperscript{121} See article 4 of the “Proposal for a Council Decision entrusting the European Central Bank with specific tasks concerning the functioning of the European Systemic Risk Board” \textit{cit.} (note 112).

\textsuperscript{122} The Board shall consist of the following voting members: Governors of the twenty-seven national central banks; President and the Vice-President of the ECB; a member of the European Commission; the Chairpersons of the newly established three European Supervisory Authorities; the Chair and the two Vice-Chairs of the Advisory Scientific Committee; the Chair of the (continued)
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“reputational” body, influencing the action of policy makers “by means of its moral authority.” The ESRB shall issue risk warnings and, where appropriate, recommend remedial actions and prompt answers.

The Board’s warnings and recommendations are not legally binding, though the addressees are expected to conform to the same and communicate the measures adopted in response, eventually explaining deviations. Warnings and recommendations shall in principle be confidential, but can be made public in specific cases. This reflects the main objective of issuing a public warning or recommendation, namely increasing the pressure for prompt corrective actions. The relevant tradeoff, however, is to be carefully evaluated on a case-by-case basis. Certain information contained in warning and recommendations could have a negative impact on financial markets and would therefore be better

Advisory Technical Committee; and of the following non-voting members: one high level representative per Member State of the competent supervisory authorities and the President of the Economic and Financial Committee. A chair, elected within the Members that are also Members of the ECB General Council (i.e., central bankers), shall preside the General Board and the Steering Committee, instruct the Secretariat on behalf of the General Board and represent the ESRB externally. The Chair and the two Vice-Chairs shall be in charge for five years. The first Vice-Chair shall be elected by and from the Members of the General Council of the ECB in view of a balanced representation of Member States including those within and outside the euro area. The second Vice-Chair shall be the Chair of the Joint Committee, elected pursuant to art. to Article 41(3) of Regulation establishing the European Supervisory Authorities (see below).

See the “Proposal for a Council Decision entrusting the European Central Bank with specific tasks concerning the functioning of the European Systemic Risk Board” cit. (note 112) 5.

Recommendations shall be either general or specific and shall include a specified timeline for the policy response. They may be addressed to the Community as a whole, individual Member States, national authorities or the European Supervisory Authorities. In order to enhance risk awareness, a color coded system corresponding to situations of different risk levels shall be elaborated. See article 16.4 of the new version of the ESRB Regulation adopted by the European Parliament, cit. (note 112).

The General Board shall decide whether to derogate from this general rule by a qualified majority of two-thirds. Should the decision fall on making the warning or recommendation, the ESRB shall inform the addressee in advance.

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kept confidential. Confidential warnings and recommendations shall nonetheless be transmitted to the Council, where addressed to Member States, and to European Supervisory Authorities, where addressed to national supervisors. This should enhance convergence and information exchange at European level. Moreover it should guarantee a certain degree of peer review, thus making reputational sanctions and moral suasion more effective, while preserving markets from negative reactions.

As supervisory activity by the ESRB is not directly addressed to financial institutions, but to national and European supervisory authorities, a decisive role in enhancing the effectiveness of the ESRB’s actions is played at microprudential level. The follow up of early warnings and recommendations addressed by the ESRB to national supervisors shall be ensured by the European Supervisory Authorities, which have binding powers. It remains to be seen whether those powers will be used, where needed.

Microprudential Supervision: The European Banking Authority (EBA) and the European System of Financial Supervisors (ESFS)

a. Objectives of the EBA and the Joint Committee of European Supervisory Authorities

On the microprudential side, greater integration of the supervisory framework and cooperation between authorities, reflecting the nature of the business of cross-border institutions and largely interconnected markets, is essential to guarantee the soundness and stability of the financial system.

126 See the “Proposal for a Regulation of the European Parliament and of the Council on Community macroprudential oversight of the financial system and establishing a European Systemic Risk Board,” cit. (note 112), and articles 2 and 5 of the “Proposal for a Council Decision entrusting the European Central Bank with specific tasks concerning the functioning of the European Systemic Risk Board,” cit. (note 112) 5.
127 Ibid. article 16.3.
129 See Recital (6) of the Proposal for a Regulation establishing a European Banking Authority (hereafter the EBA Regulation), emphasizing that “the

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The new proposed microprudential supervisory architecture, based on the creation of the ESFS and European Supervisory Authorities, is aimed at establishing a strong European network coordinated by centralized authorities with legally binding powers and a European single rulebook. The network ensures effective cooperation and coordination between national authorities, which retain day-to-day supervisory powers. A central role in the supervision of cross-border institutions,

Union cannot remain in a situation where there is no mechanism to ensure that national supervisors arrive at the best possible solution for cross-border institutions; where there is insufficient cooperation and information exchange between national authorities; where joint action by national authorities requires complicated arrangements to take account of the patchwork of regulatory and supervisory requirements; where national solutions are most often the only feasible option in responding to European problems, where different interpretations of the same legal text exist. The European System of Financial Supervision (ESFS) should be designed to overcome these deficiencies and provide a system that is in line with the objective of a stable and single Union financial market for financial services, linking national supervisors into a strong Union network.”


A European System of Financial Supervisors is one of the options for reform of the European supervisory architecture proposed by D. Schoenmaker and S. Osterloo, “Cross-Border Issues in European Financial Supervision” in D. Mayes and G. Woods (eds), The Structure of Financial Regulation (Routledge, London 2007) 14. The authors suggest as a possible framework “to give the home supervisor full responsibility for the EU-wide operations, both branches and subsidiaries. [t]he home supervisor has a European mandate to ensure that the interests of all depositors/countries are taken into account. In some form of European System of Financial Supervisors, national supervisors can work together with a decision-making body or agency at the centre (see below). Within the System, the supervisor in the country where the bank is head-quartered can then act as consolidated or lead supervisor. Accordingly for financial stability purposes, the home country authorities (supervisor and central bank) within the European System of Financial Supervisors and the European System of Central Banks (ESCB) can act within their respective Systems.”

(continued)
however, is played by colleges of supervisors.\footnote{132} Their effectiveness is enhanced by greater harmonization and consistent application of prudential rules and requirements. Authorities constituting the college are provided a greater incentive to cooperate with each other by the EBA’s participation in the college\footnote{133} and the settlement of possible disagreements by the same.\footnote{134}

\textit{b. The EBA}

The EBA has legal personality and legal, administrative and financial autonomy. Its governance consists of a Board of Supervisors; a Management Board; a Chairperson and an Executive Director. The Board of Supervisors is the main decision making body, with the heads of the 27 national banking supervisory authorities as voting members.\footnote{135} EBA’s main tasks are to (i) create a single rulebook and

\begin{quote}

The same authors have also proposed an ESFS coordinated by a European Supervisory Authority. This “two tier” structure is different from that proposed in the draft EBA Regulation, to the extent that cross-border banks would be directly supervised by the European Supervisory Authority, while local banks would remain subject to national supervisors. See D. Schoenmaker and S. Osterloo, “Financial supervision in Europe: Do we need a new Architecture?” Cahier Comte Boel, No. 12 (2006).

\footnote{132} In the framework introduced by the CRD II the creation of colleges of supervisors is mandatory for each cross-border banking group (new art. 131a of the CRD), and is suggested for banks operating across borders with systemically significant branches (new art. 42a of the CRD).

\footnote{133} See article 12.2 of the EBA Regulation.

\footnote{134} \textit{Ibid.} article 11.

\footnote{135} The Board also includes, as non-voting members, the Chairperson of the EBA; one representative of the Commission; one of the ECB, one of the ESRB and one of each of the remaining European Supervisory Authorities (namely the EIOPA and the ESMA). As for the ESRB, management is delegated to a Management Board with the task of ensuring that the EBA regularly performs its duties. The Management Board consists of the EBA Chairperson, a representative of the Commission, and four members elected by and from the members of the Board of Supervisors. Their term of office is of two and a half years, and may be renewed only once. Decisions are taken by simple majority and without a quorum, with each member having a single vote. The Executive Director participates to the Management Board’s meetings without voting right. The Board meets at least bi-annually, or upon initiative of the Chairperson (continued)

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more harmonized regulatory and supervisory standards throughout the Union; (ii) ensure a consistent application of the standards by competent authorities; (iii) act in emergency situations and ensure the follow up of ESRB’s warnings and recommendations; and (iv) enable effective coordination and cooperation between authorities.

As to the single rulebook and harmonization of regulatory and supervisory standards, the Regulation provides for the adoption of technical standards where specifically set out by European legislation. The final version of the EBA Regulation also distinguishes between (delegated) regulatory technical standards, aimed at ensuring harmonization of matters not requiring strategic decisions; and implementing technical standards, for the uniform application of EU legislation.

Harmonized rules may not be sufficient to level the playing field if applied differently by national authorities. One of the EBA’s tasks, or of a third or more of its members. The Chairperson and the Executive Director of the EBA are full time professionals appointed by the Board of Supervisors on the basis of merit, skills, knowledge of financial institutions and markets, and experience.

136 This legislation (hereafter referred to as EU Banking Law) includes: credit and investment institutions’ capital requirements and adequacy, financial conglomerates, money laundering, distance marketing of consumer financial services and deposit guarantee schemes. The Omnibus Directive, cit. (note 9) provides for the areas where the power to set technical standards is already conferred to the ESAs. Moreover, as noted by E. Ferran, cit. (note 14), “the ESAs’ powers in this respect will continue to expand,” since recital 9 of the Omnibus Directive, “identifies a first set of such areas and should be without prejudice to the inclusion of other areas in the future.” Furthermore, the EBA may also contribute to harmonization in areas other than technical standards through non-binding guidelines and recommendations, which national authorities or financial institutions may adopt on a “comply or explain” basis. See article 8 of the EBA Regulation.

137 Both types of technical standards are endorsed by the Commission upon proposal of the EBA, which shall, where appropriate, conduct public consultations and cost benefit analysis. The Commission decides on the endorsement of EBA’s standards within three months from receipt of the same, and may refuse or endorse them with amendments only when required by Community interest and after proper consultation with the EBA. The endorsed standards are published in the Official Journal of the European Union and are legally binding. See article 7 of the EBA Regulation.
therefore, is to ensure the consistent application of Community rules and standards by national supervisors. The EBA may decide on the alleged breach of EU Banking laws, including binding technical standards, when informed that a competent authority does not correctly apply them.138 Should the authority fail to comply with its decision139 within a specified term,140 the EBA shall adopt individual measures directly addressed to the financial institution(s) concerned, provided that the requirements set out in the relevant EU Banking Laws are directly applicable141 and that compliance is urgently required.142

The EBA’s power to address decisions to financial institutions directly is remarkable. However, the case of a national supervisor

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138 The EBA conducts investigations on the alleged breaches and acquires all relevant information by the authority concerned, either on request of the Commission or other competent authorities or upon its own initiative. See article 9.2 of the EBA Regulation.

139 Note that in the EBA Regulation as amended by the European Council, cit. (note 113), the term “decision” is replaced with the term “formal opinion.” However the consequences of noncompliance are similar.

140 Within two months from the beginning of its investigation, the EBA shall recommend the actions that the national authority should take to comply with legislation. The latter shall inform the EBA of the measures adopted or to be adopted in conformity with the recommendation, within ten days of receipt. Should the authority fail to comply within one month from the recommendation’s receipt, the Commission—acting on the EBA’s request or on its own initiative, within three months (extendable to four) from the adoption of the recommendation—shall adopt a decision requiring the competent authority to comply with EU Banking Law, save for the latter’s right to be heard. Ibid. article 9.4

141 This does not prejudice the right of the Commission to start an infringement procedure under article 258 of the Treaty on the Functioning of the EU (TFEU) against the Member State of the addressed authority. See article 9.6 of the EBA Regulation.

142 This additional requirement was introduced by the European Council and maintained in the by the European Parliament, cit. (note 113). The final version of article 9.6 allows for the adoption of individual decisions directly addressed to financial institutions “where it is necessary to remedy in a timely manner the non compliance in order to maintain or restore neutral conditions of competition in the market or ensure the orderly functioning and integrity of the financial system.”
failing both to follow an EBA recommendation and to comply with a Commission decision (or formal opinion) appears to be highly unlikely. Moreover, the EBA’s power to address measures directly to financial institutions is questionable, given that it requires a cumbersome procedure to be followed in advance (possibly lasting up to six months\textsuperscript{143}). The text of Regulation approved by the European Parliament\textsuperscript{144} envisages, however, the possibility for the EBA to follow a fast track in specific circumstances, which will be briefly commented upon below.

Indeed, prompt action in emergency situations is crucial to prevent the worsening of a crisis. The final version of the Regulation adopted by the European Parliament\textsuperscript{145} empowers the EBA to issue, in the event of a crisis, binding decisions vis-à-vis national authorities, requiring the same to take measures in compliance with EU Banking Law. Should the competent authorities fail to comply, within the time limit set out in the decisions, the EBA may address the measures in question directly to individual institutions, provided that the relevant requirements of EU Banking Law are directly applicable to the same. This procedure allows for a more rapid adoption of the relevant measures, but is conditional on the Council’s deciding (on its own initiative or upon request of an ESA, the Commission or the ESRB) that an emergency situation exists “which may seriously jeopardize the orderly functioning and

\textsuperscript{143} The procedure is as follows: two months from the beginning of investigation for the first recommendation of the EBA; an additional month from the receipt of the recommendation of the addressed authority to check if it has complied; further three or even four months from the adoption of the recommendation for the Commission to take its decision, which sets out a time limit for compliance itself. This means that from the beginning of the investigations to the adoption of the decision by the Commission can take up to six months, plus the time limit set out by the decision.

\textsuperscript{144} In its revised version, the European Council, \textit{cit.} (note 113), had abolished the possibility for the EBA to address individual decisions directly to financial institutions following a “fast track.” In that version, indeed, in the case of non-compliance by a competent authority with the decision addressed to it in an emergency situation, the standard rule for direct application to financial institutions applied, following article 9.6 of the EBA Regulation. A “fast track,” however, was re-introduced by the European Parliament in article 10 of the final version of the EBA Regulation, \textit{cit.} (note 113).

\textsuperscript{145} \textit{See} previous note.
integrity of financial markets or the stability of the whole or part of the financial system of the Union.”

Experience will show under what circumstances the Council feels empowered to act under this rule. However, even assuming that the crisis of a systemically significant bank may constitute a relevant situation, the scope of the EBA’s powers is questionable. In fact, the EBA is only entitled to take decisions vis-à-vis the competent authority (and possibly individual credit institutions) to ensure compliance with existing provisions of EU Banking Law, including (delegated) regulatory and implementing technical standards, provided that they are directly applicable to the institutions concerned. The EBA, therefore, is not given autonomous powers of crisis management and resolution to use in emergency situations, other than those already provided to national authorities under existing Directives, as specified by regulatory and implementing technical standards.

In an area still related to emergency situations, the EBA shall ensure the proper follow-up of the ESRB’s warnings and recommendations. When these are addressed directly to the EBA, its Board of Supervisors shall take the relevant measures in compliance with the relevant warning or recommendation. Otherwise, it shall explain the reasons for not doing so. When the ESRB’s decisions are addressed to national authorities and copied to the EBA, the latter shall ensure a timely follow-up, possibly using its powers under the EBA Regulation.

146 See article 10 of the EBA Regulation.
147 In the Commission’s proposal as adopted by the European Parliament a similar power is directly foreseen by article 11.4, whereas in the version of the Council, the power to address decisions directly to financial institutions had to be exercised by the EBA upon the (more restrictive) conditions set forth by article 9.6.
148 Ibid. article 21.3.
149 Ibid. article 21.4.
150 Should the authority decide not to follow the ESRB’s recommendation, the matter shall be discussed by the Board of Supervisors. The relevant authority shall take the views expressed by this Board into account when informing the ESRB about the reasons for not conforming to the recommendation. See article 21.5 of the EBA Regulation.
Although the EBA may use its powers to ensure the follow-up of the ESRB’s warnings and recommendations, the same shall not be strictly enforceable, being addressed to national authorities on a “comply or explain” basis. Nonetheless, the EBA may issue, possibly upon indication of the ESRB, binding decisions if national authorities do not comply with EU Banking Law. As a result, warnings and recommendations drawing on macro-economic developments (such as the common exposure of credit institutions to the same risk factors, or a “bubble” in asset prices) that do not fall under EU Banking Law requirements would not be enforceable by the EBA and their follow-up may be difficult to ensure.

Coordination and cooperation between authorities is essential to the functioning of the ESFS. The recent CRD II introduced rules to enhance the relevant mechanisms, while the EBA shall play a significant role in making them more effective, with the purpose of enhancing information exchange, scope and reliability. In addition, the EBA shall provide, on its own initiative or upon request, a mediation function between competent authorities and contribute to the promotion of the effective functioning of colleges of supervisors. The text of the EBA Regulation lately approved by the European Parliament has significantly enhanced the role of colleges in cross-border supervision, attributing to the EBA tasks including information collection and management; coordination of Union-wide stress tests aimed at monitoring systemic risk and supervision by competent authorities on individual institutions, including the power

151 Ibid. article 21.6.
152 In fact, the proposed regulation assigns to the EBA a general coordination function with respect to competent authorities. See article 16 of the EBA Regulation.
153 Coordination shall also involve macro-prudential supervision, as the ESRB must be notified without delay of any potential emergency and provided with all relevant information. See article 21 of the EBA Regulation, which states that the EBA shall provide the ESRB will information necessary to perform its tasks on a regular basis in summary or collective form, while upon a reasoned request of the latter it shall deliver the data not in summary or collective form, according to article 15.4 of the “Proposal for a Regulation of the European Parliament and of the Council on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board,” cit. (note 112).
to request further deliberations of a college where deemed appropriate.\footnote{154} Moreover, significant powers of the EBA relate to the development of recovery and resolution procedures, including the issuance of regulatory and implementing technical standards\footnote{155}, and, subject to a review of the EBA Regulation in 2014, the strengthening of the European System of national Deposit Guarantee Schemes\footnote{156} and the creation of a European System of Bank resolution and funding arrangements.\footnote{157}

Delegation of tasks and responsibilities\footnote{158} among competent authorities or to the EBA shall be facilitated “by identifying those tasks and responsibilities which can be delegated or jointly exercised and by promoting best practices.”\footnote{159}

Finally, cooperation will be ensured by a procedure for the settlement of disagreements between authorities.\footnote{160} In areas where EU Banking Law requires cooperation, coordination or joint decision making by authorities from different Member States,\footnote{161} a competent authority

\footnotetext[154]{The EBA shall participate in colleges. See article 12 of the EBA Regulation.}
\footnotetext[155]{Ibid. article 12d.}
\footnotetext[156]{Ibid. article 12e.}
\footnotetext[157]{Ibid. article 12f.}
\footnotetext[159]{See article 13.2.}
\footnotetext[160]{Ibid. article 11. Moreover, cooperation shall be facilitated by a common supervisory culture and consistent practices fostered by the EBA though the provision of opinions, the promotion of bilateral and multilateral exchange of information, training programs and periodical peer review. The framework for enhanced cooperation shall allow for the delegation of tasks and responsibilities between authorities, either through bilateral or multilateral agreements. The EBA shall smooth the progress of delegation by identifying possible tasks and responsibilities, which may be delegated or exercised jointly by competent authorities, and by encouraging best practices. It shall be informed of any such agreement and possibly give an opinion on it within one month from being informed. Similar measures should further improve cooperation and best practices.}
\footnotetext[161]{For cases where cooperation, coordination and joint decisions are required by the CRD see supra, section II, paragraphs 3 and 4.}
disagreeing on the procedure or content of an action or inaction of another competent authority may request the EBA’s assistance in reaching an agreement. Should no agreement emerge, the EBA shall enjoin the competent authority to take or refrain from a specific action, in conformity with EU Banking Law. Should the authority in question not comply with the EBA’s request and should this result in a credit institution not complying with EU Banking Law, the EBA may (without prejudice to the Commission’s infringement procedure under article 258 TFEU) adopt an individual decision requiring the financial institution to comply with the requirements of EU Banking Law that are directly applicable.

c. The Joint Committee of the European Supervisory Authorities

The ESFS shall establish a Joint Committee of European Supervisory Authorities (hereafter the Joint Committee) to serve as a

162 See article 11.1 of the EBA Regulation. The EBA may assign the parties a deadline for conciliation, taking EU Banking Law into account, together with the complexity and urgency of the matter. Ibid. article 11.2. A case in which the EBA can adopt measures to settle disagreements applying different time limits for conciliation depending on EU Banking Law is that of a joint decision on the designation as systemically significant of a branch between the home and the host supervisor, following article 42a of the CRD. In this case, the time limit of two months where the competent authorities “shall do everything within their power to reach a joint decision” shall also be deemed as conciliation period for the purposes of the EBA Regulation. On the same token, the period of six months for the joint decision on the internal model validation according to article 129.2, and the period of four months for the joint decision on group’s risk assessment under article 129.3 of the CRD, shall be considered as conciliation period within the meaning of article 11 of the EBA Regulation. 163 Ibid. article 11.3.

164 Ibid. article 11.4. In the version revised by the European Council, cit. (note 113), any decision addressed to competent authorities has to be taken following the decision procedure under article 29.1 of the EBA Regulation (i.e., on proposal by the consolidating supervisor, by simple majority, but with a blocking minority vote).

165 In the Commission and the Council versions, article 39.3 provided that the ESFS should comprise the following members: authorities responsible for the supervision of banks, insurance companies and pension funds and financial markets, as set out in article 1.2 of each of the proposed regulations establishing a European Banking Authority (EBA), a European Insurance and ...
forum for the regular and close cooperation between EBA, EIOPA and ESMA, with the aim of promoting joint positions and common decisions of the three European Supervisory Authorities in areas falling within their competence. Moreover, a Sub-Committee on Financial Conglomerates shall be established (without prejudice to the establishment of further sub-committees, where appropriate) for the coordination of cross-sectoral supervision of institutions under Directive 2002/87/EC.

Another relevant joint body of the three ESAs is the Board of Appeal, aimed at ensuring a consistent review of decisions and
coherent application of Union rules, action in emergency situations and settlement of disagreements across supervisory sectors.\textsuperscript{170}

\textit{d. Remedies and safeguards}

Any decision taken by the EBA, either addressed directly to financial institutions or to national authorities, may be appealed by the addressee or any other natural or legal person directly and individually concerned by that decision.\textsuperscript{172} As a general rule, the appeal may not suspend the decision, but a suspension may be granted by the Board of Appeal when it deems that circumstances so require.\textsuperscript{173} The Board of Appeal shall take any measure and exercise any power within the competence of the EBA, or remit the case to the competent body for a new determination. The EBA shall be bound to its decision.

\textsuperscript{170} The Board of Appeal shall vote with a qualified majority of two thirds and make public its rules of procedure. See article 46.6 of the EBA Regulation.

\textsuperscript{171} See recital (40) of the EBA Regulation.

\textsuperscript{172} The appeal may be filed with the Board of Appeal through a reasoned written document within two months of the notification to the addressee or (in absence) the publication of the decision by the EBA. The Board of Appeal may decide within two further months. See article 46 of the EBA Regulation.

\textsuperscript{173} \textit{Ibid.} article 46.3.
The composition of the Board of Appeal (two Members elected by each European Supervisory Authority) should guarantee high-profile decisions, ensuring a broad vision of the financial system, from a cross-sector perspective. However, it remains to be seen whether the Board of Appeal will engage in technical details or leave them to competent authorities for (re)determination. In the latter case, the Board of Appeal should provide the authority concerned with binding guidelines.\textsuperscript{174}

The decision of the Board of Appeal may be contested before the European Court of First Instance or the ECJ under article 263 TFEU.\textsuperscript{175} If a European Supervisory Authority fails to take a decision where it has an obligation to act, the relevant case may be filed before the European Court of First Instance or the ECJ, under article 265 TFEU.\textsuperscript{176}

In reality, decisions included in the competence of European Supervisory Authorities may also be taken by the Commission or the ESRB, either on their own initiative or by request of national supervisors. In no case, however, will financial institutions be entitled to ask for similar actions. Moreover, no appeal may be filed in the absence of a decision by the European Supervisory Authority. Therefore, a claim before the European courts under article 265 TFEU\textsuperscript{177} shall protect financial institutions in the case of European Supervisors’ inaction.

Moreover, European Supervisory Authorities shall ensure that no decisions addressing emergency situations or settling disagreements

\textsuperscript{174} According to article 45.6 of the last version of the EBA Regulation, “The Board of Appeal may confirm the decision taken by the competent body of the Authority, or remit the case to the competent body of the Authority. That body shall be bound by the decision of the Board of Appeal and that body shall adopt an amended decision regarding the case concerned.”

\textsuperscript{175} See article 47.1 of the EBA Regulation or of the proposed regulations establishing the EIOPA and the ESMA.

\textsuperscript{176} Ibid. article 47.2.

\textsuperscript{177} In particular, article 265.3 TFEU states that “any natural or legal person may, under the conditions laid down in the preceding paragraphs, complain to the Court of Justice that an institution of the Community has failed to address to that person any act other than a recommendation or an opinion.”
between national supervisors impinge on fiscal responsibilities of Member States.178

What about Crisis Management?

Early Intervention Measures

We have seen that, according to the new supervisory framework, the EBA has the power to act in emergency situations. Its action is aimed at ensuring compliance of financial institutions with EU Banking Law, possibly overruling national authorities, if the same do not take appropriate measures.179 Under the current regulatory framework, competent authorities may adopt similar measures (so called “early intervention measures”) with respect to financial institutions, which do not meet certain prudential requirements. Under article 136 of the CRD, competent authorities may require the ailing institution to raise its capital requirements above minimum standards; reinforce its organizational

178 As a safeguard, Member States may notify within one month the relevant European Supervisory Authority and the Commission that the decision will not be implemented by the competent national authority. Member States shall give clear reasons to demonstrate how the decision impinges on their fiscal responsibilities. As a result, the decision of the European Supervisory Authority shall be suspended, and the latter shall inform the Member State within one month of the receipt of the notification, on whether it intends to maintain the relevant decision, to amend or revoke it. In the case that the European Supervisory Authority maintains its decision, the Council, acting by qualified majority, shall determine within two months whether the decision is to be maintained or revoked. The suspension of the decision shall be terminated if the Council decides to maintain the same or does not revoke it within two months. Decisions of European Supervisory Authorities taken as a reaction to emergency situations (under article 10.2) are subject to similar safeguards. However, given the urgency, the procedure for determining whether the decisions impinge on the Member States’ fiscal responsibility is significantly abbreviated: the Member State concerned shall notify the European Supervisory Authority, the Commission and the Council that the decision will not be implemented by the competent national authority within three working days of its notification or publication. The Council may revoke the decision within the following ten working days, otherwise the decision shall be deemed to be maintained and has to be enforced. See article 23 of the proposed regulations establishing the EBA, EIOPA and ESMA.

179 See article 10 of the last version of the EBA Regulation.
structure, governance and risk management arrangements; adjust the provisioning policy and the treatment of assets in terms of own funds; limit or restrict business activities and reduce their intrinsic risk. Similar measures, when adopted at an early stage, may offer the ailing institution incentives to prevent the worsening of a crisis. Indeed, loyalty to shareholders may induce the managers to shift value away from creditors, which is common to non-financial institutions, is exacerbated by the high leverage of banks. It can take the form of either excessively high dividend payments or of an exploitation of limited liability, which permits shareholders to profit of gains from risky activities, while protecting the same from losses determining a negative net


\[182\] See M. Cihak and E. Nier, cit. (note 16), 6.

value of their investment. The cost of failure is, therefore, shifted to creditors and other stakeholders (the financial system as a whole, in the case of systemically significant institutions). In addition, moral hazard is more pronounced as the firm approaches insolvency.

As a result, early intervention measures play a crucial role in preserving acceptable risk levels of ailing banks’ operations. In particular, requiring the relevant institution to divest some of its riskier assets or business activities, in order to meet higher capital requirements, may prevent the same from engaging in asset substitution and shifting to even riskier activities, as a result of managers and shareholders’ moral hazard. In fact, asset substitution and risk shifting can be put in place more rapidly at financial institutions than at non-financial firms. This further supports the need for timely and effective early intervention measures at ailing financial firms. An additional reason is the speed at which bank liquidity crises turn into solvency ones, if appropriate measures are not taken at a sufficiently early stage. A sudden loss of confidence can cause a “run” on the financial institution, also in the form of a drying up of its wholesale funding. This may cause difficulties in meeting short term liabilities and possibly the “fire sale” of assets, eventually leading to solvency problems. Once a similar point is reached (absent appropriate resolution tools), the only alternative to insolvency and the relative systemic and social consequences, is a public bail-out. This exacerbates moral hazard of banks’ managers,

184 In other words, limited liability shareholders exercise for their investment a put option at strike price zero to other stakeholders.
187 See Huepkes, cit. (note 48).
shareholders and creditors. On the contrary, a credible threat of business closure at an early stage (in order to avoid the worsening of the situation and larger systemic and social costs of failure) may also offer incentives to improved risk management and sounder provisioning policy.

Under the new framework, the decision to apply early intervention measures at group level may be taken jointly by competent national authorities under the coordination (including binding mediation in case of disagreements) of the EBA. However, such measures leave management in control and may therefore not be sufficient in resolving a crisis situation at the early stage. Moreover, should the credit institution fail to find adequate solutions and, as a result, to comply with prudential requirements, the likely outcome (other than a public bail-out) will be insolvency and eventually liquidation.

**Insolvency**

Insolvency of cross-border banks in the EU is regulated by Directive No. 2001/24/EC on the reorganization and winding up of credit institutions (Winding Up Directive), following the principles of home State control and mutual recognition. This reflects the so called “universality” principle, under which home State insolvency rules apply to all cross-border branches throughout the EU. This implies that a single bankruptcy procedure is opened in the home State and decisions taken by the home resolution authority are enforceable across borders.

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188 See article 1.31 (b) of the CRD II, introducing paragraph 3 in article 129 of the CRD. For more details, see above, section 4.
190 According to the press release by the Commission (IP/01/344) of 12 March 2001: “The Directive was first proposed in 1985, but adoption was held up for several years due to disagreements between the UK and Spain over Gibraltar.” The press release is available at: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/01/344&format=HTML&aged=1&language=EN&guilanguage=en (last accessed December 2010).
without the need for any further formality. Accordingly, authorities from the Member State where the bank has its registered office are responsible for either the reorganization or the winding-up of the bank and its EU branches.

The same principles, however, imply that subsidiaries in a banking group are subject to insolvency procedures in their State of incorporation. Therefore, no common insolvency regime is available to cross-border banking groups, despite the centralization of group functions and the relative substitutability of branches and subsidiaries on operational grounds. Coordinated resolution of cross-border banking groups relies, therefore, on domestic procedures (notwithstanding the universality principle, which is limited to branches) and voluntary cooperation of national authorities. The recent crises of multinational banks showed that voluntary (non binding) cooperation agreements between Member

193 See article 10 of the Winding Up Directive, which includes in the areas subject to home State laws, regulations and procedures, in particular:
“(a) the goods subject to administration and the treatment of goods acquired by the credit institution after the opening of winding-up proceedings; (b) the respective powers of the credit institution and the liquidator; (c) the conditions under which set-offs may be invoked; (d) the effects of winding-up proceedings on current contracts to which the credit institution is party; (e) the effects of winding-up proceedings on proceedings brought by individual creditors, with the exception of lawsuits pending [which are subject to the rules of the Member State where the law suit is pending]; (f) the claims which are to be lodged against the credit institution and the treatment of claims arising after the opening of winding-up proceedings; (g) the rules governing the lodging, verification and admission of claims; (h) the rules governing the distribution of the proceeds of the realisation of assets, the ranking of claims and the rights of creditors who have obtained partial satisfaction after the opening of insolvency proceedings by virtue of a right in re or through a set-off; (i) the conditions for, and the effects of, the closure of insolvency proceedings, in particular by composition; (j) creditors’ rights after the closure of winding-up proceedings; (k) who is to bear the costs and expenses incurred in the winding-up proceedings; (l) the rules relating to the voidness, voidability or unenforceability of legal acts detrimental to all the creditors.”
194 See Huepkes, cit. (note 48); A. Gardella, cit. (note 193) 135 et seq.

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States did not prove effective when domestic financial stability and taxpayers’ money were at stake. National authorities and governments, only indirectly accountable to national voters and taxpayers, did not have sufficient incentives to stick to cooperation agreements and MoUs.\textsuperscript{195} The dominant non-cooperative strategy led Member States to ring fence assets and split cross-border banking groups along national boundaries, eventually bailing-out the resulting domestic entity.\textsuperscript{196} Moreover, cooperation was even more difficult due to deep differences amongst Member States’ national insolvency regimes,\textsuperscript{197} which are closely linked to other areas of law (e.g., corporate and commercial law, but also civil law and procedure and constitutional law) and their legal traditions.\textsuperscript{198} Indeed, the Winding Up Directive only harmonizes conflict of laws rules, leaving substantive insolvency rules untouched. Furthermore, the legal framework set out by the Winding Up Directive does not cover financial conglomerates, which make up a significant part of the systemically relevant financial institutions, as investment firms and e-money institutions are excluded from its scope of application.\textsuperscript{199} Similar loopholes in the current framework are presently discussed. In a public consultation by the Commission on the reform of the Winding Up Directive,\textsuperscript{200} many responded that more centralized reorganization and insolvency

\textsuperscript{195} See, e.g., the MoU of June 2008, cit. (note 65) which did not prevent the governments concerned from splitting up and separately bailing out the resulting parts of Fortis.

\textsuperscript{196} Similar solutions imply a significant cost of breaking up, when addressed to financially integrated businesses. See M. Čihák and E. Nier, cit. (note 16) 12.


\textsuperscript{198} See R. Lastra, cit. (note 192) 175.

\textsuperscript{199} Note that both types of financial institutions are out of the scope of application also of EC Regulation 1365/2000, the other European legislative act harmonizing insolvency conflict of laws. See Huepkes, cit. (note 48); A. Gardella, cit. (note 193) 135 for a critique.

\textsuperscript{200} On 12 June 2007, the European Commission launched a public consultation on the Winding Up Directive aimed at examining whether the Directive completely fulfils its objectives, whether it could be extended to cross border banking groups, and how obstacles related to asset transferability within such groups can be addressed. See the consultation, and the answers at: http://ec.europa.eu/internal_market/bank/windingup/index_en.htm (last accessed December 2010).
proceedings for banking groups would be welcome, also allowing for asset transferability between group entities as a resolution tool.201

The Lack of Adequate Early Intervention and Resolution Tools

Currently available early intervention measures, even if harmonized, are insufficient. Further tools to address the early stage of a crisis concerning cross-border banks are presently discussed in light of the recent financial turmoil.202 Also asset transfers between group entities are being considered as an efficient bank-driven tool for risk and crisis management.203 Indeed, the proper functioning of the internal capital market of integrated cross-border banking groups can be a source of stabilization and risk diversification, provided that effective coordination mechanisms for cross-border consolidated supervision are in place.204 The current proposals enhance those mechanisms, but have to be completed with proper early intervention and resolution tools to cope with the crisis of integrated cross-border groups, without having to split the same along national boundaries and/or bail them out.

a. Threshold Conditions for Early Intervention

As bank crises typically tend to worsen very rapidly, it is essential that thresholds allowing for timely and effective early intervention205 be defined and uniformly applied in Member States. Otherwise,

201 See the “Summary of the public consultation on the reorganisation and winding-up of credit institutions” (December 2007). Available at: http://ec.europa.eu/internal_market/bank/docs/windingup/spc_en.pdf (last accessed December 2010) 11 et seq.
205 See IMF, cit. (note 197) 22, pointing out that “the regulatory threshold reflects the very essence of bank insolvency proceedings.” See also M. Čihák (continued)
conflicts between national supervisors could arise, notwithstanding the EBA’s coordination efforts. Two different approaches are possible: hard indicators, such as quantitative liquidity and solvency thresholds; and soft indicators, such as qualitative thresholds allowing for discretionary application by authorities. The first approach has the advantage of being clear and uniformly applicable by all authorities concerned. As discretion is reduced, also regulatory forbearance is less likely. This is particularly important where coordination of different authorities is needed and where the determination of a crisis situation triggering early intervention is left to national authorities. Indeed, under the new framework, early intervention measures in a cross-border group, are taken under the joint decision procedure set out by article 129 of the CRD. Too much discretion in the decision as to whether (and at which stage) to take similar measures could give rise to strategic behavior by competent authorities, rendering effective coordination and cooperation less likely. On the other hand, hard indicators will typically be under- or over-inclusive and, possibly, more prone to elusion. Soft

206 D. Mayes, “Early intervention and prompt corrective action in Europe,” Bank of Finland Research Discussion Papers 17 (2009). The author argues that, as differences between early intervention tools and triggers are very different across the EU, the tasks for harmonization is even more important.

207 The introduction of a hard threshold in the United States aimed at limiting regulatory forbearance by supervisory authorities during the Savings & Loans Crisis in the 1980s and early 1990s. See M. Čihák and E. Nier, cit. (note 16) 14. However, also in the U.S., quantitative thresholds are not the only triggers to start a resolution regime and do not, therefore, eliminate supervisor’s discretion in whether and how to exercise resolutions tools. This is due to the involvement in supervision and resolution of banks of the FDIC, which also acts as deposit insurer. Dual control of triggers (by the supervisor and by the resolution authority), however, mitigates the risk of regulatory forbearance. Incentives of the supervisor to delay the intervention of the resolution authority (as this would be an admission of regulatory failure) are counterbalanced by the fact that any forbearance by the supervisor would possibly make the resolution of the failing bank more difficult and complicating for the resolution authority the discharge of its responsibility. See P. Brierley, cit. (note 206) 7.

208 These circumstances are commonly referred to as “Type I and Type II errors,” D. Mayes, cit. (note 207).
indicators, however, are less clear and more discretionale, but more flex-
ible and adaptive to each situation.

The relevant tradeoff is reflected in the policy debate over rules-
based versus principles-based regulation. The former has the advantage of greater legal certainty and less costly (ex post) enforcement. However, it has larger (ex ante) costs in the determination of the right rule (or hard indicator, in the case at issue), and is more prone to elu-
sion by financial innovation. Principles, on the other hand, have greater enforcement costs, while ex ante costs are reduced.\textsuperscript{209} In the determination of thresholds triggering early intervention measures, however, enforcement costs might be further increased by lack of coordination of competent authorities and home country bias.\textsuperscript{210} Therefore, the better coordination mechanisms are (e.g., through a greater involvement of the EBA), the more effective soft indicators might appear. On the contrary, if poor coordination mechanisms are in place, hard indicators might on the whole be more efficient. In any case, a combination of hard and soft thresholds could be a worthy compromise.

\textit{b. Resolution Tools}

Early intervention measures may not be sufficient to restore the soundness of a bank, so that a European bank resolution framework is also needed. This would complement the “centralization” of supervision on cross-border groups ‘in life’ with some degree of harmoniza-
tion of the resolution measures applicable ‘in death,’ with the aim of reducing the systemic costs of bank failures\textsuperscript{211} and possibly bailouts.\textsuperscript{212} An analysis of the appropriate tools falls outside the scope of this

\textsuperscript{209} See M. Čihák and E. Nier, cit. (note 16) 14.
\textsuperscript{210} For an assessment of the incentives of supervisory authorities to take regul,
\textsuperscript{212} J. Macey and G. Miller (1988) cit. (note 186) warn, however, that “meth-
ods devised for dealing with the problem of bank failures must therefore be sensitive to the concern that the current structure of banking regulation creates incentives for excessive risk taking” 1165.

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paper. However, possible measures to be taken by competent authorities include: acquisition by a private sector purchaser; bridge bank created by the resolution authority to take over the operation of the failing institution and preserve its going concern value; partial transfer of deposits and assets to a “good bank,” leaving the residual institution with the difficult-to-value or “toxic” assets as well as the cash raised by the transfer of the viable part; assisted sale to a private sector purchaser, possibly with guarantees to the acquirer (not to the shareholders and creditors of the ailing bank, as this would generate moral hazard); temporary public control, as a last resort. Similar resolution tools would need to be adopted on a case by case basis, depending on the actual condition of the institution. Resolution authorities should be able to act swiftly and with a consistent set of discretionary powers. However, fully discretionary decisions by regulators, triggering measures which limit shareholders’ and creditors’ rights might conflict with the principles contained in the European Convention of Human Rights (ECHR), as interpreted by the Strasbourg Court (ECtHR). In particular, companies shares and creditors’ claims fall within the

213 A similar solution is envisaged, amongst others by E. Huepkes, cit. (note 18) 383 et ss.
214 See M. Čihák and E. Nier, cit. (note 16) 15 et seq., for a more detailed analysis of the proposed resolution tools. Similar tools are foreseen by the UK Banking Act 2009. For a comment, see: Brierley, cit. (note 206).
215 Article 1 of Protocol 1 of the ECHR states:

“Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law. The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.”

216 See ECtHR case law, along which a company share with an economic value can be considered a possession (Olczak v. Poland (dec.), no. 30417/96, § 60, ECHR 2002-X; Sovtransavto Holding v. Ukraine, no. 48553/99, § 91, ECHR 2002-VII).
217 See ECtHR case law considering claims as “possessions” where they have a sufficient legal basis in national law: (Kopecký v. Slovakia [GC], no. 44912/98, §§ 52, ECHR 2004-IX; Draon v. France [GC], no. 1513/03, § 68, 6 October 2005; Anheuser-Busch Inc. v. Portugal [GC], no. 73049/01, § 65, 11 January 2007).
concept of “possessions” as defined by the ECHR and limitations to proprietary rights should comply with three cumulative conditions: (i) limitations must be in the public interest and must be foreseen by law (principle of legality); (ii) fair compensation for the limitation must be provided to shareholders and creditors; and decisions (e.g., by regulators) on the limitation of rights must be subject to judicial review. An excessive level of regulatory discretion by authorities could possibly conflict with the requirements set by the ECHR and should therefore be carefully evaluated from the perspective of the three mentioned conditions. A consultation recently launched by the Commission aims at acquiring the views of market participants, but there seems to be already wide consensus on the need to adopt an EU framework for resolution of cross-border banks. Moreover, a similar task would not even necessarily require the harmonization of substantive (bank) insolvency rules. Should the ailing bank’s soundness not be restored, after the resolution of its systemically significant parts, the final liquidation of the residual assets of each subsidiary could take place under the laws of the relevant State of incorporation.

C. Changes to EU Legislation

However, changes in EU company law may be necessary in order to make resolution tools more effective. In particular, regulators should act swiftly in the interest of systemic financial stability and limit the consequences of the (worsening of the) crisis. Resolution tools aimed at restoring the viability of the ailing bank would need to be taken without shareholders’ approval, in order to avoid lengthy bargaining (with the risk of strategic behavior by shareholders) and possible legal challenges. The Second Company Law Directive, in particular,


221 See K. Alexander, cit. (note 219), 66.

requires any increase or reduction of capital of a public company to be approved by the shareholders and does not allow pre-emptive rights to be suspended other than by a resolution of the shareholders’ meeting. While measures taken during the company’s liquidation would not be covered, early intervention and resolution measures aimed at restoring the soundness of an ailing bank would fall within the Directive’s scope.223

Moreover, the creation of a centralized European deposit guarantee scheme should be possibly considered,224 together with or as an alternative to a European Resolution Fund. A similar newly established Fund could be available to supervisors in order to temporary “finance” ailing institutions and so allow the adoption of the appropriate early intervention and resolution measures.225 It could provide liquidity and/or capital injections to systemically significant banks in emergency situations as defined by European Supervisory Authorities or the ESRB. Undoubtedly, the recent financial crisis and the (proposed) reform of the European supervisory architecture shall provide momentum for further European integration both in rule setting and supervision of cross-border institutions.

others, are required by Member States of companies within the meaning of the second paragraph of Article 58 of the Treaty, in respect of the formation of public limited liability companies and the maintenance and alteration of their capital, with a view to making such safeguards equivalent, OJ L 26, 31.1.1977, p.1.

223 See the European Court of Justice Case C-441/93 “Panagis Pafitis and others v Trapeza Kentrikis Ellados A.E. and others” (European Court reports 1996 Page I-01347), point 57, stating that: “The directive does not, admittedly, preclude the taking of execution measures intended to put an end to the company’s existence and, in particular, does not preclude liquidation measures placing the company under compulsory administration with a view to safeguarding the rights of creditors. However, the directive continues to apply where ordinary reorganization measures are taken in order to ensure the survival of the company, even if those measures mean that the shareholders and the normal organs of the company are temporarily divested of their powers.”

224 However, a similar step, which is envisaged as a premise for the “more Europe” solution proposed by Lord Turner (see FSA, “The Turner Review” cit. (note 14) 101) could follow at a subsequent stage.

Conclusions

The recent financial crisis has underlined the differences between multinational banks and domestic ones. The former are relatively more exposed to wholesale funding and capital markets fluctuations which are cross-border in nature. The latter engage in more locally oriented and less integrated activities, such as retail lending. Similar operations are, compared with the multinational banking business model, less sensitive to cross-border risk factors. Multinational banks contribute to the integration of these market sectors, increasing competition and risk diversification, but are in general more exposed to cross-border externalities and spillovers. The current European regulatory and supervisory framework, which was developed under the traditional banking model, created the premises for the expansion of cross-border banks. However, it did not keep pace with their rapid development. The mismatch between the national scope of bank regulation and supervision and the cross-border nature of multinational banks’ operations has been an obstacle for effective risk assessment and crisis management. Two possible approaches (not mutually excluding) to the growth of multinational banks have been suggested: (i) limiting the size or the scope of activities of banks, either through caps or through additional capital requirements; and (ii) strengthening the infrastructures for supervision and crisis management, while harmonizing and centralizing the same. We follow the second approach, on the assumption that it does not impose unnecessary costs on bank activities, which would be shifted to consumers and would negatively impact the lending capacity of banks. From this perspective, the steps taken so far in the EU, while remarkable, do not seem sufficient. The EBA’s powers, although increased in the final version adopted by the European Parliament, seem nonetheless too timid. The new ESFS will probably play a significant role in standard setting and contribute to a European single rule book for financial supervision. However, the ESAs still lack the powers for direct supervision. Moreover, the effectiveness of the regulatory and supervisory framework for multinational banks very much depends on how crisis management and resolution tools will be regulated.
Since late August 2008, the financial world has gone through what was initially termed “financial turmoil,” thereafter “financial crisis” and, more recently, “the worst financial crisis since the 1930s.” Since then, certainly in Europe, the threat of sovereign default and the challenge to the single European currency have become the most worrying aspects of the crisis.

So far, the financial crisis has been fought quite successfully in Europe. First, the Member States have introduced national legislative measures aimed at restoring the soundness of credit institutions and citizens’ confidence in the banking system, among other things by issuing State guarantees. Second, the European Central Bank (ECB) and the Eurosystem have sought to increase access to liquidity for market participants through a combination of measures. And third, the European Union (EU) institutions have established new instruments (a fund able to assist Member States in distress, bilateral loans, measures monitoring, and interventions in national fiscal and economic policy rules), and new bodies (dealing with prudential supervision and oversight at a European level).

This article will not deal with the national legislative measures adopted at the height of the crisis. Instead it will concentrate on the

The opinions expressed in this chapter are solely those of the author and do not reflect the position of the ECB. The author would like to thank Phoebus Athanassiou, LL.M., Ph.D., for his support and comments on an earlier version.

crucial contribution of the ECB and the Eurosystem to financial stability by ensuring, through various instruments, liquidity in the European financial markets and on the main steps taken by the European legislator to strengthen Europe’s institutional framework for dealing with microprudential supervision and macroprudential oversight, and aimed at preventing the recurrence of these events.

**Background:** Three Important Points on the Institutional Structure of the European Union

To fully understand how the EU and its Member States were affected by the financial crisis and have reacted to it, it is necessary to have a clear understanding of the complex structure of the EU.

First, the EU is composed of 27 Member States, which apply common rules, including rules on the free movement of capital; there can be no legal obstacle to the transfer of capital and investment funds across EU borders. Of these 27 Member States, 17\(^2\) have adopted the euro as their common currency. These States (which together make up the euro area) no longer have their own national currency or their own national monetary or exchange rate policy. According to the Treaty on the Functioning of the European Union, it is the ECB which is responsible for monetary policy decisions for the whole euro area and which stands at the centre of the Eurosystem. The Eurosystem is composed of the ECB and the national central banks of the Member States that have adopted the euro (NCBs). These NCBs, whose governors are members of the Governing Council of the ECB in their personal capacity, have the task of implementing the decisions of the ECB by carrying out operations in their national legal systems. In contrast, the remaining 10 Member States continue to enjoy full sovereignty in their currency and monetary policy decisions.

Secondly, according to the principle of conferred powers, EU institutions (including the ECB which, since the adoption of the Treaty of

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\(2\) Including Estonia, which adopted the euro in January 2011.
Lisbon, is qualified as a European institution) only have the competences that are attributed to them by the Treaty, with all other competences remaining with the Member States. The Treaty has not conferred upon the ECB, or on any other EU body, supervisory powers over individual financial institutions. This means that supervisory powers continue to be exercised at national level, whether by an NCB or by one or more specialized national supervisory institutions, subject to (harmonized) national law. In contrast, nowadays credit institutions established in the EU operate across the whole of the EU. Because of this situation, they are subject to the supervision of various national authorities acting independently. Also, there is no mention in the Treaty of an ECB function as lender of last resort. It is not clear whether the fact that emergency liquidity assistance is not mentioned as a task of the ECB is motivated by the need to avoid moral hazard or whether this competence is not attributed to the ECB because it remains a task of the NCBs.

Thirdly, within the EU there is neither a common economic policy nor a common fiscal policy, not even among the euro area Member States, which share a single monetary and exchange rate policy. From the beginning, this imbalance has been identified as a potential source of complexity; in the long term, lack of coordination on fiscal and budgetary policy, and in particular control of excessive government deficits, can affect the conduct and transmission of a single monetary policy. The Stability and Growth Pact (SGP) was adopted at the outset of Economic and Monetary Union (EMU) in order to limit this risk and impose a combination of peer monitoring and sanctioning of those Member States that do not respect the fiscal and budgetary discipline obligations imposed by the Treaty to avoid excessive government deficits. The SGP was watered down in 2005, a development

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3 To be distinguished from insolvency support, which is not a central bank task but a task of the State where it is necessary for a higher public objective.
4 Most central bank statutes are silent on this issue. In Europe, the lender of last resort task is explicitly mentioned only in the Statute of Banco de Portugal, but it is generally accepted that all central banks have this function.
which, during the financial crisis, might have impacted market perceptions.\footnote{In the words of Jean-Claude Trichet, “when a few years ago it became clear that in some countries fiscal policies would not be able to meet the rules of the Stability and Growth Pact, it was not the policies that were changed but the Pact. This was clearly a mistake. In 2004 and 2005, several governments, including the government of the larger Member States, were actively trying to dismantle the Stability and Growth Pact. It was a very fierce battle at the time, and the ECB publicly voiced its grave concerns,” Speech by Jean-Claude Trichet at the European American Press Club, Paris, December 3, 2010, http://redendatenbank.blogspot.com/2010/12/ecb-lessons-from-crisis.html?spref=bl.}

The Role of the ECB and the Eurosystem in Combating the Financial Crisis

In regulating the establishment and operation of the ECB, the Maastricht Treaty equipped it with a number of monetary policy instruments to achieve its objectives, and in particular its primary objective of maintaining price stability for the euro area. More specifically, the ECB conducts open market operations, offers standing facilities and requires credit institutions to hold minimum reserves on accounts with the Eurosystem. The General Documentation,\footnote{Guideline ECB/2000/7 of 31 August 2000 on monetary policy instruments and procedures of the Eurosystem (OJ L 310, 11.12.2000, p. 1), most recently amended by Guideline ECB/2010/1 of 4 March 2010 (OJ L 63, 12.3.2010, p. 22).} a Guideline of the ECB Guideline that is binding on the NCBs of the euro area Member States, forms the basis of the Eurosystem’s legal framework for the conduct of monetary policy operations, providing counterparties with the necessary information for their participation in such operations.\footnote{As such, the General Documentation neither confers rights nor imposes obligations on counterparties. The legal relationships between the Eurosystem and its counterparties are established in the national regulatory or contractual arrangements between each of the participating NCBs and their counterparties.} One of the main objectives of the General Documentation is to ensure that the Eurosystem’s monetary policy operations are executed uniformly
across the euro area, mostly through the NCBs in their capacity as the ECB’s operating arms, in line with the principle of decentralization.

Article 18.1 of the Statute of the European System of Central Banks and of the European Central Bank (hereinafter the “Statute”) requires all Eurosystem liquidity-providing operations to be collateralized by eligible assets provided by counterparties. The rationale for this requirement is to protect the Eurosystem from incurring losses in the conduct of credit operations, as these would have an impact on its credibility and independence, both of which are essential to the achievement of its Treaty objectives.

Starting from a situation in which there was no uniformity and each NCB had its own list of eligible collateral, EMU started with a two-tier approach. Already prior to the onset of the financial turmoil, the ECB had unified the Eurosystem collateral framework at a euro area level through its Single List Project in order to achieve operational efficiency, a level playing field and the availability of sufficient collateral. Thus, Eurosystem counterparties had available for monetary policy operations the richest and largest range of collateral among the global reserve currencies. This collateral was one of the critical factors enabling the Eurosystem to deal effectively with the liquidity crisis of August 2007.

The unprecedented stress in the financial system following the failure of Lehman Brothers tangibly showed that the flexibility of the collateral framework is essential for ensuring that the necessary liquidity can be provided to the market in times of crisis. By October 2008, it

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9 According to Article 18 of the Statute, “In order to achieve the objectives of the ESCB and to carry out its tasks, the ECB and the national central banks may: … conduct credit operations with credit institutions and other market participants, with lending being based on adequate collateral.”

10 Collateral included in the Tier one list was eligible in all the NCBs of the euro area; collateral included in the Tier two list was eligible only in the respective NCB.

11 Through the Single List, the collateral that is eligible for credit operations of the Eurosystem was broadened to include asset backed securities, covered bonds, non-EEA euro-denominated debt and non-marketable assets (such as credit claims).
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had become clear that it was necessary to temporarily widen further the list of eligible collateral.

Since then, four main instruments have been used by the ECB and the Eurosystem to combat the consequences of the financial crisis. Three of these relate to the collateral policy and one is aimed more directly at providing liquidity. In addition, changes to the allotment policies and maturities have been introduced, increasing the length of allotment maturities up to 6 and 12 months, and introducing a full allotment at a fixed rate.\[12\]

The first of these four instruments has been a temporary relaxation of the Eurosystem collateral eligibility rules\[13\]; the second has been the provision of liquidity in foreign currencies through the establishment of swaps agreements with other central banks in the world; the third has been the implementation of the Covered Bonds Purchase Programme\[14\]; the fourth and most recent instrument has taken the form of outright purchases of euro area public and private debt securities through the Securities Markets Programme. The following paragraphs analyze each of these instruments in turn.

In October 2008, the ECB decided, first by means of an ECB Regulation\[15\] and then through an ECB Guideline,\[16\] to widen temporarily


\[13\] This was initially intended to be for one year; it was then extended by a further year. See below note 19.


\[15\] Regulation ECB/2008/11 of October 23, 2008 on temporary changes to the rules relating to eligibility of collateral (OJ L 282, 25.10.2008, p. 17). This Regulation is quite important as it is the first time that this form of legal act has been adopted by the ECB in the field of monetary policy. According to the Treaty Regulations should be used in particular for monetary policy; in reality, the instrument of the Guideline has always been used as it is preferable for political reasons for the Governing Council.

the rules relating to the eligibility of collateral for Eurosystem operations. These admitted as eligible collateral: (i) non-euro denominated marketable instruments; (ii) syndicated loans governed by the law of England\(^\text{17}\); (iii) debt instruments issued by credit institutions, which are traded on certain non-regulated markets; (iv) collateral with a “BBB-” credit assessment and above,\(^\text{18}\) (v) subordinated assets with adequate guarantees; and (vi) fixed-term deposits, within the meaning of Section 3.5 of the General Documentation. The expansion of the Eurosystem’s collateral eligibility rules was originally intended to apply until the end of 2009, but was extended until the end of 2010 by means of an amending ECB Guideline.\(^\text{19}\) Again, in May 2010, for the first time adopting a decision specifically addressing the situation of a single Member State, the ECB decided to accept as eligible collateral for Eurosystem monetary policy operations, marketable debt instruments issued by the Greek government, or by entities established in Greece and fully guaranteed by the Greek government, regardless of their credit rating and credit quality.\(^\text{20}\) This decision was made shortly after Greece had agreed to a EUR 120 billion package of emergency loans from the IMF and from its euro area partners.

\(^{17}\) The syndicated loans component of Regulation ECB/2008/11 was elaborated in Decision ECB/2008/15 of November 14, 2008 on the implementation of Regulation ECB/2008/11 of October 23, 2008 on temporary changes to the rules relating to eligibility of collateral (OJ L 309, 20.11.2008, p. 8). Syndicated loans governed by English law were only accepted very briefly as a cost-benefit analysis made it clear that their acceptance would not bring enough advantage to noticeably improve the situation.

\(^{18}\) The lower quality level of securities below the A- rating is compensated by requesting higher haircuts for their acceptance (between 5.5 and 69.5, depending on how long-term and how illiquid these securities are). See the ECB press releases of April 8, 2010 and July 28, 2010.


As for the second of the instruments referred to, the provision of liquidity in foreign currencies, since 2008 bilateral swap agreements have been concluded between the ECB and (i) the U.S. Federal Reserve, (ii) the Bank of Japan and (iii) the Swiss National Bank to ensure that counterparties, both within the euro area and in the jurisdictions of those three banks, are able to provide their market participants with enough liquidity, both in euro and in the respective foreign currencies. These instruments, unprecedented in central bank history, proved to be very effective in stabilizing the markets, avoiding in particular liquidity shortages in the four leading business currencies.

The third initiative, the Covered Bonds Purchase Programme, began in July 2009 on the basis of an ECB Decision that was motivated by the realization that, given the exceptional circumstances prevailing in the covered bond market at the time, a purchase program was necessary to: (a) promote the decline in money market term rates; (b) ease funding conditions for credit institutions and enterprises; (c) encourage credit institutions to maintain and expand their lending to clients; and (d) improve market liquidity in important segments of the private debt securities market. The Program was implemented by the NCBs and the ECB directly with counterparties, through outright purchases of eligible covered bonds in

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21 Swaps were also agreed by the ECB with other central banks with the unilateral purpose of providing them with the required amount of euro.
22 See, for example, the press releases of September 24, 2009 and April 6, 2009.
23 Apart from a swap agreement which was concluded for a short period by the ECB and the U.S. Federal Reserve in the immediate aftermath of the 2001 terrorist attacks in the USA.
25 Cfr. Recital 2 of Decision ECB/2009/16, cited above fn. 24. The implementation of the programme followed the Governing Council’s Decisions of May 7, 2009 and 4 June 2009, motivated by the realization that a purchase programme was necessary in view of the exceptional circumstances prevailing in the covered bond market at the time.
26 Normally, operations implementing the monetary policy decisions of the ECB are carried out by the NCBs. Exceptionally, in this case the ECB was
the primary and secondary markets\textsuperscript{27} with a global nominal target of EUR 60 billion. The Program, which expired on June 30, 2010, was a success. It revived the covered bond primary market, which had come to a standstill after the failure of Lehman Brothers; it triggered a substantial tightening in secondary market spreads across the different covered bond categories, interrupted only at the beginning of 2010; and it helped restore confidence in one of the most important segments of Europe’s privately issued bond markets, accounting for an estimated 20 percent of outstanding residential mortgage loans in the EU. Having achieved its objectives, the ECB terminated the program.

The successful completion of the Covered Bonds Purchase Programme lends credibility to the repeated statements of the ECB that the exceptional measures adopted to deal with the financial crisis are temporary, and that there is an exit strategy which is constantly checked against the economic and market conditions, to ensure the ECB’s readiness to terminate the exceptional measures as soon as appropriate.

The fourth, most recent and most widely discussed\textsuperscript{28} of the ECB’s initiatives in the field of collateral policy to deal with the financial crisis, is the establishment and implementation of the Securities

\textsuperscript{27} In general, only covered bonds issued in line with the conditions laid down in Article 22(4) of Council Directive 85/611/EEC of December 20, 1985 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (OJ L 375, 31.12.1985, p. 3) were eligible for the Covered Bonds Purchase Programme. However, structured covered bonds that an NCB, at its sole discretion, considered to offer safeguards similar to those of UCITS-compliant covered bonds were also eligible.

\textsuperscript{28} For the first time some members of the Governing Council have made public that they have voted against this measure; “Ärger im Euro-Turm” in \textit{Süddeutsche Zeitung}, June 1, 2010, p. 26. This is normal in the common law tradition (where, e.g., dissenting opinions of judges are published) but very unusual in civil law and European Union law, where there is only one collegial decision and minority opinions are not stated separately and do not exist legally.
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Markets Programme (SMP). On May 10, 2010, the Governing Council of the ECB decided on several measures to address the severe tensions in certain market segments that were hampering the monetary policy transmission mechanism and the effective conduct of monetary policy. A Securities Markets Programme was established for the conduct of outright purchases of eligible marketable debt instruments, to be implemented by euro area NCBs and by the ECB. The objective of the SMP was to address the malfunctioning of securities markets and to restore an appropriate monetary policy transmission mechanism. The scope of the interventions covered the purchase, in the secondary market, of eligible market debt instruments issued by the central governments or public entities of euro area Member States and, in the primary and secondary markets, of eligible marketable debt instruments issued by private entities incorporated in the euro area. To neutralize the impact of the SMP purchases on the euro area banking system’s liquidity conditions, specific operations are conducted to immediately re-absorb the liquidity injected through the purchases.

The competence of the ECB to establish the SMP has been subject of intense debate and has even been challenged in the German Constitutional Court. While it is true that the SMP is a novel and

31 These interventions were implicitly made subject to the fulfilment by some Member States of their commitments to accelerate fiscal consolidation and to ensure the sustainability of their public finances.
32 In contrast to the Covered Bonds Purchase Programme, SMP purchases are of temporary but indefinite duration.
33 Through the ECB deposit facility.
34 On this Constitutional case, see: http://www.faz.net/s/RubA5A53ED802AB47C6AFC5F33A9E1AA71F/Doc~ED2008414FF674418AD4F5BA11C7601D9~ATpl~Ecommon~Scontent.html; and http://www.spiegel.de/politik/deutschland/0,1518,698926,00.html. A request for accelerated procedure has been rejected by the Court, see BVerG, May 7, 2010, 2 BvR 987/10 and June 9, 2010, 2 BvR 1099/10, but the substance of the case is still pending. It is clear that the publication of the dissent of Governor Weber, the German member of the Governing Council, has not helped German citizens to understand
perhaps unorthodox measure, it falls within the powers conferred on the ECB by the Statute and it does not breach the prohibition of monetary financing enshrined in the Treaty.\textsuperscript{35}

The use of these new instruments, introduced at the height of the crisis, has been praised for addressing, flexibly but responsibly, the urgent needs of the moment, allowing the financial markets to continue to function; these initiatives were not directed at financing deficits in a specific Member State but at making dysfunctional sectors of the markets operate more smoothly. In addition, countermeasures have been implemented to absorb the excessive liquidity in the market, which qualitatively distinguish these measures from quantitative easing.\textsuperscript{36} Given the limited means that the ECB had at its disposal to support the capital markets at the height of the crisis, especially in early May 2010 (the ECB has been given neither supervisory nor regulatory powers in the field of financial stability), and given the gravity of the situation, the choice of these instruments appears to be at the same time innovative and within the legal limits of the ECB’s conferred powers. It should also be underlined that all these measures are intended to be temporary and that the ECB has made clear it is planning an exit policy to terminate these exceptional measures in due course.

It is premature, while still in the midst of the financial crisis, to draw conclusions and to look towards the post-turmoil future. Nevertheless, what has clearly emerged is that, barely ten years after their establishment, the ECB and the Eurosystem have shown signs of flexibility and resilience in combating the worst financial and speculative


crisis since the 1930s, making use of a credible and robust mix of old and new monetary policy instruments.

**European Initiatives to Improve Financial Stability**

Immediately after the start of the crisis, a lacuna in the EU’s financial regulatory armoury became clearly visible; the gap in the institutional and regulatory structure for the supervision of financial markets. The absence of a European supervisor, in sharp contrast to the fact that many of Europe’s credit institutions have a pan-European reach, was blamed for some specific elements of the crisis. It was seen that there were divergent rules and a lack of information and communication between national supervisors about the financial situation of credit institutions with cross-border activities, and this made it impossible to assess the gravity of the situation of specific financial institutions. It also became apparent that there were serious disadvantages from the lack of attention to the issue of macroprudential oversight: a need for a single European institution dealing with risks developing across borders and across financial sectors became clear, a need that was due to the common exposure of different financial institutions to the same risk factors, independently of the risks or weaknesses of specific financial institutions.

On the basis of the de Larosière Report of February 25, 2009, the Commission prepared five Regulations to address the shortcomings identified, and it established a new architecture for financial supervision in Europe. On November 17 and 24, 2010, these legal acts were adopted by the European Council and Parliament. With effect from

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January 1, 2011, these new regulations established a European System of Financial Supervision (ESFS), consisting of a European Systemic Risk Board (ESRB), with macroprudential oversight tasks, and three European Supervisory Authorities (ESAs) for the financial services sector. These ESAs, which will have microprudential supervisory tasks, are: the European Banking Authority (EBA) based in London; the European Insurance and Occupational Pensions Authority (EIOPA) in Frankfurt; and the European Securities and Markets Authority (ESMA) in Paris.

The three ESAs will be made up of the 27 national supervisors and, working together with and in tandem with the national authorities, they will focus on individual financial firms to ensure their soundness and protect the interests of consumers. They have been given the power to draw up rules for national authorities and financial institutions and to develop technical standards, akin to an embryonic European rulebook. They can take action and intervene directly in the event of emergencies declared by the EU Council, and they can also temporarily restrict or prohibit certain financial activities that threaten the stability of the financial market. However, with the exception of ESMA, which is to have direct supervisory authority over credit rating agencies, the ESAs have not been given the power to directly supervise transboundary credit institutions, control over which remains fragmented between the various national authorities.40

The fourth component of the ESFS, the ESRB, is to be based in Frankfurt and is to have the task of macroprudential oversight, i.e., to prevent or mitigate systemic risk within the financial system. It will cooperate closely with the three ESAs and exchange information with them; it will be able to issue warnings and recommendations addressed to the EU institutions, the Member States, European or national supervisory authorities,41 and it will follow up on compliance with these


40 However, a much closer working relation between the ESAs is envisaged in the new system, and the ESAs are to have a mediation role in the event of disagreement between national supervisors.


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recommendations and warnings. It is to be chaired by the President of the ECB and is to be composed by 36 voting members (29 of whom are central bankers) and 28 non-voting members (mainly representatives of the national supervisory authorities).\(^\text{42}\)

The establishment of the ESFS is undoubtedly a qualitative step forward in filling in the gaps that manifested themselves during the crisis. The important role given to the NCBs in the European macroprudential oversight\(^\text{43}\) confirms the degree of the trust of governments in independent central banks in general and in the ECB in particular, as one of the main actors behind the response to the unfolding crisis. Apart from the criticism of the limited powers given to the new institution, which can issue warnings but cannot bite, doubts remains as to whether, by taking a more decisive step and creating a single European Supervisory Authority with regulatory, monitoring and sanctioning powers,\(^\text{44}\) the legislator might not have provided a more effective alternative to the newly-created structure, which is composed of complex of bodies with so many members that it will not be easy for them to take executive decisions in a conflict or crisis situation. It has often been said by opponents of the idea of such a European Supervisory Authority that since, in an emergency, it is for national governments (and ultimately national tax-payers) to bail out their own banks, there cannot be shared or delegated responsibility for supervision, and that the reform stopped short of creating a European supervisor because there is no common European executive with common European financing to take on the role of a pan-European supervisor.\(^\text{45}\) In reality this argument draws attention to another need, that of creating an insurance system possibly supported by a tax to be paid by the European financial operators, to avoid national


\(^{43}\) This is evident from the fact that NCB governors constitute \(\frac{3}{4}\) of the voting members of the ESRB, with supervisors being non-voting members.

\(^{44}\) According to Article 127(6) of the Treaty on the Functioning of the European Union, these powers could have been attributed to the ECB by a Council regulation. This easy avenue was not chosen by Member States.

\(^{45}\) Of course, there is the budget of the European Union, but this has very limited own resources and expenditure is possible only for administrative costs and for a limited number of specific EU policies, which do not include taking over insolvent financial institutions to preserve financial stability in the EU.
tax payers having to cover unexpected losses arising, despite proper prudential supervision. In my personal opinion, the creation of such a scheme should be a priority. Once in place, it would also remove the political objections to a pan-European supervisor, which appears appropriate for pan-European credit institutions, financial operators and infrastructures.  

Despite these shortcomings, what has been achieved by this reform is certainly a positive step forward.

**European Initiatives to Support a Distressed Euro Area Member State**

In early 2010, the financial crisis entered into a new phase in Europe. For the first time there was the real risk of a developed economy becoming insolvent. Moreover, for the first time, the country under attack no longer had its own currency but shared a common currency, the euro. On the one hand, this meant that the troubled country could not use some of the instruments which would normally have been available to it to limit the damage (in particular devaluation). On the other hand, the insolvency of the troubled country could have had serious consequences for the States that share the same currency. This situation drew renewed attention to the lack of arrangements for the coordination of fiscal policy in the EU, referred to above, and highlighted the importance of planning how best to avoid a repetition of this situation in the future.

The existence of the problem was already clear in January 2010. For a while, Greece managed to obtain the funds it needed in the market to refinance its debt obligations, while struggling to tackle its

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public debt problem under pressure from its EU partners. On May 1, 2010, after the ECB and the Commission had concluded that Greece had insufficient market access for the financing of its obligations, it became clear that a robust response was needed. In the early morning of Monday, May 3, an agreement was reached and a strong signal was sent to the markets that the European Union and its Member States were ready to protect EMU and the single currency. The Eurogroup (the gremium of the ministers of economics and finance of the euro area Member States) agreed on a package to support Greece, provided that Greece introduced economic and fiscal measures. Under these conditions, a finance plan was activated on May 7, comprising EUR 80 billion in bilateral loans from the other 15 euro area Member States, centrally pooled by the Commission, and a EUR 30 billion loan from the IMF.

On 10 May this agreement was complemented by the adoption of three important legal instruments. First, the EU Council addressed a Decision to Greece with a view to reinforcing and deepening fiscal surveillance and giving notice to Greece to take measures for the deficit reduction judged necessary to remedy its excessive deficit situation. This Decision, which sets out the main elements of the policy which were the conditions for the granting of financial support, is unparalleled both in its prescriptiveness and in its level of detail, and it seems to have set a precedent for future EU interventions in fiscal policy if a Member State does not observe its commitments under the SGP.

47 These conditions were then defined in Council Decision 2010/320/EU of May 10, 2010 addressed to Greece with a view to reinforcing and deepening fiscal surveillance and giving notice to Greece to take measures for the deficit reduction judged necessary to remedy the situation of excessive deficit (OJ L 145, 1.6.2010, p. 6).
48 The Loan Facility Agreement between the Commission, in charge of coordinating the pool of bilateral loans from the euro area Member States, and the Greek government, is available at www.hellenicparliament.gr.
Secondly, in view of the risk of the crisis extending to other Member States, the ECOFIN Council adopted a Regulation\textsuperscript{51} establishing a European financial stabilization mechanism (EFSM) for extending financial assistance, in instalments, to troubled Member States (not only of the euro area but also of the EU), in the form of a loan (to be repaid with interest) or a credit line.\textsuperscript{52} It is the Council which decides on the activation of the stabilisation mechanism, acting by a qualified majority on a proposal from the Commission after hearing the views of the ECB.\textsuperscript{53} Its funds are to be secured by borrowing on the capital markets or from financial institutions, up to EUR 60 billion, to be raised by the European Commission acting for the EU.

Third, the ECOFIN Council decided that the European financial stabilization mechanism was to be complemented by the European Financial Stability Facility (EFSF), in the form of a special purpose vehicle (SPV), a separate legal entity to be established by way of an inter-governmental agreement between the euro area Member States,\textsuperscript{54} which would guarantee the SPV pro-rata and in a coordinated manner. The SPV could provide a further EUR 440 billion in financial assistance to Member States facing a liquidity crisis in the market for their government debt.\textsuperscript{55} To access the EFSF, Member States would first need to agree on a macroeconomic adjustment programme with the


\textsuperscript{52} This approach to providing financial assistance is inspired by the existing Medium-term Financing Facility (or Balance of Payments facility), in the administration of which the ECB is also involved. The implication of the nature of the assistance granted by the fund is that this is not contrary to Article 125 of the Treaty.


\textsuperscript{54} The SPV was established on June 7, 2010 as a limited liability company under Luxembourg law, for three years.

\textsuperscript{55} The EFSF will issue bonds on the market, with pro rata guarantees by all euro area Member States who will commit up front to their total share of EUR 440 billion, and provide loans at interest rates determined on the basis of a pricing formula consistent with the lending rates of the IMF.
Commission and the Eurogroup in liaison with the ECB and, depending on the circumstances, the IMF. In particular, the Eurogroup would retain its decision-making responsibility with regard to evaluating the conditions for any financial assistance and authorizing disbursements.

The obligation of the euro area Member States to issue guarantees entered into force on August 4, 2010, when the guarantee commitments of the euro area Member States to the EFSF reached more than 90 percent of the total amount. The EFSF is now authorized to issue bonds in the market with the help of Finanzagentur, the German Debt Office. On December 1, 2010, the ECOFIN Council decided to use this instrument for helping Ireland cope with the financial distress it was facing. The EFSF thus became operational.56

The legal basis for these measures has been a matter of heated debate, and in Germany the national implementing measures have been challenged before the Constitutional Court. It has been argued that these measures breach Articles 124 and 125 of the Treaty on the Functioning of the European Union (the prohibition of “privileged access” by the State to financial institutions and the “no bail-out clause”).57 In reality, the big challenge has been to preserve these principles while applying the principle of solidarity towards a Member State in distress.58 The balance has been found by having recourse to these measures only when the situation is caused by exceptional circumstances that are outside the control of the Member State, and in making these measures subject to strict conditions, non-concessional (i.e., provided at close-to-market rates) and exceptional (i.e., temporary).

The ECB has played an important role in establishing these exceptional measures, acting as an honest broker and facilitating the reaching of agreement in the most critical days of the crisis, as well as acting as the payment agent for the Member States and the European Commission both in the EFSF and in the ESFS.

56 Cfr. above, fn. 53.
57 On these legal questions, see Louis, above, note 35, p. 975 ff.; Cisotta Viterbo, “La crisi della Grecia, l’attacco speculativo all’euro e le risposte dell’Unione europea,” in Diritto dell’Unione Europea 2010, in print.
58 The principle of solidarity was introduced in Article 122 of the Treaty, and is the legal basis for the EFSM.
Concluding Remarks

Between 2008 and 2010, the ECB and the EU have combated the financial crisis by using a three-pronged approach: ensuring the provision of liquidity to markets, establishing a European supervisory framework, and creating instruments to support Member States in distress while tightening the controls on their fiscal and budgetary policies. Some of these new measures are qualitative steps towards deepened integration within the EU. So far, they have proved to be effective in containing the crisis. Time will tell whether they will prove sufficient or whether further steps are needed.

The fact that Europe did not shy away from energetic, creative and flexible use of its legal, political and economic tools to combat the crisis and defend the European construction, within the limits of its conferred powers, is in itself good news both for Europe and the wider world. So far, the EU institutions and the Member States have demonstrated to the market their determination to support and defend EMU in extremely difficult circumstances. Those who have challenged the solidity of EMU have no doubt managed to shake it but not to the point of making its founders disavow it.

At the same time, the crisis has shed light on some of the inherent complexities of the current institutional set-up of the EU. A single monetary policy that does not go hand in hand with single fiscal and budgetary policies can only be explained by reference to the political compromises underlying the EU’s incremental construction. The EU’s response to this paradox, the Stability and Growth Pact, which was conceived as a safety net against inappropriate fiscal policies of the Member States, has not yet proved to be a success. More than ever it has become evident that there is a need to complement monetary union with proper economic union, equipped with the necessary tools and funds.
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CHAPTER 5

The Legal Framework for Central Banking in a Crisis: Japan’s Experiences

HIROMI YAMAOKA

Introduction

In a financial crisis, a central bank is often required to take various “unconventional” policy measures as well as to provide liquidity as a “lender of last resort (LLR).” Some unconventional policy measures inherently involve the risk of credit losses, which will ultimately be covered by taxpayers. Also, a central bank’s LLR functions, although necessary for maintaining financial stability, cannot escape from counterparty credit risks. In these respects, many of a central bank’s policy measures in a financial crisis may become closer to “quasi-fiscal” policies.

Consequently, in a financial crisis a central bank inevitably faces difficult challenges: It has to take necessary policy measures in a swift manner so as to tackle an immediate crisis, while being accountable to taxpayers. In this regard, the legal framework for a central bank plays an extremely important role in facilitating its crisis management, since it is the relevant laws that determine what policy tools a central bank has, and how flexibly it can make use of them.

This paper will focus on the experiences of the Bank of Japan (BOJ) in Japan’s financial crisis since the 1990s. The first half of this paper illustrates how the legal framework for BOJ strikes a delicate balance between flexibility and accountability, and how it actually enabled the BOJ to take necessary actions during the Japan’s financial crisis. Then, the second half of the paper broadly describes the remaining issues associated with the resolution of financial institutions, with particular attention to Japan’s experiences.

The views expressed in this paper are those of the author and should not be regarded as those of the Bank of Japan.
Legal Aspects of Central Banking in a Financial Crisis—Unconventional Easing, LLR, and Macroprudential Measures

Overview

In a financial crisis, central banks are often required to take credit risks through unconventional monetary policy measures (e.g., “credit easing”) as well as through micro- and macroprudential measures, due to the following circumstances:

(a) Market anomalies

A financial crisis usually damages the functioning of credit markets through market participants’ strong anxiety for liquidity as well as their extreme averseness to risk. Although a central bank is generally expected to refrain from influencing market views on credit risks, in such extreme circumstances as described above a central bank’s intervention in credit markets can be justified as a necessary action to normalize market functions.

(b) Zero bound of nominal interest rates

A central bank may face “zero bound” of interest rates especially when a financial crisis brings about strong deflationary pressures on the economy. Under zero bound, since there is virtually no room for further reduction in short-term risk-free interest rates, a central bank has to adopt unconventional measures so as to reduce credit risk premiums or interest rates on longer maturities in order to realize further easing effects.

(c) Need for prudential policy measures

A financial crisis often leads a central bank to take micro- and macroprudential policy measures so as to avoid the collapse of the financial system and to restore banks’ risk-taking capacity. Many of these policy measures inherently accompany risk taking by a central bank.
The BOJ’s Policy Measures During Japan’s Financial Crisis

In Japan’s financial crisis since the 1990s, the BOJ actually took widely-ranged policy measures, as described below:

(a) Massive liquidity provision

The BOJ provided a massive amount of liquidity for longer periods, to a wider scope of counterparties, while taking a wider range of collateral, in order to alleviate liquidity concerns.

(b) Unconventional monetary easing

Since 1999, the BOJ adopted measures known as Zero Interest Rate Policy (ZIRP) and Quantitative Easing Policy (QEP). As parts of QEP, the BOJ purchased asset-backed securities (ABS) and asset-backed commercial paper (ABCP) on an outright basis.

(c) Macroprudential policy measures

In the autumn of 2002, the BOJ introduced the stock purchasing program and purchased stocks held by banks so as to restore the risk-taking capacity of the banking sector that faced non-performing loan problems.\(^1\),\(^2\)

Legal Aspects of BOJ’s Policy Measures in Japan’s Financial Crisis

When a central bank, whose decision making is basically independent from the government, takes more risks, it should satisfy more stringent accountability requirements because of larger risks of ultimate

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\(^1\) The BOJ’s purchases of stocks held by banks liberated the capital banks held against the market risks associated with their stock holdings, and thus improved their risk-taking capacity. In this regard, the BOJ’s stock purchasing was akin to a counter-cyclical capital buffer now being discussed in the international fora as a possible macroprudential policy option.

\(^2\) In February 2009, shortly after the Lehman Shock, the BOJ reinstated the stock purchasing program as a temporary measure. Three months later, the BOJ adopted another temporary facility to provide subordinated loans to banks.
taxpayers’ losses. Nonetheless, there is an inherent trade-off between stringent accountability and policy flexibility.

From a legal perspective, the policy measures undertaken by the BOJ during Japan’s financial crisis can be divided into the following categories:

(a) Measures that the Bank of Japan Act empowers BOJ to execute solely by its own decision:

- Massive liquidity provision (through widening the range of eligible collateral, widening the range of counterparties, extending the period of liquidity provision, etc.)
- Outright purchases of ABS and ABCP in the secondary market
- Outright purchases of government securities in the secondary market

(b) Measures that the Bank of Japan Act requires the BOJ to have the authorization from the Minister of Finance and the Prime Minister:

- Purchases of stocks held by banks
- Provision of subordinated loans to banks

### Table 1. Legal Aspects of BOJ’s Policy Measures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Article 15(1)</th>
<th>Article 43(1)</th>
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<tbody>
<tr>
<td>Policy measures</td>
<td>Solely by BOJ’s decision</td>
<td>Authorization from PM and FM is needed.</td>
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- Massive liquidity provision
- Outright purchase of ABS and ABCP in the secondary market
- Outright purchase of government securities in the secondary market

- Purchase of stocks held by banks
- Provision of subordinated loans to banks

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3 Article 61-2 of the Bank of Japan Act states that “(t)he Prime Minister shall delegate the authority under this Act (excluding Article 19) to the Commissioner of the Financial Services Agency except for those prescribed by a Cabinet Order.”

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The legal basis for the BOJ’s policy tools referred to above are found in Articles 15(1) and 43(1) of the Bank of Japan Act. Article 15(1) empowers the BOJ to provide liquidity on a collateralized basis, and to buy and sell “negotiable instruments, bonds or electronically recorded claims” for monetary control solely by the decision of the Policy Board. Besides, Article 43 (1) allows the BOJ to take an almost infinite range of policy actions, on the condition that BOJ obtains authorization from the Minister of Finance and the Prime Minister, and as long as such policy actions are necessary to achieve price stability or financial stability.

As indicated above, Article 15(1) of the Bank of Japan Act empowers the BOJ to take widely-ranged policy tools for monetary control and ordinary liquidity provision, such as purchases and sales of debt instruments, solely by its own decision. Such a legal framework enables the BOJ to provide abundant liquidity and intervene in credit markets in an extremely swift and flexible manner so as to tackle any sudden deterioration in financial market conditions.

Article 43(1) of the Bank of Japan Act also empowers the BOJ to adopt widely-ranged policy tools so as to achieve price stability and financial stability, on the condition that BOJ obtains authorization from the Prime Minister and the Finance Minister. In this regard, the Article 43(1) strikes a delicate balance between the BOJ’s policy discretion and its accountability to taxpayers. Moreover, this Article enables BOJ to take any necessary actions without any new legislation, which usually takes a long time to enact.

**Legal Aspects of the BOJ’s Provision of Loans to Individual Financial Institutions**

A central bank’s LLR function for individual financial institutions also has to strike the right balance among financial stability, democratic decision-making processes and accountability to taxpayers. In general, if a central bank provides loans to financial institutions on a collateralized basis, risks of credit losses are relatively small. On the other hand, if its LLR functions must be executed on an uncollateralized basis, a central bank should face far more stringent accountability requirements due to larger credit risks. The fact that a central bank has to make uncollateralized loans to a financial institution means that the institution is in severe financial trouble so that it does not have
Table 2. Article 15(1) and Article 43(1) of the BOJ Act

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<th>Article 15(1)</th>
<th>The following matters concerning currency and monetary control shall be decided by the Board:</th>
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<td>(i) Determining or altering the basic discount rate and other discount rates pertaining to the discounting of negotiable instruments set forth in Article 33, paragraph 1, item (i), as well as the types and conditions of negotiable instruments pertaining to the said discounting;</td>
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<td></td>
<td>(ii) Determining or altering the basic loan rate and other loan rates pertaining to the loans set forth in Article 33, paragraph 1, item (ii), as well as the types, conditions, and value of collateral pertaining to the said loans;</td>
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<td></td>
<td>(iii) Determining, altering, or abolishing reserve requirement ratios, the base date, and other matters prescribed in Article 4, paragraph 1 of the Act on Reserve Deposit Requirement System (Act No. 135 of 1957);</td>
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<td>(iv) Determining or altering the guidelines for financial market control (currency and monetary control conducted through financial markets [including open market operations]) through such measures as the buying and selling of negotiable instruments, bonds, or electronically recorded claims (electronically recorded claims prescribed in Article 2, paragraph 1 of the Electronically Recorded Claims Act [Act No. 102 of 2007]; hereinafter the same shall apply in this item and Article 33, paragraph 1) prescribed in Article 33, paragraph 1, item (iii), as well as determining or altering the types, conditions, and other matters of negotiable instruments, bonds, or electronically recorded claims pertaining to the said financial market control;</td>
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<td>(v) Determining or altering other guidelines for currency and monetary control;</td>
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<td>(vi) Determining or altering the Bank of Japan’s view on currency and monetary control, including its basic view on economic and monetary conditions which provides the basis for matters listed in the preceding items.</td>
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| Article 43(1) | The Bank of Japan may not conduct any business other than that specified by this Act as the business of the Bank; provided, however, that this shall not apply to the case where such business is necessary to achieve the Bank’s purpose specified by this Act and the Bank has obtained authorization from the Minister of Finance and the Prime Minister. |
sufficient eligible collateral. Thus, the credit risks associated with such loans can be substantial. In an economic sense, a central bank’s credit losses mean unintended income transfers from taxpayers to stakeholders of the borrower financial institution.

From a legal perspective, BOJ’s loan provision to individual financial institutions can also be categorized as below:

(a) Article 33(1) of the Bank of Japan Act empowers the BOJ to provide loans to financial institutions on a collateralized basis, as its “regular business,” on its own decision (see Table 3).

(b) On the other hand, Article 38 of the Bank of Japan Act requires the a “request” to the Prime Minister and the Finance Minister in order that the BOJ could provide uncollateralized loans to financial institutions. In this regard, the Prime Minister and the Finance Minister are also responsible for the BOJ’s decision to extend uncollateralized loans (see Table 4). Moreover, the Act requires that the Prime Minister and the Finance Minister should find such uncollateralized loans “especially necessary for the maintenance of stability of the financial system.”

| Table 3. Legal Aspects of the BOJ’s Loan Provision to Financial Institutions |
|------------------|------------------|------------------|
| Article 33(1)    | Article 38       |
| Procedure        | Solely by BOJ’s decision | Request from PM and FM is needed. |
| Policy measures  | • Ordinary loan provision to financial institutions on a collateralized basis | • Loan provision to financial institutions on an uncollateralized basis (e.g., Loan provision to Yamaichi Securities Co.) |

A central bank’s provision of uncollateralized loans constitutes extremely difficult challenges to policymakers. Immediately after the outbreak of trouble at Yamaichi Securities Co. in November 1997, the financial authorities and the BOJ determined to provide an uncollateralized emergency loan to Yamaichi, on the assumption that its net worth was still positive. Undoubtedly, the uncollateralized loan to Yamaichi, one of “top 4” securities firms in Japan then, contributed to containing cross-border spillovers of Japan’s
financial crisis. Nonetheless, Yamaichi turned out to be insolvent later, and BOJ’s uncollateralized loan to Yamaichi inflicted credit losses. Such an experience illustrates the most difficult aspect of financial crisis management, which is to be focused on in the next section.

Remaining Issues—Especially in the Resolution of Troubled Financial Institutions

Overview

In theory, a central bank can create infinite liquidity. Thus, as long as crisis management remains in a sphere of liquidity management, a central bank generally has sufficient scope for policy maneuvers to normalize market conditions. On the other hand, a central bank may face extremely difficult challenges in the overlapping area of liquidity risks and credit risks, as shown in the case of Yamaichi in November 1997. Indeed, in a financial crisis, it is not always easy to distinguish liquidity risks from credit risks.

Early Intervention, Transparency, and Stakeholders’ Interests

In an ordinary bankruptcy procedure, the shareholders’ return shall be zero because the net worth of the bankrupt firm has already been negative, and the remaining losses shall be allocated to creditors on a pro-rata basis.4

In cases of the resolution of financial institutions, however, the situations can be much more complicated. In general, legal frameworks in many countries allow regulatory and supervisory authorities to intervene in financial institutions at an earlier stage than in the case of bankruptcies of business corporations. Needless to say, such an “early intervention” reflects the importance of the stability of the financial systems as a whole. The authorities try to intervene in a troubled

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4 Thus, if an ordinary liquidation procedure is always applied to financial institutions in trouble, no public money injection in needed. The need for public money injection is needed because the authorities may want to maintain a part of the functions of troubled institutions, or to bail-out a part of the stakeholders so as to maintain financial stability.
### Table 4. Article 33(1) and Article 38

<table>
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<tr>
<th>Article 33(1)</th>
<th>In order to achieve the purpose prescribed in Article 1, the Bank of Japan may conduct the following business:</th>
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<tr>
<td></td>
<td>(i) Discounting of commercial bills and other negotiable instruments;</td>
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<td></td>
<td>(ii) Making loans against collateral in the form of negotiable instruments, national government securities and other securities, or electronically recorded claims;</td>
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<tr>
<td></td>
<td>(iii) Buying and selling of commercial bills and other negotiable instruments (including those drawn by the Bank of Japan in this item), national government securities and other bonds, or electronically recorded claims;</td>
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<td></td>
<td>(iv) Lending and borrowing of national government securities and other bonds against cash collateral;</td>
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<td>(v) Taking deposits;</td>
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<td>(vi) Conducting domestic funds transfers;</td>
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<td></td>
<td>(vii) Taking safe custody of securities and other instruments pertaining to property rights, or certificates;</td>
</tr>
<tr>
<td></td>
<td>(viii) Buying and selling gold and silver bullion and carrying out business related to business set forth in the preceding items.</td>
</tr>
<tr>
<td>Article 38</td>
<td>(1) The Prime Minister and the Minister of Finance may, when they find it especially necessary for the maintenance of stability of the financial system, such as in the case where they find that serious problems may arise in the maintenance of stability of the financial system based on the consultation pursuant to Article 57-5 of the Banking Act (Act No. 59 of 1981) or other laws and regulations, request the Bank of Japan to conduct the business necessary to maintain stability of the financial system, such as to provide loans to the financial institution pertaining to the said consultation.</td>
</tr>
<tr>
<td></td>
<td>(2) When a request has been made from the Prime Minister and the Minister of Finance as prescribed in the preceding paragraph, the Bank of Japan may conduct the business necessary to maintain stability of the financial system, including the provision of loans under special conditions, responding to the said request, in addition to the business prescribed in Article 33, paragraph 1.</td>
</tr>
</tbody>
</table>
financial institution while its net worth remains positive, so as to maintain its core financial function, prevent systemic spillovers and maintain the stability of the whole financial system.

Nonetheless, such an early intervention inherently accompanies the “trade-off” relationship with transparency, because it may not escape from some discretion in the choice of the timing of intervention. Since the net worth value of corporations always fluctuate, the timing of early intervention may affect the interests of the stakeholders. For example, shareholders may not welcome the authorities’ early intervention if they must completely lose all the possible upside return in the future and bear the losses fixed at the timing of intervention. Moreover, since the authorities’ early intervention is executed while the intervened financial institution’s net worth is believed to remain positive, the creditors are unlikely to expect any losses, and the shareholders might also expect some positive returns.

Furthermore, it is extremely difficult to estimate the actual net worth of a troubled financial institution at the time of intervention, since its ongoing concern value may substantially differ from its liquidation value. It may be possible to calculate the approximate value of financial assets held by the troubled institution by applying the market prices observed then. Nonetheless, market prices always fluctuate, and the volatility of these prices are extremely large in a financial crisis. Consequently, these assets are very likely to be sold only at substantially lower prices than estimated. The case of Yamaichi, whose net worth became negative, clearly evidenced such difficulties. Thus, it may not be an easy job for authorities to determine the amount of fair returns and losses of various stakeholders such as shareholders, collateralized creditors and general creditors.

Cross-Border Issues and Ring-Fencing

The problems regarding the resolution of a troubled financial institution may become far more complicated if it has cross-border aspects. In general, the authorities in each jurisdiction have a duty to maximize creditors’ interests in bankruptcy proceedings. Thus, in the resolution of a global financial institution, the authorities of each jurisdiction are very likely to compare (a) the amount of claims of domestic and overseas creditors, and (b) the value of the assets of the institution within...
the border and outside the border. If the authorities see that the aggregate amount of domestic creditor’s claims is relatively large while the aggregate value of the assets within the border is relatively small, they would prefer participating in universal-type resolution procedures. On the other hand, if they see that there are sufficient amount of the assets within the border to cover the claim of domestic creditors, they would prefer “ring-fencing,” so as to maximize domestic creditors’ interests. In this regard, “ring-fencing” usually occurs because the authorities of each jurisdiction are loyal to their own duties, which are also in line with the incentives of creditors.

In addition, under the globalization of financial services, it may not always be easy to determine the location of assets. For example, it is a very common practice that securitized products, based on original mortgage assets in Country A, are created as shares of an investment vehicle incorporated in “tax haven” Country B, and possessed by an investor in Country C through a custodian in Country D as a nominee.

**Principle of Corporate Laws and “Too Complex to Fail” Issues**

Global financial institutions usually have hundreds of affiliates and subsidiaries, and some may well argue that such structural complexities constitute “too-complex-to-fail” (TCTF) problems, which we should continue paying attention to.

Nonetheless, corporate laws provide for corporations with limited liabilities so as to facilitate the development of commercial businesses. Insulating risks and returns through the scheme of corporations with limited liabilities usually makes investment judgment easier, since the profiles of risks and returns should be more visible. In addition, from the viewpoint of regulation and supervision, corporate laws can create the entities that are suitable to the current regulatory frameworks. For example, a bank subsidiary of a holding company is to be regulated by bank regulators, and an insurance subsidiary is to be regulated by insurance regulators, while another subsidiary might operate as a non-bank business firm. If all of these businesses were to be operated in a single, extremely big entity, it might be difficult for investors to evaluate the profiles of risks and returns, and for the financial authorities to enforce regulation and supervision in an effective manner.
Moreover, creating overseas subsidiaries may give the regulators of host countries more room to maneuver in regulation and supervision. For example, if all the businesses of a global financial institution are operated by a single entity and a part of the businesses are in trouble, it may be difficult for regulators to shut down the troubled businesses while maintaining other operations of the institution. Indeed, the courts in the United States and Japan sometimes “pierce the corporate veil,” but only on very limited occasions. In the debates of financial regulation, more efforts may be needed to strike the right balance between the benefits of corporate systems and TCTF problems.

Concluding Observations

Generally speaking, the legal frameworks for central banking, such as the Bank of Japan Act, have tried to satisfy both the need for effective crisis management and the accountability requirement, and have facilitated the central bank’s crisis management. Indeed, such legal frameworks have so far effectively supported the central bank’s policy actions, especially against “liquidity-type” crisis and the malfunctioning of financial markets.

Nonetheless, there remains a lot of work to be done, especially in the nexus of micro- and macroprudential policies. How can the authorities execute “early intervention” so as to maintain overall financial stability, while achieving a fair distribution of losses among various stakeholders? How can the authorities in each jurisdiction maximize the interest of stakeholders of a troubled financial institution, while minimizing the impact on global financial systems? In order to resolve these challenging questions, more collaborative work by lawyers and economists would be strongly needed.
The global financial crisis that began in summer 2007 has forced the world’s financial regulators to think about overhauling their regulatory and supervisory frameworks. The argument goes that the traditional “microprudential” supervision, which focuses on maintaining the soundness of individual financial firms, failed to identify the risks that had been accumulated in the global financial system as a whole; to address this problem, a “macroprudential” approach is needed, which aims for ensuring the soundness of the entire financial system with a view to preventing systemic shocks from disrupting macroeconomic output. “Macroprudential” has thus become the keyword of the day among financial regulators.

Yet the fact that the case for a macroprudential approach has been put forward for many years is less well known. Therefore, I will first refer to past discussions on the issue of macroprudential supervision. I will discuss why the idea of macroprudential supervision was proposed in the farther past, and why it lost traction among policymakers thereafter before gaining renewed importance recently. I will then talk about what was, and is, needed to make this approach operational.

Lastly, I will introduce the work related to macroprudential approaches to supervision that has been done by Japan’s Financial Services Agency (FSA). Since Japan experienced a serious systemic crisis more than ten years ago, the FSA has taken various measures to ensure overall financial stability with due consideration to its system-wide effects and macroeconomic impact.

The author thanks Ryozo Himino, Yu Ozaki, and Yasushi Shiina for helpful guidance and comments on this article.
Past Discussions on Macroprudential Supervision

The Case for Macroprudential Supervision

“...a fundamental lesson from the current crisis is that effective supervision at the individual firm level, while necessary, is not sufficient to safeguard the soundness of the financial system as a whole.... This points to the need for regulators, supervisors, and central bankers to supplement strong microprudential regulation with a macroprudential overlay to more effectively monitor and address the build-up of risks arising from excess liquidity, leverage, risk-taking and systemic concentrations that have the potential to cause financial instability.”

“Since the risk of distress to the financial system as a whole is not simply the sum of the risk to its individual components, the impact of the collective behaviour of economic agents on aggregate risk needs to be taken into account explicitly. To illustrate, take the example of a bank's leverage during an economic expansion. It may be individually appropriate for banks to take more risk during benign economic times, for example by increasing lending. However, when this behaviour is widespread, the overall leverage of the banking sector may create the potential for financial instability.”

The above quotation is an excerpt from the report of a Group of Twenty (G-20) working group issued just before the London Summit in April.1 While various explanations have been made as to what a “macroprudential approach” actually means, I think this report summarizes the discussions quite well. The points are:

• First, the need to address the build-up of risks in the financial system as a whole; and

• Second, the need to take into account the impact of the collective behavior of firms and investors.

1 Group of Twenty (2009). Underlines have been added by the author of this paper.
The reason why the macroprudential approach has recently attracted increased attention is because this approach is intended to address the following three challenges, which have tended to be overlooked under the traditional supervisory framework. These challenges are:

- Identifying the concentration of risk latent in the financial system (which is difficult to spot by supervision of individual firms only);
- Addressing the structure of spillover effects, which cause systemic risk; and
- Taking the feedback loop between the financial system and the real economy into consideration.

Déjà Vu?

However, if we look back at past discussions, we can find that the arguments for macroprudential supervision are not new. In fact, they have been put forward by policymakers and international institutions for many years.

“There are three aspects to this [comprehensive approach]: firstly, overcoming the separate treatment of micro-prudential and macroprudential issues; secondly, bringing together the major international institutions and key national authorities involved in financial sector stability; and thirdly, integrating emerging markets more closely in this process.”

“The various regulatory groupings deal predominantly with microprudential issues pertaining to the stability of the individual institutions within their purview. However, the greater importance of financial markets... implies a greater need to consider microprudential policies in a wider setting, including the ways in which such policies could be blunted or sharpened by market practices and disciplines, or have unintended aggregation effects.”

The above quotation is not from a recent statement. This is an excerpt from what is called the “Tietmeyer Report” to the Group of Seven (G-7) Finance Ministers and Central Bank Governors in 1999,\(^2\)

\(^2\) Tietmeyer (1999). Emphasis has been added by the author of this paper.
which led to the establishment of the Financial Stability Forum (FSF). The FSF has recently been reorganized as the Financial Stability Board (FSB). According to Jaime Caruana, former Director of the Monetary and Capital Markets Department of the International Monetary Fund (IMF) and now General Manager of the Bank for International Settlements (BIS), the term “macroprudential” was coined at the BIS as early as in the 1970s (Caruana (2009)). We also remember the famous speech in 2000 made by Sir Andrew Crockett, the then manager of the BIS, on this issue (Crockett (2000)).

The IMF is no stranger to this debate, either. Following the G-7’s recommendations, the Fund initiated the Financial Sector Assessment Program (FSAP) in 1999, first as a pilot exercise. The FSAP was later incorporated in the Fund’s regular activities and assumed an increasingly important role in the Fund’s work. The following is an excerpt from the Fund’s handbook for the FSAP exercise:

“The surveillance of the soundness of the financial sector as a whole—which is macroprudential surveillance—complements the surveillance of individual financial institutions by supervisors—which is microprudential surveillance. Macroprudential surveillance derives from the need to identify risks to the stability of the system as a whole, resulting from the collective effect of the activities of many institutions.”

“Macroprudential surveillance uses a combination of qualitative and quantitative methods. … The quantitative methods include a combination of statistical indicators and techniques designed to summarize the soundness and resilience of the financial system. The two key quantitative tools of macroprudential surveillance are the analysis of FSIs [financial soundness indicators] and stress testing. … FSIs help to assess the vulnerability of the financial sector to shocks. Stress testing assesses the vulnerability of a financial system to exceptional but plausible events by providing an estimate of how the value of each financial

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3 International Monetary Fund (2005). Emphasis has been added by the author of this paper.
institution’s portfolio will change when there are large changes to some of its risk factors (such as asset prices).”

“Analysis of macrofinancial linkages attempts to understand the exposures that can cause shocks to be transmitted through the financial system to the macroeconomy. … Surveillance of macroeconomic conditions then monitors the effect of the financial system on macroeconomic conditions in general and on debt sustainability in particular.”

This states explicitly that the Fund conducts macroprudential surveillance and analysis of the linkages between the financial sector and the real sector.

Both the establishment of the FSF and the initiation of the FSAP at the IMF were in response to the turmoil in the international capital markets in the late 1990s, in which the world witnessed all of the three problems the proposed macroprudential approach is supposed to address (i.e., risk concentration, spillover, and macrofinancial feedback loop). In the Asian crisis, the risks associated with the mismatch of currency and maturity had been concentrated in the banking sectors and balance of payments of East Asian countries. Then, materialization of these risks in one country spread quickly to others that had common risk factors. And, in the debacle of LTCM (Long-Term Capital Management, a hedge fund), the United States authorities encouraged Wall Street banks to bail out the firm for fear of severe global market turmoil, because LTCM had borrowed heavily from large financial firms around the world to increase leverage related to their arbitrage transactions of bonds.

Macroprudential Supervision in Today’s Setting

As we have just seen, the case for a macroprudential approach in financial supervision has been put forward by at least part of the international community for years. Then, it has regained renewed attention again recently. Why?

One of the reasons is that financial transactions have become more complex than before, with financial firms more interconnected via the markets and across borders. Accordingly, serious risks latent in
the markets have increasingly become common risk factors for many financial firms, which would materialize themselves once an individual firm runs into trouble. Because of a high level of interconnectedness, the effect could spread to the global financial system through increased counterparty risk and behavioral changes at financial firms, with market liquidity dried up and the pricing function of the markets severely impaired. This, in turn, would threaten the soundness of other financial firms around the globe. It is therefore increasingly important that regulators strive to identify such common risk factors and make use of this analysis in supervision.

Yet we also need to look at the risk factors that have been common to various crises in history. Most of past financial crises followed overly optimistic expectations about the economy and, in particular, about asset prices stemming from long periods of economic expansion. Investors, households, and financial firms tended to under-price the risks associated with their activities in such circumstances, leading to excessive risk-taking and rapid credit growth. This increased the leverage in the financial system and in non-financial sector to an excessive level, which became unsustainable once market participants became suddenly risk-averse following a shock event. The current crisis is no exception.

Thus the point here is the fact that, even though the world’s regulators had been aware for years that a macroprudential approach to supervision is necessary and the efforts had been made to this end by the FSF and the IMF, they were not able to prevent another financial crisis that began in summer 2007.

Following the crisis, active discussions are underway in the United States and Europe on how to reform the organization of financial regulators and supervisors to make macroprudential supervision operational. Perhaps it is a natural habit of bureaucrats and lawmakers to get obsessed with organizational change in times of reform. This aspect of debate is certainly important. But what is more important is not reorganization per se but how macroprudential supervision can be made more effective.

To this end, I think we need to reflect on why the previous efforts did not work effectively.
What Is (Was) Needed to Make Macroprudential Supervision Operational?

“Before the current crisis, central banks issued warnings regarding the build-up of risks through financial system reports. However, issuing warnings are not so difficult…”

“If we seriously wish to reduce such risks, remedial action is required. But in order to go beyond analysis and take remedial actions, a proper assessment, a strong will, together with a robust legal framework which enables effective action, are all necessary.”

The quote above is a comment by Governor Shirakawa of the Bank of Japan in a speech he made in June this year (Shirakawa (2009)). Indeed, a number of analyses had been made by central banks, supervisors, and international institutions since about 2005 on the substantial risks associated with the securitization business. The problem was that such warnings were treated lightly and did not lead to concrete action. Also, these warnings were not strong enough in retrospect. This may have been a reflection of the fact that, although they were aware of the possible emergence of a bubble, the authorities were not sufficiently convinced that this was a bubble that justified bold action.

Robustness of Analytical Framework

It seems to me that there are a number of hurdles standing in the way of effective macroprudential supervision. One of them is the need for the robustness of analytical frameworks. The lack of a robust theoretical framework or established practice in macroprudential supervision probably led to the reduced attention to these aspects by national authorities and at international discussions in the 2000s as the last crisis faded out, and to the failure to identify accumulation of risks in the run-up to the current global financial crisis.

Moreover, the regulators would need to intellectually challenge conventional wisdom and resist plausible counterarguments that try to justify the asset price movements which could later turn out to
Some Thoughts on Macroprudential Supervision

be bubbles. This requires that these bodies have in place sufficient analytical capability. In fact, these counterarguments are always put forward at boom times. For example, there was the “new economy” theory prior to the burst of the “dotcom” bubble; plausible theories were also proposed in Japan in the 1980s that tried to explain that stock price developments were rational. In the run-up to the current crisis, arguments were also made praising financial innovation, such as securitization, for strengthening the resilience of the financial system by dispersing risks to a wider range of investors.

In addition, the regulators need to be prepared for challenges against their assessment of tail risks. The assessments based on the results of stress testing or scenario analyses are particularly prone to these challenges because the assumptions could well be seen as arbitrary.

“Will to Act” and Resisting Political Economy Considerations

Another hurdle is how to translate assessments into action and how to resist substantial pressure from political economy considerations. It would take strong determination to take bold measures to prevent excessive leverage and contain market overheating. This is because tightening prudential policies at boom times is often disliked by market participants and politically unpopular. In addition, once that action is followed by the reversal of market situations, the regulators could easily be blamed for triggering the downturn. It is therefore challenging to obtain public and political support to such policies. Meanwhile, the regulators would be under pressure to loosen prudential standards at bad times to the extent that would put the soundness of the entire financial system at risk.

These challenges look substantial, which may not be solved just by reforming the organizational structure of financial regulation. The organizational measures necessary will probably differ among countries according to political, economic, and financial circumstances as well as historical experience. Moreover, further efforts will be necessary on many fronts, including in establishing analytical frameworks and building consensus on the need for forward-looking prudential policies to address boom-bust cycles.

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Japan FSA’s Action Related to Macroprudential Supervision

I would now like to introduce to you some of the work related to macroprudential approaches done by Japan’s FSA. Since the time of Japan’s banking crisis in the late 1990s, the FSA has made efforts to take supervisory measures with due consideration to the soundness of the financial system as a whole and to their impact on the real economy (Figure 1).

At the time of the banking crisis in the 1990s, the FSA gave priority to preventing spillovers and to avoiding triggering a global financial crisis. In the absence of an effective framework for bank resolution and in view of heightened uncertainty, a blanket guarantee of bank deposits had been announced, and maximum care was taken to resolving problem banks with a view to containing its systemic impact to the extent possible. The FSA also took measures to ensure that credit to the corporate sector, particularly to small- and medium-sized enterprises (SMEs), would not be tightened excessively. While

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Japan has been criticized for having been slow to resolve its banking sector problems, we think that it was somewhat unavoidable given the circumstances at that time. Meanwhile, an effort was made in parallel to put in place a robust bank resolution framework aimed at enabling the FSA to act effectively to address systemic risk. Following the implementation of this framework, the FSA took actions to increase the transparency of bank balance sheets and encourage the banks to dispose of their non-performing loans, resisting pressure for regulatory forbearance.

A second example is that of a forward-looking response to a possible asset price bubble. In late 2006, the FSA issued warnings to the financial services industry with regard to their activities in the commercial property market. This was a response to a sharp rise in commercial property prices in Japan’s selected metropolitan areas. Observing that this stemmed from structural changes in the pricing mechanism of properties and banks’ lending techniques, and significant capital inflows to the market from abroad, the FSA revised its annual supervisory policies to make it clear that it would closely examine banks’ risk management practices for their activities in this market. It also took supervisory action against some REITs (real estate investment funds) for inadequate risk management and compliance (Sato (2008)). In hindsight, this action seems to have helped alleviate the impact of the global financial crisis on Japan’s financial system and economy, since global investment banks had been very active in this market prior to the crisis. At that time, however, the FSA was faced by severe criticism that it was destroying the nascent market.

In response to the current crisis, the FSA has conducted cross-sectoral analyses, making use of its position as the integrated regulator covering not only banks but also the insurance sector and financial markets. It has also tried to maintain confidence in the stability of Japan’s financial system by enhancing transparency about the situation of the system. Specifically, the FSA has disclosed the aggregate of the exposure of Japanese financial firms to securitized products on a quarterly basis from end-September 2007 data. Furthermore, the FSA took measures to sustain banks’ financial intermediary function, particularly to SMEs, including through intensive off-site and on-site monitoring of banks’ lending activities. These are the measures aimed at addressing possible “fallacy of composition” in banks’ behavior, with a view to
preventing their individual judgment to tighten lending standards from causing credit crunch, which would rather deteriorate their financial soundness. Also, FSA officials have been making active contribution to discussions on how to mitigate procyclicality of the capital adequacy requirements, both at international fora and in public (for example, Himino (2009)).

Finally, I will turn to explaining the institutional set-up for financial regulation and supervision in Japan. As mentioned earlier, the FSA is Japan’s integrated financial regulator, covering both the banking and non-bank sectors and market regulations. Having also the function of drafting legislation, the FSA’s coverage of financial regulation and supervision is probably the most comprehensive among the regulators of the world’s major jurisdictions (Figure 2).

### Figure 2. International comparison of institutional frameworks for financial regulation

At the same time, the Bank of Japan (BOJ), the central bank, also has the objective of ensuring financial stability, in the sense that it is held responsible for ensuring the smooth functioning of the interbank payment system. Based on this responsibility, the BOJ has examination functions (on a contractual basis), and complements the FSA’s on-site and off-site supervision. Having experienced a system-wide crisis in the 1990s, cooperation between the FSA and the BOJ has been

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some thoughts on macroprudential supervision

strengthened and they stand ready for closer consultation whenever intensive monitoring is required.

This setup may not be a perfect one. Perhaps the FSA may need a strengthened analytical capability to become more responsive to macroprudential issues. However, I can say that the Japanese authorities have not encountered any serious problems in dealing with the ongoing market turbulence from the standpoint of ensuring the soundness and functioning of the financial system as a whole. Experience of the last banking crisis has made close cooperation between the FSA and the BOJ a natural response to shocks to the financial system, even without a formal mechanism such as a systemic risk board. It is my view that historical and other country-specific circumstances should be taken into account to assess the need to establish such a mechanism, or to contemplate an organizational framework for macroprudential supervision.

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II. RESTORING FINANCIAL STABILITY—
THE INTERNATIONAL DIMENSION
Today, I would like to take the opportunity to discuss the key issues of the new regulatory framework.

I would like to begin by noting that the most dangerous phrase in finance is: “Things will be different this time around.” The recent improvement in the health of the financial sector has led a number of observers, and some in the financial sector to conclude that there is no longer a need to adopt financial reforms. However, this would be a big mistake. The severe costs resulting from the recent failure of regulation and supervision have shown clearly the need to put in place reforms that lead to the permanent strengthening of the financial system.

This obviously requires achieving a delicate balance in getting the reforms to the financial structure “just right” to strengthen the financial system and to prevent the sort of crisis that we are experiencing.

Let me discuss the key issues in this regard from two dimensions:

First, I will describe what I think are necessary improvements to micro-prudential regulation in light of the failures in the oversight of individual financial institutions that have been brought to light by the crisis.

Then, I will turn to the area of macroprudential regulation, which attempts to address systemic—as opposed to individual institution—risks. This focus results from the realization that the goal of maintaining “safe and sound” institutions individually does not guarantee overall financial stability.

I will raise a number of questions along these dimensions that could be of help to frame the discussions in the next few days.
Microprudential Regulatory Reforms

Let me begin with microprudential regulation. We have seen from the crisis that the existing rules and their implementation proved inadequate to keep the financial system safe and sound.

I should stress that banking resilience must reside in the effective functioning of four fundamental pillars: first, a well-targeted and calibrated regulatory framework; second, an efficient and rigorous supervisory arrangement that ensures that banks are run safely and soundly on the basis of a comprehensive risk management system; third, the presence in banks of a seasoned and highly trained management team capable of identifying, measuring, and addressing risks on a timely basis, supported by well-designed prudent policies, early warning alerts and strict governance rules; and fourth, an appropriate resolution mechanisms for failing institutions, particularly to deal with systemically important firms.

Much of the current policy debate focuses on regulatory reform. However, insufficient progress in the enhancement of supervisory agencies, the upgrade of risk management and governance procedures in banks, and the improvement of resolution frameworks risks burdening the real sector with costly overregulation. To avoid overburdening any one of the pillars of financial stability with reform efforts it will be important to make progress in all of them.

In this context, it is clear that we need better rules to govern the financial sector. I would suggest the following priorities:

The first and foremost priority is more and higher quality capital and less leverage. Overall, financial institutions, not just banks, will need to have larger capital buffers and capital that has more “loss absorbing ability.” Capital will then have to be of higher quality, or have more equity-like characteristics. Financial institutions will also need to be less leveraged. To preclude the buildup in leverage, an overall leverage ratio—one that is simple and difficult to circumvent—will be helpful.

The second priority is better liquidity. Probably the defining characteristic of this crisis is the extent to which institutions with funding...
liquidity mismatches had grown dependent on continuous access to capital markets.

This leads me to my first question: How soon should these new and more conservative rules apply, and how high should new capital requirements be? Clearly, financial institutions want sufficient lead time to adjust their business models and balance sheets to meet these new requirements. At the same time, regulators and their political masters want to show concrete actions are being taken. However, time is needed to do proper impact studies and calibrate the detailed supervisory requirements to minimize unintended consequences.

In addition to better rules, we need better application of rules. Even the best-designed rules will not have an effect unless they are consistently enforced by adequate supervision. The crisis has shown that regulators and supervisors often did not have the necessary resources, tools, or incentives to adequately monitor and assess the rapid innovations occurring in the institutions under their watch.

This prompts my second question: How do we design better regulatory and supervisory structures to avoid capture and complacency? This is a key question that policymakers and other interested observers should address in the future.

It is necessary to recognize that we also need better risk management by financial institutions. While it is true that inadequate regulation allowed imprudent behavior on the part of financial institutions, it was the decisions taken by the private sector that led to the crisis. In recognition of this fact, many institutions are changing their risk management models to rely on underlying data that are “through the cycle.” However, beyond just tinkering with the models, these firms need to improve their fundamental governance structures, while enhancing accountability and oversight. And here compensation schemes play an important role.

This raises a third question: How do we align compensation and incentive schemes with complex risks management challenges in a way that is conducive for financial stability?
Resolution

If all preventative efforts have failed and we are facing a crisis, we need to have appropriate resolution mechanisms for failing institutions in place, particularly to deal with systemically important firms. While there is broad agreement on the undesirable moral hazard issues that very large systemic institutions pose, there is less agreement on how they should be dealt with both in preventing crises and in their resolution. There are many suggestions being made on this issue: regulators could find ways to “discourage” institutions from becoming “too important to fail” by either imposing additional capital requirements based on their contribution to systemic risk, or by applying a leverage ratio on a group-wide basis and heightened supervisory oversight.

The issue becomes more complex because where systemic institutions have stability implications across borders, both supervision and resolution challenges are further complicated by national interests. The problem has become even bigger because the process of addressing the crisis in some countries has resulted in the creation of some very large institutions through assisted mergers and acquisitions. One of the suggestions under discussion is that systemic institutions should be required to maintain a plan for their orderly breakup—approved by supervisors—so that group structures can be dismantled and penalties for failure are credible.

This brings me to my fourth question: How can systemically important institution be resolved effectively without deepening a crisis?

Macroprudential Regulatory Reforms

Turning now to macroprudential regulation, we must take a macroprudential approach to financial policy. But what exactly does this involve?

A first step is to observe that institutions are connected in ways that are unanticipated. We understand from the failure of Lehman that greater attention needs to be paid to “interconnectedness” rather than just “size” as an element of what makes an institution systemically
important. We also understand that market infrastructures have an implication for system risks as demonstrated by the over-the-counter credit default swap market that allowed counterparty uncertainty to breed. In this context, the Fund, alongside the BIS and FSB, has developed a framework to help identify systemically important institutions and markets using a broad set of criteria.

The regulation of systemically important institutions has triggered significant discussion. There appears to be an emerging consensus that such institutions should be subject to increasing levels and quality of capital that reduces the need for bailouts, and gives shareholders a greater incentive to monitor the risk taking of these institutions. Improved disclosures and governance arrangements should help assist this monitoring. Nonetheless, since bank failure cannot be prevented, these institutions should periodically submit to their national authorities a plan for their orderly resolution particularly because they are indeed “too important to fail.”

The issue of systemically important institutions has also raised other questions:

How should we define the regulatory perimeter around systemically important institutions, so that regulators have adequate information and tools at their disposal to oversee the most important players in the financial system, and to prevent regulatory arbitrage?

How do we avoid designating a class of institutions that are too important to fail, and creating a host of moral hazard problems?

How do we discourage unfettered increases in the size of institutions?

Systemic liquidity management is another dimension of the macroprudential approach that we need to consider. The notion is that central bank policies need to change, perhaps permanently, to accommodate the externalities caused by private under-provision of liquidity during times of stress.

The macroprudential dimension to policy making should also adopt policies to help mitigate procyclicality or the element that
makes the amplitude of cycles larger. While most of the discussion revolves around countercyclical capital requirements and provisioning rules, we cannot forget accounting rules and regulations, and, as I mentioned earlier, private sector risk management and compensation schemes.

It is also necessary to improve cooperation and coordination across national borders. This is relevant for the regulation, supervision and resolution of cross-border financial institutions. Having a separate insolvency code for financial institutions that facilitates orderly resolutions would help in this regard. The latest upgrade of supervisory colleges involving the supervisors of the key countries in which a global institution operates opens the way for an improvement in coordination.

**Getting Things Just Right**

So having considered both the micro- and macroprudential approaches to regulatory reform, I would like to turn to my final question: What will be the growth impact of all the regulatory changes we are proposing, when properly considered in a general equilibrium context? In moving to a new, and hopefully safer environment, the benefits to a less risky system are clear—fewer crises and financial institution failures, more stable financial markets, and, most likely, more sustainable, less volatile economic growth. However, there may be a cost: the long-term growth path of the economy could be lower. But this need not be the outcome. The financial sector may have gotten too big, and some of its activities may provide little value to the real economy. If so, the reallocation of valuable human resources and capital to other sectors of the economy may ultimately promote higher growth in other sectors, and offset the lower growth from the financial sector. This is an issue that requires further study.

Clearly, in moving to get things just right, we have to avoid two risks:

—the risk that our reforms overburden the financial system with excessive regulation and unintended consequences; and

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—the risk that the reform agenda is too timid or is stalled, as the financial sector and the real economy begin to normalize and the momentum for reform loses steam.

In closing, let me say that we face many difficult questions as a result of the crisis. It is certainly an exciting time to be an economist and a policymaker as we grapple with these complex issues. This is a challenge because we have to get some of the answers right as we confront this once in a lifetime challenge.

Thank you.
Introduction

I thank the IMF Legal Department, Japanese Ministry of Finance and Financial Services Agency, and Bank of Japan for sponsoring this event. It is an honor to be here.

For starters, I am not a lawyer. But in many years at the Treasury Department, I have helped shape U.S. policy toward the IMF, the various “G” groupings such as the G-7 and G-20, and on international financial regulatory matters. I would like to offer some policy perspectives on international efforts to strengthen the global economic and financial system, which will hopefully serve as a good kickoff for this conference. I will focus on the global response to restore growth and the road ahead; the role of the IMF; and current efforts to strengthen financial regulation and supervision across the globe.

Restoring Global Growth

In the last year, we witnessed the deepest economic collapse in decades. But whereas during the Great Depression, the downturn persisted for a decade, only a year after the events of last autumn, financial markets have stabilized and a modest recovery is underway. We cannot be complacent—unemployment remains unacceptably high, financial stresses abound, and individuals and businesses must still restore the health of their balance sheets.

But the response to the crisis has been extraordinary. Seven decades ago, countries chose the path of bilateralism and isolationism, encapsulated in the protectionist beggar-thy-neighbor policies of the 1930s. In the current crisis, countries chose the path of multilateralism, avoided recourse...
to protectionism, and instead worked together to undertake enormous and cooperative macroeconomic stimulus and financial repair efforts.

In the United States, we did our part—through the strong efforts of the Federal Reserve; through the bold financial stabilization initiatives of the current and prior administrations, including the transparent stress tests under the Supervisory Capital Assistance Program; and through fiscal stimulus pursuant to the American Recovery and Reinvestment Act.

Others did their part as well. For example, IMF data show that in the fourth quarter of 2008 and first quarter of 2009, when global GDP fell at a 6.7 percent annual rate, the G-20 undertook a massive discretionary fiscal stimulus to support demand, equal to 2 percent of 2009 GDP. Monetary policy became increasingly and highly accommodative, while countries recapitalized financial institutions, ensured no systemic institution failed, and provided liquidity support to unclog markets and guarantee inter-bank flows.

In a world of nation-states, it is up to the sovereign to act. But strong economic and financial interconnections among countries, the greater dispersion of global economic weight, and the common threat posed to all required a concerted global response. G-20 Finance Ministers and Central Bank Governors, and G-20 Leaders, developed this response. G-20 cooperation will remain essential for the future. Let me highlight two challenges where IMF support will be vital.

First, G-20 countries will need to design exit policies, once recovery is assured, in order to unwind the extraordinary government support provided during the crisis. The Fund has already begun important work to advance our thinking on this front. Last week, the Fund’s Managing Director rightfully referred to a delicate balancing act, noting that a premature exit runs the risk of killing the recovery, while waiting too long to exit could lead to the next crisis. Policymakers in the U.S. and around the world are highly cognizant of these risks and will work together closely to get the balance right.

Second, the G-20 countries must cooperate to achieve a durable recovery, avoiding past excesses. As U.S. consumers save more and as our government embarks on a path of fiscal consolidation, economies with large and sustained surpluses must shift growth towards domestic
demand and reduce reliance on exports. Otherwise, global growth will simply be lower. It would neither be healthy nor realistic for the global economy to rely on a single engine of import demand going forward.

One of the key outcomes from the Pittsburgh Summit was the commitment by G-20 members to a Framework for Strong, Sustainable, and Balanced Growth. In St. Andrews, Scotland, G-20 Finance Ministers and Central Bank Governors set out a detailed process and timeframe for achieving the Framework’s goals, and launched a new consultative mutual assessment process to evaluate whether individual country policies will collectively deliver our agreed objectives.

The IMF has a critical role to play in this mutual assessment process by evaluating whether policies pursued by individual G-20 countries are consistent with a more sustainable and balanced trajectory for the global economy and, if needed, recommending how policies could be adjusted to improve the global outlook. We look forward to working with the IMF on the Framework. What the United States and other G-20 countries ask of the IMF, and frankly what is needed, is candid, transparent and independent assessments to support this process.

Ultimately, it is up to individual countries to deliver the policies needed to achieve strong, sustainable, and balanced growth. But the fact that all of the G-20 countries signed up to this detailed process, recognizing that policy formulation in their countries will need to take broader global interests into account to avoid the booms and busts of the past, demonstrates the strong collective resolve to tackle global challenges going forward with the same force that we brought to overcoming the crisis.

**Role of the IFIs**

Turning to the IFIs, this crisis highlighted that the IMF has lost none of its agility in reacting quickly as a first responder and in serving as the lynchpin of the international monetary system.

The IMF created the Flexible Credit Line (FCL), responding to the demand for a higher access, faster disbursing Fund instrument for “countries with very strong fundamentals, policies, and track records of policy implementation.” It increased its capacity to provide precautionary support to help forestall crises. It revamped its low-income
lending framework and sought to provide financing for the crisis in more user-friendly ways to countries. Today, non-concessional financing, including through the FCL, equals roughly $164 billion, compared with about $2 billion just before the crisis.

The G-20 also endorsed President Obama’s proposal at the London Summit to enlarge and expand the IMF’s New Arrangements to Borrow (NAB) by up to $500 billion. This announcement helped staunch a serious capital drain and contagion risk facing emerging markets. Last week, the NAB creditors put the finishing touches on the expanded and enlarged NAB. Not only was more than $500 billion raised, the agreement ensures that the IMF has a multilateral facility, modernized to reflect global capital flows, to act as a shock absorber against tail risks to the system.

There is much discussion now on further evolving the Fund’s toolkit to better meet members’ needs. In particular, recent discussion has centered on the desirability and feasibility of the Fund providing “insurance” to countries through contingent financing, swaps or other instruments.

We look forward to working with the Fund with an open mind to study this question and to hearing the views of the membership. There may well be worthy and useful ideas for the Fund to come from a study. Central to this argument is that Fund provision of insurance would discourage countries from accumulating excess reserves. Behind this argument lie complex assumptions that will require a full, transparent exploration.

First, the international community needs a much better understanding of the rationale for reserve accumulation. Countries do accumulate reserves as a buffer against shocks. But as stated in a recent “IMF Staff Position Paper,” reserve holdings can also be a “byproduct of efforts to limit nominal exchange rate appreciation.”

Second, the jury is still out on the question of reserve adequacy. If we are to propose new facilities to discourage “excess” reserve accumulation, then we must understand what qualifies as excessive. Historically, the IMF targeted country reserves equal to 3 months’ imports. But in light of the Asian crisis and increasing integration of emerging
markets into global capital markets, analysts focused on the Greenspan/Guidotti rule, that reserves should equal 100 percent of external debt maturing over the coming year.

In the wake of the current crisis, some have suggested an even greater level of reserves is needed as a shock absorber, owing to ever-greater capital mobility, which can quickly reverse in a crisis. However, at a certain point, the cost of incremental reserves can become prohibitive for the country and for the world. The Fund should undertake a comprehensive review of reserve adequacy in light of the crisis before rendering judgments on insurance.

Third, questions about “insurance” and reserve needs also relate to exchange rate regimes. On the one hand, flexible exchange rates have not dampened reserve demands as much as early proponents believed. But large emerging market countries increasingly integrated into the global system should adopt more market-oriented and flexible regimes consistent with underlying fundamentals. Such flexibility is critical for better controlling monetary policy in line with domestic circumstances, rather than those of an anchor country currency such as the United States, and to enable the exchange rate to act as a proper pricing signal to economic agents with respect to allocating resources between the external and domestic sectors.

Historically, the international monetary system placed asymmetric pressure on deficit countries to adjust, rather than surplus countries. But as discussed above, the current crisis has highlighted the need to overcome deflationary bias and promote strong, sustainable, and balanced growth.

In short, insurance cannot substitute for a rebalancing of global demand and tough and vigorous IMF surveillance, in particular over members’ exchange rate policies.

As part of these debates, the Fund will need to canvass its members assiduously—would IMF insurance facilities truly address the underlying motivation behind excess reserve accumulation; are there members who would actually use such a facility at this time and if so, what features would they find attractive; what would such facilities imply for resource demands and do creditor countries agree; what would such
facilities mean operationally for the IMF, for example, with respect to pricing and ex ante and ex post conditionality?

In advancing these debates on the Fund’s mission and mandate, we cannot lose sight of the pressing need to modernize the IMF’s governance structure to reflect the changing dynamics of the world economy. This means giving greater representation to dynamic emerging market and developing countries. Progress was made on this front in 2006 and 2008, and at Pittsburgh when G-20 Leaders committed to a shift in quota share of at least five percent to dynamic emerging market and developing countries as part of the quota review ending in January 2011. The year ahead will be critical in terms of implementing the specific steps to achieve the promised shift.

Financial Regulatory Consequences of the Crisis

The origins of the largest financial crisis in generations are complex and will be written about for many years to come. But while historians will have the benefit of time to reflect, policymakers faced an urgent need for action. Useful assessments by the IMF in its Global Financial Stability Report (GFSR) and by the BIS in its annual reports informed our efforts in real-time. These assessments underscored the many macroeconomic and microeconomic dimensions to the financial crisis.

• First, global macroeconomic drivers, including the uneven distribution of global demand and associated large persistent current account imbalances, set the stage.

• Second, the interaction between imbalances and their financing resulted in large capital flows that depressed interest rates, setting off a reach for yield, which in turn spawned the development of complex and opaque instruments, carry trades, increased leverage, and other manifestations of effervescence.

• Third, these dynamics combined with regulatory and supervisory failures.

In hindsight, neither market participants nor regulators adequately appreciated the risks inherent and embedded in complex financial
products, let alone the aggregation of these risks across the system. Supervisors and regulators, who are always behind the markets, were further hindered by their firm-by-firm approach that deprived them of a more encompassing macro perspective of the forces at play.

As the crisis broke out in the fall of 2007, the United States put forward an international strategy to tackle the roots of the crisis, which was quickly embraced by the G-7.

Our strategy was premised on several realities:

- First, regulation is a national activity and the responsibility for sound regulation begins at home.
- Second, today’s financial system is global and financial stress can spread easily and quickly across national boundaries.
- Third, the benefits of dynamic and efficient global financial markets should be preserved while at the same time these markets must be soundly regulated.
- Fourth, the crisis revealed micro- and macroprudential flaws that needed tackling.

So, how did we address these realities? Of course, we do not live in a day and age in which a “global” regulator can be the answer. National regulation is here to stay, but it also should be more consistent and convergent across the globe. Thus, national regulators, working through standard-setting bodies, such as the Basel Committee, IOSCO, and IAIS strengthened their collaboration. Also, the Financial Stability Forum, now Financial Stability Board (FSB), was seen as a critical element of the response and it was expanded to include the entire G-20. The United States has encouraged the FSB to loosely coordinate the activities of the standard setting bodies, while respecting their independence, to ensure that needed reforms to the global financial system are undertaken in a timely manner.

But the FSB’s focus is primarily microprudential in nature. The IMF, in contrast, as the world’s central macroeconomic institution, is responsible for bringing a more macroprudential focus to bear in
international discussions and we underscored the Fund should be a leader in defining and undertaking this task. Indeed, the growing need for a macro focus to supervision is increasingly evident, as seen in the EU discussion of a European Systemic Risk Board and in the U.S. discussion of a Financial Services Oversight Council.

Needless to say, in playing their critical roles, both the IMF and FSB should operate in line with their respective mandates and closely collaborate, particularly in addressing the inevitable overlaps that arise.

The strategy to strengthen the international financial system is working, in my view, and the United States is pursuing a vigorous agenda of regulatory reform at home in line with the international strategy. We are working with the G-20 to subject non-bank financial institutions, credit rating agencies, and hedge funds to greater oversight. At the Pittsburgh Summit, the G-20 countries agreed to focus further on building high-quality capital, reducing leverage, mitigating procyclicality in financial regulations, strengthening adherence to sound compensation practices, improving the functioning of over-the-counter derivatives markets, and strengthening national resolution systems and the mechanisms to address cross-border resolutions of systemically important financial institutions. The challenge each G-20 nation faces now is how to implement this agenda domestically.

The IMF has played a vital role in advancing the G-20’s agenda. The IMF, with its focus on surveillance, and the FSB are conducting and refining their early warning exercises on the build-up of macroeconomic and financial risks. Further, the IMF, in close coordination with the FSB and others, has been drawing lessons from the current crisis. It has furnished reports to the G-20 on issues such as the financial crisis and information gaps and conceptual and analytical approaches to the assessment of systemic importance, while work is underway related to strengthening national and cross border resolution frameworks and measures to recoup the cost of financial repair.

I have already mentioned the key role the GFSR played in the lead up to the crisis. Since markets work best when they have full access to information, transparency is critical. Earlier, I mentioned the transparency of the “bottom up” U.S. stress tests and their contribution to helping U.S. firms raise private capital and shore up confidence. The IMF

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has also greatly helped facilitate transparency through its “top down” GFSR exercises by assessing the capital needs, earnings, and write-downs of banks in several of the world’s most advanced regions. These assessments are carefully reviewed by governments and market participants and have rightly earned great praise. We encourage countries to work with the IMF to develop more granular, transparent assessments.

The Fund’s Financial Sector Assessment Program (FSAP) continues to make a key contribution to raising standards and bridging the gap between national and global spheres. In addition to its assessments of financial sector stability, the FSAP encompasses an evaluation of compliance with the financial sector standards and codes developed by international standard setters. All G-20 countries have committed to undertake an FSAP and the United States is currently undergoing one. IMF financial sector assessments have also facilitated raising standards in offshore financial centers and combating money laundering and the financing of terrorism. Looking forward, FSAPs and related Reports on the Observance of Standards and Codes (ROSCs) will be the key input to the FSB peer review process, launched by G-20 Leaders, to strengthen adherence to international prudential regulatory and supervisory standards.

As the world’s central macroeconomic institution, we expect the IMF to continue strengthening its efforts to bring a strong macroeconomic focus to supervision and regulation.

**Conclusion**

In conclusion, we have come a long way since the onset of market turbulence two years ago, and particularly last autumn. But much more remains to be done. I cannot emphasize enough the importance of preserving the strong international cooperation that has been a driving force behind our swift and effective response to this global crisis. The job of building an effective international economic system for the 21st century is far from finished. From rebalancing the global economy to preventing financial instability and addressing global threats, the nations represented at today’s conference along with the IFIs, must continue their close cooperation if we are to secure our economic goals and objectives. We remain especially committed to working multilaterally through the G-20 and IMF to advance our shared agenda.
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Although the overall objective of the International Monetary Fund (the “Fund”)—the promotion of international monetary and financial stability—has remained constant over the past 60 years, the role it has played to achieve that objective has evolved considerably in light of changes in the global economy.1

The purposes of the Fund enumerated in Article 1 of the Articles of Agreement are, in fact, more specific:

(i) To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.

(ii) To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.

(iii) To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.

(iv) To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.

(v) To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.

(continued)
A Somewhat Stylized Overview:

- When it was established, the Fund performed primarily a regulatory function. Under the original Articles of Agreement, each member maintained the value of its currencies relative to the currencies of other members, and the Fund was charged with overseeing the performance of these obligations. While the Fund also had financial powers, these powers could be seen as supporting this regulatory function: by making its resources available to meet balance of payments problems—problems which would put pressure on a member’s exchange rate—the Fund helped members adhere to their obligations.

- Following the collapse of the par value system in the early 1970s, the Fund relied increasingly on its financial powers. The steady growth of private capital flows to emerging market economies, while generally beneficial, generated periods of instability when these economies borrowed—sometimes with the encouragement of their creditors—more than they could repay. By providing financial support for members’ economic adjustment programs during these periods, the Fund facilitated the normalization of relations between sovereign creditors and their creditors, a process which sometimes necessitated the restructuring of unsustainable debt.

- The Fund also exercised its financial powers in other contexts. Following the collapse of the former Soviet Union, Fund-supported adjustment programs played a critical role in the integration of Central and Eastern European countries into the global economy. Separately, since the mid-1970s, the Fund has provided concessional financing to address the specific types of balance of payments problems experienced by low income countries.2

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(vi) In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balances of payments of members. The Fund shall be guided in all its policies and decisions by the purposes set forth in this Article.”

2 Such concessional financing is currently provided under a framework where the Fund administers, as trustee, resources contributed by donors to low-income members; see “Instrument to Establish the Poverty Reduction and Growth Facility and Exogenous Shocks Facility Trust” in Selected Decisions and Selected Documents of the International Monetary Fund, Thirty-Second Issue, Washington, D.C. December 31, 2007 (hereinafter Selected Decisions), pages 143–174.

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During the period of 2004–2008, the Fund took advantage of the relatively benign conditions in the global financial markets to reflect on whether, given the evolution of the global economy, it is adequately prepared to address future challenges. During this unusual period of introspection, a consensus emerged around several themes. First, the Fund needed to update the role it performed in overseeing members’ exchange rate policies, referred to as its “surveillance function.” Second, if it wished to continue to remain relevant to its emerging market members, it also needed to modify the design of its financial facilities. Third, the system the Fund relied upon to finance its administrative expenditures would require reform in order to place its own finances on a sustainable footing. Finally, and as with other international organizations established in the wake of the Second World War, the Fund’s governance structure needed to be updated to reflect the enhanced role of emerging markets in the world economy.

A considerable amount of progress has been made with respect to these issues. Shortly before the 2008 Spring meetings of the International Monetary and Finance Committee, the Fund approved two separate amendments to the Articles of Agreement that would modernize both its income and governance structure. In addition, in the summer of 2007, the Fund overhauled the legal framework it relies upon to assess members’ exchange rate policies.

The financial crisis that swept through the global economy in the fall of 2008 further accelerated the reform process. In the lending area, a key breakthrough has been the establishment of the Flexible Credit Line, which has enabled the Fund to commit large amounts of financing to members on a precautionary basis. In other areas, however, the crisis has only served to underline the need for further reform. Perhaps

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most importantly, recent events demonstrate that the Fund’s capacity to fashion and implement global responses to global problems is likely to require further reforms in its governance structure, with a view to giving emerging markets a greater voice in the decision making process.

This Article discusses the reforms that have taken place to date and their implications for the Fund and its membership going forward.

Revising the Legal Framework for Surveillance

A. Background

Article IV of the Articles sets forth obligations of members regarding both their exchange rate policies and those domestic policies that have an impact on their exchange rates. (See Box 1.)

The current text of Article IV was incorporated into the Articles by the Second Amendment of the Articles of Agreement in 1978 (the “Second Amendment”). Prior to the Second Amendment, a member had to express the value of its currency in terms of gold, either directly or through the U.S. dollar. A member who changed the value of its currency beyond a certain limit without the concurrence of the Fund would become ineligible to use the Fund’s resources. Under the Articles, the Fund could concur only if it was satisfied that the change was necessary to correct a “fundamental disequilibrium.”

With the adoption of the Second Amendment, members were given flexibility with respect to their choice of exchange arrangement, which could include, for example, a floating exchange rate. However, it did not abandon the principle that exchange rates are a matter of international concern. In this respect, the present text of Article IV represents a delicate political compromise among the Fund’s members and, as is sometimes the case with language that is the product of negotiation, a number of terms are vague and obscure.

４For the consolidated text of the Second Amendment and a commentary on its provisions, see “Proposed Second Amendment to the Articles of Agreement, a Report by the Executive Directors to the Board of Governors,” IMF (1976).

5 Article IV, Section 5(a) of the original Articles of Agreement.
In 2006, and as means of facilitating a review that led to the adoption of the 2007 Decision (discussed below), the Fund’s Legal Department prepared a paper that analyzed the legislative history of Article IV, (hereinafter “The Legal Department Paper”). This analysis identified


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several principles that guided the drafters of Article IV, which may be summarized as follows:

First, Fund members should no longer resist an adjustment in their exchange rates if such an adjustment is necessary in light of underlying economic and financial conditions. There was a concern that the fixed exchange rate system had been excessively rigid, with members failing to adjust even in circumstances of fundamental disequilibrium. This rigidity was perceived as having undermined the sustainability of the overall system. Accordingly, by allowing exchange rates to move in response to underlying conditions, the Second Amendment was designed to enhance the long term stability of the system of exchange rates.

Second, the Second Amendment recognized the important relationship between domestic policies and exchange rates. The view was taken that the overall stability of the exchange rate system would be enhanced by the pursuit of appropriate domestic policies, e.g., by “fostering orderly underlying conditions for economic and financial stability.” Accordingly—and unlike the text of the original Articles—the Second Amendment introduced obligations with respect to members’ domestic policies. However, as can be seen from Box 1, these obligations (set forth in Article IV, Sections 1(i) and 1(ii)) are of a particularly “soft” nature, taking into account that the principle that members should not have to give up a significant degree of sovereignty with respect to policies that, while they may have an international impact, are of a domestic nature.

Finally, members should avoid pursuing exchange rate policies that pose particular problems for other members or the system more generally. Accordingly, a specific obligation under Article IV, Section 1 is the requirement that members “avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage.” Unlike the obligations with respect to domestic policies, members’ exchange rate obligations are of a “hard” nature, which was considered appropriate given their direct international impact. As will be discussed below, the potential applicability of the obligation to avoid manipulation is constrained by the need to determine intent.8

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7 Articles of Agreement, Article IV, Section 1(iii).
8 Legal Department Paper, pages 1-2.
As noted in the Legal Department Paper, the present Article IV also sets forth obligations for the Fund. Specifically, under Article IV, Section 3(a), the Fund is required to oversee the international monetary system to ensure its effective operation and to oversee the compliance of each member with its obligations under Article IV.9 Given the relative importance of exchange rate obligations under Article IV, Section 1, the Articles specifically direct the Fund to exercise firm surveillance over the exchange rate policies of members and to adopt specific principles for the guidance of members with respect to those policies.10 To meet this obligation, the Fund conducts consultations with members, normally on an annual basis, which are generally referred to as “Article IV Consultations.”11

B. The 2007 Decision

The surveillance decision adopted in 2007 (the “2007 Decision”) establishes a comprehensive and unified legal framework designed to guide the Fund in the performance of its surveillance responsibilities under Article IV.12 It replaces the decision adopted by the Executive Board in 1977, which was generally recognized as being incomplete and outdated. The 2007 Decision may be described as comprising three elements. First, it provides further clarity regarding the meaning of members’ obligations under Article IV to avoid exchange rate manipulation. Second, it updates the principles that are designed to provide guidance to members’ other obligations regarding exchange rate policies. Finally, it identifies the domestic policies of members that the Fund will assess for purposes of conducting surveillance. Each of these elements will be discussed in turn. This section also briefly discusses the application of the decision to members that form part of a currency union.

1. Exchange Rate Manipulation

A key achievement of the 2007 Decision is that it provides guidance as to the meaning of the relatively complex and obscure text of Article IV, Section 1(iii), which requires members to “avoid

9 Articles of Agreement, Article IV, Section 3(a).
10 Articles of Agreement, Article IV, Section 3(b).
11 The procedures for Article IV Consultations are set forth in Selected Decisions, pages 50-52.
12 See Selected Decisions, pages 24-33.

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manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members.” While it was not possible to provide clarity with respect to all elements of this provision (e.g., what constitutes manipulation of the “international monetary system”), agreement was reached on a sufficient number of concepts to make the provision operational for the first time since its adoption in 1978.13 Specifically:

(a) First, “manipulation” of the exchange rate is only carried out through policies that both target and affect the level of an exchange rate. Policies that have an effect on the exchange rate but are not directed at it cannot give rise to manipulation. However, it is recognized that manipulation can be carried out in a number of different ways. For example, it could occur through excessive intervention in the exchange markets or through the imposition of capital controls. Importantly, there is agreement that manipulation would not necessarily require movement of the exchange rate. It may also be designed to prevent movement in the rate.

(b) Second, even if it is demonstrated that a member is “manipulating” its exchange rate, the member would only be acting inconsistently with Article IV, Section 1(iii) if the Fund were to determine that such manipulation was being undertaken for the purpose of either (i) preventing effective balance of payments adjustment or (ii) gaining an unfair competitive advantage over other members. It was agreed that a member could only be considered to be manipulating its exchange “to gain an unfair competitive advantage” if two elements were found to be present. First, it would need to be determined that the member was pursuing these exchange rate policies for purposes of securing fundamental exchange rate misalignment in the form of an undervalued exchange rate; the concept of “fundamental exchange rate misalignment” corresponding to a situation where a member’s underlying current account (which

13 The guidance provided the Executive Board regarding the meaning of Article IV, Section 1(iii) is set forth in the Annex to the 2007 Decision; see Selected Decisions, pages 33, 34.
comprises trade and services) differs from its equilibrium rate.\textsuperscript{14} Second, it would also need to be demonstrated that the member was seeking to secure such misalignment for the purpose increasing net exports.\textsuperscript{15}

(c) Third, as is evident from the above analysis—and indeed from the text of Article IV, Section 1(iii) itself—it is necessary for the Fund to determine intent, which makes the provision more difficult to apply. It was agreed, however, that this did not mean that the Fund would be required to simply accept the representation made by the member regarding the purpose for its actions. Rather, while such a representation would be given the benefit of any reasonable doubt, the Fund would take into account all other available evidence regarding members’ policies, i.e., the Fund would make its own independent and objective assessment of intent.\textsuperscript{16}

2. Principles on Exchange Rate Policies

As is discussed above, in the context its exercise of surveillance over the exchange rate policies of members, the Articles require the Fund to adopt specific principles for the guidance of members with respect to those policies. Although an important component of the 2007 Decision is an update of these principles, progress on this question required the resolution of a number of legal questions. In particular, since it was recognized that the principles had to take into account the scope of members’ obligations in this area, the question arose as to what obligations—other than the obligation relating to manipulation, discussed above—were applicable to exchange rate policies. Moreover, to the extent that other


\textsuperscript{15} Importantly, the 2007 Decision does not attempt to provide guidance with respect to the alternative basis for a violation of Article IV, Section 1(iii), namely, where a member manipulates its exchange rate “in order to prevent effective balance of payments adjustment.”

\textsuperscript{16} As noted by the Legal Department Paper, this approach is consistent with the term “a balance of payments purposes has been interpreted in the context of Fund arrangements.” See Legal Department Paper, infra, at pages 10.
obligations existed, what implications would the nonobservance of a principle have on a member's adherence to these obligations? The advice provided in the Legal Department Paper may be summarized as follows:

(a) With respect to the specific obligations that are enumerated in Article IV, Section 1(i)–(iv), the injunction against exchange rate manipulation is the only obligation that specifically applies to “exchange rate policies,” which the Fund has always understood as being limited to policies that are imposed for balance of payments reasons. As is evident from both the text of the provision and its legislative history, the obligations set forth in Article IV, Section 1(i) and (ii), all apply to domestic policies. Regarding Article IV, Section 1(iv), which requires members to “follow exchange policies compatible with the undertakings” of Article IV, Section 1, the meaning of this provision is relatively obscure and the legislative history provides very little illumination. Consistent with general principles of interpretation, it may be argued that the term “exchange policies” should be understood as meaning something other than the term “exchange rate policies,” perhaps policies regarding the use of exchange controls.

(b) Notwithstanding the above, the general obligation to collaborate under Article IV provides a basis for the Fund to specify exchange rate policy obligations that are additional to those specifically identified in Article IV, Section 1(i)–(iv). This conclusion takes into account the text of the relevant provision. As can be seen from Box 1, the sentence that links the general collaboration obligation to the specific obligation reads “In particular, each member shall …” Based on the use of the term “in particular” in this sentence, it is reasonable to conclude that the specific obligations which follow, although they represent particularly important ways in which the general collaboration obligation may be fulfilled, are not the only measures needed to meet this general obligation; i.e., the general obligation is broader in scope than the sum total of the four specific obligations. A contrary interpretation—one which would conclude that the specific obligations exhaust the general obligation—renders the general obligation redundant, contrary to general principles of statutory construction. Moreover, the concept of using the general obligation of collaboration to require members to take more specific actions was relied upon by the Fund after the breakdown of the par value system but prior to the adoption of the Second Amendment.
In light of the above, it would be legally feasible for the Fund to rely upon the general collaboration obligation set forth in Article IV, Section 1 as a basis for requiring that members take—or refrain from taking those actions that, while not included in the specific obligations listed in Article IV, Section 1, are considered by the Fund to be necessary—in light of changing circumstances—to assure orderly exchange arrangements and promote a stable system of exchange rates. It was recognized, however, that the Fund could—relying again on the practice followed prior to the Second Amendment—stop short of identifying such actions as an obligation but, instead, give it the status of a nonbinding “recommendation.”

Taking into account the above analysis, the Executive Board established a new principle which would have the legal status of a nonbinding recommendation. This principle provides that “a member should avoid exchange rate policies that result in external instability.” The concept of “external stability” merits some discussion since it is critical not only to the new principle but also to the 2007 Decision more generally. The central thesis of the 2007 Decision is that members satisfy their obligations under Article IV to collaborate in the promotion of a “stable system of exchange rates” by promoting their own “external stability,” which is defined as “a balance of payments that does not and is not likely to give rise to disruptive exchange rate movements.” This definition seeks to capture the concept that the Fund is concerned not only with the stability of the member in question but also the effect of the member’s external position on the stability of other members.

In light of the definition of “external stability” described above, the new principle introduced by the 2007 Decision covers a broader range of situations than “exchange rate manipulation” in a number of respects. First, there is no requirement that the Fund demonstrate intent: if the exchange rate policies—whatever their intent—result in external instability, there is a problem. Second, the concept of “external

17 As noted by the Legal Department Paper, this approach was followed after the collapse of the par value system but prior to the Second Amendment, relying on Article IV, Section 4(a) of the original Articles of Agreement, which required members to “collaborate with the Fund to promote exchange stability”; see Legal Department Paper, pages 10-11.
instability” is broader than the concept of “fundamental misalignment in the form of an undervalued exchange rate” (which, as noted above, is an important component of the definition of exchange rate manipulation). Specifically, an unstable balance of payments position—unlike fundamental misalignment—may arise from either the current or capital account. Moreover, it may manifest itself as either an overvalued or undervalued exchange rate. In one respect, however, the activity precluded by the new principle is more limited than exchange rate manipulation. While, in the latter case, it is not necessary to demonstrate that fundamental misalignment actually exists (only that it is intended), nonobservance of the new principle will only occur if external instability exists.

When the Fund’s Executive Board approved the adoption of the above principle, a number of Executive Directors sought—and received—assurances regarding the implications of a determination by the Fund that a member had not observed this principle. It was generally recognized that, upon such a determination, the member may need considerable latitude in terms of when and how it brings itself into conformity with the principle. To that end, the 2007 Decision specifically provides “[i]n circumstances where the Fund has determined that a member is implementing policies that are not consistent with these Principles and is informing the member as to what policy adjustments should be made to address this situation, the Fund will take into consideration the disruptive impact that excessively rapid adjustment would have on the member’s economy.” Separately, and in light of the recognition that the Fund could transform the new exchange rate principle from a recommendation to an obligation, Executive Directors sought some assurance that such a step would not be taken without adequate procedural safeguards. To that end, the 2007 Decision provides that a determination by the Fund that a member is not following one of these recommendations “would not create a presumption that members is in breach of its obligations under Article IV, Section 1.” Moreover, the relevant staff paper pointed out that the Fund would need to take several steps before a member that was not following a recommendation could be found in breach of the general obligation of collaboration.¹⁸ First, the Fund would need to

¹⁸ See Review of the 1977 Decision on Surveillance over Exchange Rate Policies—Further Considerations pages 22-23.
adopt a policy of general applicability—i.e., not specific to a particular member—that provided that the conduct identified in the recommendation was an obligation under the Articles. This decision would need to be general in application in light of the principle of uniformity of treatment of members: the Fund would be precluded from requiring certain conduct from one country and only recommending it to another. Once such a decision was adopted, members would need to be given adequate time to bring their policies in conformity with the new obligation before the Fund determined the member to be in breach of its obligations.

3. Domestic Policies

The original 1977 Decision did not provide guidance to members with respect to domestic policies, notwithstanding the fact that, as noted earlier, Article IV makes it clear that such policies are a matter of legitimate interest to the Fund. While, as a matter of practice, Article IV consultations with individual members typically include an analysis of domestic policies, a key objective of the 2007 Decision was to articulate explicit guidance to the entire membership in a manner that ensured both (a) adequate focus (there had been criticism that Fund coverage of domestic policies had, on occasion, been excessively broad) and (b) uniformity of treatment among members. Several aspects of the 2007 Decision’s treatment of domestic policies should be highlighted. First, in terms of the appropriate objectives of such policies, the 2007 Decision states that “a member promotes external stability when it pursues policies that promote domestic stability.” Accordingly, provided that a member’s domestic policies are promoting domestic stability, the Fund could not require the member to change these domestic policies in the interest of external stability. Second, consistent with the text of Article IV, Section 1(i) and (ii), the concept of “domestic stability” recognizes the imperative of achieving an appropriate balance between economic growth and price stability. Finally, with respect to the range of domestic policies that will generally be assessed by the Fund, the 2007 Decision provides that while monetary, fiscal and financial sector policies will always be the subject of Fund surveillance, other policies will be examined “only to the extent that they significantly influence present or prospective external stability.” This last feature was designed to encourage greater focus during the Article IV Consultation process.
4. Currency Unions

During the discussions that led to the adoption of the 2007 Decision, the question arose as to how the conceptual framework set forth in the decision would be applied to members that form part of a currency union. From a legal perspective, the issue is relatively straightforward. The obligations of Fund members under the Articles of Agreement are not modified when they become members of currency unions. Accordingly, while certain policies that are relevant to the performance of a member’s obligations under Article IV may be delegated by the members to union level institutions, individual members remain accountable to the Fund for those policies and fulfill their individual obligations by ensuring that union level institutions act consistently with these obligations. When conducting surveillance under Article IV, the Fund considers the policies of the union-level institutions as being conducted on behalf of the currency union’s members.

From an economic perspective, however, it became clear during the discussion of the 2007 that application of the framework to currency unions presented some challenges. First, it was necessary to distinguish between those policies relevant to Article IV that are carried out at the union level and those that are carried out at the individual member level. Although the allocation may differ depending on the union in question, it was recognized that exchange rate and monetary policies will generally be carried out at the union level, while other financial and fiscal policies may be carried out at the level of the individual members. Accordingly, the content of Fund discussions with individual members and union institutions would be shaped by this allocation. Second, the 2007 Decision specifically recognizes that, given the definition of external stability—“a balance of payments position that does not, and is not likely to, give rise to disruptive exchange rate movements”—this concept must be understood as relating to the balance of payments of the union, as it is only at this level that disruptive adjustments in exchange rates can arise. Accordingly, when union level institutions implement policies that promote the external stability of the union, such policies would be consistent with the obligations of individual members under Article IV. When evaluating the domestic policies implemented by the individual union members, the Fund would assess whether these policies promote the domestic stability of the individual member concerned. If so, these
policies would be considered to be promoting the external stability of the union.19

**Governance Reform**

Although discussion of the merits of changes in the Fund’s governance structure is hardly new, over the past year calls for reform in this area have grown in urgency.20 There has been a concern that failure by the Fund to take meaningful action to address perceived inequities and inefficiencies in the decision-making process could undermine its legitimacy and effectiveness. It is possible to identify several different strands of criticism.

First, there is concern that the Fund has failed to fully adhere to the key principle that guides the determination of a member’s voting power in the Fund; namely that of relative economic weight. Emerging market economies have been particularly vocal in their criticism that the size of “quotas”—which determine both the size of their voting power and the level of access to Fund resources—no longer reflects their relative size in the global economy. After a series of financial crises in Asia and Latin America where Fund decisions played a major role in guiding the economic policies of these countries, there is a growing perception that, unless steps were taken to increase the influence of the countries in the Fund’s decision making process, they would rely, instead, on their own regional arrangements.

Second, a separate, but related, issue relates to perceived problems with the size and composition of the Executive Board, which makes most key strategic and operational decisions and, accordingly, is the primary organ through which a member’s voting power is expressed. While any steps taken to increase the voting power of emerging market

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19 For further analysis of the implications of the 2007 Decision for currency unions, see Companion Paper, pages 10-11.
20 For a discussion of reform proposals that recently have been, see e.g., Edwin Truman, “Rearranging IMF Chairs and Shares: The Sine Qua Non of IMF Reform” in “Reforming the IMF for the 21st Century,” Institute for International Economics Special Report No. 19, April 2006, see also Ngaira Woods and Dominico Lombardy, “Uneven Patterns of Governance: How Developing Countries are Represented in the IMF,” Review of International Political Economy 13:3 August 2006, pages 480-515.
Reforming the IMF economies will eventually address concerns that they are inadequately represented on the 24-member body, there is also the view that, separately, the representation of European members should be consolidated into a single chair, appropriately reflecting European integration in the monetary, financial and economic areas.\textsuperscript{21} Such a consolidation would also address concerns that the Executive Board has grown to be too large to be an effective decision-making body.

Finally, a specific problem exists regarding the representation of low income members in the Fund. Although, unlike emerging market economies, their economic weight does not provide the basis for an increase in voting power, there is a recognition that, given the number of Fund-supported programs with these members, their voice in the Fund needs to be enhanced. At a minimum, increases in quotas for emerging market members should not excessively dilute this voting power.\textsuperscript{22}

Set forth below is a brief overview of the progress that the Fund has made over the past two years on the above issues. As will be seen, while important steps have been taken, the reform process will be protracted and, given the political sensitivities, rather complex.

\textbf{A. Quota Adjustments}

When a country becomes a member of the Fund, it receives a quota, which has a number of important implications in its relationship with the Fund. First, it determines the size of its financial subscription to the Fund.\textsuperscript{23} (Unlike the World Bank, the resources the Funds makes available to members in credit operations consists of the proceeds of

\textsuperscript{21} See Lorenzo Bini Smaghi “IMF Governance and the Political Economy of a Consolidated European Seat” in “Reforming the IMF for the 21\textsuperscript{st} Century,” \textit{Institute for International Economics Special Report} No. 19, April 2006.


\textsuperscript{23} Articles of Agreement, Article III, Section 1.
member subscriptions rather than the proceeds of capital market borrowing. Secondly, it generally determines the amount of financial assistance it may receive from the Fund in the event of balance of payments difficulties. Finally, a member’s quota determines a member’s voting power in the Fund (along with the relatively small number of “basic votes” it receives, discussed below). While the Fund has the power to increase or decrease a member’s quota, such a decision requires both support of 85 percent of the total voting power and the consent of the member concerned.

The primary basis for determining a member’s quota is the “quota formula,” which has appropriately been made up of variables that are relevant to the role of quotas, as described above. Accordingly, a member’s GDP and reserve level have been included as indicators of a member’s capacity to finance Fund operations. A member’s current payments and receipts (its openness) and the variability of these payments and receipts were also included since they provided indications of the extent to which a member may need balance of payments assistance from the Fund. The quota formula has never been applied mechanistically. Rather, it always provided a basis for discussion. Other factors are also taken into account, including how the economy of the new member compared with that of other members with similar characteristics. Moreover, members’ quotas have been regularly increased across the board periodically in order to satisfy the Fund’s need for liquidity, irrespective of whether this increase was consistent with the application of the quota formula. For these reasons, a member’s actual

24 More specifically, a member’s quota is used to determine a member’s annual and cumulative access limits. The current annual and cumulative access limits are 100 percent of quota and 300 percent of quota, respectively; see Selected Decisions pages 353-354.
25 Articles of Agreement, Article XII, Section 5(a).
26 Articles of Agreement, Article II, Section 2(a) and (c).
28 The Articles require that the Fund undertake a “General Review” of quotas at least every five years, Articles of Agreement, Article III, Section 2(a). The (continued)
A key element of reform was the modification of the quota formula. There was a broad consensus that the quota formula was excessively complicated and needed to be made more transparent: the formula actually consisted of a combination of five formulae, all of which used the variables described above, but with different weights. Views differed, however, regarding the extent to which the variables themselves should be modified and the amount of weight that should be accorded to each of them. A number of Executive Directors were of the views that overall economic size was the most relevant variable and, accordingly, GDP should be given greater weight. Perhaps most importantly, there was a strong view held by some that GDP should be measured by purchasing power parity rather than by market exchange rates. Reliance on purchasing power parity, which would benefit large emerging market economies, was considered by these Executive Directors to be the best—and most dynamic—way of measuring the relative volume of goods and services produced by economies.29

It was recognized at the outset that the agreement on a new quota formula would be sensitive and, accordingly, time consuming. Accordingly, the reform was structured in two stages. The first stage involved increasing the quotas of those members who—even on the basis of the traditional quota formula—were the most underrepresented. This stage was completed during the 2006 Annual Meetings when the Fund’s Board of Governors approved an increase in the quotas of China, Korea, Turkey and Mexico, which were increased by 27 percent, 79 percent, 24 percent and 22 percent respectively.30 The second stage was completed in April 2008, when the Executive Board approved a most recent general review that resulted in an increase in quotas was the Eleventh General Review, completed in 1997.

29 See Report on Quota and Voice, page 2. For a discussion of the benefits of Purchasing Power Parity, see also Truman, op. cit. page 12.
30 The new quotas offered China, Korea, Turkey, and Mexico were 27 percent, 79 percent, 24 percent, and 22 percent, respectively; see Board of Governors Resolution No. 61-5, available at http://www.imf.org/external/np/pp/eng/2006/083106.pdf., pages 6-8.
new quota formula and, on the basis of this new formula, the Board of Governors approved an increase in the quotas of 54 members, many of them being emerging market members. Importantly, the new quota formula increases the weight of GDP to 50 percent (making it the most significant of the four variables) and GDP is calculated using a blend of market exchange rates and purchasing power parity (60 percent and 40 percent, respectively).

By one standard, the outcome of the reform is very modest: the overall size of Fund quotas increased by 11.5 percent, with the aggregate shift in relative quota shares to those that received quota increases being 4.9 percent. This shift would only result in a net increase in the voting share of emerging market and developing economies of 2.7 percent. Perhaps more important, however, are the commitments that have been made to continue the quotas adjustment process. Specifically, the relevant Board of Governors Resolution provides that, as a means of ensuring “that members’ quota shares continue to reflect their relative positions in the world economy, the Executive Board is requested to recommend further realignments of members’ quota shares in the context of future general quota reviews.” Under the Fund’s Articles, while such general reviews are required to take place every five years, they have typically only resulted in quota increases when the Fund’s overall liquidity position requires replenishment. The above-quoted text indicates that adjustments will be made in the context of these general reviews, irrespective of overall liquidity needs, if such adjustments are judged to be needed to realign member’s relative quota shares in the Fund.

The financial crisis that erupted in 2008 has given fresh momentum to further shifts in voting power. As the Fund’s financing function has emerged as a critical element of the effort to contain the crisis (to be discussed further below), emerging markets have pressed for a further of voting power in their direction, emphasizing that, given the far reaching implications of the Fund’s decisions in this—and other—areas, emerging markets needed to have a greater say in the decision

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34 Board of Governors Resolution No. 63-2, April 2008, Section B, supra.
making process. In October 2009, the Fund’s International Monetary and Financial Committee issued a communiqué indicating its support for “a shift in quota share to dynamic emerging market and developing countries of at least five percent from over-represented countries to under-represented countries using the current quota formula as the basis to work from.” Although the communiqué is nonbinding—and the relevant language somewhat obscure—it signals considerable political support for a further shift in voting power.

B. Addressing the Needs of Low Income Members

The treatment of low income members within the governance reform framework presented the Fund with a particular challenge. On the one hand, it was abundantly clear that, by any metric, the weight of these countries in the world economy is still relatively small and, accordingly, there was no likelihood that their quotas would be increased in any significant way under the reforms discussed above. One the other hand, as an operational matter, the Fund was more actively engaged with this group of members than perhaps any other. With the decline of lending to emerging market members, most of the Fund’s financial assistance over the past several years has been provided to low income countries through the Fund’s concessional lending facility. Moreover, the Fund provides a considerable amount of technical assistance and advice to these members in areas that are relevant to the Fund’s work (e.g., monetary and fiscal policy, legal and regulatory frameworks to support the financial sector, etc.). For this reason, there was a consensus that steps needed to be taken to enhance the voice of these members in the Fund.

It should be noted that the measures taken by the Fund to address this issue take into count the fact that the Fund is not, in fact, a development institution. Accordingly, while the measures taken are of particular benefit to low income members, they are of broader applicability. As discussed below, they involve two components: (a) an increase in “basic votes” and (b) the appointment of a second Alternate Executive Director. Both require an amendment of the Fund’s Articles.

Increasing Basic Votes

Article XII, Section 5(a) provides that a member’s voting rights consist of two components. The first component is made up of what
are generally referred to as “basic” votes, which are allocated to each member in an equal amount, set at two hundred fifty votes. The second component is allocated to members in proportion to the size of their quotas and, accordingly, varies among members.\(^5\) As is evident from the legislative history of the Articles of Agreement, Article XII, Section 5(a) was adopted at the Bretton Woods Conference in 1944 as a balance between two alternative bases for determining voting power. On the one hand, given the Fund’s role as a financial institution, it was recognized during the Bretton Woods negotiations that a member’s voting power in the Fund should reflect the size of the member’s financial contribution to the Fund. On the other hand, as an inter-governmental organization constituted through a multilateral treaty, it was considered necessary to pay due regard to the equality of states under international law.\(^6\)

The voting structure in the Articles, which sought to balance these considerations, is similar to those in place in other international financial institutions.\(^7\)

The effect of basic votes, in comparison with a voting system based exclusively on quotas, is to increase the relative voting power of members with small quotas, many—but not all—of whom are low-income

\(^5\) Article 12, Section 5(a) provides that “Each member shall have two hundred fifty votes plus one additional vote for each part of its quota equivalent to one hundred thousand special drawing rights.”

\(^6\) See, e.g., Participation of the Developing Countries in the Decision-Making of the Fund, SM/80/192 (7/31/80) at 4; and Eleventh General Review of Quotas—Issues Relating to the Size of Basic Votes, EB/CQuota/96/3 (2/13/96), page 7. See also Informal Minutes, Committee 3 of Commission I, United Nations Monetary and Financial Conference at Bretton Woods (July 5, 1944), (inter alia, statement by U.S. representative that what the voting power provision in the Articles “attempts to do is to equate, bring together and balance the rights of each country as a country and its investment in the Fund, so that both factors are represented in the votes of a particular country,” page 26).

\(^7\) Specifically, the charter documents of various international financial organizations (including the IBRD, IFC, IDA, MIGA, IDB, AfDB and AsDB) provide for a similar dual voting structure under which total voting power is the sum of members’ “proportional” votes (which are generally determined as a function of members’ financial contribution) and “basic” votes (which are allocated to each member in the same amount).
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members. More specifically, basic votes enhance the relative voting power of those members whose quotas are below the average quota of the Fund’s membership as a whole. The share of Fund total voting power represented by basic votes has decreased over time. This reflects the fact that Article XII, Section 5(a), which fixes the number of basic votes at 250, has never been amended to provide for an increase in such votes, while quotas have expanded significantly over the decades. The 250 basic votes held by each of the Fund’s current members amount to 46,000 basic votes in the aggregate which, in turn, represents 2.1 percent of the current total voting power in the Fund. In comparison, the participants in the Bretton Woods conference at which the Articles were adopted would have had aggregate basic votes of 11,250, representing 11.3 percent of the anticipated total voting power in the Fund at that time.

To address this decline in the relative importance of basic votes, the Fund has approved a proposed amendment of the Articles of Agreement that would both (a) triple the number of basic votes possessed by each member and (b) and ensure that the ratio of the sum of basic votes of all members to the sum of members’ total voting power remains constant following this tripling, in the event of any subsequent changes in the total voting power of members. Accordingly,

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38 For a detailed discussion of basic votes and their effect on relative voting power, see Report on Basic Votes, supra.

39 Under the proposed amendment, Article XII, Section 5(a) would be amended to read as follows:

“(a) The total votes of each member shall be equal to the sum of its basic votes and its quota-based votes.

(i) The basic votes of each member shall be the number of votes that results from the equal distribution among all the members of 5.502 percent of the aggregate sum of the total voting power of all the members, provided that there shall be no fractional basic votes.

(ii) The quota-based votes of each member shall be the number of votes that results from the allocation of one vote for each part of its quota equivalent to one hundred thousand special drawing rights.”

The operation of the mechanism set forth in the amendment may, in some circumstances, also result in a decline in the number of basic votes possessed by each member. Specifically, because each member is to be allocated the same number of basic votes, the aggregate number of basic votes that (continued)
in the event that there are future quota increases, this will automatically result in an increase in basic votes for all members, without the need for a further amendment of the Articles or, indeed, any decision by the Fund. While each member will always be allocated a number of basic votes that is identical to the number allocated to other members (reflecting the principle of equality of states) the introduction of a mechanism to avoid the future erosion of basic votes as a ratio of total voting power will—as noted above—be of particular benefit to members with small quotas, including low income members.

Appointing a Second Alternate Executive Director

The Fund’s Executive Board currently consists of 24 Executive Directors. As mandated by the Articles, five of these Executive Directors are appointed by the members with the largest quotas (currently the United States, Japan, Germany, the United Kingdom and France).\(^4^0\) The remaining nineteen Executive Directors are elected every two years through a process where, subject to certain election rules, members are free to form member constituencies for election purposes. Because the voting power of African members is relatively small, there are only two Executive Directors elected by African members, one of these Executive Directors being elected by a constituency made up of 19 African members and the other being elected by a constituency of 24 African members.\(^4^1\)

For African members seeking greater representation on the Executive Board, the optimum reform measure would have been to expand the size of the Executive Board to allow for the election of a third Executive Director from Africa. There was no appetite among the larger members of the Fund to expand the Executive Board, at least at this stage of the reform process. There was a recognition,

\(^{40}\) Articles of Agreement, Article XII, Section 3(b)(i).


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however, that the size of the African constituencies placed a consider-
able strain on the ability of the relevant Executive Directors to represent their members effectively. This problem is exacerbated by the fact that members within these constituencies have traditionally had, as noted earlier, a disproportionately large number of Fund-supported programs. In that context, it should be noted that, when the Fund was established there were 38 members, the largest constituency consisted of 9 members, with the average constituency consisting of 5 members. Although the Executive Board has expanded since then (from 12 to 24) this expansion has not kept up with the growth in membership (currently 185) and, accordingly, the average constituency consists of 9 members, with the two African constituencies, as noted above, being the largest.

To address the above concerns, the second feature of the amend-
ment of the Articles of Agreement approved by the Fund’s Board of Governors was to allow for the Executive Director elected from a large constituency to appoint two Alternate Executive Directors. Under the existing Articles, each Executive Director is entitled—and required—to appoint a single Alternate with full power to act for him or her when he or she is not present. The existence of an Alternate Executive Director is designed to balance the need for a resident Executive Board at Fund headquarters, on the one hand, and the need for Executive Directors to travel to and maintain close contact with the members apposing or electing them. Allowing Executive Directors elected from large constituencies to appoint a second Alternate was generally regarded as providing meaningful support to these Executive Directors, given the workload, including travel, involved.

Two specific aspects of this element of the amendment merit attention. First, to provide for flexibility, the text of the amendment does not specify how large a constituency must be before it is enti-
tled to appoint a second Alternate Executive Director. Rather, the text empowers the Board of Governors to adopt rules that enable large constituencies (as defined by the Board of Governors from time to time, taking into account changing circumstances) to appoint a

42 Articles of Agreement, Article XII, Section 3(c).

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second Alternate. When the Board of Governors approved the proposed amendment, it also adopted the initial constituency threshold at nineteen members, thereby allowing both of the Executive Directors elected by African members to appoint a second Alternate. Second, in order to avoid potential conflicts, the text of the amendment requires an Executive Director appointing two Alternates to designate the Alternate who shall act for him when he is not present and both of the Alternates are present.

Finally, it should be emphasized that both of these reform measures—an increase in basic votes and the appointment of a second Alternate—are not yet complete. Although the text of the amendment containing both these elements has been approved by the Board of Governors, the amendment will not enter into force until it has been accepted by three fifths of the members, having eighty-five percent of the total voting power. For most members, acceptance of an amendment of the Articles—an international treaty—requires approval by the domestic legislature. Importantly, the relevant Board of Governors Resolution provides that the increases in quotas, discussed above, will not become effective until the amendment becomes effective.

More specifically, the text of the proposed Amendment to Article XII, Section 3(e) provides as follows (with changes from the existing text indicated):

“(e) Each Executive Director shall appoint an Alternate with full power to act for him when he is not present, provided that the Board of Governors may adopt rules enabling an Executive Director elected by more than a specified number of members to appoint two Alternates. Such rules, if adopted, may only be modified in the context of the regular election of Executive Directors and shall require an Executive Director appointing two Alternates to designate: (i) the Alternate who shall act for the Executive Director when he is not present and both Alternates are present and (ii) the Alternate who shall exercise the powers of the Executive Director under (f) below. When the Executive Directors appointing them are present, Alternates may participate in meetings but may not vote.”

See Board of Governors Resolution No. 63-2, April 2008, Attachment II.

For a more detailed discussion of the proposed Amendment, see Report on Quotas and Voice, pages 9-11.

Articles of Agreement, Article XXVIII.

Board of Governors Resolution No 63-2, April 2008, Section A(5).
C. The Size and Composition of the Executive Board

Although decisions have not yet been taken to modify the size and composition of the Executive Board, there is increasing momentum for reform in this area. In some respects, changes in the composition of the Executive Board will flow from the shifts in voting power that will occur if—and when—the ongoing quota adjustment process described above is fully implemented. For example, if China’s quota becomes one of the five largest, it will be able to appoint its own Executive Director. More generally, as the quotas of emerging market economies increase, some of them will obtain a sufficiently dominant position within their constituencies so as to ensure that one of their nationals will be elected as Executive Director. However, beyond these longer term implications of shifting voting power, there are other forces that may lead to reform in this area. The first relates to a concern with the Board’s size: with 24 Executive Directors, there is a perception that the Board is too large to operate efficiently as an executive decision making body. The second concern relates to the number of European Executive Directors. The countries of the European Union currently provide 6 of the 24 Executive Directors, three of whom are appointed (nationals of Germany, France and the U.K.) and three of whom are elected from constituencies (nationals of Italy, Belgium and the Netherlands). With European economic and financial integration, there have been growing calls for European “consolidation” into a smaller number of seats at the Executive Board.\(^{48}\) Although originating from elsewhere, these calls can now be heard from within Europe itself. More specifically, a member of the Executive Board at the European Central Bank argues forcefully that consolidation resulting in a single EU Executive Director would actually enhance the voice and influence of the EU within the Fund.\(^{49}\) Since, when voting on a proposed decision, Fund Executive Directors are not permitted to split the votes of the constituents who have elected them, consolidation would force EU countries to take a single position—and vote in a single, powerful block—on issues of relevance to the Fund. Given the breadth of the Fund’s mandate, however, it is not clear that the policies of individual EU members have, in fact, converged sufficiently to enable them to be represented

\(^{48}\) See Truman, \textit{supra} at pages 203-210.

\(^{49}\) See Bini Smaghi, \textit{supra} at pages 233-257.
by a single Executive Director. For example, while France has tra-
ditionally urged greater Fund involvement in low income countries,
Germany has stressed that the Fund is a monetary institution—not a
development agency.

If a single Executive Director were to represent all of the EU mem-
bers, such a step would require an amendment of the Articles of Agree-
ment. This is because the Articles require each of the members with
largest five quotas to appoint their own Executive Directors. Accord-
ingly, as long as an EU member's quota is among the five largest, the
member concerned could not participate in such a consolidation.50
Perhaps because of this fact, there have also been calls recently for
the election of all Executive Directors, most notably from the United
States, a step which would facilitate future EU consolidation.51

Reforming the Fund’s Lending Instruments

Until October 2008—when the financial crisis began to affect
the balance of payments positions of emerging markets—members
demand for the Fund’s general resources had declined significantly. As
of July 31, 2008, outstanding credit was SDR 7.8 billion, as compared
with SDR 70 billion in September 30, 2003.52 While this decline in the
use of Fund credit was explained, in part, by the prolonged period of
global liquidity, there was concern within the Fund that the decline in
demand also reflected a general reluctance for emerging market econo-
mies to turn to the Fund in times of distress. The fact that members
were taking contingency measures to address potential crises that did
not involve the Fund—whether it be the build up of their own reserves
or the pooling of reserves though regional arrangements—served to
underline the perceived problem. Instead of catalyzing market confi-
dence, there appeared to be a perception that approaching the Fund

50 Articles of Agreement, Article XII, Section 3(b) provides, in part, that, of
the Executive Directors, “five shall be appointed by the five members having
the largest quotas” (emphasis added).
51 See “Remarks by Treasury Under Secretary for International Affairs” David
H. McCormick at the Peter G. Peterson Institute for International Economics,
“IMF Reform: Meeting the Challenges of Today’s Global Economy” at http://

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would create market panic by signaling that the situation is worse than thought. Separately, Fund conditionality may create domestic political difficulties by creating the impression that the government has surrendered sovereignty with respect to the conduct of its economic policies.

Taking into account the above concerns, the Fund decided to launch a comprehensive review of its lending policies in September 2008. However, shortly after the initiation of the review, the global financial crisis that had originated in the United States began to exact its toll on a number of emerging markets. During the one-year period beginning October 2008, the Fund approved stand-by arrangements for a number of emerging market economies, primarily in Central and Eastern Europe. While the problems experienced by these members were somewhat similar to those experienced during the Asian Crisis, it became clear that the broader deleveraging process was beginning to also affect members whose overall economic policies continued to be appropriate. To address the special needs of these countries—and in order to avoid further contagion—the Fund established the Flexible Credit Line, which represents an important breakthrough in the Fund’s overall financing role. To understand the basis and implications of this development, it is important to provide an overview of the legal and operational framework for Fund financing.

The Existing Framework for Fund Financing

One of the purposes of the Fund, as set forth in the Articles of Agreement, is as follows:

“To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.”

Consistent with the above mandate, when the Fund makes its financial resources available to members, it has taken measures designed to satisfy itself that two conditions have been met. First, since its resources are to be used to help countries resolve their balance of payments problems, it

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54 Articles of Agreement, Article I(v).

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is important that the country be implementing policies that will address—rather than simply delay the resolution of—its balance of payments problems. Second, the Fund must ensure that “adequate safeguards” are in place to ensure that the member will be in a position to repay the Fund within the relatively short timeframe mandated required under the Articles.55 “Conditionality” refers to the mechanism that the Fund uses to ensure that Fund financial assistance is made conditional upon the effective implementation of a credible adjustment program, thereby ensuring, in turn, that the above two conditions are in place.56 The adoption of appropriate adjustment policies is designed to not only give the Fund some assurance that the members balance of payments problems will be corrected but is also designed to provide the Fund with an adequate basis to conclude that the member will have sufficient foreign exchange to repay once the adjustment program has been successfully implemented.

The stand-by arrangement is the principal instrument relied upon by the Fund to make conditionality operational. It constitutes a decision of the Executive Board to make available an overall amount of resources available in support of an adjustment program as described in a letter of intent prepared by the member. Under the terms of the stand-by arrangement, tranches of the committed resources are disbursed on the basis of the members’ observance of targets (“performance criteria”) and reviews that have been identified in the letter of intent and specified by the Fund’s Executive Board. It should be emphasized that the amount of financing provided by the Fund has traditionally been relatively modest in comparison with a member’s needs. However, the fact that the Fund has made a judgment that the member’s adjustment program merits financial support is intended to “catalyze” financial assistance from other sources. The catalytic function not only serves to limit the amount of Fund exposure to a single member (thereby

55 More specifically, Article V, Section 3(a) requires the Fund to adopt policies on the use of its general resources “that will assist members to solve their balance of payments problems in a manner consistent with the provisions of this Agreement and that will establish adequate safeguards for the temporary use of the general resources of the Fund.”

56 Consistent with the requirement set forth in Article V, Section 3(a) the Fund has adopted a general policy regarding the design and implementation of its conditionality, which is reviewed periodically; see “Guidelines on Conditionality,” Selected Decisions.
contributing to the “safeguards” required under the Articles), it is also designed to provide a means by which a member can regain access to capital markets, thereby contributing to a lasting resolution of its external difficulties.

**The Flexible Credit Line**

Although this chapter does not try to identify the causes of—or distill the lessons from—the global financial crisis that erupted in September 2008, it is clear that its impact on emerging markets was both swift and significant. The disruption in short-term funding in mature markets, the deleveraging and contraction of the balance sheets of financial institutions and the overall loss of confidence are all factors that resulted in a sharp reduction of capital flows to emerging market countries. For some of these countries, this significant reduction revealed and exacerbated important vulnerabilities in their policies, and, accordingly, an economic adjustment program supported by a Fund arrangement has been relied upon to address these vulnerabilities, buttress confidence and facilitate a return to market financing.

However, the sharp reduction in capital flows has also given rise to emerging pressures in countries whose policies have been very strong and where there are no concerns about the sustainability of the member’s indebtedness, i.e., where the member is facing liquidity pressures caused by external development and where no adjustment policies required. While the Fund has stood ready to provide assistance to these members, they have been resistant to seek Fund financing, largely because of the stigma associated with the traditional lending instruments of the Fund and the conditionality associated with these instruments.

To address this perceived gap in the Fund’s tool kit, the Fund established the Flexible Credit Line (FCL) in March 2009. The key distinguishing features of the FCL are that (a) it makes available the full amount of financing upfront without the need for traditional conditionality (i.e., phasing and performance criteria) that are associated with the traditional stand-by arrangements and (b) it may be approved on a precautionary basis; i.e., in the absence of an actual balance of payments need. Clearly, the design of the FCL takes into account the concerns, noted above, regarding the problems associated with traditional Fund conditionality. Moreover, the fact that the FCL may be used on a
precautionary instrument is designed to enhance the Fund’s capacity to not only resolve financial crises, but also to prevent them.

Several Features of the FCL Merit Elaboration

**Qualification**—As noted above, “conditionality” is required under the Articles; i.e., the Fund must satisfy itself that the policies being taken by the member are adequate to ensure both the resolution of the balance of payments problems and, relatedly, repayment to the Fund. Under the FCL, this is achieved through the application of strict qualification criteria rather than through the phasing and other conditions that are found in stand-by arrangements; i.e., under the FCL, the Fund relies on *ex ante* rather than *ex post* conditionality. Not surprisingly, the qualification criteria identified in the decision are those that are designed to give the Fund the assurance that, given the strong policy stance of the member and strong track-record of policy performance, the member is already in a position to address its balance of payments pressures—or, if the FCL arrangement is approved on a precautionary basis, will be in such a position in the even the pressures emerge. In addition to a very positive assessment of the member’s policies in the context of the most recent Article IV Consultation, the decision establishing the FCL decision provides that the relevant criteria for the purposes of assessing qualification for an FCL Arrangement shall include: (i) a sustainable external position; (ii) a capital account dominated by private flows; (iii) a track record of steady sovereign access to capital markets at favorable terms; (iv) a reserve position that is relatively comfortable, when the FCL is approved on a precautionary basis; (v) sound public finances, including a sustainable public debt position; (vi) low and stable inflation, in the context of a sound monetary and exchange rate policy framework; (vii) the absence of bank solvency problems that pose an immediate threat of a systemic banking crisis; (viii) effective financial sector supervision; and (ix) data transparency and integrity.

**Amount of Financing**—Importantly, the decision establishing the FCL did impose strict limits on the financing that could be made available under an FCL Arrangement.\(^\text{57}\) This reflects an underlying

\(^{57}\) While the Summing Up of the Executive Board that was adopted at the time of the FCL decision indicates that the Executive Board “welcomed staff’s expectation that access would not normally exceed 1,000 percent of quota,” this did not give rise to a binding limit of 1,000 percent of quota.

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assumption behind the FCL: large amounts of financing would need to be available if it the FCL was to fulfill the key objective of preventing crisis in relatively large emerging market economies. More specifically, the FCL would only succeed in calming nervous markets if the markets had the assurance that large amounts of financing had been committed on an upfront basis. Of course, consistent with the Fund’s catalytic function, it is envisaged that markets would also take comfort from the judgment made by the Fund that the member’s policies were adequate to address any pressures should they emerge; i.e., the satisfaction of the relevant qualification criteria are designed, in part, to enhance the crisis prevention objective.

Commitment Period—A key issue that arose in the design of the FCL was the maximum length of the arrangement; i.e., the length of the period during which the financing would be unconditionally available to the member. There were two competing considerations. On the one hand, there was a recognition that period had to be sufficiently long in order to serve the key objective of providing comfort to both the member and the markets. On the other hand, there was a concern that an excessively long commitment period would pose risks for the Fund’s resources: as time passed, there was a risk that the Executive Board’s positive assessment of the member’s policies vis-a-vis the established qualification criteria would become somewhat stale as a result of developments with respect to either the member’s policies or the external environment. As a means of balancing these considerations, it was agreed that an FCL arrangement could be approved for either a six-month or a twelve-month duration. In the event that an FCL was approved for a twelve-month period, the availability of financing beyond the initial six-month period would be subject to a completion of a positive assessment by the Executive Board to the effect that the member continued to meet the relevant qualification criteria.

Since its establishment, an FCL arrangement has (at the time of the writing of this chapter) been approved for Mexico (SDR 31.258 billion), Colombia (SDR 6.966 billion) and Poland (SDR 13.69 billion). In all cases, the arrangements were approved on a precautionary basis and, since their approval, none of them have been drawn upon. The fact that members have not had to draw suggests that the crisis prevention objective has been achieved. More generally, it may be argued that the mere addition of the FCL to the Fund’s lending toolkit has fostered...
broader confidence in the market also for the benefit of members who, although they may not have actually requested an FCL arrangement, are generally perceived to satisfy the qualification criteria.

**Developing a New Income Model**

A critical element of the Fund’s reform program has been the development of a new means of financing the administrative expenditures of the Fund. The process was launched in May 2006, when the Managing Director established a Committee of Eminent Persons to Study Sustainable and Long term Financing of IMF Running Costs (the “Committee”). The Committee, chaired by Andrew Crockett, the former general Manager of the Bank for International Settlement, delivered its recommendations in January 2007. Taking into account these recommendations, the Managing Director and the Executive Board developed specific proposals which, because some of them entailed amendments to the Fund Articles, required approval by the Fund’s Board of Governors, which was received in April 2008. The process is not yet complete, however, since—as with the case of the governance amendment discussed earlier—the income amendment will not become effective until it is formally accepted by the requisite threshold of the membership.

At one level, the need to develop a new income model can be seen as simply an inevitable consequence of the decline of Fund lending. Since its establishment, the Fund has financed its administrative expenditures primarily from the interest income derived from such lending; i.e., through the difference between (a) the rate of interest it charges

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58 Press Release No. 06/100: http://www.imf.org/external/np/sec/pr/2006/pr06100.htm. The other remaining members of the Committee were Mohamed El-Erian, Alan Geenspan, Tito Mboweni, Guillermo Ortiz, Hamad Al-Sayari, Jean Claude Trichet.


60 Board of Governors Resolution No. 63-3. The report of the Executive Board to the Board of Governors provides a description of key aspect of the proposal; see “Report of the Executive Board on the Proposed Amendment of the Articles of Agreement of the International Monetary Fund To Expand the Investment Authority of the International Monetary Fund.”
to members utilizing its general resources (the “rate of charge”) and
(b) the rate of interest it pays to those members whose currencies are
used in these credit operations (the “rate of remuneration”). As noted
earlier, Fund credit involving its general resources had declined sig-
nificantly and, although it is difficult to project the future demand for
Fund credit, Fund staff had projected the low credit environment would
persist over the medium term.\(^61\)

Even though, as discussed above, Fund lending has recently
increased, there is a growing recognition that there are other problems
with the Fund’s traditional income model. The existing model is flawed
because it relied on this credit function to finance a range of activi-
ties that was much broader than the provision of credit. These activi-
ties included not only the Fund’s surveillance function, which involves
annual consultation with each Fund member, but also the provision
of substantial amount of technical assistance.\(^62\) Indeed, of the total
US$930.3 billion incurred in administrative expenditure incurred in
FY 2006, only $220.6 million were incurred in credit intermediation
activities.\(^63\) It was recognized that it was neither equitable nor sustain-
able for the cost of all of these activities to be financed by those mem-
bers receiving financing from the Fund’s general resources, particularly
in an environment where such financing is expected to be somewhat
concentrated within the membership. More generally, and as was noted
by the Committee the existing income model “has the curious feature
that the Fund’s financial well-being depends on it being unsuccessful in
its primary mission, which is to prevent financial crises.”\(^64\)

Viewed from a purely financial perspective, the problem was
not particularly urgent. As a result of the significant amount of credit
extended over the past 10 years, particularly during the Asian crisis,
the Fund had accumulated reserves of 5.9 billion, which could have
technically been used to finance the Fund’s anticipated income shortfall


\(^{62}\) The nature of the Fund’s technical assistance is described further infra at
page 39.

\(^{63}\) “Final Report of the Committee,” Appendix 5, page 3. Moreover, of this
$220.6 million, only $130.7 million were expenditures related to GRA financ-
ing; id.

\(^{64}\) “Final Report of the Committee,” page 5.
for a number of years to come. But for an institution whose mandate includes advising member countries on principles of fiscal rectitude, it was recognized that it would be somewhat hypocritical for Fund to use reserves—which should be used primarily to mitigate the effects of future credit losses—to finance a structural income shortfall. Moreover, unless this problem was fixed, the nature of the Fund’s dialogue with members could be clouded by perceptions of a conflict of interest: was the Fund’s recommendation to seek a Fund-financed program motivated primarily by an interest in the well-being of the member’s economy or a desire to finance the Fund’s operational expenses?

As is evidenced by its report, the Committee reviewed a wide range of options, a number of which were rejected on the grounds that they would risk undermining the Fund’s effectiveness. In particular, the idea of introducing annual levies that would be required to be paid by each member in order to finance the Fund’s operations was considered problematic since the annual appropriation process that would be involved in each member for this purpose could risk undermining the independence of Fund’s regulatory assessments policy and policy advice.

The underlying principle that formed the basis for the Committee’s recommendations was that, since the Fund was undertaking distinct activities—some of which benefited the entire membership and others that benefited only a group of members—it was both logical and fair that these activities should have different funding sources. Accordingly, since surveillance is a “public good” that is provided to the membership at large, the Committee concluded it appropriate that, for these activities, all members should contribute to the necessary financing. Regarding the cost of the Fund’s credit intermediation activities, the cost of these activities should be borne out of the intermediation margin and should take into account the broader credit environment. Finally, members that receive technical assistance from the Fund should be charged for this assistance.

The Fund supported the overall approach taken by the Committee and decided to implement many of its recommendations. However,

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a consensus could not form around a key recommendation of the Committee: that the Fund generate income by investing the quota subscriptions of its members.68 Regarding those recommendations that were accepted and developed by the Fund’s staff and Executive Board, set forth below is a summary of their key operational and legal features.

The Sale of Gold

The Fund currently holds approximately 3,217 metric tons of gold, which are derived from two distinct sources.69 Most of the gold represents the proceeds of a portion of the quota subscriptions made by Fund members prior to the Second Amendment, when the par value system was still in existence and gold played a central role in the international monetary system.70 As required under the Articles, this gold is carried on the Fund’s balance sheet at the historical price of SDR 35 per ounce (the price of gold at the time of the Second Amendment.71 The remaining amount of gold held by the Fund (about 400 tons) was acquired by it when it accepted credit repayments from members in the form of gold during the period from members during the period of 1999–2000.72 This gold was acquired at the average price of SDR 207 per ounce and is carried on the Fund’s balance sheet at the value at the time of acquisition.

The Committee recommended that the Fund exercise its authority under the Articles and sell a limited portion of its gold, the profits being invested pursuant to an expanded investment authority (discussed further below) and the income of such investments being used to finance the Fund’s administrative budget.73 Since the Fund’s gold holdings are “in a broad sense the joint property of the membership,” it would be equitable that these resources be used to finance the Fund’s public

68 See “Report of the Executive Board on the Proposed Amendment of the Articles of Agreement of the International Monetary Fund To Expand the Investment Authority of the International Monetary Fund” at 4.
69 For a discussion of the Fund’s holdings of gold and the relevant legal and accounting frameworks that apply to such holdings, see “Final Report of the Committee,” Appendix 6.
70 Id.
71 This corresponds to the value identified in Article V, Section 12(e), namely “one special drawing right per 0.888 671 gram of fine gold.”
73 Id. at 11-13.
goods, particularly the Fund’s surveillance activities. The recommendation on gold sales was qualified in two important respects. First, the amount of gold to be sold should be limited in amount and conducted in coordination with existing central bank gold sales agreements so as not to add to the announced volume of gold sales from official sources. The objective was to strictly limit the market impact of such sales. For this reason, the Committee recommended that the gold to be sold be limited to the 400 tons that the Fund acquired during the period of 1999–2000, the distinct nature of this gold providing a useful means of “ring fencing” the amount that would be expected to be sold. Second, in recognition that the gold held by the Fund “provides fundamental strength to the Fund’s balance sheet,” the Committee recommended that the investment policy have a prescribed payout ratio that preserves the real value of the profits of the sale over time; i.e., that portion of the annual investment income that compensates for inflation should be retained.

Consistent with the Committee’s recommendations, on September 18, 2009, the Executive Board adopted a decision to sell 12,965,649 fine troy ounces of gold (approximately 400 tons) that have been acquired by the Fund since the date of the second amendment. While the actual sale transactions will be negotiated and concluded by the Managing Director on the basis of market prices, the Executive Board decision provides some direction on how these sales are to be carried out. In particular, the decisions established a framework that allows for sales to be made both directly to official holders and on the market. Consistent with the recommendations of the Committee, however, any gold sold on the market must be phased over time and conducted in a manner that ensures that such sales can be accommodated within the limit on official gold sales set forth in the Central Bank Gold Agreement dated August 7, 2009.

Expansion of Investment Authority

The objective of generating income from the investment of the proceeds of the sale of the Fund’s gold required the amendment of a number of provisions in the Fund’s Articles that restricted the Fund’s

74 Id. at 12.
75 Id.
76 Id. at 12, 13.
investment authority.\textsuperscript{77} These restrictions included: (a) the requirement that resources held in the Fund’s Investment Account only be invested in the obligations of a member or an international organization, (b) the need to obtain the concurrence of the member whose currency is being used to make the investment, and (c) the requirement to invest exclusively in obligations denominated in Special Drawing Rights or in the currency used for investment.\textsuperscript{78}

Under the amendment approved by the Board of Governors, these restrictions are eliminated and the Fund is given the authority to “use a member’s currency held in the Investment Account as it may determine, in accordance with rules and regulations adopted by the Fund by a seventy percent majority of the total voting power.”\textsuperscript{79} This text was signed to strike a balance between two different considerations. On the one hand, there was a desire to provide for the broadest possible grant of investment authority in the Articles themselves so as to avoid the need for a further amendment in the future. On the other hand, the requirement that the investments be made pursuant to policies adopted by a significant majority of voting power (no investments can be made until such rules and regulations were in place) ensured that any investments would not be made on an ad hoc basis but rather in accordance with a broader investment strategy that has wide support within the membership.

Although the above-referenced investment rules and regulations will not be adopted until the amendment enters into force, there is a consensus within the Executive Board (reflected in the relevant Executive Board’s report).

\textsuperscript{77} When the Board of Governors approved the proposed amendment, it did so in the context of gold price assumptions that were lower than the actual market prices prevailing when the Executive Board adopted the decision to sell the gold in question. In recognition of this development, the Executive Board has approved a strategy whereby a portion of the resources needed for financing of the Fund’s concessional lending would be financed by an amount equal to the “windfall” generated by any gold sales undertaken at prices in excess of a specified amount.

\textsuperscript{78} Articles of Agreement, Article XII, Section 6(f)(iii).

\textsuperscript{79} “Report of the Executive Board to the Board of Governors on the Proposed Amendment of the Articles of Agreement of the International Monetary Fund to Expand the Investment Authority of the International Monetary Fund” (hereinafter “Report on Expansion of Investment Authority”), at 11 [unpublished].
Board report to the Board of Governors) that the design of these rules and regulations should be guided by several principles. First, given the Executive Board’s responsibilities to conduct the business of the Fund, it is understood that the Executive Board would play a central role in both designing the investment strategy and monitoring its implementation. Second, the Fund’s investment policies would take into account a range of factors, including the Fund’s mandate and its income needs. Thus, for example, the assessment of the level of risk to be tolerated would take into account the public nature of the resources being invested. Moreover, the “endowment” investment policy pursuant to which the profits of gold sales would be invested would be designed to generate income for the Fund’s administrative expenditures while at the same time preserving the real value of the profits being invested. Finally, it was recognized that the rules and regulations would need to ensure that the Fund’s expanded investment authority did not give rise to perceived or actual conflicts of interest. This was considered to be of particular importance given the fact that the Fund, in the conduct of its other responsibilities (surveillance and the provision of financial and technical assistance) regularly receives non-public information from its members.80

Charging for Technical Assistance

In addition to its surveillance and financial assistance responsibilities, the Articles authorize the Fund to perform, upon request, “financial and technical services.”81 Unlike its other functions, these financial and technical services are discretionary, inasmuch as the Fund is not required to honor a request by a member to perform such services. In exercising this discretion the Fund may decide to perform the financial or technical service and absorb the administrative cost incurred in its performance or it may decide to perform the service on the condition

81 Article V, Section 2(b) provides as follows: “If requested, the Fund may decide to perform financial and technical services, including the administration of resources contributed by members, that are consistent with the purposes of the Fund. Operations involved in the performance of such financial services shall not be on the account of the Fund. Services under this subsection shall not impose any obligation on a member without its consent.”

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that it be reimbursed in full or in part for this cost—either from the member or from a third-party donor.

Over the years, the Fund’s provision of technical services—including training—has grown considerably and, for the large part, such services have been provided free of cost. These services are performed in the Fund’s core area of expertise (e.g., monetary, fiscal and financial sector policies, including the design and implementation of the legal and regulatory frameworks that support these policies) and, in some cases, provide input into both the Fund’s surveillance work and the programs of the members that are supported by the Fund’s financial resources. While the Committee, in its report, recognized that the bilateral technical services represent a “fundamental contribution of the Fund to the well-being of many of its members countries” it expressed the view that charging members for such service had “positive aspects,” including providing an incentive for members to take a disciplined approach to its costs and benefits and enhancing Fund transparency and accountability.

Building on this recommendation, the Fund’s Managing Director, following consultation with the Executive Board, has introduced a new country contribution policy for Fund technical assistance. The stated objective is not to raise revenue—indeed, it is recognized that the budgetary implications of a charging policy are likely to be small—but, rather, to ensure that the assistance is consistent with the priorities and objectives of the recipients. As noted in the new policy, it creates a “market test” for Fund technical assistance; namely, “recipients’ willingness to pay “provides a signal of their interest and the value they attach to the Fund’s capacity-building services. This signal serves as an important input into the Fund’s prioritization and efficient allocation of limited resources. An alternative market test is the willingness of donors to finance the Fund’s capacity-building services. The newly established country contribution policy incorporates a “means testing

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83 Id.
84 Policy for Country Contribution for Capacity Building [unpublished], Attachment I.
85 Id. at 10.
86 Id.
element”: members are divided into different GNI per capita categories, with those in the higher category having to pay for the full cost of such services while those in the lowest category have to pay only 10 percent. Importantly, the policy includes exemptions for those technical assistance that are judged to provide important inputs into the Fund’s other—nondiscretionary—function and, using the Committee’s lexicons are judged to “public goods.” In particular, the Fund’s assessment of members under the Financial Sector Assessment Program and the program entitled “Reports on Standards and Codes,” while a form of technical assistance, are judged to provide important inputs into the Fund’s surveillance responsibilities and are exempt from charging. A similar exemption applies to technical assistance that assists members implement a program that is supported by the Fund’s financial resources. The rationale is that such assistance is also of benefit to the Fund, as it helps ensure that the member will have the capacity to repay the Fund.

**Conclusion**

Although, at a certain level of abstraction, all international organizations may be described as having the objective of enhancing human welfare, their charters direct them to make their own distinct contribution to that objective. In the case of the IMF, the “public good” it seeks to deliver is international monetary and financial stability. The assumption in 1944—when the Articles of Agreement were signed by its original members—was that such stability was a necessary precondition for the enhancement of the economic welfare. Particularly in light of the financial crisis that swept through the global economy in 2008 and 2009, there can be little question that, sixty-five years later, this assumption still holds. Indeed, one of the distinguishing features of the existing financial turmoil is its global reach. Although it originated in the mature economies, the crisis was transmitted not only to emerging markets but also to a number of low-income countries. Given the economic and financial integration of the world economy, the need for an institution that can effectively organize cooperation among members to achieve international financial stability has never

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87 *Id.* at 10, 11.
88 *Id.* at page 12.
89 *Id.*
been greater. Accordingly, the issue is not whether the IMF is needed but whether it is currently equipped to both maximize the benefits of this integration and minimize its costs. As discussed in this paper, a process has been underway that is designed to update both the Fund’s regulatory and financial powers to take into account the changes in the global economy and, by extension, the needs of its members. Looking forward, perhaps the key outstanding challenge relates to governance reform. The willingness of countries to rely on the Fund to address the challenges that have been exposed by the recent crisis may depend on whether they feel that they are adequately represented in the decision making process.
The financial world has gone through a historic period since the bankruptcy of Lehman Brothers, and there have been a number of significant policy developments. The worst time may have passed, owing to bold, coordinated policy response by national authorities and international institutions such as the Financial Stability Board (FSB) and the International Monetary Fund (IMF). Accordingly, the focus of the discussions seems to have shifted from emergency response to medium-term reform of financial regulation.

While this shift is appropriate, we cannot say that the crisis is already over, because it is not. The de-leveraging of the financial and household sectors has just started; central banks continue to provide ample liquidity to support bank funding; and public money injected to recapitalise banks has not been repaid. The global economy may have started to recover, but large uncertainties remain. For regulators in Japan, the current crisis seems to have a number of commonalities with the banking crisis the country already experienced in the 1990s. Therefore, we cannot easily espouse the optimism now prevalent in financial markets of the United States and Europe.

In this Chapter, I wish to talk about two issues. The first is what I think remains to be done by regulators or the industry in order to get the world’s financial markets back to normal. I will discuss this by comparing the global financial crisis this time with Japan’s experience in the 1990s and early 2000s. Secondly, I would like to present my views on the discussions underway at international fora on how to strengthen the financial systems around the globe, with focus on bank

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capital requirements and supervision of what are called “systemically important financial institutions (SIFIs).”

Before starting, let me say in advance that my views may differ from the “mainstream” views of the Group of Twenty (G-20), the FSB, or the Basel Committee on Banking Supervision, where the discussions have been skillfully led by “major powers” in the world of financial regulation. They may also differ from the official views of my institution, Japan’s Financial Services Agency (FSA). Although I used to be member of the Basel Committee, I am currently not directly involved in the international discussions underway.

**What Remains to Be Done to Normalize Financial Markets?**

The scale of the current global financial crisis is enormous, and has often been characterised as “once-in-a-century” or “the most severe since the Great Depression.” Since the impact of the market turmoil has been serious and has spread globally, it is not without reason that the current difficulties are labeled in that manner. Yet for many Japanese financial regulators, the current crisis is rather a “second-in-a-decade” event. As mentioned earlier, this is because Japan experienced its own banking crisis in the late 1990s.

The current crisis does have its unique features, such as its cross-border and market-oriented nature. However, if you compare these two crises, you can find that the manner in which the current crisis evolved has a number of commonalities to what happened in Japan in the 1990s:

- First, irresponsible lending had been widespread prior to the crisis, on the assumption that real estate prices would continue to go up;
- Second, the financial market turmoil was triggered by a decline in real estate prices;

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1 This section, particularly the reference to commonalities between the global financial crisis and Japan’s banking crisis in the 1990s and the five lessons from the latter crisis, is largely based on Sato (2008), to which I contributed during its drafting.
Third, the adverse effect of the market turmoil spilled over to the real economy; and

Fourth, the turmoil resulted in a system-wide financial crisis, necessitating intervention by governments and central banks.

The issue now is whether the global financial markets can recover quickly this time. The adverse effect of Japan’s banking crisis lingered over a decade, until its major banks got rid of their non-performing loans. Are there the conditions in place that will enable a quicker recovery this time? Some people say that the current situation of the US markets is similar to that of Japan’s in 1999, when a sense of security had returned following capital injection into major banks with public funds. However, that sense of security turned out to be a false one in Japan’s case, and its economy was plunged into a “triple dip” in 2001–02.

Based on this experience in the 1990s, we have argued in the course of the current global financial crisis that the five lessons Japan learned then provide useful suggestions as to how our fellow regulators should respond to the ongoing difficulties.

First, prompt and accurate recognition of losses is essential. Lack of it would give financial firms incentives to postpone the disposal of their non-performing assets, which could cause a negative spiral of credit crunch and the weakening economy.

Second, toxic assets need to be taken off the balance sheet. Otherwise, it would be difficult to restore full market confidence as additional losses on those assets could be incurred later.

Third, undercapitalization of financial firms resulting from the disposal of bad assets should be addressed promptly, by injecting public funds if necessary.

Fourth, exceptional measures, such as full protection of bank deposits and temporary nationalization of banks, can be effective options in times of serious crises.

Fifth, regulators need to strike the right balance in implementing short-term stabilization measures and medium-term reforms of
financial regulation. Crisis management measures should not remain in place over a prolonged period to prevent moral hazard, but too hasty exit from these measures and implementation of reforms could impede stabilization and economic recovery.

The recent developments in the United States and Europe show that these lessons have been relevant in the context of the current global crisis. Such developments include exceptional measures taken by the authorities of these countries, and the stress tests conducted by the US authorities to determine the additional capital required of the major banks.

It seems to me, however, that the work related to the second lesson has been lagging so far. That is, not much progress has been made in taking toxic assets off the balance sheets of US and European banks. It is partly because the securitization market is still inactive and the banks would suffer huge losses if they are to sell those products immediately.

Notwithstanding such difficulties, restoring market confidence is vital to normalize the situations. Increasing the amount of capital alone would not save banks from failing, if banks were not able to convince the markets that they had come to terms with uncertainties in both on- and off-balance sheet risks. Bad assets remaining on balance sheets would continue to be a source of uncertainty, because of concerns about possible further losses. Taking these assets off balance sheet would help break a vicious feedback loop between the financial sector and the real economy.

Yet the price developments of the underlying assets of the securitized products are hardly encouraging (Figure 1). In the early 1990s, we thought that the adjustment of real estate and share prices in Japan would be over soon after a few years of decline. As it turned out, the decline in land prices lasted almost fifteen years and the prices are getting further lower after a brief pick-up. The share prices are hovering around the level that is about only a quarter of its peak at the end of 1989.

The delinquency rates for various kinds of loans in the US are also alarming (Figure 2). The rate for commercial real estate loans is approaching the level recorded at the time of the savings and loans crisis, whereas those for residential real estate and credit cards are above the previous record. All of these are happening at the same time.
Under these circumstances, my concern is that the situation of the US and European banking sectors could become a drag on global economic recovery, as their credit capacity is constrained. This is exactly what happened in Japan throughout the 1990s, where the banks were crippled with huge amounts of nonperforming loans. It was not until the uncertainties about banks’ soundness were removed in the mid-2000s that Japan’s economy started to pick up.

**Figure 1. Commercial Property Prices in the US and the UK**

(2000 = 100)

![Graph showing commercial property prices in the US and the UK](image)

Source: MIT’s Center for Real Estate, Bloomberg.

**Figure 2. Delinquency Rates on Loans and Leases at US Commercial Banks**

(percent)

![Graph showing delinquency rates on loans and leases at US commercial banks](image)

Source: Federal Reserve.

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And in my view, the FSA’s prudential policy measures did make at least some contribution to removing these uncertainties. In the early phase of the crisis, Japan did not have in place effective frameworks for disclosure and provisioning with respect to non-performing loans, giving financial firms incentives to postpone the disposal of their non-performing loans for fear of the resulting losses. Based on this bitter experience, the FSA improved disclosure requirements, clarified the rules on write-downs and provisioning, and put in place a prompt corrective action scheme.

Admittedly, this lesson cannot apply directly to solve the difficulties currently faced by the authorities of advanced financial markets, as markets and products have become much more complex. Nevertheless, I think Japan’s this experience does provide some food for thought to the current discussions on ways to move forward.

How Should the Global Financial System Be Strengthened?

In parallel with short-term measures, the world’s financial regulators are advancing medium-term reforms to strengthen financial regulation. As the global financial markets seem to be bottoming out, the focus of policy discussions has shifted to regulatory reforms with a view to avoiding the recurrence of the same kind of crises.

Reflecting the cross-border nature of the current crisis, active discussions are underway internationally, led by the G-20, the FSB, the Basel Committee and others. An international consensus seems to be emerging gradually, as indicated in the G-20 Leaders’ Statement in Pittsburgh in September 2009 and the Communiqué issued by the G-20 Finance Ministers and Central Bank Governors in November 2009.

Next, I will touch on a couple of main issues under discussion: bank capital requirements and how to treat what are called Systemically Important Financial Institutions (SIFIs).

Building High Quality Capital and Mitigating Pro-Cyclicality

“Excess is as bad as shortfall”
—Confucius

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Since Lehman collapsed and Western government injected public money into a number of major Western banks to stabilize the global financial system, the perception among policymakers and market participants has been that both the level and quality of bank capital was too low and therefore the existing capital requirements must be strengthened. Thus the Pittsburgh Summit statement says that stronger capital standards are at the core of the G-20’s multi-faceted financial regulatory reform (Group of Twenty (2009)). In response, the FSB reported to the G-20 that the Basel Committee was working to develop new rules by the end of 2009, and conduct impact study and calibration work in 2010 to establish a credible minimum. They are also committed to ensure that capital requirements operate in a counter-cyclical manner, so that financial institutions would be required to hold capital buffers above the minimum requirements during good times that can be drawn down during bad times. The Basel Committee agreed to develop concrete proposals to this end, including forward-looking provisioning and a counter-cyclical buffer to contain excessive credit growth in boom times (Financial Stability Board (2009a, 2009b)).

Japan is member of the G-20, the FSB, and the Basel Committee. We are committed to take necessary measures to make the global financial system more resilient. Naturally, they would include those to enhance the quality and quantity of capital of financial firms.

Nevertheless, I am concerned about the recent discussions at international fora because the proposed measures seem to be strongly biased to increasing the level of bank capital or, more simply, the capital ratio. Let me summarize these concerns into the following three points:

First, I am skeptical that increasing the overall capital ratio would fix the deficiency of the existing regulatory framework. It is essential that regulatory strengthening address the root causes of the current crisis. From this standpoint, we do think that some strengthening in capital requirements is necessary, particularly with regard to the trading book and securitization. However, raising the capital ratio itself would not be able to correct the misaligned incentives. Without addressing
the problems of insufficient risk capture, and lack of transparency and market integrity, higher capital could end up merely seeding the next crisis. In the absence of the incentives for strengthening risk management, financial firms could be induced to undertake much riskier businesses to meet the demand for higher returns from investors who supply additional capital. The regulatory tightening should focus more on strengthening risk capture, not on the number of the ratio.

It is not appropriate to impose, across the board, a new regime that is structured by assuming a specific business style employed by only a segment of banks. The losses incurred from securitized products greatly differ between large and complex banks in the US and Europe on the one hand, and other banks, such as Japanese banks, on the other (Figure 3). Given that the crisis has severely affected the former banks, it may be inevitable that the discussions on reforms centre on how to cope with the business models taken by these banks. In fact, however, few other banks take that route. In these circumstances, simply increasing the capital ratio regardless of the risks associated with different kinds of business could impair the banks’ capacity to lend to ordinary companies in need of financing.

Figure 3. Losses Incurred from Securitized Products

(as of June 2009; trillion yen)

Source: Banks’ published financial results.

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Also, it is debatable whether the markets actually see the amount of overall capital as the determinant in assessing the soundness of financial firms. Admittedly, the Tier 1 ratio of three Japanese megabanks is on the lower side. If you look at CDS spreads together, however, there are a lot of large banks that set aside much more capital but are deemed by the markets as more risky than Japanese banks (Figure 4).

Second, the strength of the regulatory package must be calibrated to an appropriate level. This is critical to ensure that these measures, seen as a whole, will not adversely affect the nascent economic recovery.

To this end, a quantitative impact study is essential in assessing the cumulative effect of the comprehensive package of regulatory measures not only on soundness of the financial system but also on sustainability of economic growth. So far, discussions on how to strengthen bank capital are made in various subgroups under the FSB and the Basel Committee. For example, there is a subgroup on the definition of capital; there are some groups working on pro-cyclicality; and yet a few others on systemically important banks, and so on. Each individual proposal made by these groups may have sound rationale; but there may be a fallacy of composition. Thus, it is absolutely essential that the Committee (or the FSB) ensure that these measures combined are

![Figure 4. CDS Spreads and Tier 1 Ratio](image_url)
sound as a whole package. The cumulative effect of these measures on the level of capital requirements could turn out to be too high. Then, this could seriously affect bank behavior and the real economy.

In addition, the timing of implementation needs to be carefully judged in terms of whether “financial conditions improve and recovery is assured,” (Group of Twenty, 2009) depending on national circumstances.

Third, the design of counter-cyclical capital buffers warrants careful consideration. Some regulators argue that a higher rate including the buffer could be set as “target,” as opposed to the minimum, implying that meeting the target is not an absolute requirement. However, such a target may not be appropriate and may even be undesirable. Regardless of such a rhetorical difference, markets would deem the target rate as if it were the new minimum. This would require banks to set aside ever more capital, even during difficult periods, which could merely exacerbate the problems I just mentioned.

Reducing Moral Hazard Posed by SIFIs

“The awareness of the ambiguity of one’s highest achievements (as well as one’s deepest failures) is a definite symptom of maturity”
—Paul Tillich

“Intolerance of ambiguity is the mark of an authoritarian personality”
—Theodor W. Adorno

The bankruptcy of Lehman and, especially, the bailout of AIG (American International Group, Inc.), brought about an enormous negative effect on the global financial system and the world economy, leaving the impression that such large financial firms are too big to fail. This could cause serious moral hazard among large financial firms, giving them incentives for further excessive risk taking.

In light of this experience, arguments have been put forward at the G-20 and the FSB that such firms need to be regulated so that the
negative externality they can bring about is internalized (Group of Twenty (2009), Financial Stability Board (2009a)). The proposed measures include tighter capital and liquidity requirements, preparation of contingency and resolution plans (called “living will”), separation of some types of trading and investment banking activities from commercial banking, shrinking of the firms’ size, and funding of resources needed to preserve financial stability in case of failure.

These arguments are theoretically understandable and indeed appealing. In my view, however, careful consideration is warranted if the regulations from this standpoint are to be introduced, and regulators should not rush to conclusions under pressure. This is because the measures contemplated could well have unintended effects on credit flows and the broader economy, if not appropriately designed.

Here, I will touch on three issues in turn, that is, identification of SIFIs, a living will, and surcharges or cost-sharing of externalities.

**Identifying “Systemically Important” Financial Institutions**

The first issue is whether we can identify and, if we can, should specify SIFIs in an articulated manner. On this issue, a report has been prepared recently by the IMF staff and the secretariats of the BIS and the FSB and submitted to the G-20 Finance Ministers and Central Bank Governors (IMF, BIS, and FSB (2009)). The report defines systemic risk as a risk of disruption to financial services caused by impairment within the financial system that has the potential to have serious negative consequence for the real economy, and identify (i) size; (ii) substitutability; and (iii) interconnectedness as the three key criteria in identifying the systemic importance of financial institutions.

It is expected that further considerations will be made at the FSB and the Basel Committee to put this concept into actual regulation. In light of the experience just more than a year ago, and to avoid causing moral hazard among major financial firms, one cannot deny that something must be done to address this issue. At the same time, we must also recognize that the matter is not straightforward, and that a

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2 The report covers also assessing the systemic importance of markets and instruments, but this presentation focuses on that of financial institutions only.

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mechanistic approach just for the sake of simplicity could be detrimental to achieving financial stability. The IMF-BIS-FSB report already mentions this, but let me highlight three points that regulators should keep in mind.

- The assessments of systemic importance necessarily involve a high degree of judgment. As the report says, the assessments will be conditioned by a number of considerations, including the robustness of financial supervision and infrastructure. Although we usually say “too-big-to-fail,” size alone cannot justify systemic importance. If we reflect on our experience in the 1990s, it was the default of a medium-sized securities house in the interbank market that triggered Japan’s banking crisis. At the height of the crisis, the failure of even a small local bank could have resulted in a system-wide meltdown. Determination of systemic importance would therefore be situation-dependent.

- Domestic and cross-border banking should be separated in the assessment. A financial institution that is systemically important in the domestic setting may not be so in the global context. This distinction should be relevant in part because a robust framework for cross-border crisis management and bank resolution is almost non-existent at this point in time. We should therefore distinguish the former from the latter, e.g., in terms of their composition of assets.

- Constructive ambiguity could be more desirable than explicit identification of SIFIs with a view to preventing moral hazard. Identifying SIFIs risks being interpreted by the markets as granting a “too-big-to-fail” status to these financial firms. What is called “cliff effect” is another concern, as clear distinction between SIFIs and non-SIFIs could induce regulatory arbitrage.

“Living Will”

The idea of a “living will” in the context of financial reform seems to have been floated initially by Lord Turner, Chairman of the UK’s FSA (Financial Services Authority), earlier this year.3 As I

3 Lord Turner’s idea has been elaborated further in Financial Services Authority (2009).
understand it, a “living will,” namely a contingency plan and a resolution plan, would aim to reduce the probability of failure of a SIFI and, in case of a failure, enable the authorities to resolve it without causing systemic disruption and without injecting taxpayers’ money. This concept has been incorporated into the FSB’s work program to address the problems associated with SIFIs, and the FSB plans to submit final recommendation in October 2010 (Financial Stability Board (2009b)).

My concern is that expectations for a “living will” seem too high. Contingency planning and raising preparedness in anticipation of time of stress is highly important. This is the hallmark of risk management and supervision, and there is no need to come up with a separate plan. The issue here is the extent of detail in such planning exercise. Our experience suggests that a financial institution’s will for survival often leads to last-minute deals which could easily make a pre-determined plan completely out of date. Then the plans would turn out to be completely useless, even if they had been prepared in detail.

A reasonable target may consist of more practical efforts, such as: (i) identification of impediments to emergency operations; (ii) enhancement of information sharing; and (iii) identification of jurisdictions where transactions are booked. Without such examination and common understanding of the extent of details, “living wills” could end up as excessively time- and resource-consuming exercises without commensurate expected benefits.

In this respect, I think that the Lehman bankruptcy offers an excellent case study to identify what the crucial issues are and what sort of measures are needed. Drawing from that experience, possible challenges for orderly resolution of SIFIs would include: the booking of transactions managed cross-border; the scope of application of domestic insolvency laws, the international consistency of these laws, and their effects on supervision of overseas subsidiaries; and the extent of information sharing and the nature of decision-making process in resolution of these firms. In fact, Lehman’s transaction in Japan were booked mostly in London, and that had significant legal implications when Lehman collapsed, given the difference in bankruptcy laws between the UK and Japan.
Capital Surcharge and Cost-Sharing

A prevalent argument goes that SIFIs should be subject to stricter capital requirements so that they would be able to withstand stress on a going concern basis, as it is difficult to make such firms to fail. One idea could be to impose a surcharge on these institutions in the form of an added capital adequacy ratio according to their systemic importance.

I acknowledge that this argument has a point. However, I would also say that a capital surcharge is, even if it is a solution, only part of a package of solutions. We should recall that a number of failed major institutions, including Lehman, once boasted their high capital adequacy ratio. As it turned out, the level of capital they set aside was too low. But this is mostly because the denominator of their capital adequacy ratio, namely their risk-weighted assets, was calculated as a very small amount. It may be the result of regulatory arbitrage or shortcomings in their risk management systems. This means that static compliance with strengthened capital requirements is neither a replacement nor a substitute for good, proper, and dynamic risk management. It should also be noted that financial firms often fail because of illiquidity rather than insolvency. This suggests that considering introduction of liquidity surcharge would be no less important.

I also wonder whether it is unrealistic and even undesirable to make each financial firm prepare for any future crises by building capital upfront. As mentioned earlier, requiring more capital could induce banks to take on risks to achieve greater return on equity while curtailing provision of less profitable but less risky credit to the real sector. Demanding too much capital on banks might increase dead weight cost to the economy and reduce social welfare. Financial stability is a public good: therefore, public support to sustain financial stability should not be ruled out categorically. The issue is how to share the burden of huge tail losses and its associated systemic impact between the financial sector (and borrowers) and the public sector (and taxpayers).

As we have seen, the problems of SIFIs are not simple and straightforward. It is not the issue of identifying such institutions in a mechanical manner and imposing just a capital surcharge. Dealing with SIFIs...
would require a much more holistic approach, which would also involve more intensive supervision of risk management practices, more focus on liquidity, a robust framework for resolution of financial firms and realistic burden-sharing of the cost of financial crises.

References


III. THE REGULATION OF COMPLEX FINANCIAL PRODUCTS
CHAPTER 11
Regulating Credit Default Swaps in the Wake of the Subprime Crisis

JERRY W. MARKHAM

Introduction

The subprime crisis focused much attention on credit default swaps (CDS) and the role they played in the failure of the American International Group Inc. (AIG). The bailout of AIG by the U.S. government was unprecedented in size and scope, and the amount of the bill to the taxpayers for that and other failures is yet to be tallied. The U.S. government, and those in Europe, are seeking to regulate the previously unregulated CDS market. To date, that effort has focused on the creation of central clearinghouses for CDS, which, it is hoped, will lead to greater transparency.¹ The development of such clearinghouses is supported by the derivatives industry, and several clearinghouses have already been formed to carry out this activity. “Legacy” swaps are being registered with those clearinghouses and plans are underway for listing new originations. More troubling to the industry is the Obama administration’s request for broader, more intrusive, indeed pervasive, regulation of CDS by the Securities and Exchange Commission (SEC) and other over-the-counter (OTC) derivatives by the Commodity Futures Trading Commission (CFTC).²

This chapter will review the role played by CDS in the subprime crisis and the Great Panic of 2008. It will describe how the subprime crisis caused a sharp, probably unjustified, devaluation in the so-called “Super Senior” component of collateralized debt obligations (CDOs), which were at the heart of the crisis, and which in many instances were covered by CDS. This paper will also address ongoing governmental efforts to regulate the CDS market.

The Subprime Market

Growth of Subprime Lending

Historically, most commercial banks avoided subprime lending because of the credit risks associated with such loans.\(^3\) To avoid losses from subprime credits, large banks traditionally “redlined” areas of the communities where subprime borrowers lived, and refused to make mortgage loans in those areas.\(^4\) Minorities were often concentrated in the redlined areas, and this practice came to be viewed as racially discriminatory.\(^5\) In order to stop this practice, the Home Mortgage Disclosure Act of 1975 (HMDA)\(^6\) required banking institutions in metropolitan areas to disclose their mortgage loans by classification and geographic location. These disclosures were expected to reveal the existence of discriminatory lending patterns.

\(^3\) A subprime loan is one that has a high likelihood of default because the borrower is not creditworthy. Although there are no uniform standards for classifying a mortgage as subprime, a loan is generally viewed to be such if the borrower falls within one of the following categories: (1) those with a poor credit history; (2) those with no credit history; and (3) borrowers who have existing credit, but who are over extended. See Note, “The Entrance of Banks Into Subprime Lending: First Union and the Money Store,” 3 N.C. Banking Inst. 149, 150-51 (1999). FICO credit scores are also used to identify subprime borrowers. See In re Countrywide Fin. Corp. Sec. Litig., 2008 U.S. Dist. LEXIS 102000 (C.D. Cal. 2008).


\(^5\) See generally National State Bank v. Long, 630 F.2d 981(3rd Cir. 1980) (describing this practice).

The Community Reinvestment Act (CRA) of 1977\(^7\) went a step further than the HMDA. The CRA required affirmative action by banks in meeting the credit needs of minorities in their service areas. Loans to subprime areas were made a statutory condition by the CRA for receiving regulatory approval for bank mergers.\(^8\) However, that legislation did not prove to be immediately effective in expanding subprime lending. This was because bank merger activity was slow in the 1970s, and banks continued to shy away from the credit risks associated with such loans. The Clinton administration sought to overcome that resistance through its National Homeownership Strategy, which had as its goal to increase the percentage of owner occupied residences from 64 to 67.5 percent by the year 2000.\(^9\) That strategy was to be carried out by increasing the availability of subprime mortgages. That lending was to be motivated by additional CRA requirements that, “in the words of the Federal Reserve Governor who wrote the [new] regulations, set up soft quotas on lending in underserved areas.”\(^10\)

The Clinton administration’s CRA efforts led to an eighty percent increase in the number of subprime mortgages.\(^11\) Clinton was aided by


\(^10\) Congressional Senate Oversight Committee, Hearings on Regulation of the Financial Sector, Jan. 14, 2009, visited at http://www.lexis.com/research/retrieve?_m=e1179c9a3f8ef7bfac700b6c4b3bab8d&docnum=1&_fmtstr=FULL&_startdoc=1&wchp=dGLbVlbdSkAz&_md5=993b42918333c497475d06ceb3b6121&focBudTerms=clinton%20administration%20and%20subprime%20&focBudSel=all.

\(^11\) Roberta Achtenberg, a HUD assistant secretary established a nationwide CRA enforcement program that was designed to force banks to make subprime loans. As one author asserts:

Banks were compelled to jump into line, and soon they were making thousands of loans without any cash-down deposits whatsoever, an unprecedented situation. Mortgage officers inside the banks were forced to bend (continued)
an increase in bank merger activity that motivated banks to make some massive CRA commitments. For example, Washington Mutual made a CRA pledge of $120 billion in its 1998 acquisition of HF Ahmanson & Co.\textsuperscript{12} The merger of Citibank and the Travelers Group in 1999 resulted in a ten-year $115 billion CRA pledge.\textsuperscript{13} The explosive growth of subprime CRA pledges carried over into the Bush administration. Bank of America made a ten-year CRA pledge of $750 billion when it merged with FleetBoston Financial Corp. in 2003.\textsuperscript{14} JPMorgan Chase made a larger $800 billion CRA pledge when it merged with Bank One Corp. in 2004.\textsuperscript{15} One website, which is highly critical of CRA pledges, claims that total CRA commitments by banks reached the astonishing figure of $4.2 trillion by 2004.\textsuperscript{16}

After being forced into the subprime market by the federal government, banks found the business to their liking. This was another unfortunate legacy of the CRA. As former Senator Phil Gramm has noted: “It was not just that CRA and federal housing policy pressured lenders to make risky loans—but that they gave lenders the excuse and regulatory cover” to enter what was appearing to be a lucrative business in which risks could be managed through securitizations.\textsuperscript{17} Subprime lenders were initially an industry unto themselves because large banks avoided such lending until the CRA pushed them into it.

\textsuperscript{13} See Lissa L. Broome and Jerry W. Markham, \textit{Regulation of Banking Financial Service Activities, Cases and Materials}, 405-406 (3d ed. 2008) [hereinafter Regulation of Banking].
\textsuperscript{15} See Regulation of Banking, \textit{supra note} 14, at 405-406.
There were only ten lenders in the subprime market in 1994, but their numbers increased to fifty by 1998. By 2001, after motivation from the CRA, ten of the twenty-five largest subprime lenders were banks or bank affiliates.\textsuperscript{18}

As a result of efforts by the Clinton administration, “[s]ubprime mortgage originations grew from $35 billion in 1994 to $140 billion in 2000, indicating an average annual growth rate of 26 percent.”\textsuperscript{19} Clinton certainly laid the groundwork for the subprime crisis, but subprime lending exploded during the years of the George W. Bush administration. As one source points out:

Some 80 percent of outstanding U.S. mortgages are prime, while 14 percent are subprime and 6 percent fall into the near-prime category. These numbers, however, mask the explosive growth of nonprime mortgages. Subprime and near-prime loans shot up from 9 percent of newly originat-ed securitized mortgages in 2001 to 40 percent in 2006.\textsuperscript{20}

The Federal Reserve Board has contended that the CRA did not cause the subprime crisis because many subprime loans did not have CRA credit.\textsuperscript{21} It has also been asserted that the CRA was not responsible for the subprime crisis because: (1) few CRA loan applications were denied, which it is claimed demonstrates they were good loans; (2) many of the players in the subprime market were not regulated banks; and (3) most subprime loans originated in California, Florida and Nevada, suggesting that, since CRA had little effect elsewhere, it was not to blame.\textsuperscript{22} These claims overlook the fact that the CRA

\textsuperscript{18} See Regulation of Banking, supra note 14 at 412.
required, and thereby legitimatized, subprime lending by institutions that had previously shied away from such risky loans. As former Fed Chairman Alan Greenspan testified before Congress in October 2008: “It’s instructive to go back to the early stages of the subprime market, which has essentially emerged out of the CRA.”

Both the Clinton and Bush (43) administrations also pushed toward more subprime involvement by two giant government sponsored enterprises (“GSEs”), Fannie Mae and Freddie Mac. By 2000, about fifty percent of their portfolios were subprime products. This further legitimatized subprime lending by putting a government stamp of approval on these mortgages, as well as an implicit government guarantee.

**Growth of the CDO Market**

The Federal Reserve Board admonished banks that CRA loans were to be made in a safe and sound manner. That admonition begged the question of how do you make a safe and sound subprime loan when, as Fed Chairman Ben Bernanke has candidly admitted, those borrowers pose a “high credit risk?” The solution for this counterparty risk problem was solved by the Clinton administration when CRA regulations were amended in 1995 to allow CRA based subprime loans to

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23 Phil Gramm, “Deregulation and the Financial Panic,” *Wall St. Journal*, Feb. 20, 2009, at A17. The newest twist on the CRA was Goldman Sach’s announcement that it was giving $500 million to aid small businesses. That announcement was designed to deflect criticism of its massive bonus pool, but critics noted that this contribution would also allow Goldman, which had converted to a bank holding company during the crisis, to meet its CRA needs in future years. Francesco Guerrera and Tom Braithwaite, “Goldman Boost From Business Aid Fund,” *Financial Times* (London), Nov. 20, 2009, at 15.


25 See Federal Reserve Board: Community Reinvestment Act, http://www.federalreserve.gov/dcca/cra/ (last visited Nov. 12, 2009) (“Nor does the law require institutions to make high-risk loans that jeopardize their safety. To the contrary, the law makes it clear that an institution’s CRA activities should be undertaken in a safe and sound manner.”).

be securitized. Securitization provided the banks with a way to move subprime loans off their balance sheets, and it allowed “lenders to shift mortgage credit risk and interest rate risk to investors who have greater risk tolerance.”

The amount of securitized subprime mortgages grew from about $11 billion in 1994 to over $100 billion in 2002. Bear Stearns made its first subprime securitization offering in 1997 for mortgages totaling $385 million, and it underwrote an additional $1.9 billion in CRA securitizations over the next ten months. “By 2005, almost 68 percent of home mortgage originations were securitized.”

The FDIC noted, in 2006, that: A significant development in the mortgage securities market is the recent and dramatic expansion of private-label, [mortgage-backed securities] MBS. Total outstanding private-label MBS represented 29 percent of total outstanding MBS in 2005, more than double the share in 2003. Of total private-label MBS issuance, two thirds comprised non-prime loans in 2005, up from 46 percent in 2003.

The securitization process was carried out through CDOs that were distributed through “warehouse” operations, in which mortgages were purchased from non-bank originators by investment banks and then resold through securitizations. These warehousing operations became a part of an unregulated “shadow banking” system. A shareholder report by UBS AG described its CDO facility as follows:

29 See Cohan, supra note 25, at 297.
31 Id.
32 These warehousing operations often involved the purchase on non-bank subprime mortgage originations by investment banks like Bear Stearns and Merrill Lynch. See Paul Muolo & Mathew Padilla, Chain of Blame (2008) (describing these warehousing operations).
In the initial stage of a CDO securitization, the [CDO] desk would typically enter into an agreement with a collateral manager. UBS sourced residential mortgage backed securities (“RMBS”) and other securities on behalf of the manager. These positions were held in a CDO Warehouse in anticipation of securitization into CDOs. Generally, while in the Warehouse, these positions would be on UBS’s books with exposure to market risk. Upon completion of the Warehouse, the securities were transferred to a CDO special-purpose vehicle, and structured into tranches. The CDO desk received structuring fees on the notional value of the deal, and focused on Mezzanine (“Mezz”) CDOs, which generated fees of approximately 125 to 150 bp (compared with high-grade CDOs, which generated fees of approximately 30 to 50 bp). …

Under normal market conditions, there would be a rise and fall in positions held in the CDO Warehouse line as assets were accumulated (“ramped up”) and then sold as CDOs. There was typically a lag of between 1 and 4 months between initial agreement with a collateral manager to buy assets, and the full ramping of a CDO Warehouse.33

Subprime CDOs were broken up into separate tranches. The less secure tranches were required to absorb any larger than expected losses from mortgage defaults, providing a cushion from loss for the most secure tranche, called the “Super-Senior.” As a result of this credit enhancement feature, the Super-Seniors were considered to be more credit-worthy than the underlying subprime mortgages themselves. The use of multiple payment stream tranches for a securitization was not a novel concept. “Collateralized mortgage obligations” (CMOs), also known as “real estate mortgage investment conduits” (REMICs), was a product that divided principal and interest payments from the mortgages placed in the pool into different payment streams.34

Mortgage principal and interest payments were not passed through to CMO investors pro rata, as was the case for the original GNMA pass

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34 This product was created in 1983 for Freddie Mac by Larry Fink, now the head of BlackRock Inc., the giant asset manager. Charles Morris, The Trillion Dollar Meltdown 39 (2008).
through mortgage certificates.\footnote{Those certificates involved the pooling of a bundle of mortgages into a trust or other special-purpose entity. Certificates of ownership were then sold in that pool. The certificate holders were paid the monthly mortgage payments in aliquot portions from the pool. The value of these certificates would fluctuate as interest rates changed. For a description of the GNMA pass-through securities see Rockford Life Insurance Co. v. Ill. Dept. of Revenue, 482 U.S. 316 (1987).} Instead, the CMO mortgage payments were divided into separate tranches with varying payment streams and with differing maturities, seniority, subordination, and other characteristics.\footnote{See Banca Cremi, S.A. v. Alexander Brown & Sons, Inc., 132 F.3d 1017 (4th Cir. 1997) (describing CMOs).} The CMO market was crushed in 1994 after the Fed increased short-term interest rates for the first time in five years.\footnote{See Morris, supra note 35, at 39-43.} Some of the tranches in the CMOs were so complex that Goldman Sachs had to use multiple supercomputers to run simulations of cash flows under different interest-rate scenarios.\footnote{CMOs often contained exotic tranches, including inverse floaters and inverse interest-only strips that converted fixed rate mortgages into floating rate tranches. Inverse floaters had a set principal amount and earned interest at a rate that moved inversely to a specified floating index rate. The principal amount on which that interest rate was calculated was determined by reference to the outstanding principal amount of another tranche. As the reference tranche was paid off, the principal on which the inverse interest-only strip earned interest decreased. A rate increase reduced the inverse interest-only floating rate, but also extended its maturity and, thereby, increased total interest payments. These tranches were deemed necessary in order to cover the effects of increases in interest rates, which caused their maturity date to expand. Inverse floaters could receive high returns if interest rates declined or remained constant, but suffer large losses if interest rates decreased. Inverse interest-only strips did not receive principal payments. These floaters were leveraged, so that a small increase in interest rates would cause a dramatic decrease in the inverse floating-rate. See Banca Cremi, S.A. v. Alexander Brown & Sons, Inc., 132 F.3d 1017 (4th Cir. 1997) (describing CMOs).} That problem presaged the valuation issues that would emerge during the subprime crisis in 2007.\footnote{See Jerry W. Markham, A Financial History of the United States, From the Age of Derivatives to the New Millennium (1970-2001) 143-144 (2002). Among those hurt by the CMO market was Merrill Lynch, after one of its traders, Howard Rubin, lost over $337 million, in 1987, through unauthorized}
Growth of Credit Default Swaps

CDS

A CDS is an agreement by one party to make a series of payments to a counter party, in exchange for a payoff, if a specified credit instrument goes into default. As one court defined these instruments:

a common type of credit derivative in which the protection buyer makes a fixed payment to the protection seller in return for a payment that is contingent upon a ‘credit event’—such as a bankruptcy—occurring to the company that issued the security (the ‘reference entity’) or the security itself (the ‘reference obligation’). The contingent payment is often made against delivery of a ‘deliverable obligation’—usually the reference obligation or other security issued by the reference entity—by the protection buyer to the protection seller. This delivery is known as the ‘physical settlement.’

Although CDS were widely used as a form of insurance against a default from that credit instrument, they were also used for speculation on whether a default will occur. It was estimated that eighty percent

CMO transactions. Merrill Lynch was able to work itself out of all but $85 million of that loss. Rubin was then hired by Bear Stearns and became a star in its mortgage trading. See Cohan, supra note 25, at 209-210.

40 Deutsche Bank AG v. Ambac Credit Products LLC, 2006 U.S. Dist. LEXIS 45322 (S.D.N.Y. 2006). Peter Wallison, an American Enterprise Institute Fellow, gave the following description of a credit default swap where: Bank A is trying to hedge its exposure from a $10 million loan to company B “by going to C, a dealer in these swaps, who agrees to pay the $10 million to A if B defaults, in exchange for paying an annual premium to C for the protection. A will want collateral from C to be sure it’s good for the debt.” L. Gordon Crovitz, When Even Good News Worsens a Panic, Wall St. J., Nov. 24, 2008, at A17.L.

41 An ABX Index was created to track the value of mortgaged-backed securities based on credit default swaps.

The ABX Index is a series of credit-default swaps based on 20 bonds that consist of subprime mortgages. ABX contracts are commonly used by (continued)
or more of the giant CDS market was speculative. The CDS, in all events, proved to be a popular instrument. Outstanding notional value of the CDS was over $42 trillion in debt at year-end 2007.

CDS were used to enhance the creditworthiness of subprime securitizations. As an April 2008 UBS shareholder report noted, “[k]ey to the growth of the CDO structuring business was the development of the credit default swap (‘CDS’). . . .” With the credit enhancement investors to speculate on or to hedge against the risk that the underlying mortgage securities are not repaid as expected. The ABX swaps offer protection if the securities are not repaid as expected, in return for regular insurance-like premiums. A decline in the ABX Index signifies investor sentiment that subprime mortgage holders will suffer increased financial losses from those investments. Likewise, an increase in the ABX Index signifies investor sentiment looking for subprime mortgage holdings to perform better as investments.


44 Another credit enhancement device for CDOs was the use of credit insurance written by the “monoline” insurance companies, such as MBIA Inc. and Ambac Financial Corp. Unfortunately, these insurers did not have sufficient capital to cover the losses they insured on CDOs. See Landmen Partners Inc. v. Blackstone Group, L.P., 2009 U.S. Dist. LEXIS 87001 (S.D.N.Y. 2009) (describing monoline CDO insurance).

of a CDS, the credit rating agencies often gave the Super Seniors their highest triple-A rating. This was the same credit rating enjoyed by the federal government, which signaled to the world that a default on those Super Senior tranches was highly unlikely. Unfortunately, the rating agencies’ risk models for awarding the triple-A rating on CDOs did not take into account the possibility of a major downturn in the real estate market. That flaw was not spotted until the subprime crisis arose.

A risk model developed by David Li did for CDOs what the Black-Scholes model did for options. Seemingly, it allowed a supposed precise mathematical computation of the risks posed by these instruments. That and other Gaussian Copula risk models failed, however, to predict the massive losses sustained by commercial banks in the United States, and Europe, from their exposures to subprime CDOs.46 Fail they did, but there was no cabal using a secret formula to deceive investors. Moody’s actually published its CDO risk assessment model (CDOROM), which became the industry standard, on the Internet in 2004. The whole world was free to discover its flaws but, except for a few naysayers, the model went pretty much unchallenged.47

The mathematical model used to rate CDOs proved to be badly flawed.48 Critics charged that these models were defective because they relied on historical prices generated by a rising market. That Pollyanna approach overlooked the possibility of a hundred-year “perfect” storm, which arrived in the form of the subprime crisis. The possibility of such an unusual event was called a “fat tail” or “outlier.” They were also called “black swans,” as a metaphor for the widely held belief that there was no such thing as a black swan, until explorers reached Australia and found just such a bird.49 The probability of an outlier was considered so small that they were ignored by the credit assessors.

Lloyd Blankfein, the CEO at Goldman Sachs, also asserted that many financial institutions had erred in outsourcing their risk management to the rating agencies. He believed that the rating agencies had diluted their triple-A rating by giving that rating to over 64,000 structured finance instruments, while only twelve operating companies in the world had such a rating.\footnote{See “Heard on the Street,” \textit{Wall St. Journal}, Apr. 11, 2009, at B8.}

The high credit ratings given to the Super Senior tranches posed another problem. These securities were hard to market due to their lower interest rates, which was a function of their triple-A rating. That problem was solved after bank regulators in the United States allowed favorable capital treatment of Super Seniors on bank balance sheets, provided that the Super Senior had a triple-A credit rating.\footnote{See Tett, supra, note 48, 63-64.} This regulatory blessing removed any residual concerns on the part of the banks of undue risk from Super-Seniors and created a demand for the Super Seniors by banks here and abroad. As a result, a large portion of the Super Senior tranches were held on the books of many major investment banks such as Citigroup, Merrill Lynch, UBS AG and Lehman Brothers. The twenty-five largest banks were also holding $13 trillion in CDS notionals on their books in March 2008.\footnote{See Janet Morrissey, “Credit Default Swaps: The Next Crisis,” \textit{Time}, Mar. 17, 2008, available at http://www.time.com/time/business/article/0,8599,1723152,00.html.}

The AIG Debacle

A credit downgrade at the American International Group, Inc. (AIG) in September 2008 raised concerns that large losses would be experienced in the financial community if AIG defaulted on its $500 billion CDS portfolio. This spurred the federal government to mount a $183 billion rescue of that firm.\footnote{See Lauren Silva Laughlin, “Is the A.I.G. Rally a Little Early?” \textit{N.Y. Times}, Sept. 8, 2009, at B2.} AIG entered the CDS market in a big way in 2005 through its division called AIGFP, which had been founded by a group of traders from Drexel Burnham Lambert, the failed junk bond broker of Michael Milken fame.\footnote{Gretchen Morgenson, “Behind Biggest Insurer’s Crisis, A Blind Eye to a Web of Risk,” \textit{N.Y. Times}, Sept. 28, 2009, at A1.} AIGFP’s risk model
predicted that, based on historic default rates, the economy would have to fall into depression before AIG would experience losses from its CDS exposures.\textsuperscript{55} AIGFP assured investors in August 2007 that “it is hard for us, without being flippant, to even see a scenario within any kind of realm of reason that would see us losing $1 in any of those transactions.”\textsuperscript{56}

AIG’s share price dropped sharply after it reported a large 2007 fourth quarter loss that was accompanied by a $5.29 billion write-down of its mortgage related business, including a write-down of its credit CDS business by $4.88 billion.\textsuperscript{57} AIG reported a loss of $7.81 billion in the first quarter of 2008, largely due to a write down of $11 billion related to losses from Super Senior CDS written by the AIG Financial Products Corp. (AIGFP).\textsuperscript{58} Another $3.6 billion was written off by AIG for those instruments in the second quarter of 2008, adding to the $5.36 billion loss by AIG in that quarter.\textsuperscript{59} AIG reported a loss in the third quarter of $24.47 billion, including losses of $7.05 billion in AIGFP.\textsuperscript{60}

Fed chairman Ben Bernanke turned AIG and the CDS market into a pariah when he declared in congressional testimony that nothing

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had made him more angry than the AIG failure, which he attributed to AIG’s exploitation of “a huge gap in the regulatory system.” He asserted that AIGFP was nothing more than a hedge fund attached to large and stable insurance company that “made huge numbers of irresponsible bets, [and] took huge losses. There was no regulatory oversight because there was a gap in the system.” Bernanke stated that the government was forced to expend billions of dollars to save AIG because its failure would have been “disastrous for the economy.”

Actually, it appears that AIG’s failure was the result of credit downgrades, prompted by AIG’s write-downs of its CDS positions. Those write-downs were caused by a lack of a market that could accurately price the underlying Super Seniors. The subsequent credit downgrades caused large collateral calls that AIG did not have the liquidity to meet.

AIG’s CEO, Martin Sullivan blamed mark-to-market accounting requirements for the losses sustained by AIGFP. Sullivan complained that AIG was required to markdown its inventories even though it had no intention of selling them. He may have had a point, as this was a common complaint in the industry. Fair value pricing was resulting

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in a pro-cyclical progression of write-downs that bore no relation to actual value. As Peter Wallison, an American Enterprise Institute Fellow, noted in the midst of the subprime crisis:

As losses mounted in subprime mortgage portfolios in mid-2007, lenders demanded more collateral. If the companies holding the assets did not have additional collateral to supply, they were compelled to sell the assets. These sales depressed the market for mortgage-backed securities (MBS) and also raised questions about the quality of the ratings these securities had previously received. Doubts about the quality of ratings for MBS raised questions about the quality of ratings for other asset-backed securities (ABS). Because of the complexity of many of the instruments out in the market, it also became difficult to determine where the real losses on MBS and ABS actually resided. As a result, trading in MBS and ABS came virtually to a halt and has remained at a standstill for almost a year. Meanwhile, continued withdrawal of financing sources has compelled the holders of ABS to sell them at distressed or liquidation prices, even though the underlying cash flows of these portfolios have not necessarily been seriously diminished. As more and more distress or liquidation sales occurred, asset prices declined further, and these declines created more lender demands for additional collateral, resulting in more distress or liquidation sales and more declines in asset values as measured on a mark-to-market basis. A downward spiral developed and is still operating.67

67 Id.

Peter J. Wallison, “Fair Value Accounting: A Critique,” Fin. Servs. Outlook (Am. Enterprise Inst. for Pub. Pol’y, Washington D.C.), July 2008, at 2. That concept was further advanced with FASB’s SFAS 157, which was adopted in 2006, just as the subprime market peaked, and became effective for fiscal years beginning after November 15, 2007. SFAS 157 specified how fair value was to be reached, placing the most emphasis on the use of market prices when available. See id.

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“The difficulty in putting a value on loans, securities, and exotic financial instruments banks were carrying on their books became one of the most debilitating features of the Great Panic” in 2008. Critics of fair value accounting charged that, because liquidity in subprime investments had dried up as the subprime crisis blossomed, the only prices available for “fair value” accounting were fire sale prices from desperate sellers. Those prices in no way reflected the actual value of the Super Seniors as measured by their cash flows or defaults. One accountant complained to the FASB that: “May the souls of those who developed FASB 157 burn in the seventh circle of Dante’s Hell.” Warren Buffett likened mark-to-market requirements for measuring bank regulatory capital to throwing “gasoline on the fire in terms of financial institutions.” Paul Volcker, the former Fed Chairman was also an opponent of fair value accounting for banks.

The SEC gave some interpretative relief on September 23, 2008. The Emergency Economic Stabilization Act passed on October 3, 2008 required the SEC to conduct a study of mark-to-market accounting and

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68 Wessel, supra note 62, at 128
70 Holman W. Jenkins, Jr., “Buffett’s Unmentionable Bank Solution,” Wall St. Journal, Mar. 11, 2009, at A13. As one author noted: The argument against fair value is a compelling one: volatile markets make securities valuation difficult and undermine investors’ confidence, forcing companies to mark down values, leading to greater illiquidity and further markdowns. The more the markdowns impair capital, the greater the loss of investor confidence, and the faster the churn of the self-reinforcing cycle.

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authorized suspension of that requirement. However, a debate arose over whether a suspension was appropriate, and the SEC subsequently announced that it had decided not to suspend mark-to-market accounting. Its staff stated that: “Rather than a crisis precipitated by fair value accounting, the crisis was a ‘run on the bank’ at certain institutions, manifesting itself in counterparties reducing or eliminating the various credit and other risk exposures they had to each firm.”

The Bank for International Settlements’ (BIS) Basel Committee on Banking Supervision published guidance on how banks should value financial instruments held in inventory. Its concern was that banks were using overly optimistic pricing models for instruments that did not have an ascertainable market price. BIS also wanted independent verification of prices. Actually, it later appeared that the banks had become too pessimistic during the subprime crisis in their valuations, valuing their subprime investment at prices lower than would be

73 This would not have been the first suspension of mark-to-market accounting during a crisis. “What many people do not realize is that mark-to-market accounting existed in the Great Depression and, according to Milton Friedman, was an important reason behind many bank failures. In 1938, Franklin Delano Roosevelt called on a commission to study the problem and the rule was finally suspended.” Brian S. Wesbury & Robert Stein, Mr. President, Suspend Mark-To-Market, Forbes.com, Jan. 21, 2009, http://www.forbes.com/2009/01/20/accounting-treasury-obama-oped-cx_bw_rs_0121wesburystein.html (last visited Nov. 12, 2009). The Reconstruction Finance Corp. (RFC) dropped fair value accounting requirements, during the Great Depression. The RFC “deemphasized the liquidity and marketability of bank assets, and evaluated high-grade securities at their potential, not market, value. The RFC gave book or cost value to the highest grade bonds, market value for bonds in default, face value for slow but sound assets, and a reasonable valuation for doubtful assets like real estate.” James S. Olson, Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1933-1940, 79-80 (1988).


justified by a discounted cash flow analysis. Some horse back arithmetic seems to confirm this state of over-pessimism.

At the end of the first quarter in 2009, the delinquency rate for subprime mortgages, i.e., those with payments more than sixty days overdue, was sixteen percent, but CDOs had been sold for as little as twenty-one cents on the dollar. This defies explanation. Fifty percent or more of the value of the sixteen percent of homes foreclosed should be recovered in foreclosure proceedings. Moreover, the Super Seniors were modeled to withstand a loss in foreclosure of four percent or more, plus many Super Seniors had four percent or more in CDS coverage. Even adding in a big risk discount for the new junk bond status of these once triple-A Super Seniors does not justify the steep discounts at which these instruments were dumped on the market.

This analysis is, admittedly, over-simplistic, but it does seem to suggest that the massive write-downs of the Super Seniors were driven by panic and had no ties to the actual value of many of these securities. The experience at AIG is of some interest in this analysis. Gerry Pasciuocco, a vice chair at Morgan Stanley, was brought in to wind down AIGFP. He determined that AIG had a notional $2.7 trillion for its swap contracts, and 50,000 outstanding trades with 2000 different firms. AIG was weakened after it wrote off some $20 billion in Super Senior CDS. AIG noted that these were marked-to-market unrealized losses due to fair value accounting and that it did not expect to have an actual material loss from these exposures.

At the end of the second quarter in 2009, AIG posted a $184 million unrealized market gain on its super senior CDS portfolio, due

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81 See O’Harrow & Dennis, supra note 57.
mainly to the substantial decline in outstanding net notional amount resulting from the termination of contracts in the fourth quarter of 2008, as well as to the narrowing of corporate credit spreads. The effort to add some realism was aided by Moody’s and Standard & Poor’s, which agreed to assess not only the probability of a loss, but also the likely size of the loss. Unfortunately, that action came only after huge write downs had been taken that were based only on rating downgrades (down to junk bond status) that were based solely on the likelihood of a loss, without regard to the size of the loss.

Regulation of Derivative Instruments

Some History

The regulation of derivative instruments in the United States began with commodity futures contracts. Although futures trading was occurring in Chicago before the Civil War, the commodity exchanges were largely untouched by federal regulation until the enactment of the Grain Futures Act of 1922 ("GFA"). The GFA limited commodity futures trading to “contract markets” licensed by the federal government. This requirement was intended to eliminate bucket shops and to require the registered contract markets to police their members in order to protect their licenses.

85 For a description of the commodity markets and futures trading see Merrill Lynch, Pierce, Fenner & Smith Inc. v. Curran, 456 U.S. 353 (2982).
87 The GFA authorized the Secretary of Agriculture to designate a “board of trade” as a “contract market.” Once registered, the contract market was required to police its members’ conduct in order to prevent manipulation and dissemination of false reports that could affect commodity prices. See Grain Futures Act of 1922.
Further regulation was added by the Commodity Exchange Act of 1936 (CEA), after depressed grain prices were blamed on speculators operating on the commodity futures exchanges. The CEA prohibited commodity price manipulation, and sought to suppress trading in commodity options, which had been the subject of abuses. Exempted from its reach were transactions in “cash” or “actual” contracts and “forward” or “deferred delivery” contracts. The CEA continued to regulate the futures markets by requiring their registration and imposing duties on those exchanges to prevent manipulation. “Futures commission merchants,” which are brokerage firms that accept orders and funds from customers on the contract markets, were also required to register. This statute was administered by the Department of Agriculture.

Turmoil in the commodity markets in the 1970s led to broader regulation over the commodity futures exchanges. That legislation, the Commodity Futures Trading Commission Act of 1974, created a new federal regulatory agency, the Commodity Futures Trading Commission (CFTC), which was intended to be the futures industry analogue to the SEC. The CFTC Act expanded the scope of the CEA to include all commodities, not just those that had been previously enumerated

94 The legislation also established a Commodity Exchange Commission composed of the Secretary of Agriculture, the Secretary of Commerce and the Attorney General, that was authorized to suspend or revoke the registration of the contract market if it failed to prevent manipulative activity by its members. Id.
95 See History of Commodity Futures Trading, supra note 87, at 52-56.
in the statute over the years, which swept up even futures contracts on financial instruments.97

**Financial Futures**

Soon after the CFTC was created, the Chicago Board of Trade introduced a futures contract on GNMA pass-through mortgage certificates that the CFTC approved. That contract was immediately successful and its success was followed by innovative futures contracts on stock indexes, such as the S&P 500 and later the Dow Jones indexes. The approval of those futures contracts, which the SEC viewed as securities industry products, set off a long-running war between the SEC and CFTC over who should have jurisdiction over such instruments.98

The SEC retaliated by seeking to have Congress remove jurisdiction from the CFTC over futures and options on securities products. In 1978, during the CFTC’s congressional reauthorization hearings, the SEC sought jurisdiction over futures contracts where the underlying “commodity” was a security. The Treasury Department also sought a regulatory role over futures contracts where the underlying commodity was a government security. The Congress rejected those requests, but did require the CFTC to “maintain communications” with the SEC, the Treasury Department and the Federal Reserve Board. Congress also instructed the CFTC to take into account the views of the Treasury Department and the Federal Reserve Board.99

The SEC did not take this defeat gracefully. It retaliated by approving the trading of GNMA options on the Chicago Board Options Exchange, Inc. (CBOE), which the SEC regulated, so that the securities industry could compete with the GNMA futures. However, the Seventh Circuit held that the CFTC had exclusive jurisdiction over such instruments, which meant they could not be traded on the CBOE.100 That

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97 Id.
99 History of Commodity Futures Trading, supra, at 99-100.
100 Board of Trade v. Chicago Board Options Exchange, Inc., 677 F.2d 1137 (7th Cir.), vacated as moot, 459 U.S. 1026 (1982).
litigation brought the SEC to the negotiating table. In 1982, the CFTC and SEC settled some of their jurisdictional differences through the so-called Shad-Johnson Accords, an agreement between the chairmen of the two agencies that was subsequently enacted into law. That agreement confirmed the CFTC’s authority to approve futures and options on futures contracts on broad-based indexes and allowed index options to be traded on the CBOE and other option exchanges regulated by the SEC. Jurisdiction over options trading on currency was split between the SEC and CFTC. The SEC was also given, in effect, veto power over new stock index futures contracts that had been approved by the CFTC. If the SEC exercised that power, then the CFTC could challenge it in court.

The availability of futures contracts traded on stock indexes and other security products resulted in a great deal of trading by institutions that had previously shunned the commodity markets. A number of new computerized trading strategies were developed. Concern was raised that coupling these new financial futures with computerized trading programs might pose a danger to the markets because they might accentuate a market selloff—the “cascade theory.” Those concerns were found to be justified during the Stock Market Crash of 1987 when the Dow Jones Industrial Average dropped more in absolute and relative terms than the sell off in the Stock Market Crash of 1929.

President Ronald Reagan created the Task Force on Market Mechanisms (the “Brady Commission”) that was headed by Nicholas Brady to determine the causes of the crash. The Brady Commission concluded that the uncertain division of regulatory jurisdiction between the SEC and the CFTC over futures products on securities was a culprit in the

102 A dispute soon broke out between the SEC and CFTC over that veto power, which required another inter-agency agreement (a “Joint Policy Statement”) to settle. See Edward J. Kane, “Regulatory Structure in the Futures Markets: Jurisdictional Competition Between the SEC, the CFTC, and Other Agencies,” 4 J. Futures Markets 367, 375 (1984).
104 Id. at 2001.
affair. The Brady Commission recommended that the Federal Reserve Board should be given the task of promulgating regulations that would cut across the securities and commodity markets. That recommendation was not followed.

More New Products

Financial engineering became a phenomenon during the last three decades of the twentieth century. In addition to financial futures, a wave of new instruments appeared after the CFTC was created that contained elements of futures or options. The CFTC was faced with the issue of whether and how such instruments should be regulated. If CFTC jurisdiction had been applied to those instruments, the exchange-trading requirement in the CEA would have precluded their use because OTC dealers could not act as self-regulators or incur the expense of such regulation. In addition, institutional traders neither wanted nor needed the regulatory protection of the CEA.

Swaps were of particular concern in this debate. The CFTC issued a policy statement in 1989 exempting swaps among institutions from regulation. There was, however, some uncertainty over

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107 Id. at 61-63.
108 One significant development that rose from the Stock Market Crash of 1987 was the creation by President Ronald Reagan of an inter-agency task force that was to be responsible for ensuring coordination of regulation between the stock and futures markets. This group, called the President’s Working Group on Financial Markets (PWG), was composed of the heads of the Department of the Treasury, the Federal Reserve Board, the SEC and the CFTC. See Elaine S. Povich, “Trading Halts Offered as Crash Defense President’s Panel Urges No New Laws,” Chicago Tribune, May 17, 1988, at C1.
109 For a description of these instruments and the CFTC’s efforts to regulate them see Jerry W. Markham, “Regulation of Hybrid Instruments Under the Commodity Exchange Act—Alternatives Are Needed,” 1990 Colum. Bus. L. Rev. 1 (1990). See also Markham, supra note 93.
whether the CFTC had the power to adopt such an exemption.\footnote{See Regulation of Hybrid Instruments, 54 Fed. Reg. 30684, 36144 (July 21, 1989).} To provide more certainty, the Futures Trading Practices Act of 1992 authorized the CFTC to exempt swaps, which it did.\footnote{Futures Trading Practices Act of 1992, Pub. L. No. 102-546, 106 Stat. 3590 (1992).} The swaps market then grew rapidly. Thereafter, Congress directed the Presidential Working Group on Financial Markets to conduct a study of the OTC derivatives market and make recommendations on whether it should be regulated. That report was issued in 1999\footnote{See “Report of the President’s Working Group on Financial Markets, Over-the-Counter Derivatives Market and the Commodity Exchange Act (1999),” available at http://www.treas.gov/press/releases/otcact.pdf.} and was followed by the enactment of the Commodity Futures Modernization Act of 2000 (CFMA).\footnote{Commodity Futures Modernization Act of 2000, Pub. L. No. 106-544, 114 Stat. 2763 (2000).} The CFMA exempted OTC instruments from regulation where the parties to the transactions were sophisticated counterparties. The exempted institutions included banks, investment bankers, pension funds, large businesses, and high net worth individuals.\footnote{The primary justifications for recommending exclusion for such transactions were a determination that most OTC financial derivatives were not susceptible to manipulation and that the counterparties in such transactions do not need the same protections as smaller, unsophisticated market participants who rely on intermediaries to conduct their transactions.” U.S. Department of the Treasury, Blueprint for a Modernized Financial Regulatory Structure 47 (2008).}

The CFMA created an exemption and exclusions from most regulation for electronic trading facilities used by institutional traders. These facilities were called “exempt commercial markets” (ECMs).\footnote{See Hearing Before the CFTC to Examine Trading on Regulated Exchanges and Exempt Commercial Markets, 110th Cong. 1 (2007) (statement of Terry S. Arbit, CFTC General Counsel).} The ECM exclusion was often referred to as the “Enron loophole.” This was because it was inserted into the CFMA at the last minute through the lobbying efforts of the Enron Corp., which was seeking to protect its popular electronic trading platform, EnronOnline, from regulation.
Because of concerns over the explosion of energy prices in 2008, Congress closed the Enron loophole through amendments included in the CFTC Reauthorization Act of 2008.117

Regulating the CDS Market in the U.S.

The CDS market was unregulated before the subprime crisis, but the International Swaps and Derivatives Association, the industry trade group, provided a self-regulating structure for the business.118 Governmental intervention was occasionally required. The failure in 1998 of Long Term Capital Management (LTCM), a large hedge fund that had a large swaps book, raised systemic concerns. This led the Federal Reserve Bank in New York to arrange a rescue by a group of investment bankers. The Fed also pumped large amounts of funds into the money market during this period of uncertainty, which followed economic turmoil abroad during the so-called Asian Flu crisis.119 It was thought the Fed was signaling with that action that it would flood the market with liquidity whenever a large institution was about to fail, a monetary policy referred to as the “Greenspan put.”120

Following the failure of LTCM, twelve large banks formed the Counterparty Risk Management Policy Group (CRMPG) to assess whether improvements were needed in the swaps market. CRMPG was chaired by E. Gerald Corrigan, a managing director at Goldman Sachs and former president of the New York Fed. CRMPG issued a report in June 1999 that considered counterparty credit assessment; risk management; measurement and reporting; market practices and conventions; and regulatory reporting for swaps. It recommended improvements in internal firm policies and procedures for documentation; more standardization in market practices and conventions; improved

ability to measure aggregate counterparty credit exposure and use of collateral as a risk mitigant; and use of stress tests to evaluate potential exposures.121

The CRMPG met again in 2005 with an expanded membership that included hedge funds and other money managers as well as the large banks. The CRMPG issued a report on July 27, 2005 that was amazingly prescient in predicting the precipitating factors and effects of a financial shock such as was experienced during the subprime crisis.122 The CRMPG described its goal of identifying additional measures to be taken by the financial community to promote the efficiency, effectiveness and stability of the global financial system. While Policy Group members recognized that financial disturbances occur from time to time and do not generally lead to widespread systemic risk, they noted that rare but potentially virulent financial shocks may occur with little, if any, warning. Such financial shocks can lead to sudden declines in asset prices and concerns about counterparty creditworthiness, position liquidations, and concerns about the adequacy of collateral, in turn causing liquidity to disappear as investors sell off positions.123

123 See Griswold, supra, note 122. (footnotes omitted). The CRMPG concluded that focusing on ten fundamental factors could anticipate financial shocks and mitigate their severity when they occur. These are:
1. Counterparty credit risk.
2. Evaporation of market liquidity.
3. Change in value of complex financial instruments.
4. Determining the value of financial instruments.
5. Use of a broad range of risk management techniques.
6. Integrity and reliability of the financial infrastructure, including effective payment and settlement systems and back office operations.
7. Valuation and stress testing of illiquid assets.
8. Allocation of adequate resources to risk management and control functions.
9. Shift from traditional restructurings to the use of credit default swaps.

(continued)
The swap market also encountered some concerns with its settlement practices. Because of the massive growth in trading volume in CDS there were significant backlogs in matching confirmations, which in many instances were done manually. The CRMPG recommended automating and integrating the transaction process through “straight through processing.” Another issue concerning the CDS market was the occurrence of disputes over whether trigger events had occurred that would require the credit protection seller to either pay up or provide additional collateral. To resolve such issues, ISDA developed a protocol that required participants to submit their dispute to a determination committee of investors and swap dealers. AIG refused to sign the protocol, preferring to negotiate its wind-downs bilaterally with each counterparty. This immensely complicated its problems when it was taken over by the federal government.

Demands for Regulation

The failure of Lehman Brothers during the height of the subprime crisis raised concerns that CDS written on its debt obligations could generate claims of up to $400 billion. However, that concern quickly dissipated after the obligations were netted, leaving an exposure of a more modest $5.2 billion. An auction was held to determine the value of Lehman’s bonds in bankruptcy, and they were valued at about $.08 on the dollar, which meant that the paying party on these credit default obligations would have to pay $.92 on the dollar. Those payments had to be made within two weeks. Those claims were settled quickly and in an orderly fashion. Similarly, outstanding CDS on bankrupt General Motors’ debt totaling $35 billion netted out to only $2.2 billion in exposure.

10. Cooperation among industry groups, industry leaders and supervisors in the interest of financial stability.

Id.


126 See Press Release, The Depository Trust & Clearing Corporation, DTCC Media Statement on General Motors Credit Default Swaps (June 4, 2009), (continued)
A report from the senior financial supervisors of the G-7 nations concluded that the credit default swap market functioned well in the second half of 2008, despite “an unprecedented 12 credit events”—or actions that obliged the sellers of credit protection to make payments to those who had bought protection. Nevertheless, the AIG failure, which resulted in a U.S. Government bailout of over $180 billion, placed political pressure worldwide for regulation of the CDS market. Initially, that effort was directed at requiring CDS to be listed on a central clearinghouse that would provide transparency and credit protection.

The New York Federal Reserve Bank, while Timothy Geithner was its president, spearheaded that clearinghouse effort in the U.S., and he was supported in that effort by the large swap dealers. However, a Wall Street Journal editorial expressed concern with this proposal because it would centralize and socialize risk. The newspaper also objected to the proposed reliance by the New York Federal Reserve Bank on credit ratings as a basis for access to the central clearinghouse. The editorial noted that the market for credit default swaps was operating quite well despite the failure of Lehman Brothers and AIG.

SEC Chairman Christopher Cox sought authority from Congress to regulate the credit default swap market in September 2008. He stated that the market lacked transparency and was ripe for fraud and manipulation. The claim of lack of transparency was becoming a new watchword for more regulation. No one could explain how transparency could have prevented the subprime crisis, or how it would add anything of value to the CDS market, and, worse still, nobody was asking that question. This demand also seems contrived since the Depository Trust & Clearing Corporation (DTCC) had established a Trade Information Warehouse (Warehouse), before the subprime crisis. It was “the only global repository and centralized post-trade processing infrastructure available at http://www.dtcc.com/news/press/releases/2009/gm_crdt_default_swaps.php.

for over-the-counter (OTC) credit derivatives. The Warehouse main-
tains the vast majority of CDS contracts in the market place.” 130 The
DTCC was able to quickly calculate Lehman’s Brothers net exposure
on its CDS at the time of its failure, removing concerns by confirming

130 The Depository Trust & Clearing Corporation, supra note 127. “DTCC pro-
vides data, for example, on the outstanding amounts of credit default swaps on
1,000 different corporate and sovereign borrowers. “Council on Foreign Re-
lations, Squam Lake Working Group on Financial Regulation Paper, Credit
Default Swaps, Clearinghouses and Exchanges” 5 (2009). Counsel for the
DTCC has also advised the author that:

DTCC Deriv/SERV LLC is a[] subsidiary of DTCC, which provides
automated matching and confirmation services for OTC derivatives
trades, including credit, equity and interest rate derivatives. It also
provides related matching of payment flows and bilateral netting ser-
vices. Deriv/SERV was established in 2003. In 2006, Deriv/SERV’s
global Trade Information Warehouse was launched. The Warehouse
is the market’s first and only comprehensive trade database and cen-
tralized electronic infrastructure for post-trade processing of OTC
derivatives contracts over their lifecycles, from confirmation through
to final settlement.

One of the many central servicing functions of the Warehouse
is to calculate payments due on registered contracts, including cash
payments due upon the occurrence of the insolvency of any company
on which the contracts are written. Calculated amounts are netted on
a bilateral basis, and then, for firms electing to use the service, trans-
mitted to CLS Bank (the world’s central settlement bank for foreign
exchange) where they are combined with foreign exchange settle-
ment obligations and settled on a multi-lateral net basis. Currently,
all major global credit default swap dealers use CLS Bank to settle
obligations under credit default swaps.

On September 1, 2009, DTCC and Markit announced the launch
of MarkitSERV (http://www.markitserv.com), a new company that
combined the two organizations’ electronic trade confirmation and
workflow platforms to provide a single gateway for OTC deriva-
tive trade processing. . . . The partnership was first announced in
July 2008, subject to regulatory filings and approval by regulators.
MarkitSERV received regulatory approval from the U.K. Financial
Services Authority and the U.S. Department of Justice.

Email from Scott Halvorsen, Counsel for DTCC, to the author (Sept. 22, 2009)
(on file with author).

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that losses would be less than $6 billion, rather than the $400 billion bandied about in the press.\footnote{See “Central Repository Key to Reducing Systemic Risk in OTC Markets, DTCC Says,” 41 Sec. Reg. & L. Rep. (BNA) 1730 (Sept. 21, 2009).}

Nevertheless, the Presidential Working Group supported the effort for central clearing of standardized CDS,\footnote{See President’s Working Group on Financial Markets, Policy Objectives for the OTC Derivatives (2008), http://www.ustreas.gov/press/releases/reports/policyobjectives.pdf (last visited Nov. 12, 2009).} and Geithner continued pressing for its development after he was promoted to the position of Secretary of the Treasury.\footnote{See Ian Talley, “Obama’s Pick for Commodity Post Vows New Era of Regulation,” Wall St. Journal, Feb. 4, 2009, at A10.} A group of the largest OTC dealers agreed in September 2009 with the New York Fed to submit at least eighty percent of “legacy” (previously entered into) CDS and ninety-five percent of new CDS trades to a central clearinghouse by October 2009. A similar agreement was reached on OTC interest rate derivatives.

A jurisdictional fight broke out among the SEC, CFTC and New York Federal Reserve Bank over who would approve and regulate such clearinghouses. These regulators tried to resolve this dispute through a memorandum of understanding that promised enhanced cooperation and information sharing among the Federal Reserve Board, the SEC and the CFTC, upon the development of such a facility.\footnote{See U.S. Department of the Treasury, PWG Announces Initiatives to Strengthen OTC Derivatives Oversight and Infrastructure, Nov. 14, 2008, available at http://www.ustreas.gov/press/releases/hp1272.htm.} This truce did not last long, and the turf war continued. The SEC claimed that credit default swaps were securities subject to its jurisdiction. Using that regulatory handle, the SEC proposed to exempt from most of its regulation CDS clearinghouses that complied with its standards, including the exclusion of non-eligible swap participants.\footnote{See Securities and Exchange Commission. Temporary Exemptions for Eligible Credit Default Swaps to Facilitate Operation of Central Counterparties to Clear and Settle Credit Default Swaps, 2009 SEC LEXIS 71. Jan. 14, 2009.}

In the meantime, the effort to create an OTC clearinghouse turned into a competition among the larger exchanges seeking to grab market share. ICE, the CME, which had a joint venture with the Citadel
Investor Group, the Clearing Corporation, which was formerly the clearing house for the Chicago Board of Trade, Eurex Clearing; and NYSE Euronext/Liffe/LCH Clearnet, were all separately rushing to create CDS clearinghouses.\textsuperscript{136}

**Additional Legislative Proposals**

The Treasury Department sought legislation in June 2009 that would impose “robust” margin requirements for OTC derivatives and to otherwise broaden SEC and CFTC regulation of that market.\textsuperscript{137} The Financial Industry Regulatory Authority (FINRA) went a step further and began a pilot program establishing margin requirements for credit default swaps cleared by a central clearinghouse.\textsuperscript{138} The CFTC, however, had never before regulated margins; it was a matter left to the exchange clearinghouses, which set low margin rates, often less than five percent of the notional amount of the futures contract. The clearinghouse assures its own performance through an “initial” margin deposit deemed sufficient to assure performance and “variation” margin to reflect losses or gains in the position.\textsuperscript{139}


\textsuperscript{139} Margin in the futures industry should not be confused with margin in the securities industry. The latter is regulated by the Federal Reserve Board under Regulation T, which generally limits the amount of loans that can be made to purchase a marginable stock to fifty percent of the value of the stock being purchased. Margin for commodities futures is not viewed to be an extension of credit, as in the case of securities. Rather, it is a good faith deposit of money, a “performance bond,” set by risk assessment systems, such as “SPAN,” to ensure that the customer will perform its obligations. See Jerry W. Markham, “Federal Regulation of Margin in the Commodity Futures Industry—History and Theory,” 64 Temple L. Rev. 59-143 (1991) (describing these differences).
The Obama administration submitted a lengthy legislative proposal to Congress, which seeks to repeal the regulatory exemption for swaps that was added to the CEA in 1992 and expanded in 2000. The proposed Obama administration legislation would require “standardized” OTC swaps to register on a regulated clearinghouse. A standardized swap would include any contract accepted by a clearinghouse and other contracts similar to those cleared by a clearinghouse. The proposed legislation grants the CFTC and SEC joint jurisdiction over derivatives but would also include bank regulators when banks are involved in such trading. The CFTC would have jurisdiction over non-security based swaps and broad-based indexes, while the SEC would regulate securities based swaps, including narrow indexes, single stocks and, most importantly, credit default swaps.

Both the CFTC and SEC would have jurisdiction over “mixed swaps,” which have elements of both securities and commodities. Swap dealers and “major swap participants” would be required to register with the agency that has jurisdiction in the market in which they operate, which will probably mean most large institutions will have to register with both the SEC and CFTC. These entities would be subject to capital and margin requirements, employee supervision requirements and a full panoply of regulations imposed by the SEC on broker-dealer and futures commission merchants by the CFTC. The derivatives industry is trying to forestall as much of this intrusive legislation as possible.

Other Intrusions

The SEC made another effort to bring credit default swaps under its wing by filing an insider trading case in May 2009 that involved credit default swaps. The SEC charged that Jon-Paul Rorech, a bond salesman at Deutsche Bank, passed inside information on to Renato Negrin, a hedge fund manager at Millennium Partners, who used the information.


Visited at http://docs.google.com/gview?a=v&pid=gmail&attid=0.1&thid=1236e1fcbe26eb2b&mt=application%2Fpdf&url=http%3A%2F%2Fmail.google.com%2Fmail%2F%3Fui%3D2%26ik%3Dbf3a578f70%26view%3Datt%26th%3D1236e1fcbe26eb2b%26attid%3D0.1%26disp%3Datttd%26zw&sig=AHBy-hbfU7mlar7NxwHRbCqVqbaRxW4hgg&pli=1.

Id.
to make a quick profit of $1.2 million.\textsuperscript{143} Adding further regulatory intrusion into this once unregulated market was an announcement in July 2009 that the Antitrust Division in the Justice Department was focusing on the credit default swap market. In particular, the Division was investigating the Markit Group Holdings Ltd, which was a company formed by a consortium of banks to collect pricing information that was used to create the ABX index to track subprime mortgages, and the CDX index for credit default swaps. The banks participating in this enterprise included Goldman Sachs and JPMorgan Chase.\textsuperscript{144}

New York Attorney General Andrew Cuomo and U.S. Attorney Michael Garcia in Manhattan reached an agreement in October 2008 to jointly investigate the credit default swap market, which was showing few signs of any illegal activities. Cuomo was investigating whether swap dealers were manipulating the CDS market.\textsuperscript{145} Eric Dinallo, the New York State Superintendent of Insurance announced that a portion of the CDS market was subject to his regulation.\textsuperscript{146} Dinallo claimed that swaps with an actual risk of loss from the underlying security created an insurable interest that was being insured by the CDS.\textsuperscript{147} This theory did not extend to the more speculative “synthetic” CDS that did not involve the ownership of the actual underlying security. The National Association of Insurance Commissioners (NAIC), an organization of state insurance regulators, was also reversing its previous position on such instruments, announcing that it was considering whether it should regulate credit default swaps.\textsuperscript{148} NAIC noted that the credit


\textsuperscript{148} The issue of whether derivative instruments should be regulated as insurance was earlier considered in connection with weather derivatives. That (continued)
default swap market had no central exchange, no capital requirements and no governmental oversight. This will undoubtedly result in even more layers of regulation.\textsuperscript{149}

\section*{Regulating the CDS Market Abroad}

\subsection*{The Group of 20}

Concerns over CDS exposures were not limited to the United States. Banks in the European Union (“EU”) had been badly damaged by the triple-A rated “Super-Senior” subprime CDOs.\textsuperscript{150} Charlie McCreevy, the European Commissioner in charge of the Internal Market and Services, declared in October 2008 that an immediate goal of the Commission was to require central clearing of CDS. The Commission was seeking the prompt creation of a central registry for such instruments that would record credit derivative instruments after trades have been confirmed. This would create a “golden” copy of those transactions.\textsuperscript{151} That goal was accomplished


\textsuperscript{150} By August 2008, write-offs at European banks included $44.2 billion at UBS; IKB Deutsche $12.6 billion; Royal Bank of Scotland $14.9 billion; Credit Suisse $10.5 billion; Credit Agricole $8 billion; Societe Generale $6.8 billion; Bayerische Landesbank $6.4 billion; ING Groep $5.8 billion; Lloyds TSB $5 billion; Dresdner $4.1 billion; and BNP Paribas $4 billion, to name a few. See Yalman Onaran, \textit{Banks Subprime Losses Top $500 Billion on Writedowns}, Bloomberg.com, Aug. 12, 2008, http://www.bloomberg.com/apps/news?pid=20601087&sid=a8sW0n1Cs1tY (last visited Nov. 13, 2009).

\textsuperscript{151} See Jeremy Grant, “Watchdogs Call for Central Registry,” \textit{Fin. Times} (London), Feb. 27, 2009, at 7. See also “European Central Bank, Credit Default Swaps and Counterparty Risk” (2009).
Regulating Credit Default Swaps


A Report of the High-Level Group on Financial Supervision in the EU,\footnote{See The High-Level Group on Financial Supervision in the EU, The de Larosière Report, (2009), \textit{available at} http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf [hereinafter de Larosière Report].} commonly referred to as “the de Larosière Report,” that was published in February 2009, called for the “simplification and standardization of most OTC derivatives and the development of appropriate risk-mitigation techniques plus transparency measures.”\footnote{\textit{Id.} at 25.} The de Larosière Report recommended strengthening the Level 3 committees on coordination of national regulators in the Lamfalussy process.\footnote{As the European Commission’s website notes: Currently, three committees exist at the EU level in the financial services sector, with advisory powers, the Committee of European Banking Supervisors (CEBS), the Committee of European Insurance and Occupational Pensions Committee (CEIOPS) and the Committee of European Securities Regulators (CESR). These are often known as the “Lamfalussy level 3 Committees” because of the role which they play in the EU framework for financial services legislation, created following a report by a group chaired by Alexandre Lamfalussy. European Commission, Financial Services Committee Architecture, (last visited Nov. 13, 2009).} It advocated the creation of a European Banking Authority, a European Insurance Authority and a European Securities Authority. These regulators would co-ordinate and arbitrate among national supervision regarding cross-border financial institutions; take steps to move towards a common European rulebook; and directly supervise the credit rating agencies.\footnote{\textit{Id.}}

Legislative proposals for implementing these recommendations were issued by the European Commission in September 2009.\footnote{The de Larosière Report urged that the Financial Stability Forum (“FSF”) be placed “in charge of promoting the convergence of international financial regulation to the highest level benchmarks.” \textit{Id.}}
However, concerns were being raised over whether these regulators would interfere in the fiscal affairs of the individual member states. The proposed legislation would also create a European Systemic Risk Board, which would be composed of the twenty-seven central bank governors from the EU member states. The de Larosière Report further recommended the creation of at least one well-capitalized “central counter party” (“CCP”), a.k.a. clearinghouse, to be supervised by the Committee of European Securities Regulators (“CESR”) and the European Central Bank (“ECB”).

The de Larosière Report called for “international level issuers of complex securities to retain on their books for the life of the instrument a meaningful amount of the underlying risk (non-hedged).” Regulators in the EU were also pressing for the immediate creation of a European based warehouse for CDS. They were seeking a central registry for such instruments that would record credit derivative instruments after trades have been confirmed. This would create a “golden” copy of those transactions. EU market participants were already acting on some of these recommendations. By July 2009, CDS dealers committed to start clearing eligible CDS on European reference entities and indices on these entities through one or more European CCP.

note 154. The FSF was an international group of regulators that was replaced by a new Financial Stability Board (FSB) by the Group of Twenty at its meeting in London on April 1, 2009. The FSB was to be expanded to include all Group of Twenty countries and the European Commission. See Financial Stability Board, History (last visited Nov. 13, 2009).


159 See the de Larosière Report, supra note 154, at 25.

160 Id. The de Larosière Report calls for actions to reduce pro-cyclicality by moving away from short-term VaR models and raising minimum capital requirements. Id. at 17-18.


Regulating Credit Default Swaps

The European Commission has also identified four main goals for improving financial stability by regulating OTC derivatives markets:

a) allow regulators and supervisors to have full knowledge about the transactions that take place in OTC derivatives markets[,] as well as the positions that are building in those markets; b) increase the transparency of OTC derivatives markets vis-à-vis their users; in particular more and better information about prices and volumes should be available; c) strengthen the operational efficiency of derivatives markets so as to ensure that OTC derivatives do not harm financial stability[,] and d) mitigate counterparty risks and promote centralized structures.163

To achieve these goals, the EC wishes to use the following tactics: “(i) promoting further standardization, (ii) using central data repositories, (iii) moving to CCP clearing, and (iv) moving trading to more public trading venues.”164

Regarding standardization, the European Commission would like to see as many CDS standardized as possible so that, ultimately, they could all be cleared through a clearinghouse.165 It views this as “a core building block in the Commission’s endeavor to make derivatives markets efficient, safe and sound.”166 Some industry groups (e.g., The


163 Id. at 9.
164 Id.
165 Id. The European Commission recognized that this may be difficult due to some commercial advantages to bilateral clearing but hopes it can overcome commercial hesitation to taking up CCP clearing by amending the rules on regulatory capital contained in Capital Requirements Directive. Id. at 10-11. The Commission also recognized that not all CDSs could be standardized and that the bilateral clearing model must be strengthened for those contracts to accomplish the following: (1) improve timeliness of marking to market valuation (ideally daily); (2) improve collateral coverage rate; (3) strengthen collateral management by promoting more frequent reconciliation and timely exchange of collateral; and (4) “Reduce the size of outstanding derivatives (continued)
European Association of Corporate Treasurers ("ACT"), however, see standardization as potentially harmful to non-financial companies that use financial derivatives for hedging purposes and whose trading does not have a significant effect on global risk. The ACT is concerned that companies with moderate treasury risk may forego hedging because of the collateral exposure and thus remain exposed to volatility and other risks.

The Leaders’ Statement from the Group of 20 summit in Pittsburgh, PA, also called for standardized OTC derivative contracts to be traded on exchanges or electronic trading platforms, where appropriate, and cleared through CCP by year-end 2012. The Group of 20 wanted other OTC derivative contracts to be reported to trade repositories and that non-centrally cleared contracts be subjected to higher capital requirements. To coordinate financial markets reform around the world, the Group of 20 also established the Financial Stability Board (FSB). The Group of 20 requested the “FSB and its relevant members to regularly assess implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse.”


Id. at 4.


Id. at 3.

Id. at 9. EU Internal Market Commissioner Charlie McCreevy stated in October 2009 that the EU and the United States had reached a consensus on the following points:

(continued)
The United Kingdom

In London, the Financial Services Authority ("FSA") was strongly supporting the objective of achieving robust and resilient central clearing house arrangements for CDS clearing.172 The March 2009 Turner Review, drafted by FSA Chairman Lord Jonathan Adair Turner, recognized, however, that the impact of central clearing arrangements should not be overstated because "clearing and CCP systems will only be feasible for the roughly 50–75 percent of the CDS which is accounted for by standardized contracts."173 This statement acknowledges that a large volume of CDSs might continue to trade OTC.

In a Discussion Paper published by the FSA concurrently with the Turner Review, the FSA noted that it does not cite a "lack of transparency around trading activity in OTC instruments" as a cause of the subprime crisis.174 However, the FSA believed transparency might need to be enhanced to strengthen markets for the future and was working with counterparts in the International Organization of Securities Commissioners (IOSCO) and to Committee of European Securities Regulators (CESR) to that end.175

standardized over-the-counter products should be cleared as far as possible by central clearing houses; Central data repositories should enable supervisors to get a complete overview of where the risks are in the system; and bilateral clearing should be tightened and made more secure for those segments of the market that may not fit central counterparty clearing.

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The Chancellor of the Exchequer also weighed in on the regulation of CDS and other OTC derivatives, in his own report.\footnote{176} “To enhance the robustness and functioning of key derivatives markets, the Chancellor recently called for an EU Clearing and Settlement Directive to bring CCPs within a harmonized EU legislative framework, including CCPs for derivatives.”\footnote{177} HM Treasury also believed that standardized, liquid and price-transparent OTC derivatives should be cleared on CCPs, while counterparty risk for illiquid or new products unsuitable for clearing on a CCP should be mitigated through bilateral collateralization and risk-based capital charges.\footnote{178} In addition, HM Treasury asserted that non-CCP cleared derivatives should be reported to a trade repository and be made available to regulators.\footnote{179}

Japan

Japan enacted its Financial Instruments and Exchange Law (“FIEL”) just in time for the subprime crisis.\footnote{180} The FIEL consolidated four other statutes including those regulating financial futures and the mortgage-backed securities.\footnote{181} The Japanese Financial Services Authority (JFSA) was given authority over, “not only derivatives related to securities but also derivatives related to other financial instruments, and the FIEL covers derivatives that are transacted on a Japanese or foreign exchange or over the counter.”\footnote{182}

\footnote{177} Id.
\footnote{178} Id. at 81.
\footnote{179} Id.
\footnote{181} Id. at 10, 19, 21.
Regulating Credit Default Swaps

FIEL did not address central clearing of derivatives. A committee of the Tokyo Financial Exchange (TFX) did consider the issue of using a central counterparty to clear OTC derivatives. The committee’s report identifies the Tokyo Financial Exchange (“TFX”) as the most likely institution for clearing OTC transactions, given it “is the only exchange in Japan that specializes in trading and clearing financial derivatives” and its members (including major financial institutions in Japan, the United States, and Europe) have the credit quality required to successfully establish a CCP at the TFX. The report identifies the following benefits of having a CCP: (1) reduced counterparty risk and thus less use of credit lines; (2) reduction of the risk portion of the capital adequacy ratio; (3) standardized processing reducing operational risk; and (4) reduced systemic market risk.

The conclusion of the committee was to proceed with setting up a clearing house for interest rate swaps and CDSs. The TFX committee resolved to set the schedule to establish a functioning CCP for OTC transactions in Japan in 2010. Interest rate swaps will be cleared immediately, but the committee was more cautious about CDS, stating that it would be better to wait and see what kind of CCP system is successfully adopted and supported by the market place in Europe and the U.S.

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183 FIEL had been under discussion for years, and the nature and scope of the subprime crisis was largely unforeseen at the time FIEL was enacted. Even a subsequent amendment to the FIEL promulgated on June 13, 2008, did not seem to adopt any measures related to regulation of financial derivatives. See Japan Financial Services Authority, “Outline of the Bill for Amendment of the Financial Instruments and Exchange Act, Etc.,” available at http://www.fsago.jp/en/refer/measures/20080606/02.pdf.
185 Id. at 3.
186 Id.
187 Id.
188 Id. at 5.
189 Id. at 6.
190 Id. at 8.
191 Id. at 7.
IOSCO

The Final Report of IOSCO’s Technical Committee of the Task Force on Unregulated Financial Markets and Products (TFUMP) addressed the regulation of CDS.192 This committee was formed at the behest of the Group of 20 to “review the scope of financial regulation with ‘a special emphasis on institutions, instruments and markets that are currently unregulated, along with ensuring all systemically important institutions are appropriately regulated.’”193 The committee’s report identifies three main issues related to CDS: counterparty risk, lack of transparency, and operational risk.194 The recommendations of the committee echo many of those made by U.S., U.K. and EU officials concerning the regulation of financial derivatives, including the use of a central counterparty for CDS.

Conclusion

The CDS market has, rightly or wrongly, been fingered as a prime culprit in the subprime crisis. The regulatory solution worldwide has been to require CDS to be traded or listed on a CCP. The focus on CDS clearing, however, seems odd since the Depository Trust & Clearing Corporation was operating its Trade Information Warehouse before the subprime crisis. That Warehouse maintained the vast majority of CDS contracts in the market place and appears to have functioned well during the crisis. Perhaps, a clearinghouse could add a guarantee function, but that would only concentrate systemic risk. The focus on CDS clearing may also prove to be unfortunate if it diverts attention away from some more serious concerns raised by the subprime crisis. Examining the role of government housing and interest rate policies and fair value accounting requirements in that crisis certainly appear to deserve more attention.

194 Id. at 29.
Another diversion has been the focus on compensation practices at financial services firms that purportedly caused them to take on “excessive” risk. Actually, a large percentage of the losses at the large banks during the subprime crisis were attributable to the Super Senior tranches of the subprime CDOs. For example, 50 percent of UBS AG’s $18.7 billion in write-offs from U.S. mortgage exposure was due to Super Seniors.\footnote{UBS AG, Shareholder Report on UBS’s Write-Downs § 4.2.3 (2008).} Merrill Lynch’s U.S. CDO subprime net exposure consisted primarily of its Super Senior CDO portfolio.\footnote{See Merrill Lynch, 2008 Annual Report (Form 10-K) 27 (2008).} As of September 30, 2007, Citigroup held “approximately $55 billion in U.S. subprime direct exposure, $43 billion of which was due to exposures in the most Super Senior tranches of CDOs.”\footnote{Kenneth C. Johnston, et al., “The Subprime Morass: Past Present and Future,” 12 N.C. Bank. Inst. 125, 135 (2008).} Of Citigroup’s $14.3 billion pretax loss (net of hedges) in 2008 from subprime-related direct exposure, $12 billion was attributable to “net exposures to the super senior tranches of CDOs ... derivatives on asset-backed securities or both.”\footnote{See Citigroup, Inc., 2008 Annual Report (Form 10-K) 18 (2008).}

As described above AIG believed that it faced little or no risk from its Super Senior CDS portfolio, which became the centerpiece of its problems during the subprime crisis.\footnote{See notes 55-61 and accompanying text.} The Super Seniors had a triple-A rating and their comparably low rate of return reflected that risk assessment.\footnote{Their rate of return did encourage carry trades, but at low returns. UBS AG, Shareholder Report on UBS’s Write-Downs § 4.2.3 (2008).} That triple-A rating, even if flawed in its analysis, was a gold standard seal of approval that declared the Super Seniors to be the safest of investments. Because of that favorable rating, regulators gave the Super Seniors favorable capital treatment when held on the books of banks. The banks and AIG believed, with the support of what they thought were the best analytical minds in the world, that these were the safest of investments.

The rating agencies downgrades of the Super Seniors raised issues of flawed risk models, not risk-based bonuses. The near across the board failure of risk models for subprime debt raises an issue that needs addressing. A Nobel Prize awaits the solution of the conundrum.
posed by the Black Swan. How do we create a risk model that takes into account the worst-case scenario, i.e., that the instrument at risk will become worthless, while at the same time allowing investors to make a reasoned assessment of what they believe to be the reasonably expected risk?
Introduction

How did Japan avoid the great credit market boom and bust of the 2000s, which plagued so many other advanced economies? What were the factors that mitigated dangerous excesses in its domestic structured credit markets? What were the factors that limited its investments in foreign structured credit products? Why have Japanese investors had so much appetite for other types of structured products? What are the risks from those non-credit products? Were regulatory responses effective? Did Japan’s Basel II implementation contribute to the reduction of systemic risk? These are the questions I will try to address in this paper.

Before focusing on complex structured products, let us briefly review a few basic facts about Japan’s broader bond markets. The debt markets in Japan are characterized by two salient features: (1) the dominance of bank loans in the corporate credit markets, and (2) the dominance of government debt in the public bond markets. As of June 2009, Japanese non-financial corporations had an outstanding debt of 250 trillion yen ($2.8 trillion) through bank loans, while borrowing only 49 trillion yen ($0.5 trillion) in domestic bond markets.1 As of the same date, the Japanese government bond (JGB) market comprised 79 percent of the publicly traded bond markets, with outstanding amounts at 681 trillion yen ($7.5 trillion), while comparable numbers for the U.S. Treasury securities were 22 percent and $6.9 trillion, respectively. Exhibit 1 illustrates the overwhelming

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1 Flow of funds data. Money market instruments are excluded. Currency conversion is provided at 90 yen/dollar (approximately the prevailing rate as of December 2009).
importance of government and government-related debt in the publicly-traded bond markets in Japan.

The near absence of securitized assets in Exhibit 1, however, is somewhat misleading because most Japanese securitization products are issued privately and are not included in the official bond market statistics. As we shall see later, significantly larger amounts of securitized products have been originated in Japan, although they never came anywhere close to the levels seen in the U.S. and Europe.

Exhibit 1. Publicly Offered Bonds in Japan—Outstanding Amounts

One way to categorize various structured products is to divide them into two groups: *structured credit products* (SCPs) and *structured non-credit products* (SNCPs). Examples of SCPs include ABS (asset-backed securities), CMBS (commercial mortgage-backed securities), RMBS (residential mortgage-backed securities) and CDO (collateralized debt obligations). I refer to other structured products (excluding SCPs) collectively as SNCPs. Examples of popular SNCPs include currency-linked products such as PRDC (power reverse dual currency) notes and FX TARNs (FX-linked target redemption notes), and equity-linked products such as Nikkei-linked notes and reverse convertible bonds.

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SCPs can be further classified as either Japanese SCPs or foreign (non-Japanese) SCPs, depending on where their underlying assets are located. Japanese SCPs consist mainly of ABS, CMBS, RMBS, WBS (whole business securitization) and relatively simple types of CDO. Most of them are private placements, with little transparency and low liquidity. Their issuance volume has been modest, having peaked at $122 billion in 2006.

Foreign SCPs typically have U.S. or European underlying assets. Japanese investors, with a few notable exceptions, have never been major buyers of U.S./European SCPs. Thus, most of them have been spared major losses during the global financial crisis of 2007–08. Those investors who did buy foreign SCPs were mostly banks and other financial institutions.

In contrast to the relatively modest size of the SCP market in Japan, the country has long been known for its apparently insatiable appetite for a wide range of exotic SNCPs (structured non-credit products). Japan’s SNCP market is older than its credit counterpart, and the complexity of the products has steadily increased over time, with many product innovations reportedly bringing substantial profits to the investment banks involved in structuring and marketing activities. Most of the SNCPs take the form of currency-linked notes or equity-linked notes, and the primary investors are regional banks, municipalities and endowments.

The popularity of SNCPs in Japan can be at least partly explained by the low interest rate environment. As can be seen in Exhibit 2, Japanese bond yields continued to decline throughout the 1990s and then have stayed very low for the subsequent years. For example, the benchmark 10-year JGB and swap rates have been continuously below 3 percent since the second half of 1997. Many regional banks, pension funds, endowments and high-net worth individuals, frustrated with low yields on conventional assets, have aggressively searched for higher returns, often finding SNCPs irresistibly attractive.

Dangers of a low or declining interest rate environment, especially under asymmetric information between ultimate investors and their agents (including financial institutions and hedge funds), have been pointed out by a number of economists and policy makers. A prescient
article by Rajan (2005), for example, argued that “changes from a high interest rate environment to a low interest rate environment,” when coupled with “the emergence of a whole range of intermediaries,” could form a volatile cocktail. Institutions with long-term fixed-rate liabilities, as well as hedge fund managers with typical performance-based compensations, would be induced to “search for yield” by taking excessive amounts of “tail risks” hidden from their investors.

Most SCPs and SNCPs have substantial tail risks, and their proliferation in the U.S., Europe and Japan can be viewed as manifestations of the phenomenon that Rajan predicted. The main difference, between Japan on the one hand and the U.S. and Europe on the other hand, is that Japan experienced a long period of declining interest rates (after 1991) much earlier than the U.S. and Europe did (after 2000). When Japanese investors started to search for yield, there were no complex SCPs; so they flocked to complex SNCPs that were the only game in town at the time.

It is tempting to conjecture that the limited popularity of SCPs among Japanese investors may be related to their earlier exposure to SNCPs. One possibility is that greater familiarity with SNCPs may have led Japanese investors to favor SNCPs over SCPs even after
various SCPs became available. Another possibility would be that some of them learned the dangers of tail risks through large losses suffered on their earlier investments in SNCPs, and have become averse to (or “immunized” against) complex structured products in general.

There were certainly other factors at work that help explain why Japan did not have the kind of SCP boom and bust as those observed in the U.S. and Europe. The next section examines some of those factors.

**Structured Credit Products**

**Securitization in Japan**

In this section, I first provide a brief historical perspective on the production of Japan-based SCPs (structured credit products), and then an overview of Japanese investments in both Japanese and non-Japanese SCPs. My focus is on securitized products, but I also touch upon credit derivatives along the way. SNCPs (structured non-credit products), such as currency-linked notes and equity-linked notes, will be discussed in the next section.

Exhibit 3 shows the estimated total issuance of Japanese securitized products from 1994 through September 2009.\(^2\) Total annual issuance in Japan peaked at 11.1 trillion yen ($122 billion) in 2006, which included MBS, ABS and CDO.\(^3\) In the same year, $1,988 billion of MBS (RMBS/CMO/CMBS) and $754 billion of ABS (including CDO of ABS) were issued in the United States. Global CDO issuance in 2006 was $489 billion, of which Japan accounted for only 0.9 percent (see Exhibit 4). These data tell us that, although production of securitized assets in Japan did increase during the global securitization boom in the mid-2000s, it never approached the levels seen in the U.S. or in Europe. Furthermore, most CDO issues in Japan have had relatively simple schemes, with senior-subordinate structures normally consisting of only 2 to 4 tranches. It appears that no “CDO squared”

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\(^2\) The issuance data are from Deutsche Securities (2009). No data are available for outstanding amounts.

\(^3\) ABCP (asset-backed commercial paper) are excluded from discussions in this section.

Source: Deutsche Securities (2009b)

Exhibit 4. Global CDO Issuance by Currency (During the Peak Year of 2006)


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products or other types of aggressive re-securitization products have been manufactured in Japan.

Credit derivative markets, which are closely related to securitized credit markets, are correspondingly small in Japan. According to Exhibit 5, the amount of CDS held by Japanese broker/dealers, in notional terms, is only about 1 percent of the global CDS market. Several explanations can be offered for such “underdevelopment.” First, the small size of Japan’s corporate bond market means that hedging demand from Japanese corporate bond investors has also been small. Second, profit margins on Japanese bank loans tend to be too narrow to pay for CDS-based protection. This factor seems to depress hedging demand from commercial banks. Third, the use of CDS for creating synthetic CDO has also been limited in Japan, where the local CDO market is quite small.

**Exhibit 5. Credit Default Swaps: Global Outstanding Amounts vs. Amounts Held by Japanese Market Makers**

![Credit Default Swaps Chart]

Source: BIS, Bank of Japan

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Given the absence of explosive growth in the securitization and credit derivatives areas, it should be no surprise that we did not see a massive credit market implosion in Japan during the financial crisis of 2008–09. Overall ratings of Japanese securitized products remained stable through the early stages of the subprime crisis, until they were hit by the collapse of Lehman Brothers in September 2008 (see Exhibit 6). Obviously, some turmoil was unavoidable in a crisis of that magnitude. The CMBS market, which had grown rapidly during the real estate mini-bubble in the mid-2000s, saw an unprecedented number of defaults in 2009, mostly as a result of severe liquidity squeeze. On balance, however, the damage to the securitization business and to the broader financial industry was relatively limited in Japan.

**Structured Credit Investments and Regulatory Responses**

Due to data limitations, we do not have a complete picture of Japanese investments in SCPs. However, Japan’s Financial Supervisory Agency (FSA) has compiled detailed data on Japanese banks’ investments in securitized products, which should give us a good enough approximation.

In Japan, financial institutions (banks and insurance companies) have been the dominant investor group in structured credit products, presumably because of their familiarity with credit risks. Only a small fraction of pension funds have invested in SCPs, as suggested by a survey conducted by the Daiwa Institute of Research (see Exhibit 7). In this survey, conducted shortly before the crisis, less than 10 percent
of the pension fund respondents said they invested in structured credit products, as opposed to more than 50 percent of the bank respondents.

As depicted in Exhibit 8, FSA data show that Japanese banks’ holdings of all structured credit products peaked at 23.5 trillion yen ($261 billion) in June 2008. Their holdings of foreign structured credit products peaked at 14.2 trillion yen ($158 billion) in June 2008. Reported cumulative losses of 3.1 trillion yen ($35 billion) mostly came from non-Japanese SCPs. These numbers, though not trivial, are nowhere close to what we see in U.S. and European banks, where total SCP-related losses have been estimated to be well in excess of two trillion dollars.4

Part of the relative insulation of Japanese institutions from the global credit crisis may be attributed to regulatory actions by the government. Japan’s FSA moved relatively early to implement “Basel II,” the revised capital adequacy rules for internationally active banks. The FSA published a consultation paper on new rules in October 2004, followed by the publication of draft rules (March 2005) and of revised draft rules (December 2005). The new rules, finalized and published in February 2006, became effective in March 2007. The point of this chronology is that the Basel II implementation in Japan was planned and announced well before the credit/liquidity crisis of 2007–2008. Thus, Japanese

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4 For example, IMF (2009) estimated that write-downs on U.S.-originated assets by all financial institutions over the period 2007–10 would be $2.7 trillion.
banks had plenty of time to adjust their portfolios, reducing their structured credit exposures before the onset of the global credit/liquidity crisis.

There are a few survey results that support this view. In a DIR survey in June 2006, 62 percent of deposit-taking institutions said that they were reconsidering their investments in securitized products, explicitly in response to the planned Basel II implementation. Another survey in 2008 (by AIMA Japan) showed that, in response to the new regulations, the majority of Japanese banks had reduced their investments in hedge

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5 Daiwa Institute of Research (2006).
funds, especially in those that do not allow investors to “look-through” their portfolios. The survey also showed that much of the exposure reduction took place before the final implementation in March 2007.6

The Basel II implementation in Japan had two important consequences: (1) banks were discouraged from taking leveraged credit risk through investments in securitized products, and (2) banks were also discouraged from investing in opaque hedge funds, some of which took doubly leveraged credit risk. Credit-oriented hedge funds were gaining popularity at the time, but many of them held financially leveraged portfolios of concentrated credit risks (such as CDO equity) and tended to be less transparent than many other hedge funds. Thus, whether it was entirely intentional or not, the new regulations almost certainly had the effect of reducing Japanese financial institutions’ losses from structured credit products.

Lessons and Caveats

I have noted above that the Basel II implementation in Japan, with its speed and rigor, had significant effects on banks’ behavior. Even though it was no small accomplishment, it is unlikely to be the primary explanation for the relative insulation of Japanese institutions from the global credit crisis. The forces of credit market booms and busts were simply too different between the US/Europe on the one hand and Japan on the other.

Why did Japan avoid the great credit market boom and bust of the 2000s, which plagued so many other advanced economies? I would offer four simple, mutually non-exclusive, explanations: (1) the dominance of traditional bank loans in the credit markets, (2) the low degree of complexity in many SCPs, (3) generally cautious views on real estate valuations, and (4) the near absence of highly leveraged arbitrage activities.

A few comments are in order on each of the explanations:

(1) Traditional bank loans still dominate Japan’s credit markets and crowd out corporate bonds and structured credit products. The


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(2) Most Japanese investors, who were familiar with currency-linked notes and other non-credit products but unfamiliar with credit products, were naturally averse to complex products linked to credit. Thus, Japanese SCPs tended to have simple senior-subordinate structures, which reduced vulnerability to model risks and parameter risks.

(3) For many Japanese investors, the memories of the great real estate bubble in the 1980s and its collapse in the 1990s were still too vivid to forget. Their generally cautious views on real estate valuations made them rather skeptical of the global real estate boom (and associated securitizations), and probably had the effect of containing the Japanese real estate mini-bubble in the mid-2000s, limiting the scope for aggressive domestic securitization.

(4) Highly leveraged institutions with wholesale funding (hedge funds and investment banks) did not have large positions in Japanese credit products. Thus, the domestic credit markets were not seriously damaged by a severe deleveraging cycle during the crisis, even after the Lehman failure.

Even though Japan did not experience dangerous overgrowth of SCPs, it would be unwise to say that all is well. In fact, there are reasons to be seriously concerned about the current state of its securitization markets. One distinct feature of the Japanese securitization markets is that most private-label products take the form of private placements. While the public RMBS market is dominated by the Japan Housing Finance Agency (a GSE-like entity), privately placed trusts comprise 80 to 90 percent of private-label (non-GSE) issues, with little or no public disclosure to other market participants.

Primary data sources for privately placed MBS and ABS, especially those issued by non-resident SPCs, are nearly non-existent. Some data


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on specific private placements are provided via Bloomberg, but only to those involved in the deal. Aggregate information (compiled by the Japan Securities Dealers Association on a voluntary basis) suffers from missing data since certain important items such as coupon rates are overwhelmingly unreported. The resulting informational asymmetry (between “insiders” and “outsiders”) explains the low liquidity of most securitized products in Japan. Such opacity not only fails to lower funding costs, but also raises concerns about what would happen to market liquidity if, for example, the arranger (who is usually the only market maker) were to disappear.

The opacity of the SCP markets hinders research and inhibits its growth. The market’s extreme overgrowth has its risks, as has been amply demonstrated, but its underdevelopment also has its costs. Japan’s infrastructure for mainstream SCP products clearly has room for significant improvement.

Structured Non-Credit Products

Structured Non-Credit Products in Japan

In contrast to the slow development of the structured credit markets, a variety of other structured products evolved and proliferated in Japan long before the subprime crisis. Those structured products have typically been linked to currency, equity and fixed income markets, and some of them were specifically developed and/or tailored to meet the requirements of the Japanese institutional market. I refer to those products collectively as Structured Non-Credit Products (SNCPs). SNCPs have typically been issued by sovereign and supranational entities under the Euro-MTN program, which has provided issuers with a quicker, cheaper, more flexible and more discreet way of accessing various groups of investors than traditional bonds.

The most popular SNCPs in Japan have been currency-linked and equity-linked notes. With a typical currency-linked note, the investor receives high coupons by essentially selling currency options on higher yielding currencies, which often meant the U.S. dollar or the Australian dollar. So-called “power reverse dual currency” (PRDC) notes and “FX-linked target redemption” notes (FX TARNs) have been particularly popular. With a typical equity-linked note, the investor receives
high coupons by selling equity index puts (e.g., Nikkei-linked notes) or individual stock puts (e.g., reverse convertible bonds).

Many structured currency products take advantage of international interest rate differentials, offering attractive current coupons (in Japanese yen) based on higher foreign yields, while simultaneously exposing the investor to significant currency risk. As such, the attractiveness of many structured products depends crucially on current interest rate differentials. Exhibit 9 demonstrates that the Euro-yen bond issuance volume (a significant portion of which is thought to be structured product origination) has historically been strongly correlated with the interest rate differential between the U.S. dollar (USD) and the Japanese yen (JPY).

Exhibit 9. Euro-Yen Bond Issuance and Interest Rate Differentials

Let me illustrate the mechanics and risks of structured currency products by taking PRDC (power reverse dual currency) notes as an example. PRDC products have been among the most successful SNCPs that have ever been introduced into Japan. Barclays Capital estimates that approximately $44 billion of callable PRDC notes were issued to Japanese investors between 2001 and 2009.8 Among the notes for which

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8 Barclays Capital (2010).
information was available, roughly 70 percent had coupons linked to the USD, 20 percent to the Australian dollar (AUD), and 10 percent to the Euro. The main currency for PRDC structures shifted from the USD to the AUD around 2007 with the narrowing of the USD-JPY interest rate differential.

**PRDC Mechanics and Risks**

A typical callable PRDC note, with a maturity of 30 years, can be characterized as follows: (1) it pays coupons in a foreign currency and the principal in the domestic currency; (2) the coupon fluctuates depending on the prevailing exchange rate, but is never negative; (3) the principal amount is “protected” in the domestic currency, but the timing of the principal payment could be anytime between today and 30 years from today.

The terms of a PRDC note would include a formula for semiannual coupons such as

\[
\text{Coupon Rate at Time } t = \text{Greater of } \left[ 14.0\% \times \frac{FX(t)}{120} - 11.0\% \right] \text{ or } 0,
\]

where \( FX(t) \) is the JPY/USD exchange rate at time \( t \). It can be seen from the equation that an appreciation of the yen would reduce the coupons until the linear function in the right-hand side bracket becomes zero, which, in this case, means a JPY/USD exchange rate of approximately 94.286. Conversely, a depreciation of the yen would increase the coupons. Redemption will be at par, but the issuer retains a Bermudan option to call the note. It means that the optimal strategy for the issuer is to redeem the note early if the coupon rate becomes high, and to postpone redemption until the final maturity (30 years from the issue date) if the coupon rate becomes zero. In the latter scenario, the investor would wind up holding a 30-year zero-coupon bond with very low liquidity, with a current market value far below par. (See Exhibit 10.)

Most PRDC notes have been issued by highly rated entities including some sovereign and supranational names, but no issuer would want to bear the risks associated with the notes’ idiosyncratic features as described above. The risks are highly “nonlinear” in the sense that
necessary hedge positions can change drastically depending on the exchange rate and the yield curve. “Modeling risk” and “parameter risk” also present difficult challenges. Thus, the issuer almost always hedges PRDC-specific risks through a derivatives transaction with the dealer who structured and sold the note. (See Exhibit 11.) The derivatives dealer in turn needs to dynamically hedge the PRDC’s nonlinear risk exposures in the currency and fixed income markets. An appreciation of the yen, for example, would lengthen the duration of PRDC notes, forcing the dealer to receive large amounts of long-dated yen interest rate swaps.

SNCP-Related Market Disruptions

Beginning in September 2008, a rapid AUD depreciation led to a dramatic extension of AUD-based structured note duration, leading to

Exhibit 10. Two Scenarios for PRDC Note Cash Flows

<table>
<thead>
<tr>
<th>Scenario 1: Yen depreciates</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRDC Note will have high coupons and short maturity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2: Yen appreciates</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRDC Note will have low or zero coupons and long maturity</td>
</tr>
</tbody>
</table>

Exhibit 11. Simplified Diagram for a Structured Note Scheme

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A sharply increased demand for hedging against Japanese yield curve movements. At the same time, the long end of the JPY swap yield curve suddenly flattened, compressing the 10-year/30-year yield curve slope as shown in Exhibit 12. Correlation between the JPY/AUD exchange rate and the yen yield curve slope increased significantly after this event. Dynamic hedging activity by the derivatives dealers seems to be the only plausible explanation for the emergence of strong correlation that we see in the graph.

Generally speaking, hedging activity for a large supply of highly nonlinear products tends to create distortions in less liquid markets. Such distortions could be cause for concern to policymakers since they could potentially affect a wide range of market participants. However, at least in this instance, it seems reasonable to suppose that the direct costs of such distortions have largely been borne by the derivatives dealers themselves. Having paid higher-than-expected transaction costs, the dealers would likely be somewhat more cautious in supplying similar structured products in the future.

Sizable losses have been reported, especially since 2008, on structured notes held by relatively unsophisticated investors, such as small and medium banks, municipalities, endowments and foundations.
Those incidents obviously raise the issue of investor protection, and the primary regulatory response has been education of less sophisticated banks through seminars and lectures (such as those offered by the Bank of Japan). It should be noted, however, that the popularity of PRDC notes (and FX TARNs) primarily comes from the fact that those products quite effectively exploit the investors’ misplaced emphasis on “principal protection.” And the apparently irrational emphasis on principal protection, at least among municipalities, foundations and endowments, is a result of the accounting and regulatory constraints under which they operate. In view of their incentives to secure the principal at almost any cost, it seems clear that education alone will not deter certain investor groups from acquiring risky structured products.

Despite the swap market disruptions and the investors’ losses, however, SNCPs have not posed significant risks to the financial system in Japan. There are only a limited number of large players participating in the disrupted long end of the interest rate swap market, and they could easily absorb any losses in that small segment of the vast fixed income markets. The investors with the largest losses from PRDC notes and FX TRANs were mostly unleveraged long-term investors who did not have to unwind their positions in the middle of market turmoil. Thus, no deleveraging cycle was triggered.

**Concluding Remarks**

How did Japan avoid the great credit market boom and bust of the 2000s, which plagued so many other advanced economies? What were the factors that mitigated dangerous excesses in its domestic structured credit markets? What were the factors that limited its investments in foreign structured credit products?

This paper offers four simple explanations: (1) traditional bank loans still dominate Japan’s credit markets and crowd out corporate bonds and structured credit products; (2) investors unfamiliar with credit products favored relatively simple structures, which reduced vulnerability to model risks and parameter risks; (3) the painful memories of the great real estate bubble in the 1980s and its collapse in the 1990s made Japanese investors skeptical of the global real estate boom (and associated securitizations), and probably had the effect of containing the Japanese real estate mini-bubble in the mid-2000s,
limiting the scope for aggressive domestic securitization; (4) highly leveraged institutions did not have large positions in Japanese credit products, and thus, the domestic credit markets were not seriously damaged by a severe deleveraging cycle during the global liquidity crisis.

I also note that the Basel II implementation in Japan was planned and announced well before the credit/liquidity crisis of 2007–2008. Japanese banks were discouraged from taking leveraged credit risk through investments in securitized products, and they were also discouraged from investing in opaque hedge funds, some of which took doubly leveraged credit risk. Since they had plenty of time to adjust their portfolios before the crisis, the new regulations almost certainly had the effect of reducing Japanese financial institutions’ losses from structured credit products.

In contrast to the relatively modest size of the structured credit markets in Japan, the country has long been known for its appetite for a wide range of complex non-credit products, such as currency-linked notes and equity-linked notes. Why have Japanese investors had so much appetite for those types of structured products? What are the risks from those non-credit products?

The popularity of structured non-credit products in Japan can be at least partly explained by the low interest rate environment that Japan experienced much earlier than the U.S. and Europe did. It is well known by now that in a low yield environment, certain investor groups are strongly induced to “search for yield” by taking excessive amounts of tail risks. When Japanese investors started to aggressively search for yield in the 1990s, there were no structured credit products; so they flocked to structured non-credit products that were “the only game in town” at the time.

Some swap market disruptions have been caused by hedging activities associated with those products, but they have been relatively minor, at least from the policymaker’s point of view. The investors with the largest losses from structured non-credit products have mostly been unleveraged long-term investors who do not have to unwind their positions at a time when such actions could trigger a damaging deleveraging cycle. Thus, it seems safe to say that structured non-credit
products have not posed, and currently do not pose, significant risks to the financial system in Japan.

References


IV. FINANCIAL CRISIS AND ACCOUNTING METHODOLOGY
The financial system failed to perform its function as a reducer and distributor of risk. Instead, it magnified risks, precipitating an economic contraction that has hurt families and businesses around the world.¹

Congress passed historic financial reform legislation in mid-2010,² more than two years after the onset of a financial crisis resulting from a housing bubble and bust that rocked the U.S. and world economies and led to a staggering recession, sometimes called the “Great Recession” because of its scope and duration. The Dodd-Frank legislation marks the first major financial reform enacting restrictions on the banking industry since the enactment of Glass-Steagall at the end of the Great Depression and its gradual demise as deregulatory and privatization policies gained sway in the post-Reagan years.

Those years saw the average American worker left with stagnating real wages even though productivity and work hours were dramatically increasing. With lower labor costs and increased productivity, U.S. businesses raked in unprecedentedly high profits that primarily went to managers and owners or were held in business capital accounts (and banks). Tax policies further favored the accumulation of capital in businesses, from accelerated depreciation provisions to other expensing provisions to tax-free accumulated savings accounts especially valuable to top corporate officials. That meant that the U.S. economy was awash with capital at the same time that ordinary workers were

facing longer hours and stagnant pay in spite of their continuing expectations of an improving lifestyle. It is not a surprise, in that context, that those years also led to the gradual disintegration of the Glass-Steagall protections distinguishing commercial banks from investment banks and ultimately Congress’s prohibition of regulation of a mushrooming array of financial products that had been developed to provide ready credit to a consumer economy buying beyond its ability to pay in terms of real wages.

The result was the end of a staid, conservative, and robust financial system. An insatiable demand for short-term profits to feed outsized compensation packages fed speculative proprietary trading desks gambling with other people’s money, intertwined with a shadow banking system that was of out sight and out of control. Debt was extraordinarily profitable for the system, but pushing credit on an overworked and underpaid American consumer—with a flood of credit card offers (loaded with hidden fees and high rates) and innovative mortgages (loaded with little understood terms such as negative amortization, interest holidays, variable rates and/or higher interest rates like the subprime loans that were especially lucrative for banks but extremely risky for overburdened borrowers)—put the entire economy at risk.

In August 2007, American Home Mortgage filed for bankruptcy and short-term credit markets froze after BNP Parisbas suspended several of its investment funds.3 In March 2008, the noted investment bank Bear Stearns experienced an inability to get the financing needed to keep going. The Treasury Department and Federal Reserve worked out a sale to JP Morgan.4 In September, Lehman declared bankruptcy and Merrill Lynch was sold to Bank of America.5 AIG was bailed out,6 and


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Washington Mutual was sold to JP Morgan Chase. Ultimately, the government provided billions directly and perhaps trillions indirectly: it funded the largest banks to keep the system afloat, facilitated mergers and expansion of the biggest institutions even while lamenting that they had become too big to fail, and provided funding to AIG to pay off its counterparties in full, much of which went to the same banks already receiving government funds, as well as assisting the national mortgage companies established under federal charters (known as Freddie and Fannie) that had suffered losses by purchasing tranches of “triple-A” debt from Wall Street’s securitizations of subprime loans (the two corporations were not permitted to directly fund the riskier categories of loans), and coming to the rescue of Detroit’s car industry, which had morphed into a part of the shadow banking system with less attention paid to manufacturing excellence. The result was job and home losses for millions of Americans, a huge federal deficit, and an as yet uncertain economic future.

The preceding paragraph describes some of the most obvious events of the financial crisis. But its roots go much deeper. This article explores the causes of the financial crisis, and considers in particular whether or to what extent fair value accounting rules were culpable. It also briefly reviews measures undertaken to respond. Part I provides an analysis of the financial crisis, delineating the various factors that fomented economic turmoil. In this context, Part II will discuss the relevance of accounting standards to the crisis, in particular the expressed concern that fair value accounting’s mark-to-market rules create a procyclical effect that creates panics and insolvencies that would otherwise be nonexistent. This Part will argue that fair value accounting

9 This paper was originally presented at a December 3, 2009 panel on accounting developments as part of the International Monetary Fund Seminar on Restoring Financial Stability—The Legal Response. It was updated in early 2010 to reflect the likely form of financial reform legislation, as reflected in the Conference Report for the Dodd-Frank Bill under consideration in Congress and expected to pass in July 2010.

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is not the villain it is made out to be, and that proposals to restrict or eliminate fair value accounting are wrong-headed. On the other hand, the off-balance sheet treatment of securitization vehicles was a genuine factor in the crisis, and should appropriately be addressed. Part III will briefly discuss the reforms proposed by the Treasury Department and reform legislation. Part IV concludes.

I. The Financial Crisis

The global financial crisis that began in 2007 resulted in the worst recession since the Great Depression. As described above, the U.S. government (and governments of other developed countries) came to the rescue of the global banking system, temporarily underwriting some collapsing companies and most big bankers.10 Given the huge outlay of federal dollars and the further commitments via direct and indirect guarantees, it behooves the country to understand the causes of the crisis and to eliminate those causes if at all possible. This Part I considers causation in three major areas. Part I.A. looks at the role of financial innovation. Part I.B. considers the impact of the deregulatory agenda put in place beginning with the Reagan presidency. Part I.C. assesses the overall financialization of the economy. Part II then addresses the relevance, if any, of accounting standards.

I.A. Financial Innovation: Complex Mortgage Loans, Hedge Funds, Securitizations and Credit Default Swaps

The last twenty to thirty years saw an unprecedented development of financial products and a rapid expansion of the financial markets utilizing those innovative products.

Most critically, financial innovation engineered a range of new financial “derivative” products (products whose values depend on attributes of corporate bonds, corporate shares, or mortgages backed by commercial or residential real estate or similar properties that are referenced by, or underlie, the derivative products). Many derivatives were legitimate hedges for ordinary course-of-business risk. Interest rate swaps, for example, permit end users to limit their exposure to increased interest rates on floating rate borrowings by converting to

10 See infra note 90 and accompanying text.
fixed rates through a swap of periodic payments with a financial intermediary. (In the swap, one counterparty pays fixed rate; the other counterparty pays a floating rate determined under the swap document, such as the London Interbank Offering Rate plus or minus some basis point spread.) Commodities futures allow manufacturers to assure an affordable supply of a necessary raw material.

But financial product innovation also resulted in products used to facilitate tax and regulatory arbitrage.\textsuperscript{11} For example, banks (and other firms) conducted “repo” deals—purported sales transactions with repurchase arrangements that in reality functioned as financings—to make their balance sheets appear less leveraged. The widespread use of repos for balance sheet window dressing was exposed in the Lehmann bankruptcy.\textsuperscript{12} Derivatives may also be used by banks to avoid collecting withholding tax on dividends by masking ownership of equities.\textsuperscript{13}

Further complicating the matter, many of these derivative transactions were purportedly customized bank-to-bank transactions rather than transactions between a bank and an end user outside the financial industry. Lack of transparency about these over-the-counter products meant that neither banks nor regulators were aware of the extent of derivative exposure taken on by individual financial institutions, the

\textsuperscript{11} See, e.g., Simon Johnson and James Kwak, \textit{13 Bankers: The Wall Street Takeover and the Next Financial Meltdown} (2010), at 80 (“Because the evolution of derivatives has run ahead of regulatory and accounting rules, derivatives can also serve other purposes, such as helping companies smooth their earnings over multiple periods or reduce their tax bills by deferring earnings into the future”).


degree of interconnectedness among financial institutions, nor the real riskiness of the products themselves. The amount of unregulated derivatives exploded in a very short period of time, so that the regulated U.S. stock market was only 2 percent of the global unregulated derivatives market by the end of 2008.\textsuperscript{14}

Financial innovation coupled with lax regulatory oversight\textsuperscript{15} permitted financial institutions to greatly expand their risk-taking to leverage themselves to incredible profits (and, commensurately when the markets faltered, enormous losses), becoming “a crazy, man-made money machine, built on flawed mathematical models.”\textsuperscript{16} Financial derivatives were central to the spread of the financial crisis from the subprime mortgage loan problems to the broader economy. Mortgage loans initially were issued under regular lending guidelines requiring documentation of income and prudential lending review. But securitization of those mortgage loans into pools that could be sold to third party investors through real estate mortgage investment conduits and, even more profitably, through collateralized debt obligation transactions (CDOs) separated bank profitability from traditional and prudential bank lending standards by separating borrower from lender. Suddenly, banks could push “product” and let others worry about the risks of loss, while the funds from the securitization of earlier mortgage loans were much more rapidly available for re-lending to new borrowers. That push for product provided a huge incentive to “find” borrowers and to develop new securitization products that would produce even higher returns.\textsuperscript{17} Borrowers were easy to find, since wages had stagnated for most American workers in spite of a productivity boom.

\textsuperscript{14} Too Big to Fail but Not Too Big to Sink, GamingtheMarket.com (Apr. 9, 2009), at http://www.gamingthemarket.com/not-too-big-to-sink.html. The notional amounts of over-the-counter (unregulated) derivatives outstanding at the time of the crisis were astronomical, as shown in the Bank for International Settlement’s quarterly reviews. See, e.g., Statistical Annex, BIS Quarterly Review (Mar. 2009), at http://www.bis.org/publ/qtrpdf/r_qa0903.pdf#page=108.

\textsuperscript{15} See infra Part I.B.


and debt appeared to be the only way to maintain existing standards of living.  

The process culminated in two practices carrying extraordinary systemic risk—(i) the issuance of thousands of subprime mortgage loans with little or no documentation, to borrowers who were often unqualified to receive them, in processes that sometimes or even often amounted to abuse or fraud, and (ii) the invention and wide use of complex and risky securitization forms such as the “CDO squared” that re-pooled and re-tranched junk grades of securities from prior securitizations of mortgage loans into new securitizations where they were magically transformed into “triple A” securities (with the assistance of credit rating agencies’ buying into banks’ assumptions about the diversification of risks) and the “synthetic CDO” that merely referenced existing loans but did not have to own them, relying on counterparty bets in the form of naked credit default swaps to provide the periodic payments that would ordinarily have come from owned mortgage loan assets. These securitization devices permitted banks to extract multiple layers of fees and profits from underlying pools of subprime loans while at the same time catering to particular risk appetites of potential speculators in the market. Much of it was done using special purpose vehicles and structured investment vehicles that permitted the banks to keep their own positions in the securitizations off their balance sheets. 

The Securities and Exchange Commission’s investigation of Goldman Sachs in connection with its creation of an Abacus synthetic CDO to


19 See, e.g., James Surowiecki, “Greater Fools,” The New Yorker Magazine (July 5, 2010), at 23 (noting that people were “bamboozled into making bad decisions” like refinancing to a higher interest mortgage or buying unnecessary credit insurance).

20 See, e.g., New Paradigm, supra note 3, at xv.
include subprime mortgage loans expected to perform very poorly by the CDS protection buyer who selected most of them is the culmination of that process.\(^{21}\) The “securitization mania” with its aggressive leveraging of assets “was bound to end badly.”\(^{22}\) As Edmund Andrews has reported, the explosion of financial derivatives played a significant role in moving the subprime problem to a global financial crisis.\(^{23}\)

Furthermore, financial institutions’ development of technological trading procedures threatened the transparency and equality of access to information essential to functioning markets. Financial institutions

\(^{21}\) SEC v. Goldman Sachs & Co., S.D.N.Y. No. 10 Civ. 3229 (BSJ) (June 21, 2010) (charging that Goldman made material misrepresentations in connection with the input of Paulson’s hedge fund in the selection of subprime mortgages for the Abacus 2007 AC-1 CDO deal and providing until July 19 for Goldman’s response). As this article was being finalized, Goldman reached a settlement agreement with the SEC on July 15, 2010 for more than $500 million and agreed not to deduct the payments for tax purposes. See Sewell Chan and Louise Story, “Goldman Pays $550 Million to Settle Fraud Case,” New York Times, July 15, 2010, at http://www.nytimes.com/2010/07/16/business/16goldman.html. For thorough discussions of the role of naked credit default swaps in the crisis and drives to short the subprime mortgage loan market, see Michael Lewis, The Big Short: Inside the Doomsday Machine (2010) (probing the development of awareness about the coming fall of the subprime CDO bubble and those like Steve Eisman and Michael Burry who won by shorting it, and concluding that greed, and the incentives that channeled the greed, were at the heart of the financial system problems and its ability to pass its risk off to ordinary people through extraordinary leverage and aggressive transactions) and Gregory Zuckerman, The Greatest Trade Ever (2009) (specifically about Paulson’s billion-dollar credit default swap gambling win).

\(^{22}\) New Paradigm, supra note 3, at xix.


Credit-default swaps tied to subprime mortgages were at the heart of AIG’s immense collapse, and they fueled an immense casino of highly-leveraged bets that all went south at the same time when the housing market tanked. Credit-default swaps amplified reckless behavior because they allowed bond investors to think they had insurance against bond defaults. They also became a multi-trillion-dollar game in themselves, with hedge funds and other institutions buying up swaps even when they didn’t own the underlying bonds. None of this was regulated.
with significant resources have been able to hire quantitative experts (often called “quants”) and invest in state-of-the-art technology and computerized pricing analysis. As a result, they can establish speculative proprietary trading using dark pools (informal, private electronic matching systems that are not reflected in the exchange-traded markets) and flash trading (trading based on computer algorithms to take advantage of slight moves in the market) to make large profits in ways that are opaque and unavailable to ordinary investors and that fragment markets into privileged or run-of-the-mill traders, threatening the markets’ credibility.

The explosion of derivatives and computerized trading was especially lucrative for Goldman Sachs and the other big Wall Street investment banks, which engage in investment banking for institutional clients (including merger advice and underwriting); trading and principal investment activities for clients; proprietary securities trading and investment for their own accounts; and other asset management and securities services. Derivatives essentially doubled or tripled the ability of financial institutions to enter into new deals on which they could make money. And with JPMorgan’s development and dissemination of a statistical “value at risk” (VaR) model for computerization of risk assessment at a given probability (often 95 percent), the bankers had an institutional model for measuring risk that all accepted as highly relevant, even though it had significant shortcomings. The model could be gamed, it ignored types of risks such as liquidity risk that hadn’t been


25 Venkatachalam Shunmugam, Financial Markets Regulation: The Tipping Point, May 18, 2010, at http://www.voxeu.org/index.php?q=node/5056 (providing a description of these practices and a list of SEC and other references on these issues). Companies may also have engaged in front-running, the illegal practice of executing orders based on knowledge of pending client orders. Id.

an issue in the past, and it relied on historical trends (even when there was little history to use)—all of which tended to deflect attention from the potential for drastic change or the “long tail” probability. The profit machine was up and running, and those profits themselves pushed the concern about risk over the long term to the background as banks pressed to get their share of the manna. The stock market and housing bubbles were fed by the banks’ insatiable appetites for transactions that could be securitized and resold to garner multiple layers of fees.

In addition, hedge funds and other non-regulated actors such as company banks became important players in financial markets (often termed the “shadow banking system”). Although not regulated as banks, these shadow banking entities are often owned by banks and engage in risky financial transactions with other financial enterprises. The explosion of derivatives and the computerization of trading was similarly lucrative within this shadow banking system. The interrelationships among the shadow and formal banking entities are obscure, because of the lack of regulation of the shadow banking entities on the one hand and the lack of regulation of the entire range of derivative financial products on the other. Thus, while the hedge fund Long Term Capital Management almost failed at the turn of the century, it was rescued by a group of financial institutions acting under a coordinated plan developed with the federal government out of concerns about systemic risk. The ability of the system to learn from the near-collapse, however, was limited because of the lack of systematic information about transactions, ownership and obligations among shadow banks and commercial and investment banks. Instead of leading to

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much needed reforms, the mere fact that the system survived the hedge fund’s reckless leverage “reaffirmed the prevailing market fundamentalist creed.”

Moreover, investment banks were also able to exploit the banking laws by taking advantage of the “industrial loan company rules”: the result is that these speculative enterprises have gambled with taxpayer money, taking advantage of the Federal Deposit Insurance Corporation (FDIC) protection and the cheap funding from long-term depositors available through commercial banking business subsidiaries without being subject to the stricter regulation that such banking normally entails. Merrill Lynch’s commercial subsidiary alone reached about $60 billion in assets in the decade before the financial crisis, more than all of the traditional industrial loan companies combined.

I.B. Lax Regulation

Why this lack of transparency? At the same time that financial innovation was producing new products, a deregulatory approach came to dominate government, encouraged by the Chicago School’s economic theory focused on quantifying descriptions of markets. The simplistic theory reduces the chaotic reality of human marketplaces to a concept of rationality where “perfect markets” without transaction costs or information asymmetries achieve an equilibrium between supply and demand; yet this dominant perspective on markets has little to do with the reality of the way markets work.

29 New Paradigm, supra note 3, at 116.
31 Id. The charter, it turns out, was of most value to the “most reckless” companies. Id. Merrill Lynch had to be taken over in September 2008.
32 See, e.g., New Paradigm, supra note 3, at x (“Participants’ and regulators’ views never correspond to the actual state of affairs; that is to say, markets never reach the equilibrium postulated by economic theory”). It would be impossible here to provide an adequate foundation in the traditional economic theory that has come to be closely associated with the Chicago economics (continued)
Regulators as well as regulated entities fell into the “perfect market” trap. As Nobel economist Joseph Stiglitz notes, “Our regulatory system failed partly because we had regulators who didn’t believe in regulation.” That led to a gradual erosion of the Depression-era banking laws that had imposed strong restrictions on commercial banks and prohibited the integration of commercial banking, investment banking, and insurance and proprietary trading in a single conglomerate. The erosion was finalized at the turn of the century with the repeal of legal restrictions separating commercial and investment banking and department and its star economists Milton Friedman and Friedrich Hayek. At the core is an emphasis on rational economic decisionmaking based on self-interest and the perfection of free markets. Two economists whose work develops the more traditional theory of John Maynard Keynes provide a friendly assessment, in George A. Akerlof and Robert J. Shiller, Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism (Princeton Univ. Press 2009). “According to traditional economics, free market capitalism will be essentially perfect and stable. There is little, if any, need for government interference.” Id. at 2. But, the authors note, the theory of economics derived from Adam Smith’s teachings “does not explain why the economy takes rollercoaster rides.” Id. at 3. In contrast, Keynes sought to explain the volatility of the economy in terms of how humans make decisions—they are not rational, but instead their “animal spirits” come into play. Id.

Yves Smith provides a more caustic (and in my view, more revealing) summary of traditional economics’ simplistic assumptions.

[Adam] Smith’s ideas were cherry-picked and turned into a simplistic ideology …. This theory proclaims that the ‘invisible hand’ ensures that economic self-interest will always lead to the best outcomes imaginable. It follows that any restrictions on the profit-seeking activities of individuals and corporations interfere with this invisible hand, and therefore are ‘inefficient’ and nonsensical. … Individuals have perfect knowledge, and so they pass their lives making intelligent decisions. Prices may change in ways that appear random, but this randomness follows predictable, unchanging rules. … It is therefore possible for corporations to use clever techniques and systems to reduce or even eliminate the risks associated with their business. Yves Smith, EConned: How Unenlightened Self-Interest Undermined Democracy and Corrupted Capitalism (2010) (hereinafter EConned), at 4.

financial services in the wake of the expansion of CitiGroup. Brook
sley Born’s foresighted attempt to bring into the open for regulation the rapidly expanding new credit default swaps at the Commodities Futures Trading Commission was thwarted with the Commodities Futures Modernization Act of 2000, which prohibited regulation of derivatives. The result of Congress’s action is that derivatives contracts are not dealt with through the normal bankruptcy process, but rather are settled immediately upon counterparty demand when a contractual condition is triggered (such as a default or imminent default on any debt, or thin capitalization or whatever triggers are stated in the particular contract). The lack of regulation and the settling of derivatives outside of bankruptcy put considerable downward pressure on the price of assets.

Further, key officials in a position to act to stem the tide of leverage and risk taking at banks failed to act, in large part due to the way that economic theory about free markets and self-regulation had blinded them to the rising systemic dangers. The Washington establishment from Reagan on has been under the sway of a markedly bank-friendly view of the economy—the so-called Washington Consensus that treats the Chicago School “free market” ideology as received wisdom. Regulators “lacked both an understanding of the

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37 See, e.g., In Praise, infra note 54, at 156-57 (discussing the role of market efficiency theory in conflating notions of efficiency with accuracy and perfected markets).
real dynamics of the markets and of the concentrations of risk that were developing.”

Existing theory focused on individual institutions, and not on the system. To the extent officials considered the system, dogmatic reliance on free market theory led to minimization of concerns about risk. The upshot was that credit rating agencies and banking regulators abdicated responsibility, relying on banks’ own calculations and risk profile assessments in drawing conclusions about securitization tranches and the likelihood of nationwide market disruptions.39

Lauding the so-called Great Moderation, former Federal Reserve Chair Alan Greenspan decided that banks could regulate themselves. After the crisis broke, he belatedly admitted that he had been wrong.40

Lax oversight was due also to the regulatory capture of government agencies by aggressive financial institutions. Moreover, the swinging door between Washington and Wall Street has created an offici aldom that naturally allies with Wall Street interests based on shared cultural and investment banking backgrounds.41 Accordingly, the financial oligarchy exercises enormous power and is able to influence banking regulation at the international arena (Basel Accord on capital levels), the domestic tax agenda (the refusal of Congress to include in the financial reform bill a reasonable financial transactions tax or leverage tax to pre-fund future bailout and resolution costs), and

39 New Paradigm, supra note 3, at 117 (expressing shock at regulators’ “abdication of responsibility” and noting that the Basel II accord permitted banks to rely on their own risk management systems, and that credit rating agencies evaluated the creditworthiness of financial instruments by relying on calculations provided by the issuers).
41 One need only consider the many investment bankers (especially from Goldman Sachs) who have played significant economic policy roles in both Republican and Democratic administrations to verify this incestuous relationship: an incomplete list would include Robert Rubin, Henry Paulson, Jon Corzine, Robert Zoellick, Joshua Bolten, and Gary Gensler. See, e.g., Charles Scaliger, “The Government and Goldman Sachs,” The New American (July 14, 2010) (discussing the swinging door between Wall Street and DC).
domestic banking activities (from accounting standards to proprietary trading to flash trading).42 The result is a series of policies (promotion of homeownership, the ready availability of credit through securitizations, low interest rates, policies inviting the influx of funding from China) that both destabilize the economy when pushed to excess and provide rentier profits to the financial institutions at the heart of each of those activities.

The result of innovation, expansion and lax regulatory oversight was a mushrooming of the Wall Street banking business and the overall financialization of the economy. In short, a business that was intended to exist primarily as a service to the real economy of household consumption and business production43 moved into the dominant position of a financially oriented economy centered on transactions among financial intermediaries.

I.C. Financialization of the Economy

Financial innovation and the development of a large “shadow banking system”44 reflect a reality that played a significant role in the crisis—the financialization of the economy.45 Financial companies

43 See, e.g., Geithner and Summers, supra note 1.
44 See, e.g., Causes of the Financial Crisis and the Case for Reform, Testimony before the Financial Crisis Inquiry Commission, Statement of Timothy Geithner, May 6, 2010 (hereinafter Causes) (“A great diversity of financial institutions emerged to provide banking services to individuals and companies, and they were allowed to operate without being subject to the same constraints applied to traditional banks”). Geithner notes that the shadow banking system of repo markets, structured investment vehicles and commercial paper conduits and other specialized finance companies grew to parallel traditional banking in size, with $8 trillion of assets at its peak, “financed with short-term obligations and in institutions or funding vehicles with substantial leverage” and thus “particularly vulnerable to a classic run.”
now account for “about twice the proportion of GDP as they did thirty years ago, and up to 40 percent of corporate profits.” Gl obally, financial institutions have branched into every region of the world, providing the ability to cherry pick the jurisdiction to reference in cross-border derivatives deals and further weakening the ability of regulators to provide adequate oversight. The difficulty in harmonizing liquidity, leverage and capital requirements across borders results in financial institutions having more flexibility than merited. The Basel II accords were out of date in 2004 when they were promulgated and the Basel III accords, under discussion as the financial reform bill nears finalization in the United States, will be weakened by the clout of the banks in the wake of the financial crisis and can be expected to underregulate on these issues and defer whatever regulation is undertaken during a long transition period. All of these indicators of the power of financial institutions and the importance of these institutions to world economies present troubling questions for appropriate reforms of “too big to fail” institutions.

Further, financial institutions are extraordinarily interconnected, with derivative contracts among banks, shadow banks, and end users, and more complex swaps such as credit default swaps often conducted with a limited group of counterparties considered financially adequate to undertake the task. In the case of the subprime market implosion, the credit default exposure among banks and AIG led to a huge bailout of the insurance firm and payouts by it of tens of billions of dollars to a variety of big bank trading partners such as Goldman Sachs, JPMorgan Chase, and others. While derivatives were touted as diversifying and reducing risks within the financial system, the interconnectedness among banks and shadow banking entities instead amplified that risk.

46 Jeffrey Madrick, “Inequality in America and What to Do About It,” 291 The Nation 21 (July 19/26, 2010) (hereinafter “Inequality”). Simon Johnson also provides some insightful charts on the outsized share of profits enjoyed by the financial industry as a share of all U.S. business profits (no higher than 16% prior to 1985, but reaching 41 percent in the new millennium) and the corresponding outsized pay per worker in the financial sector as a percentage of average U.S. compensation (escalating from around 100 percent to around 180 percent after 1983). See also Coup, supra note 42.


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Financialization of the economy combined with globalization had three detrimental effects—increasing inequality (which was both cause and effect of financialization); increasing speculation within the banking industry based on Pollyanna assumptions about housing prices, recessions, and economic growth; and synchronization across economies of the resulting economic downturn. Financialization resulted in soaring incomes among bankers at the top of the income distribution while incomes were stagnating in the middle for most Americans. That inequality made the impact of the crisis more daunting for most Americans as a chilling recession set in when ordinary Americans lost their purchasing power, while it abetted a casino attitude among bankers that led to greater risk taking and short-term thinking that shortchanged considerations of long-tail potentials for disaster and its potential impact on the American economy. As Jeff Madrick notes, the banks “pay their people ridiculously well—often two-thirds of their profits. … Wall Street paid $145 billion in 2009, a near record, when the rest of America was mired in the worst recession since the 1930s and one out of six Americans couldn’t find a full-time job.” That inequality also hints at the enormous political power of bankers and their likely ability to forestall much scrutiny of bank activities, at least so long as the economy appeared to be rolling along. Coupled with the pace of innovation and the supporting economic theory, these trends meant that the financial industry was rushing pell mell down easy-credit street without much insight about risks. The bailout itself provided a means for the system to continue, as the biggest banks raked in profits in 2009 from the cheap funding available due to the government guarantee.

II. The Role of Accounting in the Crisis

There are various views on the root causes of the economic meltdown that began in 2007 as liquidity crises and credit weakness led to the demise or takeover of these major financial institutions. Two

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48 See Causes, supra note 44.
49 Inequality, supra note 46.
50 Neek Kashkari, a Treasury official under Paulson and then Geithner (and himself a Goldman alum) freely admitted the advantage to private capital and banks of government funding for the purchase of toxic assets from bank’s balance sheets. See Johnson, Coup, supra note 42. The advantage to the taxpayers is presumably the continuation of the financial system intact.
key factors that emerged as potential culprits stem from the accounting rules for financial enterprises—off-balance sheet special purpose vehicles and fair value accounting. One, fair value accounting, is a “false villain”\(^5\); the other, special purpose vehicles, is a part of the financial innovation and increased speculative risk-taking that lay at the root of the crisis.

### II.A. A Brief Overview of Fair Value Accounting

In order to assess the role of fair value accounting in the crisis, some basic review of fair value measurement may be helpful. Although some form of fair value accounting had been in use for particular purposes prior to the 1990s, fair value accounting was adopted in the wake of the savings and loan debacle in 1993. Historical cost accounting had misled investors and regulators by showing solid balance sheets for institutions that were thinly capitalized or even insolvent. As a consequence, the Financial Accounting Standards Board (FASB) promulgated Statement of Financial Accounting Standards 115 (FAS 115), which provided for fair value accounting for investments in equity securities having readily determinable values and all investments in debt securities, including collateralized mortgage obligations and other mortgage-backed securities.\(^5\) Loans are currently exempt from fair value accounting, however. Under FAS 115, now codified at FASB Accounting Standards Codification Topic 320 (ASC 320), debt securities intended to be held to maturity are classified as held-to-maturity securities and are accounted for at historical cost, whereas debt and equity securities bought with the intent to sell at near term are classified as trading securities and accounted for at fair value, with changes in value included in earnings. Other debt and equity securities are classified as available for sale and reported at fair value, but changes are not included in earnings; instead, they are reported in shareholder equity.

FAS 157, Fair Value Measurement, issued in 2006 and applicable to financial statements ending after November 15, 2007, provided a definition of fair value and guidance on how to determine fair value for


\(^5\) FAS 115 was superseded by FASB ASC Topic 320 on September 15, 2009.
purposes of FAS 115. The framework for measuring fair value establishes a hierarchy of fair value inputs, prioritizing “level 1” inputs of quoted prices in active markets for identical assets or liabilities as the most reliable evidence of fair value that must be used when available, but permitting “level 2” inputs of other observable data (such as quoted prices for similar assets in active markets, or quoted prices for identical assets in inactive markets) and, in cases where observable inputs are not available, permitting “level 3” inputs reflecting the entity’s own assumptions about how market participants would price the item. Level 1 inputs are clearly objective measures of actual transactions, whereas Level 3 inputs are essentially proprietary modeling assumptions and offer the most room for manipulation of values to suit the reporting entity’s objectives.

II.B. The Arguments Against Fair Value Accounting for Financial Institutions

Banks, their allies in congress, and some academics and think tank members began arguing as early as 2007 that fair value accounting was responsible for the apparent weakness of bank balance sheets and a primary cause of instability.54 As Lehman’s bankruptcy, AIG’s insolvency, and Merrill Lynch’s precarious situation came into attention, some demanded that FASB suspend fair value accounting so that banks would not have to recognize such heavy losses. The argument is that fair value reporting requires them to undervalue their distressed assets, thus lowering their apparent equity, triggering capital provisions, and causing them to appear weak and less solvent than they actually are. This unleashes a parade of horribles related to pro-cyclicality: funding costs escalate as banks cannot as easily access the short term commercial paper markets and liquidity issues ensue leading to sales of assets

53 It also expanded disclosure about fair value measurements. FAS 157 was superseded by FASB ASC Topic 820, September 15, 2009. Fair value is defined as an exchange price, presuming a hypothetical orderly transaction between market participants from the perspective of the market participant that holds the asset or owes the liability, thus focusing on exit price (price received in a sale of an asset or paid to transfer a liability).

at a loss.\textsuperscript{55} Blackstone Group’s CEO Stephen Schwarzman was one of the critics who blamed the accounting rule for “accentuating and amplifying potential losses.”\textsuperscript{56} Similarly, Steve Forbes claimed that the accounting rule was the primary cause of the financial “meltdown.”\textsuperscript{57}

An outspoken opponent of fair value accounting in its current form because of its procyclicality is Peter J. Wallison, a Fellow at the American Enterprises Institute.\textsuperscript{58} Wallison makes a variety of additional arguments, noting that it is difficult to categorize financial assets under FAS 115, with the result that banks will tend to categorize assets in the mark-to-market categories of trading or available for sale rather than as held to maturity and suggesting that the “highly conceptual art” of financial accounting provides leeway to choose fair value when focusing on earnings but amortized cost when focusing on stability.\textsuperscript{59} For banks, he argues, stability measures are more important than earnings measurements—banks’ financial statements should not be “distorted” by unanticipated market price moves and banks, which are backed by

\textsuperscript{55} These and a range of other critical comments about fair value accounting are reported in the SEC Study, infra note 66, at Appendix A. See also Korok Ray, “Do Accounting Measurements Matter?,” 6 J.L. Econ. & Pol’y 219, 222, 225 (2010) (acknowledging that fair value accounting may exacerbate the business cycle but suggesting that the “better approach is to leave the accounting fixed [and] to adjust the capital requirement to guarantee financial stability”); David B.H. Martin, Disclosure Implications of Fair Value Accounting and the Subprime Mortgage Crisis (Aug. 2008) (a Covington & Burling presentation setting out arguments for and against fair value accounting’s role in the crisis), at http://www.cov.com/files/Publication/16b76b09-bbe8-4abd-b925-94363006bf7e/Presentation/PublicationAttachment/79a98677-9f51-44fb-a90a-9acc49d5d147/Disclosure%20Implications%20of%20Fair%20Value%20Accounting%20and%20the%20Subprime%20Mortgage%20Cris.pdf.

\textsuperscript{56} Id. at 138-39.


\textsuperscript{58} Peter J. Wallison, “Fixing Fair Value Accounting,” 6 J.L. Econ. & Pol’y 137 (2010), at 142-43 (“We can see how the mark-to-market effect of fair value accounting has caused a downward slide in asset values, and how this decline has evolved into a dangerous downward spiral”).
government directly and indirectly and must deal with the mismatch of short-term liabilities and long-term assets, should not have to compete with securities firms. Walliston concludes that banks (and probably insurance companies) should be exempted from fair value accounting altogether.

While many critics of fair value accounting do not attribute to it such a central role in precipitating the crisis, they do often see implications for the crisis from fair value accounting that suggest the costs are greater than the benefit gained by investors from increased transparency. Haresh Sapra, for example, focuses on the costs of fair value accounting and its implications for the financial crisis. He suggests that other ways of increasing transparency might be preferable, because fair value accounting gives rise to measurement errors when illiquidity results in overstated losses. Even noted economist and former Federal Reserve Chair Paul Volcker is a critic of fair value accounting for banks in particular. He complains that the accounting standard does not mesh with banks’ business models, which perforce must deal with the long-term/short-term mismatch between deposit obligations and funding sources.

Others simply have noted the procyclicality of fair value accounting and expressed the need to find some means to address it. For example, the Group of 20 in its review of the financial architecture after the crisis concluded that ways should be found to mitigate the procyclicality of accounting standards. Similarly, other academics argue for adjusting accounting numbers for the sole purpose of determining capital requirements.

60 Id. at 139-41.
64 Giovanni Stramelli, “The IAS/IFRS After the Crisis: Limiting the Impact of Fair Value Accounting on Companies’ Capital,” Bocconi Legal Studies (continued)
II.C. The Reasons Fair Value Accounting Is Not the Culprit
It Is Made out To Be

In response to pressure from Congress, banks and various other critics to suspend fair value accounting at the height of the crisis in September 2008, the SEC and FASB offered “clarifications” rather than suspension of the rules. They countered (with the support of Federal Reserve Chair Ben Bernanke) that fair value accounting is merely a reporting mechanism reflecting market values and not the culprit causing low values.65 In the economic stimulus act passed in early 2008, Congress nonetheless required the SEC to report before the end of 2008 on whether fair value accounting had caused the financial problems of banks and should be suspended. The SEC Study showed that fair value accounting—and inclusion of the valuation in income—was not a predominant feature of banks’ financial statements: less than 50 percent of banks’ assets and only about 15 percent of liabilities were subject to fair value accounting, with only about 25 percent marked to market in net income. The SEC concluded in its report that fair value accounting was not the culprit and rejected any full-scale revision of the accounting rules for banks.66

Fair value accounting found friends within business as well. As JPMorgan Chase’s Dane Mott noted, “Blaming fair value accounting for the crisis is a lot like going to a doctor for a diagnosis and then blaming him for telling you that you are sick.”67 Or as Nicole Gelinas commented, “fair value accounting did not cause the crisis. The crisis could have only been stopped by the banks themselves. They could have chosen … to be in the long-term investment business rather than

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in the short-term exotic-security creation business.” The problem was not that fair value was being reported, but that investors thought securities were not being written down far enough.

Nonetheless, FASB responded to the ongoing pressure from the American Bankers Association and particularly from Citigroup and Wells Fargo and their allies in Congress like Republican Spencer Bachus by quickly releasing amendments to the accounting rules. The clarifications permitted more use of judgment (mark to model) even when there are actual reference market prices. FASB Chair Robert

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68 Mark to Market, supra note 51, at 150. Other defenders of fair value accounting looked to government subsidies for housing, noting that the housing bubble had begun to burst even before the new guidance on determining fair values using the three-level approach had come out. See Raymond C. Niles, “Eighty Years in the Making: How Housing Subsidies Caused the Financial Meltdown,” 6 J.L. Econ. & Pol’y 165 (2010) (noting that “banks did hold bad loans on their books. Mark-to-market accounting simply revealed it”). While Niles’ analysis of the cause of the financial crisis is too narrow, it is certainly correct that fair value accounting is not the culprit.

69 Id. at 151 (discussing investors’ concern at Lehman’s failure to mark losing securities below 70 percent of original value).


71 FASB Issues Proposals to Improve Guidance on Fair Value Measurements and Impairments, http://www.fasb.org/news/nr031709.shtml (last visited July 15, 2010) (regarding issuance of Proposed FSP FAS 157-e, Determining Whether a Market Is Not Active and a Transaction Is Not Distressed and Proposed FSP FAS 115-a, FAS 124-a, and EITF 99-20-b, Recognition, Measurement and Disclosure of Other-Than-Temporary Impairments). The FAS 157 guidance permitted banks to shift assets from Level 2 valuation to Level 3 valuation, thus reducing the likelihood that losses would be reported. The FAS 115/FAS 124 guidance aligned the model for loans more with that for debt securities amid concern that the current model did not recognize that some of the securities’ declines in value were temporary and thus did not adequately reflect expected cash flows. It included a much-sought provision to report (continued)
Herz made clear that FASB did not view this additional guidance about the application of the fair value standards as a change in the accounting standard, but rather an attempt to clarify when active markets exist.\(^{72}\) In his testimony before the House Financial Services Subcommittee on the response to the financial crisis, Herz made clear that the role of accounting is to provide information to investors and markets, while the role of bank regulators is to focus on safety and soundness of banks and the financial system.\(^{73}\) There is no reason that the latter should not use financial statements with adjustments as needed to suit those purposes, but it would be foolish to suspend fair value accounting merely because, as messenger of unwanted tidings, it can have economic consequences.

Trust is critical to financial markets, and uncertainty about the credibility of balance sheets threatens that trust.\(^{74}\) It is therefore questionable whether disregard of downward spirals in valuations would in fact more accurately reflect banks’ stability rather than earnings potential, as Wallison suggests. Stability is threatened when banks have invested in risky assets whose valuations are questionable and likely to be considerably less than original values. To suspend fair value accounting in order to avoid calling attention to such questionable valuations might well raise the concern level rather than alleviate it, on the assumption that banks’ statements simply are unrevealing about the true state of their finances. In fact, fair value accounting’s exposure of banks’ balance sheet weakness is ultimately a benefit to the financial system in a context where banks have actually suffered large losses on securities impairments due to causes other than creditworthiness to be reflected in other comprehensive income rather than earnings. This guidance was fast-tracked and issued on April 2, 2009.

\(^{72}\) *FASB Chair Testifies on Global Accounting Standards Convergence Project*, 2010 TNT 99-67 (May 24, 2010) (testimony of FASB chair Robert Herz before the House Financial Services Subcommittee, in which he reviewed the FASB activities addressing the financial crisis).


and loan portfolios, since it forces them to “acknowledge the scale of their problems.” It might be that more information—i.e., provision of both historical cost and actual market prices even during market disruptions—could be valuable to investors, but it is farfetched to think that suppression of bad news about losses through use of artificially high historical cost valuations would be stabilizing for financial markets in the long run.

Policymakers should recognize that economic models generally failed to predict the crisis; on the other hand, analysts who used accounting flow of fund models were more likely to anticipate the problems. If anything, instead of obscuring material risks, mark-to-market accounting needs to be strengthened to make it harder not to recognize losses, since it is possible that banks’ balance sheets appeared too rosy rather than that they were artificially deflated by the procyclicality of mark-to-market accounting. That suggests that fair value accounting is more useful in foreseeing crises than traditional rules that lock in original value.

The Treasury Department’s own report on financial regulatory reform acknowledges the importance of fair value accounting by

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75 Coup, supra note 42 (suggesting that banks “don’t want to recognize the full extent of their losses, because that would likely expose them as insolvent”).
76 See, e.g., In Praise, supra note 54 (suggesting that new interactive statements using eXtensible Business Reporting Language be utilized to provide historic cost, market value and model values).
77 Dirk J. Bezemer, “No One Saw This Coming”: Understanding Financial Crisis Through Accounting Models, MPRA Paper No. 15892 (June 16, 2009).
78 See, e.g., Michael Rapoport, “A Comprehensive View on Bank Profits,” Wall St. J., July 29, 2009, at C14 (reporting that the “relaxation” of fair value reporting standards for other than temporary impairments resulted in better earnings for Wells Fargo and State Street banks); Roderick Hills, Harvey Pit and David Ruder, “Don’t Let Banks Hide Bad Assets,” Wall St. J., Nov. 19, 2009 (responding to the American Bankers Association demand that a systemic risk regulator be able to prescribe accounting standards for banks that banking regulators can adjust capital requirements as desired but should not fiddle with accounting standards, which would be a “dangerous path” for both investors and markets). FASB chair Herz noted that some believed bank assets were overstated because of trades at well below book value. See supra note 73, at 4.
encouraging standard setters (e.g., FASB and the SEC) to consider how to make loan loss provisioning more forward looking by incorporating a broader range of available credit information. In looking at the criticisms of fair value accounting, Treasury concluded that it would be helpful if accounting rules found ways to provide fair value information to investors as well as more transparency about management’s expected cash flows from holding investments.79 And FASB has now proposed a requirement that banks mark their loans to market, since original cost is quickly out of date and largely irrelevant information.80

In this light, the changes pushed by Congress in permitting banks to use level 3 modeling rather than actual market data in illiquid markets are more than mere clarifications and potentially problematic.81 Economic substance is at the heart of the current fair value controversy—to the extent banks can disguise their true economic state, they may “last” longer and may cause investors to lose additional funding. Level 3 analysis has frequently been referred to as “mark to myth” accounting because of the concern that banks will manipulate the proprietary modeling to satisfy balance sheet targets.82 That is, of course, one


80 Michael Rapoport, “Fair Value Plan Could Cost Banks,” Wall St. J., May 27, 2010, at C1 (noting that most banks have substantial amounts of loans carried at original cost, so that a shift to fair value accounting could result in substantial loss recognition). See also FASB, Proposed Accounting Standards Update on Financial Instruments (Topic 825) and Derivatives and Hedging (Topic 815) (May 26, 2010) (providing for both amortized cost and fair value for most financial instruments held for collection but fair value for derivatives and traded securities, with all changes recognized in net income); FASB, Proposed Accounting Standard Update on Comprehensive Income (Topic 220) (May 26, 2010) (requiring that net income and other comprehensive income be presented in a single statement).

81 See supra note 65 and accompanying text regarding the rapid-fire FASB changes on application of fair value accounting.

82 Concerns about the continuing ability of banks to ignore risk and insolvency signals by “marking to myth” reverberate through the blogosphere. See, e.g., Dylan Ratigan, “Wall Street Reform: Politicians Lie, Media Applauds, America Suffers,” HuffingtonPost (June 25, 2010) (complaining (continued)
reason that ongoing efforts to create greater transparency around Level 3 inputs are especially important. Disclosure of inputs, information about the modeling assumptions, and explanation of the reasons for discounting actual market prices should be required, especially for any switching to level 3 inputs in times of market disruptions.

To the extent that fair value accounting’s procyclicality may create higher demands for capital than might need to be required, banking regulators can make that determination separately from the balance sheet determinations. Accordingly, FASB Chair Robert Herz has urged that regulators should decouple accounting and capital requirements, so that fair value accounting remains as a more transparent window on the current state of a bank’s balance sheet but regulatory capital can be increased or decreased countercyclically if required.


See, e.g., Stephen G. Ryan, “Accounting In and For the Subprime Crisis,” 83 The Acct Rev. 1605 (June 2008) (noting that lack of observable inputs requires considerable qualitative and quantitative disclosure of inputs to the model and sensitivity of the model to inputs). I have argued against accepting fair value accounting as the measure of unrealized gain or loss for tax purposes because of this potential to manipulate in the “mark-to-myth” level 3 valuations. See Book-Tax, infra note 111. This is an area that continues to require increased disclosure, as well as restrictions on modeling parameters. FASB has responded with an exposure draft on disclosure that will require information on reasonably possible alternative Level 3 inputs.

One aspect of accounting rules likely did contribute to the crisis—the ability of financial institutions to park liabilities in special purpose or structured investment vehicles, thus removing them from the balance sheet and giving the appearance of less leverage. FASB moved to revamp these rules immediately after the crisis broke, followed by an extensive SEC release on rules for asset-backed securities. These consolidation and de-recognition rules should result in more assets remaining on banks’ books whenever they retain significant risk in connection with a securitization.

III. Financial System Reforms

The most noticeable attribute of the attempt to deal with this financial crisis is the view that the goal is to “restore” the financial system so that securitizations “work” again, financing “gets done” again, and the banks are seen as in good shape again. In all honesty, the goal should be to ensure that the system as we knew it never can exist again.

III.A. Working Through a Crisis

In the immediate aftermath of the 2008 Bear Stearns, Lehman, Washington Mutual and AIG collapses, the government moved to create a rescue program that would “save” the financial system. Specific rescue programs were proposed, modified, and varied as the crisis progressed, from facilitating takeovers (and, through administrative fiat in Notice 2008-83 in October 2008, providing unprecedented ability for acquiring banks to use the merged bank’s tax losses in contravention of Internal Revenue Code Section 382’s limitation on loss acquisitions) to providing loans, equity investments and purchase of so-called “toxic”

86 See Ryan, supra note 84 (discussing fair value accounting and the accounting rules for securitization vehicles).
87 See FAS 166, Accounting for Transfers of Financial Assets— an Amendment of FASB Statement No. 140 (June 2009); FAS 167, Amendments to FASB Interpretation No. 46(R) (June 2009); SEC, Asset-Backed Securities, Release No. 33-9117, 34-61858, File No. 57-08-10, RIN 3235-AK37, Notice of Proposed Rulemaking (Apr. 7, 2010) (requiring that the issuer retain a portion of each tranche, repealing the ratings requirement, and requiring information on each asset rather than only on pool data, among other changes).
The $700 billion Troubled Asset Relief Program, signed into law by President Bush in October 2008, provided for government purchases of assets and equity interests in ailing financial institutions. But many other programs provided direct and indirect assistance, including allowing investment banks to become bank holding companies with access to the Federal Reserve window, maintaining very low interest rates, and providing implicit and explicit loan guarantees, resulting in federal subsidies to the biggest banks in the form of advantageous cost of funds. For example, the Public-Private Investment Program announced in March 2009 by Treasury Secretary Tim Geithner permitted private companies to purchase assets with federal funding, where the major rewards from the purchases would be accrued by the private companies, and any losses beyond a minimal amount would be borne by taxpayers.

III.B. Moving Forward to Redress System Flaws

After the initial shock of the financial crisis and the collapse of Bear Stearns, Lehman Brothers, and Merrill Lynch, the government

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developed a proposal for financial regulatory reform, issued in 2009.91 The proposal addressed “five key objectives”:

i. Promote robust supervision and regulation of financial firms;

ii. Establish comprehensive supervision of financial markets;

iii. Protect consumers and investors from financial abuse;

iv. Provide the government with the tools it needs to manage financial crises; and

v. Raise international regulatory standards and improve international cooperation.92

Central to the report was the recognition that the various policies in effect at the time of the crisis “did not take into account the harm that large, interconnected, and highly leveraged institutions could inflict on the financial system and on the economy if they failed.” Yet the proposed reforms failed to include two of the most important ideas—bankruptcy modification of residential mortgage loans, to assist ordinary Americans in retaining their homes and protect neighborhoods, cities and regions from the continuing blight of foreclosed properties sold by banks at fire sales; and fundamental actions to separate risky activities such as proprietary trading and derivatives desks from core, federally protected banking. Paul Volcker, experienced former Federal Reserve Chair, provided blunt advice that the big banks need to be broken up to separate risky activities from what should be staid banking.93

The Treasury proposal provided the basic shape of the financial reform legislation, but its importance and political visibility guaranteed a number of amendments as it wended its way through Congress. After the House and Senate approved differing versions of reform legislation, the conference committee negotiated further changes to

91 Treasury Report, supra note 79.
92 Id. at 2-4.
accommodate senators needed to reach a filibuster-proof vote.\textsuperscript{94} That inevitably meant a weakening of the most controversial (and arguably most important) parts of the package fought most strenuously by the banks—proprietary trading (the conference report allows ownership of up to 3 percent of a hedge or equity fund) and derivatives desks (the conference report does not require spin off of banks’ derivatives businesses as proposed by Blance Lincoln but merely requires some swaps business to be dropped into a separately capitalized subsidiary).

The Conference Report retained some skepticism about the role of accounting in the crisis, but appropriately refrained from eviscerating fair value accounting. The systemic risk council cannot overturn accounting standards. It is nonetheless charged with tracking accounting developments that may impinge on the financial system and, not unreasonably, it is permitted to “submit comments” to standard-setting bodies “with respect to an existing or proposed accounting principle, standard, or procedure.”\textsuperscript{95} Perhaps of somewhat more concern is the requirement that the council make an annual report to Congress that assesses “significant” regulatory developments, including accounting regulations and standards, for their ability to impact the stability of the financial system.\textsuperscript{96} Latent there is a threat for Congress to renew its browbeating of FASB to ease fair value standards to make losses less conspicuous.

The wide-ranging reform legislation addresses many of the weaknesses in the financial system revealed by the crisis, as outlined in Part I of this paper. Creation of a systemic risk council will hopefully force regulators to pay attention to the system-wide elements of risk, rather than merely considering individual institutions. There are limits, as noted, on the proprietary trading that fueled some of the casino banking mentality. Derivatives transactions will be more

\textsuperscript{94} Dodd-Frank Wall Street Reform and Consumer Protection Act, H.R. 4173, 111\textsuperscript{th} Cong., available at http://thomas.loc.gov/cgi-bin/query/z?c111:H.R.4173 (House, Senate and Conference Report versions all available).
\textsuperscript{95} H.R. 7213, §112(a)(2)(L).
\textsuperscript{96} H.R. 7213, §112(a)(2)(N) (covering “significant financial market and regulatory developments, including insurance and accounting regulations and standards”).
transient, through clearing and reporting requirements, and less risky, through the imposition of margin requirements, even though banks with access to the Federal Reserve window are not required to spin off their swaps desks. This will make it possible for banking regulators to track trades and see systemically risky exposure. The shadow banking system will come out into the open, with SEC registration of hedge funds and private equity funds and the potential for Federal Reserve supervision. Capital and leverage limits may be enhanced by regulators, though much will depend on the outcome of the Basel III discussions among the Group of 20 big economies that were ongoing at the time the Senate took its vote, and transition rules may provide years before full implementation is required. Banks will not be allowed to be less well capitalized than their subsidiaries, and trust preferred securities must be replaced over time with real capital. Customers can get relief from rating agencies only if they can show reckless failure to investigate, but the bill generally punts on further restrictions by requiring a study of the agencies. Resolution authority resolves some of the concerns about the power and authority of the Federal Reserve that surfaced during the crisis. The consumer bureau, though not perfect because of the auto dealer exemption and the power of the Federal Reserve to undercut its protections, adds much needed protection for consumers who have had little recourse against the powerful financial industry.

Reforms not specifically required, however, weaken the potential impact of the bill. Rather than continue to encourage consolidation of financial institutions, we likely need to revamp our antitrust policies to recognize that concentrated power in an industry that arises from sheer size, leverage, and interconnectedness may merit the trust-busting power of the anti-trust rules. Regulators must take into account that financial innovations are not inherently good: products such as naked credit default swaps (essentially an insurance contract where the buyer of the insurance has no insurable interest in the insured) are too dangerous to permit simply because they facilitate the free flow of credit and the ready profits of venturesome traders. Further, it is likely that it will ultimately be necessary to use a combination of restrictions and taxation to blunt banks’ appetites for risk—a tax on big banks based on their leverage ratios would be a disincentive to overleveraging. Contingent convertibles may be a necessary means of forcing executives who enjoy outsized
pay to share the losses that their appetite for risk creates. These and other additional measures will undoubtedly be necessary, but it will be some time before the final form of the reshaping of the financial system is known, as required studies and regulatory rulemaking are finalized.

IV. Toward the Development of a Broader Understanding of the Relationship of Democratic Institutions to Economic Policies

The key regulatory solutions included in the Dodd-Frank bill and likely to be implemented over time in coordination with international developments—prudential banking guidelines on capital and leverage; more transparent trading of derivatives and some limitations on bank holding companies’ ability to profit in the speculative derivatives markets and by “casino” gambling through proprietary trading; enhanced transparency and governance provisions; the balance of a consumer protection bureau; augmented regulatory authority to intervene to limit systemic risk—are not meaningless. They all move the financial markets towards a system that may be able to limit the ability of financial players to instigate imbalances that provide short term gains for themselves while socializing larger losses.

These regulatory solutions are not enough in and of themselves, however; and they do not clearly resolve the issues of “too big to fail” institutions. Part of re-regulation is a necessary recalibration of the attitudes towards regulation amongst the regulated entities and regulators. The current approach of regulated entities is one that sees “gaming” the system and “tricking” consumers as part and parcel of the business model.97 In the days leading up to the final passage of the 2010

97 Gaming the system to their advantage is a pervasive problem for powerful financial institutions. See, e.g., Pressler, supra note 90 (on the banks’ plans to use the Public-Private Investment Fund to buy low-sell high in interbank transactions, essentially improving their balance sheets at taxpayer cost). Noted consumer advocate Elizabeth Warren, head of the Congressional Oversight Panel on TARP, has consistently advocated strong and coherent regulations to help prevent banks’ success in gaming the system against consumers by burying “tricks and traps” in the fine print. Ben Frumin, Fearing (continued)
Dodd-Frank bill, the biggest banks were already calculating how they could overcome the Volcker Rule (proprietary trading restrictions), and at least one bank was reported to have already transferred its proprietary traders to its client trading desk. Did that end proprietary trading? Not likely, since there was a view that the rule could be gamed by having traders trade in contemplation of potential trades a client may want to do in order to have an inventory of financial assets readily available. One would expect that the bank’s aim would be for the firm to benefit by making the trade ahead of its customer. That approach clearly is contraindicated by the purpose of the proprietary trading restriction and should not be allowed. But just as the Citi-Travelers deal took place in spite of an apparent clear rule preventing such consolidations

Powerful Lobbying from Industry. Financial Reform Proponents Target Key Lawmakers, TPMLiveWire (Oct. 13, 2009), at http://tpmlivewire.talkingpointsmemo.com/2009/10/fearing-powerful-lobbying-from-industry-financial-reform-proponents-target-key-lawmakers-before-this.php; Elizabeth Warren, “Wall Street’s Race to the Bottom,” Wall St. J., Feb. 9, 2010, at http://online.wsj.com/article/SB100014240527487036304045750553514188773400.html?mod=WSJ_Opinion_LEFTTopOpinion. Past experience shows that banks will fight for and use exceptions within an anti-abuse bill to continue “bad” practices that were the basis for the new legislation to the fullest extent possible. See, e.g., Candice Choi, Credit Card Issuers Still Gaming the System, Salon.com (May 18, 2010) (given a loophole that applies new rules only to payments “above the minimum,” “standard industry practice” is still to apply minimum payments to the lowest rather than highest interest rate balance), at http://www.salon.com/news/feature/2010/05/18/us_credit_cards_minimum_payments. During the hearings on the financial reform bill, Senators were amazed at Goldman Sachs’ position that it was appropriate to sell securities to customers and then take short positions betting against those same portfolios. Market making is one thing; betting against something you just sold your customer is quite another. See Louise Guenin, Regulating Colateralized Debt Obligations, the Elephant in the Room Untouched by Financial Reform Bills, HuffingtonPost.com (June 15, 2010), at http://www.huffingtonpost.com/louis-m-guenin/regulating-collateralized_b_605895.html.

Aaron Lucchetti and Jenny Strasburg, “Banks Redefine Jobs of ‘Prop’ Traders,” Wall Street Journal, July 6, 2010, at http://online.wsj.com/article/SB10001424052748703620604575349161970563670.html (noting that the most aggressive banks will likely try to game the system by essentially continuing proprietary trades under the guise of client service, while some clients may be suspicious that traders will push prices against clients by buying or selling ahead of client orders).
of banking and insurance businesses, with the result that the transaction led to the demise of the rule preventing such consolidations, so banks will push against the restrictions in the Dodd-Frank reforms that truly limit their speculative endeavors unless and until the regulators reinforce the anti-speculative perspective.

This recalibration is especially needed for industries such as banking where concentrated market power means that the political process is constantly held hostage to the demands of powerful competitors for their favored policies to be enacted.99 As more mergers and cross-border acquisitions among big banks take place, the power of the few remaining players is enhanced. These cross-border mergers are likely to result in even greater risk-taking and access to safety nets from multiple jurisdictions, undermining capital requirements and other controls.100

Moreover, even if there is an attitudinal shift that avoids regulatory capture, re-regulation can be expected to wane in importance over time, as economic conditions improve and memories of the Great Recession recede. As early an economist as John Stuart Mills recognized that financial systems will tend to have booms and busts. Part of Mills’ explanation for this volatility was a psychological framing of events leading to periods of panic when structural flaws predominate and the good times cease; post-panic when all the players are vividly aware of the dangers of unforeseen risk and exercise prudence in their endeavors; revival when the economy seems to have recovered and be operating with a reasonable balance between risky and risk-free endeavors; and then speculation, when caution is thrown to the wind amid perceptions that the good times are here to stay.101 The most recent experience colors expectations for the future and affects the

100 Santiago Carbo-Valverde et al., Evidence of Regulatory Arbitrage in Cross-Border Mergers in the EU, NBER (Oct. 2009).

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appetite for risk. Although this insight got little coverage for some time, Hyman Minsky in the 1960s revived interest in John Maynard Keynes’ “animal spirits” notion of the way attitudes towards risk affect market cycles.\footnote{Id. at 311-12 (discussing Minsky’s The Financial Instability Hypothesis: A Restatement, Thames Papers in Political Economy (Autumn 1978)).} Similarly, Nassim Taleb’s warnings about the dangers of quantitative assessment of risk focus on a shortcoming to which technologically savvy financial systems are especially prone—the mistake of assuming that quantitative analysis based on some period of historical trends can provide a map for the future, leading analysts to disregard the very severe dangers of “long tail” possibilities.\footnote{Taleb, The Black Swan, supra note 27.}

All of this suggests that we need to rescue the strong precautionary principle from its neoclassical critics.\footnote{See Noah Sachs, Rescuing the Strong Precautionary Principle from its Critics: The Case of Chemical Regulation (May 28, 2010), available at http://ssrn.com/abstract=1617432.} Lasting reform, that is, likely will require a more radical restructuring that takes into account these attitudinal issues by setting in place stronger barriers against the speculative risk taking that fed the crisis—complete separation of risky activities such as derivatives desks and proprietary trading from “regular” banking that benefits from federal guarantees through a modern equivalent of Glass-Steagall and explicit legislative bans on complex and risky financial derivatives that primarily serve the financial casino function (such as banning naked credit default swaps and otherwise imposing regulations on credit default swaps to restrict moral hazards).

More recently, Amartya Sen has set out a theory of justice that argues for a practical approach to eliminating injustices in society.\footnote{Amartya Sen, The Idea of Justice (2009).} This practical approach demands that we identify redressable injustices that actually exist in societies and then take action to remedy them.\footnote{Id. at vii (stating that the “identification of redressable injustice” is “central”).}
The aim, according to Sen, is to accomplish justice—that is, to enhance the freedom of people to choose the kinds of lives they will live

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\textit{On Credit Cycles and the Origin of Commercial Panics, Transactions of the Manchester Statistical Society (1867).}
\end{flushright}
and to develop their capabilities to live those lives. Sen asserts that this can be achieved by looking not to resources but to capabilities—i.e., a person’s “actual ability to do the different things that she values doing.” The lesson for financial reforms from Sen’s understanding of justice is that the crisis will not be cured until we redress the injustices at the heart of the crisis—the ability of companies to capture all of the productivity gains while workers languished and the resulting flush of capital in the economy flowing to casino gambling that led to a mushrooming of consumer debt to finance a standard of living no longer attainable on typical wages.

As Robert Dahl notes, how market-capitalism works is fundamentally a question of how democracy can work to protect its citizens from harm that can be produced by unregulated markets.

Competitive markets, ownership of economic entities, enforcing contracts, preventing monopolies, protecting property rights—these and many other aspects of market capitalism depend wholly on laws, policies orders, and other actions carried out by governments. ... Without government intervention and regulation a market economy inevitably inflicts serious harm on some persons; and those who are harmed or expect to be harmed will demand government intervention. Economic actors motivated by self-interest have little incentive for taking the good of others into account; on the contrary, they have powerful incentives for ignoring the good of others if by doing so they themselves stand to gain. ... When harm results from decisions determined by unregulated competition and markets, questions are bound to arise. ... It is obvious that

107 See, e.g., id. at 18-19, 253-317. See also Amartya Sen, Development as Freedom (1999), preface (suggesting that the “pre-eminent objective” of economic development is the expansion of human freedom, as “social opportunities of education and health care, which may require public action, complement individual opportunities for economic and political participation and also help to foster our own initiatives in overcoming our respective deprivations”).

these are not just economic questions. They are also moral and political questions.\textsuperscript{109}

To serve the people as a whole rather than merely the elite who hold the keys to primary resources, capitalism “must be supervised within a democratic society and responsive to criticism by outside voices.”\textsuperscript{110}

In this vein, I have argued that economic and political institutions must work together to create a sustainable democracy with a sustainable economy.\textsuperscript{111} Resource allocation cannot become so distorted that oligarchies are able to demand laws and regulations that shift the lion’s share of the benefits to them while leaving others to bear more of the burdens of society. This means that we must recognize the limitations inherent in the financialization of the economy, and the need for restructuring so that the financial system serves the people and the broader economy. The cycle of increasing debt to fund regular consumption is inherently unstable. In addition to the enhanced regulatory regime initiated by the 2010 financial reform act, Congress must also act to ensure that workers acquire an adequate share of productivity gains. That means facilitating unionization as a counterweight to multinational corporate power and corporate officers and boards, maintaining updated minimum wage laws that discourage a “manager takes all” attitude, and providing legal redress that restores a balance between credit consumers and credit providers, such as the ability to modify mortgage loan balances in bankruptcy and the facilitation of

\textsuperscript{109} Robert Dahl, \textit{On Democracy} (1998), at 174-75. Dahl adds that “in all democratic countries, the harm produced by, or expected from, unregulated markets has induced governments to intervene in order to alter an outcome that would otherwise cause damage to some citizens.” \textit{Id.} at 175.

\textsuperscript{110} \textit{EConned, supra} note 32, at 5.

\textsuperscript{111} This is an everpresent theme of my weblog, ataxingmatter, which is dedicated to furthering understanding of the concept of democratic egalitarianism, and it is a recurring idea in my scholarly writings. See, e.g., Linda M. Beale, \textit{Book-Tax Conformity and the Corporate Tax Shelter Debate: Assessing the Proposed section 475 Mark-to-Market Safe Harbor}, 24 Va. Tax Rev. 301 (2004) (hereinafter \textit{Book-Tax}) (arguing that accepting mark-to-model evaluations for tax purposes was problematic in that it permitted financial institutions to manipulate their valuations to fine-tune their tax liabilities, in contravention of fairness and coherence requirements for a democratically sustainable tax system).

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consumer-friendly suits against credit card banks for abusive practices in place of arbitration.

In short, a new commitment to fundamental American principles of democratic egalitarianism as a tempering restraint is necessary to achieve any lasting solution to the structural flaws of the deregulated, financialized economy handed down by four decades of laissez faire market capitalism.
V. CROSS-BORDER SUPERVISION OF BANKS
AND OTHER FINANCIAL INSTITUTIONS
In the wake of the financial crisis, an effective framework for cross-border supervision of financial institutions has become an even more compelling imperative. Financial and technological innovation has rapidly interconnected global markets, but our supervisory infrastructure failed to keep pace. And the idea of one supranational global regulator—whether you would consider it a dream come true or a nightmare—remains only imagined. So how should we move forward as an international community? What strategies will best promote financial stability through cross-border supervision that is conducted primarily by national regulators? I believe the answer is threefold:

1. Harmonization of standards, with appropriate flexibility to address local situations;

2. Cooperation in examination and enforcement activities, including expanded use of supervisory colleges; and,

3. Expansion of the resolution process, to provide for the orderly unwinding of systemically significant nonbank financial firms.

Before elaborating on these points, I would like to offer a few words about the dual banking system in the U.S. and the scope of state supervision.

The Role of the States in Financial Services Regulation

The dual banking system of complementary state and federal oversight is one of the unique aspects of the U.S. framework for financial services regulation, and directly impacts cross-border issues. This dual supervisory system may seem like a very different approach, especially if you are coming from a country with a more centralized model. But in the course of U.S. history, we have found a unique equilibrium in dual
Effective Cross-Border Supervision

oversight that confers the benefits of both a centralized and a decentralized structure.

Close interaction with local regulators at the state level provides benefits to financial institutions, especially those with unique business models such as community banks, private/niche banks, or foreign banking organizations that facilitate international trade. In New York, we charter just over a hundred domestic banks, and supervise these institutions in partnership with either the FDIC or the Federal Reserve. Twenty of our banks are members of the Federal Reserve System, including such industry leaders as Bank of New York Mellon, Goldman Sachs, M&T Bank, and Deutsche Bank. With this diverse supervisory perspective and a well-established partnership with the Federal Reserve Bank of New York, it is no coincidence that New York State also licenses most of the foreign banking organizations operating in the U.S. We supervise 137 foreign branches, agencies, and representative offices, with more than $1.6 trillion in assets—which is almost 90 percent of the nationwide assets held by foreign banking organizations.

The Banking Department also regulates a broad range of institutions, including commercial banks, credit unions, mortgage bankers and brokers, licensed lenders, sales finance companies, money transmitters and check cashers. And the insurance industry in the U.S. is solely regulated at the state level. In fact, states oversee a wider mix of institutional types than even the federal government, which is primarily limited to supervision of depository institutions. This breadth gives states a distinctive perspective on market trends and reform principles that cut across the finance industry.

And I say this not just as a state banking superintendent. I started my career with the Office of the Comptroller of the Currency, and worked exclusively for national banks. I am also involved in the regulatory reform process at the national level as a member of the Congressional Oversight Panel for the $700 billion Troubled Asset Relief Program, or TARP, which issued a Special Report on regulatory reform back in January.

Substantial reforms are anticipated both in the U.S. and internationally, but the task is so complex that we risk losing momentum. Nations and international bodies must not lose the will and urgency to
reform the financial system, to move from the imperative toward the implementation of more effective supervision of international firms.

Harmonization of Standards

A critical first step in enhancing cross-border supervision relates to standard-setting. Greater harmonization of standards will help to eliminate both the potential for international regulatory arbitrage, in which institutions could seek the laxest regulatory environment, or be used in certain jurisdictional havens for criminal use of the financial system. The goal is laudable, but convergence in rulemaking embodies tension between the benefits of uniformity and the need for flexibility, as regulators must fulfill their responsibility to respond appropriately to local conditions. This tension can be, but need not be, an obstacle; in fact, it can even be a catalyst for progress.

The Process of Setting Uniform Standards in the U.S.

The U.S. experience of this tension through the state-federal dynamic has ultimately been a creative force. While progress has not been strictly linear, the trend is clear that structured flexibility of states to act at the local level, in the context of mutual accountability with state and federal partners, has improved industry standards nationwide.

The most recent example relates to consumer protection and the scope of federal preemption, as federal law may override state law in certain circumstances. The federal chartering agency, the Office of the Comptroller of the Currency (OCC), took an overly broad interpretation of preemption in 2004 that exempted the largest banks in the country from complying with higher state consumer protection and anti-predatory lending laws. It has taken action by the U.S. Supreme Court, which I anticipate will be further clarified by legislation, to restore balance.

But this aberration in state-federal relations that was provoked by the OCC’s sweeping preemption policy is the exception that proves the rule: there is an appropriate zone for local authorities to set standards above a national floor, and those local standards, once tested, may in turn become the model for a new national baseline. The states were correct in detecting the emerging subprime mortgage problem and were the first to take action through anti-predatory lending laws.

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and landmark settlements. And state leadership on consumer protection issues over decades has led to improved national standards for the financial services industry in product disclosure and protection of home equity. Results like this demonstrate that it is worth the effort of engaging in this dialectic process, whether it is state-federal or among international partners.

The Process of Setting International Uniform Standards

On the international stage, a compelling example of the benefits as well as the practical limitations of harmonizing standards is in the implementation of the Basel capital framework. I thoroughly support the effort to establish international capital standards, but progress on this issue comes in stages. If we take two steps forward but one step back, we are still making progress. And in the case of Basel III, the financial crisis has made clear that the FDIC was correct in taking one step back and insisting on retention of the leverage ratio for the U.S. What was sometimes misinterpreted as intransigence has now become an occasion for refining the Basel Accords. Far from frustrating international progress, this appropriate use of regulatory discretion by a national supervisor actually reinvigorated the work of creating even more effective international capital standards, helping to ensure that we will reach our shared goal of a more stable banking system.

The Relationship between Standards and Risk Reduction

When entering into international agreements, the ultimate question for jurisdictions with high standards is the degree to which a partial relaxation of those standards in the adoption of a uniform baseline would contribute to a local increase in safety and soundness, through the reduction of risks stemming from other jurisdictions where uniformity would result in increased rigor. In other words, if more and less robust regulatory regimes meet somewhere in the middle in setting a new common supervisory framework, is it still a net gain in terms of risk reduction for those who agree to technically lower the bar? The question of whether the U.S. should abandon the leverage ratio for the sake of greater uniformity in the adoption of Basel III is a timely case in point.

The issue is further complicated by the fact that determining whether such a net gain in risk reduction is produced involves a qualitative
and not just a quantitative judgment. The same supervisory standards on paper could be more or less effective in reducing risk and promoting stability depending upon the quality of execution. The right standards need to be paired with robust examination and enforcement activities that are coordinated among home and host supervisors.

Cooperation in Examination and Enforcement Activities

And here we return to a concept I mentioned earlier—mutual accountability. Effective home-host supervision, as with intra-national coordination, is dependent upon it. In the U.S., the flexibility that states have to create, examine, and enforce local laws and rules affecting the finance industry is structured through mutual accountability to other states and to federal regulatory counterparts. This structure does not imply that any of the individual supervisors held within this covenant of accountability is inadequate or incapable of the task of sole supervision. Rather, it is an affirmation that multiple regulators bring a needed diversity of perspectives to complex issues in a rapidly evolving financial services marketplace. Multiple regulators yield better results in setting a robust framework for the examination process, just as multiple judges are used in the Olympics to achieve a fair score.

Accountability Among Regulators in the U.S.

In the U.S., state-chartered depository institutions are dual-regulated by a state regulatory authority and by the Federal Reserve or the FDIC. Independent non-depository institutions such as mortgage bankers and brokers are solely supervised at the state level. But the states cooperate in setting licensing and examination standards for this diverse sector through the Conference of State Bank Supervisors (CSBS). There is something akin to positive peer pressure in this collegial gathering of state regulators that is very effective, and effective especially in the sense of accountability in the implementation of agreed principles.

With most branches of foreign banks in the U.S. being state-licensed, intra-state coordination is critical to minimize overlap and reduce burden for foreign banking organizations with activities that cross state lines. For over ten years, the states through CSBS have had in place agreements, both between states and state-federal, for nationwide
coordination in the supervision and examination of foreign banking organizations. These agreements are important in streamlining the oversight process, but more could be done to reduce burden for foreign banks operating in multiple states.

I could envision additional flexibility for state-licensed foreign branches to operate under “home state rules,” similar to the arrangements given to domestic banks chartered in another state. While national legislation would be required to implement this fully, there is much that the states can do through CSBS and on their own initiative. I am already in discussions with California, another state with a large foreign bank presence, to explore opportunities to harmonize our licensing procedures.

Accountability Among International Regulators: Supervisory Colleges

The same type of cooperation that we are striving for in the U.S. between states and between states and the federal government should hold true on the international level: we need to strengthen accountability mechanisms for operational efficiency and vigilant supervision. That is precisely what nations are doing under the auspices of the G-20 and the IMF. And on the front lines of bank examinations we need to more fully realize the potential of supervisory colleges in enhancing the quality of supervision.

Functions of a Supervisory College

Supervisory colleges are working groups composed of the relevant regulators of an international banking organization, coordinated by the home country supervisors. Key functions of a supervisory college include information sharing, assessment of cross-border risk exposures, and coordinated inspections and examinations. This supervisory cooperation is increasingly important as banking organizations continue to organize their operations by business lines, with the result that risk management for a New York activity may be located in the home office.

While supervisory colleges cover institutions with a range of risk profiles, this cross-border market surveillance is particularly significant in identifying and responding to emerging systemic risks.
The existence of the supervisory college does not eliminate the need or prevent individual regulators within the college from establishing parallel mechanisms for cooperation, such as bilateral agreements and memorandums of understanding. In New York, we have close to twenty agreements in place with regulators from around the world, and have developed very strong supervisory relationships with those home countries. In fact, supervisory colleges may be formed as an outgrowth of such bilateral agreements, and the college then creates an additional forum in which subgroups of supervisors can form new international connections and focus on concerns common to their markets. This flexibility is one of the benefits to the supervisory college structure.

Supervisory Colleges as an Immediate Response Mechanism for Emerging Issues

The flexibility of supervisory colleges and similar voluntary oversight bodies is well-suited as a first response mechanism to evolving challenges in supervision. Areas in which formal oversight is yet to be fully established, such as the over-the-counter (OTC) derivatives market, benefit from this oversight structure which can be implemented immediately. The process of developing a formal supervisory structure for the “shadow banking” system also benefits from early learnings that will emerge from new voluntary oversight structures.

Currently, 41 supervisory bodies from 15 countries participate in the OTC Derivatives Regulators Group. The Group is discussing how to regulate central counterparties and data repositories, including what information should be requested of data repositories to assist in regulating the market or market participants. Data repositories for credit default swaps and trades will bring more transparency to the market and help to assess counterparty exposures. Subgroups have also been formed to focus on issues of particular relevance to the individual supervisors’ missions. I am proud of the early lead New York has taken in chartering one of the first clearinghouses and the trade repository for credit default swaps, and our participation in the OTC Derivatives Regulators Group will further inform our mission as well as the movement to promote standardization and disclosure for this diverse market.

Supervisory colleges are also the appropriate approach for coordination among jurisdictions with disparate legal and supervisory
structures that would hinder more formal and binding approaches to cross-border supervision. For example, I considered it critical to attend the supervisory college in China in person earlier this month. New York has recently licensed branches of the Industrial and Commercial Bank of China, China Merchants Bank, and China Construction Bank. These are the first branches of banks from mainland China to open in the U.S. in over 17 years, and reflect the growing trade between our countries and New York’s role as a hub for global finance.

The nonbinding but still effective mechanism of the supervisory college is the best practical fit for engaging with supervisors from jurisdictions with legal systems and other dynamics that are very different from those in the U.S., such as China.

Supervisory Colleges as a Complement to Increased EU Cooperation

I appreciate that some believe this nonbinding nature of the supervisory college is the primary weakness of the concept, its Achilles heel. Views on the efficacy of supervisory colleges are also relevant to the debate in Europe on the creation of expanded EU-level authority. But I do not believe it is an either—or choice; supervisory colleges can provide a complement to increased cooperation through EU regulatory bodies.

Proposals to develop EU-wide supervision, to go beyond existing bodies which focus on coordination, also amount to a dual banking system and raise issues that are similar to state-federal concerns in the U.S. Harmonization of rules and consistency in supervisory approach across the EU will need to be accomplished while recognizing the responsibility of member countries to protect their residents.

When diverse economies need to work together for the good of the region, some form of dual oversight seems to be the natural outcome. We can learn from each other in finding the optimal balance.

Resolution Authority

Another area in which an optimal structure is needed is the resolution process for international firms. I would like to focus on the issue of creating a resolution authority in the U.S. for systemically significant nonbanks.
Proposals to Expand U.S. Resolution Authority

When faced with the failure of Lehman Brothers last fall, the government found itself without the regulatory structure to ensure the orderly unwinding of the firm. The market uncertainty provoked by the Lehman bankruptcy is still evident. Bankruptcy proceedings simply do not provide a sufficient means to ensure interim operations, thus triggering call provisions that upend contractual arrangements that could otherwise have remained in place and exacerbating market destabilization.

The Obama Administration and members of Congress are supporting various proposals to expand resolution authority for systemically significant institutions, such as bank holding companies, insurance companies, and other nonbanking financial organizations. While the process of regulatory reform in the U.S. covers many fronts, the resolution authority issue is one of the most central. It is a key to approaching the thorny problems of moral hazard, “too big to fail,” and the interconnectedness of international financial conglomerates.

Detractors characterize expanded resolution authority as a permanent bailout approval for large firms, with the attendant moral hazard concerns. The opposite is true; a proper resolution method demonstrates that large firms will be allowed to fail. It also would provide a way to assess firms that are outside the FDIC deposit insurance program for a new form of insurance premiums commensurate with the external risks they present to the financial system, thus providing additional protections against the need to put taxpayers dollars at risk. This is far superior to an ad hoc use of public funds in times of economic distress, and helps to counter pro-cyclical trends.

Some have suggested “living wills” as a solution to the resolution of systemically significant firms. In a living will, the firm outlines how it would orderly unwind its operations. Such an exercise has value for a firm as a compliance discipline, especially in identifying and aggregating counterparty risk and other contingent liabilities. While I support the concept of a living will as part of a firm’s contingency planning, much like the liquidity contingency planning I mentioned previously, it is an insufficient safety net in the event of a systemic financial panic.
Conclusion

Having been asked to describe effective cross-border supervision from the domestic perspective, and coming from a state like New York with a broad international presence, I would offer the following conclusions.

First, the progress of regulatory reform, including the creation of new or expanded authorities to manage systemic risk, is critical—but architecture is not a panacea. There are no structural shortcuts to effective oversight. Countries with diverse regulatory frameworks were all deeply impacted by the current financial crisis.

Second, there is a continuing role for nonbinding regulatory bodies. Strengthening the quality of these mechanisms should be our primary focus, given the reality of diverse legal structures among jurisdictions which can hinder more formal associations. Structures such as supervisory colleges have great potential as market surveillance tools and as stepping stones to closer international ties and greater convergence in standards and supervisory protocols.

And finally, no system, no protocol will result in quality oversight of the diverse and increasingly interconnected global financial markets apart from mutual accountability and trust between supervisory partners. I am pleased to be part of this dialogue today at the IMF, which is an important opportunity to further these international relationships.
VI. CAPITAL ADEQUACY
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Basel II mandates the maintenance of bank capital to address three broad categories of risk: credit risk, market risk, and operation risk. Basel II methodology assumes that credit risk can be reliably specified with respect to particular asset categories. These projections are based on historical experience, reflected in data sets, which are at times general and at times specific to a particular institution. Basel II may have failed, however, to identify the strong shift in the correlation of defaults that accompanied the financial crisis. Market risk assessment displays similar issues of under-anticipated correlation under extreme conditions. Of the three categories, operational risk is the least tractable. It is a catch-all category, reflecting both internal failures and external events. The character of risk shifts markedly between “ordinary times” and extreme events. Consider this matrix:

<table>
<thead>
<tr>
<th></th>
<th>Ordinary Times</th>
<th>Extreme Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit risk</td>
<td>Defaults may be predicted based on historical data—no strong correlation of defaults</td>
<td>Inadequate data for robust quantification or risk—strong correlation of default</td>
</tr>
<tr>
<td>Market risk</td>
<td>Loss of value linked to performance of asset</td>
<td>Loss of value linked to type of asset (contagion)</td>
</tr>
<tr>
<td>Operation risk</td>
<td>More likely to be institution-specific</td>
<td>More likely to be environmental</td>
</tr>
</tbody>
</table>

This paper addresses the ability of Basel II to respond to extreme events. Extreme events include events thought to be extremely unlikely and events that are unimagined (and hence ex ante unimagi-nable). Basel II largely examines risk as faced by individual financial institutions. Yet systemic risk (contagion) is a well-recognized feature of the international financial system. The liquidity crisis, however, appears to be a novel (unanticipated) phenomenon. Cross-failure of
institutions may be yet another example of unanticipated correlation of outcomes, with a peculiar magnification effect. Basel II does not ask—at least not explicitly—whether there is adequate capital across the entire banking system. The current financial crisis may be an instance where this failed to hold. A revised Basel regime might need to account for additional capital stored outside individual institutions to assure adequate capital under extreme conditions affecting the broader banking sector.

**Background**

The Basel II international banking regime is undergoing critical examination in the wake of the global financial crisis. Among the current critiques is that the Basel II Framework failed to provide for extreme events—outcomes which are sufficiently rare so as to not be reflected in risk estimates generated from historical data, but which have sizeable, if not disastrous, consequences.

This is a distinct critique from the concern that the levels of protection provided were inadequate. Setting a level of protection is always a judgment call. Higher levels of protection require increasingly greater costs. The Basel II Framework reflects a series of such compromises between the limits of protection and tolerated risk. For example, a frequent level of protection found in Basel II is the ability to survive a ten-day time period with a ninety-nine percent confidence level. This is not

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4 The 1988 Basel Accord set a general minimum capital requirement of 8 percent of the bank’s risk-weighted assets. Basel II lowers this for certain banks.
absolute protection; rather, the level of protection admits (and accepts) bank failure in certain cases.

Extreme events can be usefully divided into two categories. The first includes identifiable outcomes (often predicted by history) that occur too infrequently to be effectively managed. Think of the financial equivalents of a 1,000-year flood, an 8.5 point earthquake centered on Los Angeles or a meteor strike. Hyperinflation and systemic bank failures have occurred—we simply feel these events are extremely unlikely to occur at any given moment in time, and their impacts are likely to be so overwhelming that risk mitigation does not appear to be worth the effort. At the outer limits, hopelessness sets in.

The second category of extreme events is more frightening. These are the inevitably unaddressed risks associated with unidentified events—events for which there is no historical experience.

Taleb teaches (among other things) that novel events do occur. Our imagination, and hence our ability to anticipate outcomes, is limited by our experiences. Our habits, however, instruct us to assume continuity.

As the financial crisis lingers, critical attention is directed both backward and forward. Looking to the past, one seeks to determine the root causes of the debacle. Looking forward, one seeks to sketch the regulatory and institutional features of a “returned to normal” financial system. The 2004 Basel II framework will be object of both retrospective and prospective scrutiny. Basel II is the harmonized international bank regulatory system developed by the Committee on Bank Supervision under the auspices of the Bank for International Settlements. Basel II principles had recently been implemented, or were in the process of implementation, by the major national supervisors at the time of the onset of the global economic crisis. Most of these same jurisdictions had previously adopted the Basel I framework, which focused almost exclusively on the application of more rigid capital adequacy standards to be problem of credit risk.

It is a bedrock financial principle that the “risk” of default of a U.S. Treasury obligation is zero. Of course, this risk is merely defined as “zero” in order to express other financial risks on a comparative basis; even the U.S. Treasury conceivably could fail. It is not a scenario most enjoy contemplating.
Basel II addresses three categories of risk. The original risk category (and the central concern of the 1988 Basel Accord) is credit risk. Credit risk dominates traditional banking—it is the risk that borrowers will not be able to repay lending banks and so will place lending banks into a liquidity or solvency crisis. Credit risk has two important dimensions: the probability of default and the magnitude of loss given default. Credit risk is most relevant to those assets held on a bank’s “banking book” (as opposed to its “trading book”—where market prices anticipate losses accompanying eventual defaults).

The second Basel II category addresses market risk. Increasingly international accounting standards (and consistent national regulation) require banks to mark assets to market prices (as opposed to the historic practice of holding assets at book values). Market risks can be divided into various subcategories, reflecting the various sources of loss-generating events. Examples include interest-rate risk, exchange-rate risk, basis risk and migration risk.

The third Basel II category covers risks that do not conveniently fall under the prior categories. These are labeled operation risk. Examples include risk of fraud (by inside rogue traders or outsiders), risk of cataclysmic events (hurricanes, September 11) and, to a large extent, counterparty and systemic risk (including old fashioned bank runs and new fashioned liquidity crises). It is within the category of operation risk that many rare and most unforeseen events are likely to develop.6

Within each of these three categories, Basel II prescribes regulatory disciplines. Yet Basel II had always limits to its effective protection in mind. This is most clear in its provisions concerning the use of bank-designed and implemented risk systems, where achievement was defined as maintaining sufficient capital to have a defined level of survival within a defined period, based on the range of historical outcomes observed during a recent period.

A ninety-nine percent survival system openly acknowledges the inherent possibility that (in about one percent of cases) more serious losses, or even catastrophe, occur. And many argue that the current

global financial crisis is one of those less than one in a hundred events. Further, the ninety-nine percent survival rate may prove to be overly optimistic. While the occurrence of an event may say little or nothing about its ex ante probability of occurrence, the occurrence of an unimagined (and hence truly unanticipated) event indicates that ex ante risk assessment was in error. It is not just the frequency of the event that matters; the magnitude of losses associated with an unanticipated event must be considered in accurately assessing risk.

While there are many areas of potential inaccurate assessment of risk within the Basel II Framework, and there are general quarrels with the setting of levels of protection, this paper, following Franklin and Taleb, investigates Basel II's treatment of “extreme risk.”

Risk assessment as generally practiced is a history-based science, premised on our intuitions as to the cyclical (or at least repetitive) nature of the unfolding of events. Note there are different data that may be missing in different assessments. Some evidence of potential outcomes may be found outside the chosen test period—but are otherwise known and recognized. Data sets drawn from periods of rising house prices might simply miss foreclosures evidenced in darker, but more remote, times. Other outcomes may be missing simply because their possibilities have not been suggested by historical experience. These are the “black swan” events described by Taleb. This paper will focus on the inevitable presence of these outlier events and on how a reconstructed international banking system (Basel III) should be designed to take them into account.

**Credit Risk in Extreme Circumstances**

Both Basel II and the prior Basel I systems address credit risk. The chief technique mandated is the maintenance of minimum levels of capital. Regulatory capital acts like a “cushion,” absorbing credit losses without impairing the ability of a financial institution to repay depositors (and otherwise remain solvent). Capital works well where default risks can be reliably forecasted—and when there are not strong default correlations

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7 See Taleb, *The Black Swan*, Note 3 above.
among individual assets (loans). Imagine a bank with 100 loans, each of which is in the amount of $1,000. Assume (based on the bank’s historical experience) that no more than 4 percent of these loans will default and that the average loss on each defaulting loan is 50 percent of face value. In this particular outcome, the bank will experience a loss of $2,000 (4 loans of $1,000 each losing half their value). If a bank maintained more than $2,000 of capital, its solvency would not be impaired. The Basel II system thus attempts to set capital adequacy levels high enough to absorb credit losses under reasonably foreseeable conditions.

Capital adequacy is not a failsafe system. First, the very setting of a level signals a magnitude beyond which capital will be exhausted (analogous to the relationship between the height of a dike and its effectiveness with respect to storm surges). All a particular level of capital can do is to provide a specific level of protection—the magnitude of loss absorption is directly related to a specified level of capital.

Second, it is vulnerable to error due to the potential atypicity of the historical data that form the basis for setting levels. Third, the assumptions concerning the correlation of asset performances may not hold true for extreme ranges. Indeed, the essence of an extreme event is that adverse performance of particular financial assets becomes strongly correlated. Response to an isolated instance of an individual’s disease is distinct from the response to a plague.

If predictions of defaults are based on (relatively) prosperous times, they will greatly understate risk. This appears to be the case with respect to mortgages in the United States during the housing boom. Defaults were low as overall economic conditions were positive, and stressed borrowers were able to manage difficulties by selling the underlying assets during a period of steadily climbing house prices. It was such atypical historical data that served for setting many capital adequacy levels. As such, there was a structured underestimation of the potential for a much larger rate of loss.

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9 Under the new methodologies introduced by Basel II, certain banks were permitted to set their capital requirements based on their institution-specific historical data (as opposed to economy-wide data). This magnifies the possible atypicity of the relevant data pool. When unexpected correlation kicks in across institutions, separate institution-specific capital adequacy targets make little sense.
The loss given default was also underestimated. As we move toward a more extreme event, not only do default rates increase, but so does the magnitude of loss given default. The sharp downturn in collateral value (i.e., house prices) results in bank’s being far less able to recover when mortgages default.

Finally, in an extreme event, defaults become positively correlated. Instead of comprising discrete events, individual defaults loom as a unified event (destroying the effect of any risk mitigation attained through holding a portfolio of assets). The pool of performing assets necessarily shrinks, producing a magnification effect.

Positive loss correlation and magnification also results at the level of the overall banking sector. Many institutions simultaneously experiencing stress are much more dangerous than an isolated bank failure (acknowledging the potential for contagion effects in better times). The ability of any particular bank to withstand contagion effects such as an imitative bank run or payment system breakdown is compromised during periods of extreme financial stress. Banks share weakness in a systemic manner.

These observed features of the current crisis suggest that considerably more capital is needed when an extreme event occurs. The capital need not be fixed within the banks themselves, however. As the initial management of the financial crisis has demonstrated (might demonstrate?) many banks have been able to call on additional capital from national treasuries in their “lender of last resort” role.

**Extreme Market Risk**

**General**

Traditionally banks specialized in the generation and holding of illiquid assets. Many if not most originated loans were held until maturity. Accounting conventions permitted these assets to be held at constant (i.e., book) values. Contemporary finance has changed these practices in profound ways. Banks are less likely to hold assets through maturity; rather they increasingly follow the originate-and-distribute model, profiting from fee income. Other banks (and other financial institutions) purchase assets.

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Basel II adopts the distinction between the “banking book” and the “trading book.” The banking book lists assets that are being held in the traditional way, where expected return is the present value of periodic interest and principal payments, as well as any final principal payment extinguishing the obligation. The trading book lists assets that are held for indefinite periods of time, where anticipated return derives from capital appreciation, to be realized when assets are disposed of (prior to maturity).

Holding assets require different amounts of regulatory capital depending on which “book” they are assigned. Assets may be assigned to the “banking book” or to the “trading book.” The assignment of assets to a particular book is reflective of an institution’s intentions with respect to holding an asset. Assets held to maturity are properly assigned to the banking book; assets destined for sale (including traditional assets intended for distribution or securitization) are properly assigned to the “trading book.” Banks effectively have considerable discretion in assigning assets to one book or the other—indeed, the possibility of inter-book arbitrage has emerged as a weakness of the Basel II Framework.

Basel II presumes that assets will be marked-to-market. This affects all assets, irrespective of the book to which they are assigned. As market values increase, additional regulatory capital is “created.” When asset market values decrease, however, capital is consumed. This is true regardless of whether the asset is intended to be held until maturity or not. Marking-to-market has the effect of mandating quasi-instantaneous write-downs. When market prices decline broadly across classes of assets, capital can disappear at an alarming rate, plunging an institution into a capital crisis. This then flows to capital maintenance levels, and the noted counter-cyclicality of Basel II: banks need to raise expensive additional capital precisely when their financial profile is the weakest.

There are many identifiable causes of (or situations associated with) decreases in asset value. Among these are liquidity risk, interest-rate risk, exchange-rate risk and migration risk.

Market volatility is itself a source for concern. Again, banks no longer have the facility to try to “weather the storm” by holding assets until conditions improve. Capital impairment occurs regardless.
The trend towards securitization has amplified the risk of an extreme market shift. One of the appeals of securitization is the (apparent) reduction of risk achieved by pooling assets. Any real reduction of risk depends on low correlations of non-performance by the particular assets forming the pool. In extreme circumstances, where most or all assets in the pool lose value, the pool begins to resemble a single, bad asset.

Securitization vehicles often magnify risk exposure to extreme conditions. First, they may utilize leverage. Depending on the nature of the claim (tranche) a bank might hold, risk exposure may be significantly enhanced. Second, they may be divided into claims where correlation and other magnification effects are underappreciated.

Compounding these concerns is the likely unreliability of shadow “market” prices for claims on securitization pools and other complex products. These are most often not true prices at which claims are exchanged in thick markets, but rather synthetic prices projected from the (already suspect) prices of the underlying assets. But whether or not these prices are accurate, or even real, they do drive capital demands under the Basel II system.

History is simply missing for assets which are novel. Synthetic pricing proved to be a poor substitute for constructing risk assessments. Unanticipated financial performance resembles an extreme event, even if it seems all too probably in hindsight.

Specific Types of Market Risk

Warehousing/Pipeline Risk

The current financial crisis brought home a category of underappreciated risk. Banks engaged in active originate-and-distribute activity anticipated very short holding periods for bank-originated assets. These assets were either sold in secondary markets or packaged into securitization vehicles.

Warehousing and pipeline risk refers to the event where originating banks are unable to off-load assets due to unexpected changes in market conditions. Involuntary holding of these assets expose the bank to losses due to declining values of these assets.
Reputation Risk

Reputation risk refers both to the prospect of a decline in value of a bank’s goodwill, as well as the possibility that a bank will feel constrained to undertake certain transactions in order to maintain goodwill. This particular risk manifested during the current crisis.

Banks involved in securitization activities frequently transferred assets to formally independent (and bankruptcy remote) corporate entities (often called Special Purpose Entities). Once these assets were transferred, they no longer appear on the bank’s balance sheet. Nor were they treated as off-balance sheet items, unless the bank was contractually obligated to intervene in event of default or other stress.

Many banks re-acquired distressed assets from Special Purpose Entities, notwithstanding the absence of a contractual obligation to do so. Recognition of this moral obligation is explained by concerns by banks for their reputations. Banks realized avoidable financial losses in order to avoid investor wrath. Given this history, it is likely that implicit puts will be recognized when securitization markets eventually re-emerge.

Extreme Operational Risks

Operational risk describes the residual category of identifiable risks beyond credit and markets risks. These include both internal and environmental risks. Internal risks include poor management, losses caused by rogue traders, and fraud. It also includes certain counterparty risks that are not captured under the credit or market risk categories. External risks include those presented by weaknesses in the interlocked financial system, as well as the usual horrors (wars, plagues, insurrections).

An operational risk event may be of an unanticipated magnitude—and not adequately provided for. And it may be perversely correlated with other stresses. Consider the Madoff Ponzi scheme. A Ponzi scheme is subject to collapse even under the most benign conditions, but is much more vulnerable during periods of market pessimism and declining asset values. The recognition of losses from such an event (corresponding to discovery and collapse of the scheme) may well compound simultaneous credit and market losses.
During extreme events salient operational risks are more likely to be external—that is, they cannot be so easily traced to management failures. And so they are more likely be experienced by many institutions—leading in turn to magnification and systemic risk.

Not all risks can be anticipated. Indeed, it is difficult to manage risks that cannot be imagined (those that are outside of experience) although experience teaches that unanticipated and unimagined events do occur. The liquidity crisis had been imagined by some, who—like Cassandra—were ignored. That said, one might credibly say that the “market” failed to imagine or anticipate such an outcome.

**Extreme Systemic Risk**

Basel II directly controls the activities of individual institutions. That said, like all prudential regulation, Basel II is in some sense more concerned by the spillover effects of an institution’s crisis onto the larger banking system.10

In the current financial crisis, bank capital was not only inadequate as measured on an individual institutional basis; it was inadequate on a system-wide basis. There were no sufficiently well capitalized banks that were able to absorb the capital deficits (and negative equity) of the failed institutions. Government response in the United States, United Kingdom and elsewhere demonstrated the existence of severe de facto capital deficits.

While institutions remain with well-worn, recognizable names, the effective truth is that the pre-crisis banking sector has been utterly destroyed and what exists today results from an ad hoc public recapitalization. Schwarcz has argued that a better approach to the problem of systemic risk should be located outside particular banking institutions in a “liquidity provider of last resort.” In some sense, Schwarcz anticipated the immediate crisis’ responses, which might be described as a bundle of state-provided liquidity and capital infusions to the broad banking sector.

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Responses

Responding to Low Probability High Impact Events

The Committee’s initial response to the financial crisis has been to call for identification of low probability high impact events through systematic stress testing. Stress testing is to be viewed as a complement to model-based approaches (such as Value-at-Risk), identifying limits and blind spots in those methodologies.

The Committee’s response does not answer—in a quantified way—how much additional capital need be held in order to adequately meet a low probability high impact event. The answer is rather the unquantified (and perhaps unquantifiable) “enough.” In some sense, a stress test eliminates probability as a determinant. Rather, it considers the adverse event to have occurred and asks what the magnitude of loss might be. The resultant quantum of “adequate” capital would be, it seems, equal that magnitude—any lesser amount of capital would prove inadequate to maintain institutional solvency in such a crisis.

It is not clear how management should make operational the results of a stress test for a rare event. One can always push variables more and more adversely, yielding events that call for ever increasingly amounts of regulatory capital. At a certain point, management will cease to engage. Events—like a large meteor strike—may be demonstrable possibilities, but may be of such low probability as to not warrant a response. Or, in the alternative, their impact may be so severe as to overwhelm any prudential measure.

Responding to Unforeseen Events

The Committee’s initial recommendation does not address events that are truly unforeseen (and so escape Value-at-Risk and other modeling reliant on historical data). The Committee urges banks to avoid “failures of imagination” in identifying risks, but beyond this, has little to say.

As such, it must be conceded that there is some set of events which are likely not captured in risk assessment—we operate within our cognitive limits. Recognizing this, however, there do remain alternatives
to ignoring these outcomes. Implicitly, regulatory capital may not in fact be adequate to protect banks and the banking system from certain unanticipated outcomes. The default regulatory results are either (1) institutional failure and resultant systemic risk or (2) inevitable state intervention to recapitalize a failed bank or failed banking system.

A final post-crisis assessment of the Basel II Framework requires that we revisit what we expect bank capital to do—and an acknowledgement that there will always be limits.

**Conclusion**

The Basel II Framework was never understood to be unbreakable. Rather, it was meant to address certain probabilities of certain magnitudes. To observe the failure of Basel II during the current crisis does not imply that Basel II was inadequate to address the risks it anticipated. Another reconstruction of an international harmonized system for bank regulation featuring capital adequacy controls as a central tool will similarly have to define set limits.

That said, there is some value to be derived from observing rare events. We may end up over-engineering, fighting last wars, as inappropriate amounts of capital are drawn to cover losses that now seem all too likely.
The recent subprime loan crisis has taught various lessons. First, the procyclicality of the Basel capital requirement has been strongly recognized. It has caused Japan to suffer for so long after the burst of the bubble in 1991. When the economy was faced with a downturn, banks tended to lend less because their capital declined. A credit crunch was one of the causes of the slow recovery of the Japanese economy in the 1990s. Secondly, banks reduced their lending to small and medium sized enterprises (SMEs) and riskier businesses during the economic recession. For Asian countries, SMEs have formed quite an important sector. They have been mainly financed through the banking sector and are vulnerable to financial crises. Therefore, the stability of bank lending is quite important in Asian economies where bank loans dominate in the financial market.

This paper focuses on the role of the Basel capital requirement and proposes a new counter-cyclical measure based on a simple general equilibrium model. The question is: how could we make a Basel II counter-cyclical policy work? Some propose to raise the level of the minimum capital requirement by computing various risks associated with each asset. Others propose to raise minimum capital requirements in good times and reduce them in times of recession according to regulatory discretion. In contrast, there are different proposals to apply an adjustment factor to the Basel capital requirement ratio without discretion by regulators. For example, Ryozo Himino (2009) proposes a stock price index as an adjustment factor. The proposal is closely related to the thinking of market participants. As stock data are available in

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The authors would like to thank Ryozo Himino, Financial Services Agency, Japan, for his guidance on the research, and Kakeru Miura and Lowell Battles (Harvard Law School) for their helpful research assistance.
various countries and are based on an actively traded market, they can be extensively used in most countries.

This paper will explore adjustment factors based on various macroeconomic indicators, such as GDP growth, interest rates, a stock price index, and a real estate price index. Some of the previous proposals regarding the Basel capital requirement are based on a partial equilibrium model rather than on a general equilibrium model of the entire economy analyzed in this paper. Other proposals do not have a theoretical model at all.

This paper will address the following propositions.

(i) The Basel capital requirement ratio should depend on various economic factors such as GDP, stock prices, interest rates and land prices, based on a simple general equilibrium model. This paper uses a model with such adjustment factors. Recent discussions on Basel III require capital based on each asset class. This paper proposes to use macroeconomic variables to set up the optimal capital requirement because various risks of each asset are assumed to be related to macroeconomic fluctuations. Furthermore, the Basel minimum capital requirement rule should be different from country to country, since the economic structures are different. A simple general equilibrium model suggests that the optimal minimum capital requirement ratio does depend on the structure of the economy and bank behavior.

(ii) The Basel capital requirement ratio should vary during a period of economic boom and during a period of economic downturn since the coefficient obtained from the theoretical model varies.

(iii) Cross-border bank activity is analyzed by a two-country model. The minimum capital requirement ratio should follow the ratio where the assets are invested rather than the ratio where the capital originated.

Some restricted cases of empirical results are reported in this paper. Japanese data show that the minimum capital requirement should have been lowered by 2.20 percentage points during the period of 1998Q1–2008Q4. U.S. data shows that the minimum
capital requirement ratio should have been increased by 4.42 percentage points during the boom period of 2002Q4–2007Q4, and it should have been lowered by 1.12 percent percentage points during the contraction period of 2001Q1–2002Q4.

This paper is organized as follows. Section 1 presents a simple model of profit maximization behavior by banks, which are faced with downward sloping demand for loans. A bank’s capital is assumed to be kept within the limit of the Basel capital requirement ratio. However, a bank has to pay a higher interest rate to attract funds from the market if its capital becomes closer to the binding minimum capital requirement ratio, since market participants expect the bank to face difficulties if it hits the binding condition for minimum capital requirement. Section 2 specifies the optimal Basel capital requirement ratio when the regulator seeks to stabilize bank lending. It shows that the optimal Basel minimum capital requirement ratio depends on the land price, the stock price, GDP and the interest rate.

Section 3 analyzes cross border banking activities. A bank is assumed to lend money both in its domestic market and the overseas market. The overseas loans should comply with the minimum capital requirement of the target country rather than originating country. On the other hand, the domestic loans should comply with the domestic minimum capital requirement ratio. Section 4 contains our main results.

In this paper, the objective of the Basel capital requirement is assumed to be stable bank lending in light of the overexpansion of bank loans in a bubble economy. During the subprime loan crisis in the U.S., there was an overexpansion of housing loans. During asset price inflation in the late 1980s in Japan, there was an overexpansion of property loans. Therefore, this paper sets up stable bank lending as an objective of the Basel capital requirement policy. Recent papers by Farhi and Tirole (2011) and Diamond and Rajan (2011) analyze the optimal interest rate policy to achieve the maximum weighted average of consumer welfare. This paper implicitly assumes that the central bank monetary policy is set to achieve stable GDP and stable asset prices. Detailed mathematical analysis can be found in Yoshino and Hirano (2011 and 2009).
1. Bank behavior

Each bank is assumed to maximize profit. Each bank lends money to a risky sector and invests in risky loans and securities (denoted by L in Figure 1). A certain fraction of the risky loans and investments turn out to default and the default ratio is expected to be a $\rho$ fraction of the total risky investment. The expected default ratio depends on macro-economic variables, such as land prices, stock prices, GDP, and interest rates. A bank also invests in safe assets, such as government bonds (B). A bank is funded by deposits and from the short term money market (D), where the interest rate ($i_m$) will rise according to the proximity of the capital/credit risk ratio to the Basel minimum capital requirement.

**Figure 1. Bank Balance Sheet**

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Loans (L)</td>
<td>Deposits (D)</td>
</tr>
<tr>
<td>Government Bonds (B)</td>
<td>Capital A(q₂)</td>
</tr>
</tbody>
</table>

A bank pays the costs of lending, asset management and fund raising activities through payments for personnel, equipment, etc. A bank maximizes its profit (its revenue minus costs), namely,

$$\text{Bank's profit} = \text{return from loans} + \text{return from government bonds}$$

$$-\text{loan default} - \text{interest payments to depositors}$$

$$-\text{various costs}$$

Equation (1-1)

Banks are maximizing their profits (Equation (1-1)) based on the budget constraint in Equation (1-2). This equation denotes the banks’ balance sheet, where banks make loans (L) and invest in safe assets (B), by absorbing funds from deposits (D) and stocks of capital (A(q₂)) shown in Figure 1. The banks’ capital is shown as A(q₂) which is assumed to depend on stock price q₂.
L + B = D + A(q_2)

Balance sheet of banks, Equation (1-2)

The actual capital/credit risk ratio $\theta$ has to be higher than the minimum capital requirement ratio $\theta^*$ (Equation (1-3)) where $K\{\ldots\}$ denotes the default risk asset and the demand for loans by firms (Equation (1-4)).

$$\theta = \frac{A(q_2)}{K\{F[p^s(q_1, q_2, Y, i_B)]\} \times L} \geq \theta^*$$

Capital requirement ratio, Equation (1-3)

Demand for bank loans $= d_0 - d_1(i_B) + d_2(Y) + d_3(q_1)$

Loan demand, Equation (1-4)

$K\{F[p^s(q_1, q_2, Y, i_B)]\}$ in Equation (1-3) denotes the default risk asset. The risk capital ratio, $K$, depends on macroeconomic factors, such as land prices ($q_1$), stock prices ($q_2$), GDP ($Y$), and the interest rate ($i_B$). When the land prices and stock prices are rising, banks are faced with a lower default risk ratio for loans. Similarly, when the economy is booming and GDP ($Y$) is rising, banks will be faced with a lower default risk ratio. When the interest rate $i_B$ is rising, banks tend to invest more in the safe asset ($B$), which reduces the default risk. Therefore, the default risk ratio of $K$ is denoted as $K= K\{F[p^s(q_1, q_2, Y, i_B)]\}$. Equation (1-3) shows that banks must keep enough capital ($A(q_2)$) and their “capital/credit risk asset” ratio must be greater than $\theta^*$ (the Basel minimum capital requirement). Equation (1-3) denotes that the minimum capital requirement is required in order to keep an adequate capital to cope with various risks which could be faced by banks in the future as a constraint.

When corporations are maximizing their profits, the demand for bank loans by corporations depends on (a) the loan interest rate ($i_L$), (b) the amount of output ($Y$) and (c) the land price ($q_1$) as described in Equation (1-4).

The amount of bank loans is obtained by maximizing the bank’s profit (Equation (1-1)), subject to the balance sheet of the bank
(Equation (1-2)), the Basel minimum capital requirement equation (Equation (1-3)), and the demand for bank loans. When banks are behaving in an inner solution, the following bank’s loan supply equation is obtained.

$$i''_L(L) \times L + i'_L(L) - \rho(q_1, q_2, Y, i_B) - i_m(\theta - \theta^*) - C'_L = 0$$

Loan supply equation, Equation (1-5)

This equation states that the marginal rate of return on loans minus expected default minus interest on deposits minus the marginal cost equals zero.

Similarly, the bank’s demand for bonds is computed by maximizing the bank’s profit (equation (1–1)), subject to equation (1–2) as follows:

$$i_B - i_m(\theta - \theta^*) - C'_B = 0$$

Demand for bonds by bank, Equation (1–6)

This equation states that the marginal rate of return on bonds minus the interest payment on deposits minus the marginal cost equals zero.

2. Optimal value of the minimum capital requirement

In order to obtain the optimal value for the minimum capital requirement set by the Basel Committee, we assume that stable bank lending is the objective of the Basel minimum capital requirement. Equation (1-3) denotes that the minimum capital requirement forces banks to retain enough capital to cope with expected future default losses accrued from asset management as a constraint. Monetary policy focuses on a stable rate of inflation and stable business conditions, such as stable GDP growth. On the other hand, the Basel capital requirement is assumed to be focused on stability in banking activities, more specifically, the stability of bank lending.

The optimal value for $\theta$ is set as follows. The bank regulator determines the optimal value for the minimum capital requirement by
minimizing the fluctuations of bank loans based on the equilibrium value for bank loans obtained as follows:

\[ \text{min}(L-L^*)^2 = (\text{actual bank loans} - \text{desired level of bank loans})^2 \]

Equation (2–1)

subject to equations 1-4 and 1-5.

The optimal value for \( \theta^* \) (the Basel minimum capital requirement) will be expressed as follows:

\[
\begin{align*}
d_0/2 + (d_2/2) \times Y + (d_3/2) \times q_1 - (d_1/2) \times \rho(q_1, q_2, Y, i_B) - (d_1/2) \times \left( \theta - \theta^* \right) - (d_1/2) \times C_L - L^* = 0
\end{align*}
\]

Equation (2–2)

Total differentiation of equation (2-2) yields,

\[
d\theta^* = a_0 - a_1 \times dL^* + a_2 \times dq_1 + a_3 \times dq_2 + a_4 \times dY + a_5 \times di_B
\]

Equation (2–3)

where the optimal changes for the value for the Basel capital requirement (d\( \theta^* \)) depends on the following variables: (a) the target level of the bank lending (L^*); (b) the land price (q_1); (c) the stock price (q_2); (d) GDP (Y); and (e) the interest rate (im).

To close the model, we need to write down the equilibrium condition of other markets such as the land market, the stock market, the goods market, and interest rate. As indicated earlier, detailed mathematical explanations may be found in Yoshino and Hirano (2009, 2011).

3. The optimal value for the Basel minimum capital requirement ratio: A numerical example

Suppose the land price is affected by some shock (\( \alpha \)). According to this land market shock, the stock price (q_2), interest rate (i_B) on bonds and GDP (Y) will change. What is the value for \( \theta^* \) when the
bank regulator aims to stabilize bank loans in response to the land price shock ($\alpha$)? The amount of bank loans is obtained from the profit maximization behavior of banks (Equation (1-4)). The bank loan supply is determined such that the banks’ marginal rate of return for additional loan supply becomes equal to the marginal costs associated with the additional increase in bank lending.

To stabilize bank loans in response to various economic shocks, the Basel capital requirement ratio should be adjusted according to the impact of the land price, stock price, GDP and the market interest rate as follows:

(i) The land price shock will affect both the bank loan behavior and the expected default risk ratio. Banks’ costs will also change due to their changes in credit analysis. etc. In order to keep the bank loans stabilized, the Basel capital requirement has to be adjusted to cope with the macroeconomic shock that comes from the land price shock. Banks expand their loans when they are faced with rising land price since the collateral value rises. The supply of bank loans shifts to the right and the total amount of bank loans increases. If bank regulators would like to reduce bank loans in order to cope with a future increase of risky assets held in banks, the Basel minimum capital has to be adjusted so as to reduce banks’ aggressive lending behavior. The amount of $\theta^*$, which is the optimal Basel capital ratio is theoretically obtained as depending on the land price, stock price, GDP and interest rate.

During the period of economic recess, the demand for bank loans will also decline, which can be shown as a decline in $d_0$ in equation (1-4) and as a shift of the demand curve to the left. In order to keep bank loans unchanged, the minimum capital requirement ratio $\theta$ has to be lowered much further to cope with the sluggish demand for loans.

$$d\theta^* = a_0 + a_2 \times dq_1 + a_3 \times dq_2 + a_4 \times dY + a_5 \times di_B$$

Equation (2-4)

In equation 2–4, the desired amount of bank loans is set to a constant value so that $dL^* = 0$. Therefore, $\theta^*$ (the optimal minimum capital requirement ratio) should vary based on the land price ($q_1$), the stock price ($q_2$), GDP ($Y$) and the market interest rate ($i_B$) because the default risk ratio is dependent on all these macroeconomic factors.
A numerical example based on Japanese quarterly data (1996Q1-2008Q4) is as follows. The optimal value for minimum capital requirement ($\theta^*$) can be computed by estimating the equation for the default risk ratio.

$$d\theta^* = -(-0.00238)dq_1 + \{0.299 - (-0.00853)\}dq_2$$
$$-(-0.0369)dY - (0.0594)di_B$$

Change in optimal minimum capital requirement, Equation (3–1)

The first term in Equation (3-1) is the magnitude of adjustment for the minimum capital requirement ratio when the land price ($q_1$) changes (namely, a coefficient of $-0.00238$), the second term is the impact from the stock price ($q_2$) fluctuations (a coefficient of $0.299 - (-0.00853)$), the third term is the impact from GDP ($Y$) (a coefficient of $-0.0369$), and the last term is the impact from the market interest rate. The second term’s coefficient is divided into two parts, i.e., its impact on capital ($A$) ($0.299$) and its impact on the risk ratio ($K$) ($-0.00853$). The preliminary estimates show that the biggest impact comes from the impact from the stock price on banks’ capital ($A$), as indicated by the coefficient of 0.299.

To what extent should the minimum capital requirement be adjusted in total? If we take period of 1998Q1 and 2008Q4 in Japan as an example, the Basel minimum capital requirement ratio should be lowered by 2.20 percentage points to ensure that bank lending does not contract (Table 1).

<table>
<thead>
<tr>
<th>Table 1. Estimates of Optimal Minimum Capital Requirement Ratios for Japan, United States and Canada</th>
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<td>(1) Japan</td>
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<td>(2) USA</td>
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<td>(3) Canada</td>
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Changes in the land price, stock price, GDP and interest rate will all affect the expected default risk of banks and the banking behavior. Thus, the minimum capital requirement has to be adjusted in order to stabilize bank loans. Of course, the impact of various shocks will differ according to which market created the initial shock in the economy. Sometimes, the shock arises from the property market ($\alpha$), as is the case of the recent subprime loan problem.

According to Revankar and Yoshino (2008), bank lending in Japan was significantly affected by the Basel minimum capital requirement. The decline in bank lending in Japan after the burst of the bubble can be explained by the Basel minimum capital requirement ratio, which was set to 8 percent for all the time rather than changing in value as formulated in this paper.

In other examples, U.S. data in Table 1 shows that the minimum capital requirement ratio should have been increased by 4.42 percentage points during the boom period of 2002Q4–2007Q4, and it should have been lowered by 1.12 percentage points during the contraction period of the 2001Q1–2002Q4. The Canadian case shows that the minimum capital requirement ratio should have been increased by 0.96 percentage points during the 2006Q4–2007Q4 period and it should have been lowered by 3.88 percentage points during the 2007Q4–2008Q4 period.

4. The case of cross-border banks

Figure 1 presents the case where a bank is operating its business in two countries (namely country A and country B). Let assume that the country A is in a boom and the country B is in a recession. Based on Section 1, the Basel minimum capital requirement ratio in country A (say, A percent) should be set higher than that of country B (say, B percent) in order to keep bank loans stable.

$$A\% > B\%$$

A bank prefers to set up its main office in the country B since its minimum capital requirement ratio is smaller than the country A. As is shown in Figure 2, a bank sets up its main headquarters in country B and extends its lending to country A. In this case, the bank should
apply the minimum capital requirement ratio based on the country A’s minimum standard rather than the one in the originating country (B). Its lending in country B denoted by arrow 2 should follow the minimum capital requirement ratio of country B. If the lending in country A comes from country B, denoted by arrow 3 in Figure 3, it should follow the minimum capital requirement ratio in country A even though the funds come from country B. If the bank lending that originated
from country B would follow the minimum capital requirement ratio of country B, the lending in country A would have expanded much more than desired and would have caused a bubble in country A.

The regulator has to monitor a bank’s lending behavior carefully as to the origin of funds. To find an easier way to monitor, banks will separate its accounts into two, based on the origin of funds. The account whose origin of funds is its own country is denoted by arrow 1 in Figure 2. The other account whose funds come from country B is denoted by arrow 3. Both categories of funds which are lent in country A should have the minimum capital adequacy ratio of country A.

**Conclusion**

This paper presented a model of counter-cyclical adjustment of the Basel capital requirement ratio in response to economic shocks, when banks would like to keep their bank loans in stable. As too much expansion of bank loans caused bubbles in Japan and the U.S., it would be appropriate to determine the optimal capital requirement to achieve stable bank loans. The value of the capital requirement to cope with various risks of bank assets is used as a constraint on banking behavior. The optimal Basel capital requirement ratio depends on (i) how banks behave, (ii) how macroeconomic factors, such as land price, stock price, GDP and the market interest rate, react to each other and (iii) how they are influenced by economic shocks.

This paper concludes that the optimal Basel capital requirement should depend on banking behavior, the macroeconomic structure in each country, and the impact of economic shocks on each economy. Since economic structures and banking behavior are different from country to country, it concludes that the optimal minimum capital requirement should depend on various economic variables, such as land price, stock price, GDP and the market interest rate. The paper provided numerical examples and showed how to adjust the Basel capital requirement in order to keep bank lending unchanged in times of economic shock.

Cross-border bank lending should follow the minimum capital requirement ratio where the bank lending is going on rather than where the funds originated.

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The model in this paper is a very simple version, but other cases are being considered and the associated econometric models are also under estimation.

References


VII. CREDIT RATING AGENCIES:
A REFORM AGENDA
In the wake of the financial crisis, countries across the globe have put in place or are considering new regulatory regimes designed to produce greater accountability, transparency and oversight for credit rating agencies. But as new regulations are developed, questions have surfaced. What are the goals of such regulation? How does one create a framework that avoids regulatory arbitrage? What can be done to reduce undue reliance on ratings?

Credit ratings are intended to address one aspect of an investment decision—credit quality—although they are sometimes incorrectly used by investors for other purposes.

It is important to recognize that they have a limited function and should not be unduly relied upon. Their role as opinions of the relative creditworthiness of an issuer or issue is an important one, which is why regulation of them needs to be carefully considered and well-conceived.

Standard & Poor’s believes any new regulatory architecture should focus on the following goals:

- Safety and soundness of financial markets
- Business conduct based on transparency and fair dealing
- Efficient and cost-effective regulation with alignment of responsibilities among different marketplace participants
- Consistent regulation across similar businesses

This article was published in the International Corporate Governance Network (ICGN) Handbook, 2011.
• Internationally consistent standards and coordinated enforcement

• Adaptable to accommodate future innovations and changes in market structure

• Analytically sound, independent, and unbiased credit ratings, including independence in establishing analytical criteria and methodologies and

• Fair and healthy competition among rating agencies encouraging different views on creditworthiness to benefit investors.

We believe that well-crafted regulation of credit rating agencies can serve to meet the goals described above. It can also enhance the ratings process and restore investor confidence through consistent application of practical and flexible standards coupled with appropriate regulatory supervision. While regulation should never dictate how a rating agency performs its analysis, a well-functioning ratings process can benefit the economy as a whole by contributing to greater investor confidence. In order to address areas where investors and policymakers have identified gaps and key issues in the current regulatory regime for credit rating agencies, we have highlighted below the significant investor concerns and expectations we have heard and how we believe regulation might enhance the process.

1. Independently-derived, credible, and unconflicted credit ratings

Appropriate regulation that addresses the effective management of potential conflicts of interest can only benefit the marketplace. This is an area where regulation can be particularly helpful by requiring credit rating agencies to promote ratings quality and market confidence, provided that regulators protect analytical independence by avoiding rules and examination processes that interfere with the substance of ratings opinions and an agency’s analytics.

2. The meaning and use of ratings should be clear

Rating agencies should be transparent about the meaning and limitations of their ratings—for example, clarifying that credit ratings do
not address the suitability of a security for any individual investor. Regulation that encourages transparency regarding the nature of rating agency opinions and pertinent information used in the ratings process could help enhance investor knowledge.

3. Consistency and comparability of ratings across asset classes and geographies—accountability for ratings quality

Regulation that requires rating agencies to publicly disclose their ratings performance statistics across asset classes and geographies would aid market participants in assessing ratings quality.

4. Transparency and soundness of analysis

Regulation that requires robust disclosure of the ratings process, including criteria and methodologies for assigning and updating ratings, would give investors additional information to make informed decisions, to compare ratings, and to form their own opinions on the soundness of an agency’s analytics. Regulation could also require identification of the models and underlying assumptions used in a rating agency’s analysis. In addition, regulation that requires agencies to publicize their ratings performance statistics enhances the market’s ability to draw comparisons across geographies, certain asset classes and with competitors and informs independent investor analysis. Rating agencies could add to this informational process by making personnel available to explain their methodologies to users.

5. Ratings on different securities should be differentiated

The financial crisis highlighted the need for markets to better understand the meaning of ratings, including ratings on structured finance securities, and how they differ from other ratings. Regulation could play a role in enhancing transparency about those differences.

6. Availability of information

Rating agencies that operate under an issuer-pay business model receive confidential information from issuers and others throughout the ratings and surveillance process. Regulation that requires agencies to follow policies and procedures to avoid the disclosure and misuse

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of confidential information would be consistent with current securities regulation. Where markets and regulators believe the confidential information should be made available to a rating agency’s competitors or to others, regulation should require issuers and others responsible for the quality of that data to make this information available to such parties.

7. Regulatory oversight

Regulation that provides for regulatory authorities to check agencies’ compliance with their processes and policies can be beneficial to promoting ratings quality and market confidence, provided that regulators protect analytical independence by avoiding rules and examination processes that interfere with the substance of ratings opinions and an agency’s analytics.

8. Competitive market for ratings with more and varying views on credit quality from qualified providers

Ratings based on a high degree of integrity and intellectual rigor benefit the marketplace. A registration regime for rating agencies that follows globally consistent standards can be beneficial, but regulators should be transparent about the criteria they use in accepting applications, including the need for sufficient analytical and financial resources. Regulation that requires disclosure about staffing, number of ratings issued, and training requirements would allow regulators to make more informed decisions regarding the adequacy of an agency’s resources. Regulators could also increase their ability to evaluate agencies by analyzing financial information from agencies provided to regulators on a confidential basis. However, regulators must protect analytical independence and not attempt to supplant their own judgments about ratings analysis for that of independent rating agencies. Evaluations as to the quality of ratings and ratings processes should be left ultimately to the market.

Regulation of credit rating agencies remains important. While many steps have been taken, more work remains to be done. In particular, the harmonization of existing regulation and proposed regulation will be critical.
Because the financial markets are global, a regulatory framework that provides consistent standards across jurisdictions can promote greater investor confidence and, ultimately, improved capital flows and economic growth, maintain policies and procedures that address potential conflicts of interest at the institutional and staff levels. These include a code of ethics that requires disclosure of potential conflicts and how they are managed, with oversight of the code’s effective application for all rating agency business models. Regulations could also prohibit activities that are clearly anticompetitive.
VIII. Regulation of Collective Investment Entities
CHAPTER 18

European Initiatives for the Regulation of Nonbank Financial Institutions: The EU Directive on Alternative Investment Fund Managers

FRIEDRICH KÜBLER

Introduction

I am deeply honored and pleased by the invitation to present my observations regarding the European initiatives for the regulation of nonbank financial institutions to this distinguished audience. The topic confronts us with several difficulties. One is how to define nonbank financial institutions. So far there exists no agreement, what a bank is; most European legal systems operate with a definition which is considerably broader than the one used in the U.S.¹ But this and other questions of drawing lines appear to be less relevant since the EU Commission in April 2009 presented the proposal for a “Directive on Alternative Investment Fund Managers,” abbreviated AIFMD.² This proposal narrows the scope of my investigation. It explicitly excludes insurance companies, “credit institutions” and mutual funds;³ they are all subject to existing regulation like the UCITS-Directive;⁴ UCITS being the abbreviation for “undertakings for collective investment in transferable securities,” this is the official definition of mutual funds. The proposal equally excludes the management of pension funds and of “non-pooled investments” such as endowments, sovereign wealth funds or assets held on own account.

¹ On the European level, this is documented by the Annex to the Second Banking Directive. It enumerates the activities “integral to banking” which in the continental European tradition constitute the core of banking services.
³ 4 COD 2009/0064 art. 2 para 2. (d), (f) and (c).
⁴ See “Where as” clause (6) to the proposed AIFMD.
by credit institutions, insurance or reinsurance undertakings. The proposal contains a list of the institutions that should be regulated; the enumeration includes hedge funds, private equity funds, real estate funds, commodity funds, infrastructure funds, funds of hedge funds and “other types of institutional funds” like venture capital funds. The debates preceding and following the publication of the proposal indicate that the primary targets are hedge funds and—to a lesser degree—private equity funds. My paper will first present the content of the proposal. It will then give a short summary of the conflicting views and interests shaping the public debate. In a next step I shall briefly report the legislative reasons or policy objectives motivating the Commission and explained in a lengthy Commission Staff Working Document called “Impact Assessment.” Then we have to look at the costs that the implementation of the proposal would entail. From there we look to the other side of the cost-benefit-analysis, followed by a short conclusion.

The Proposal

The proposal is quite ambitious. The draft is designed to generate a comprehensive regulatory framework for a broad range of financial institutions.

At the same time the proposal is not final, many of its articles ask for implementation through rules to be enacted by the Commission using the comitology or “Lamfalussy” procedure. The basic features can be characterized by the notions of authorization, organization and duties of conduct. The following aspects appear to be particularly important:

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6 See COD 2009/0064, “Where as” clause (5).
7 See COD 2009/0064, pp.2 f.
8 See COD 2009/0064, p.3.
10 COD 2009/0064: art. 10 para.3; 11 para.5; 12 para.3; 13; 16 para.4; 18 para.4; 24 para.2; 28 para.2.; 31 para.3.
1. The proposal does not address “alternative investment funds” (abbreviated AIF), but only the providers of management services to these funds, the “alternative investment fund managers” or AIFM. The directive shall apply “to all AIFM established in the Community.”12 This could be understood as requiring an establishment within one of the Member States; an AIFM operating out of Switzerland would not be covered. Art. 2 para. 2.(b), however, exempts AIFM “which do not provide management services to AIF domiciled in the Community and do not market AIF in the Community,” and the Explanatory Memorandum emphasizes the policy “to ensure that all AIFM operating in the European Union are subject to effective supervision and oversight.”13 This language indicates that the term “established” in Art. 2 does not require any form of incorporation in one of the Member States; it is sufficient that the AIFM operates within the territory of the EU. This reading is confirmed by the consideration that it would not make any sense to subject AIFM, which are incorporated within one of the Member States, to a quite rigid regime of regulation and supervision, and to allow them at the same time to move their seat to a place outside the EU and to continue their operations within the common market from such an outside location in a completely unregulated manner.

At the same time there is a de minimis exception;14 the proposal exempts an AIFM where the cumulative AIF under its management do not exceed the threshold of 100 million Euro. Where none of these AIF is leveraged or grants investors redemption rights before the end of five years, this threshold goes up to 500 million Euro. The Commission plausibly assumes that such funds are unlikely to undermine financial stability or market efficiency.15

2. A core element of the proposal is the requirement of prior authorization: the Member States are obliged to ensure that no AIFM covered by the Directive will operate without being authorized by one of the Member States.16 The authorization procedure requires

12 COD 2009/0064 art.2, para.1.
14 COD 2009/0064 art. 2, para.2. (a).
15 See COD 2009/0064 clause 6, p.13.
16 COD 2009/0064 art. 4, para. 1.
the applying AIFM to provide detailed information regarding the AIFM, its controlling shareholders, its program of activity; the characteristics, fund rules and articles of incorporation of all the funds the AIFM intends to manage and much more.\footnote{COD 2009/0064 art. 5.} The authorization granted by one of the Member States’ will allow the AIFM to operate throughout the community; it is designed as a “single passport” which has to be respected by all other Member States.\footnote{COD 2009/0064 art. 6, para. 1.}

This license allows the AIFM not only to manage various funds but also to market their shares or units to professional investors, but not to the public in general.\footnote{COD 2009/0064 art. 31 para. 1.} Member States, however, may allow the marketing of AIF shares within their territory also to retail investors and impose for that purpose stricter requirements on the AIFM as well as on the AIF.\footnote{COD 2009/0064 art. 32 para. 1.}

3. The proposal, in its central Chapter III, subjects the AIFM to “operating conditions.” They include rules of how to conduct business and they require specific procedures for dealing with conflicts of interest\footnote{COD 2009/0064 art. 10} as well as for risk\footnote{COD 2009/0064 art. 11.} and for liquidity management.\footnote{COD 2009/0064 art. 12.} Art. 14 requires the AIFM to have own funds of at least 125,000 Euro; the amount increases with the value of the managed portfolios. In addition, there are organizational requirements. The AIFM has to separate the functions of risk management and of portfolio management\footnote{COD 2009/0064 art. 11 para. 1.} It has to appoint for each AIF a valuator and a depositary (who receives payments and safe-keeps the assets of the AIF); both functions have to be performed by persons who are independent from the AIFM.\footnote{COD 2009/0064 art. 16 and 17.} An AIFM is allowed to delegate some of its functions to third parties, only after this has been authorized by the competent Member State’s agency.\footnote{COD 2009/0064 art. 18 para. 1.}
4. Chapter IV of the proposal deals with “transparency requirements.” Each AIFM has to provide annual reports and make them available to their investors and to the competent authorities, the reports have to be audited. In addition, each AIFM is obliged to disclose its investment strategy and many specifics of its operations to its investors before the investment is made;27 this provides certainly less information than the prospectus which is mandated by the POP-Directive,28 but it by far exceeds the disclosure duties triggered by a private placement. In addition there are reporting obligations to the competent Member States’ authorities, there primary objective is to inform the supervisors about the various risks which each of the managed funds presents to its investors and to the public,29 information relating to companies which are controlled by a managed fund will be included into the annual report of the AIFM.30

5. Chapter V provides for additional obligations imposed upon an AIFM managing specific types of funds. In a first category are highly leveraged funds. Its managers have to disclose the degree of leverage to its investors31 and to report to its supervisor the overall level of leverage employed by each of its managed funds,32 and the competent authorities of the Member States will have to exchange this information in order to allow them to assess the build-up of systemic risk in the financial system.33 The Commission and—under exceptional circumstances—the competent authorities of the home Member State will be empowered to set limits to the leverage used by the fund;34 the commission will be referred again to rule-making through the comitology or “Lamfalussy” procedure.35 In another specific category are funds that acquire controlling influence in companies.

27 COD 2009/0064 art. 20.
29 COD 2009/0064 art. 21.
30 COD 2009/0064 art. 29.
31 COD 2009/0064 art. 22.
33 COD 2009/0064 art. 25, paras. 1 and 2.
34 COD 2009/0064 art. 25, paras 3 and 4.
35 See D. Vitkova (supra note 11).
Whenever such a fund acquired 30 percent or more of the voting rights of an issue or a non-listed company domiciled in the EU, the fund manager has to notify the company, the other shareholders and the representatives of the employees. In addition, the Member States will be asked to ensure that information relating to companies which are controlled by a managed fund will be included into the annual report of the AIFM.

6. The Directive would allow all AIFM to market shares of their managed funds to professional investors in its home Member State. Marketing in other Member States will require notification of their competent authorities. Member States may allow the marketing to retail investors within their territory. An AIFM may also market funds which are domiciled in non-EU countries, but this would require an agreement with the third State that it will provide all relevant tax information.

The Debate

It is not surprising that this proposal has generated a lively and occasionally controversial debate. It is fueled by contributions from individual funds, industry associations, regional organizations,

37 COD 2009/0064 art. 31.
38 COD 2009/0064 art. 33.
39 COD 2009/0064 art. 35.

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EU representatives, and from academics. The summary of these and other comments allows to draw a few general conclusions. First, it appears that among the different categories of financial institutions addressed by the proposal the emphasis is on hedge funds and—to a slightly lesser degree—on private equity and venture capital funds. At the same time the conflicting positions can be easily located. The UK is clearly opposed; the City of London, where the European hedge fund and private equity activities are concentrated, is afraid that fund managers will leave and relocate in places like Zurich or Singapore. Some of the continental Member States like France, Italy and Germany support the proposal and the French Finance Minister Christine Lagarde, has asked for even more stringent regulation. The main concern is that the returns, which are derived by the fund industry, imply excessive risks which will be increasingly shifted to the budgets of central banks and Member States governments. In their view there are externalities: the bonuses paid in London will in the end have to be financed by the taxpayers in the Member States of the EU. There are two documents which provide for a considerably deeper analysis. The EU Commission has explained its position in a comprehensive “Impact Assessment,” a working document produced by the Commission staff and published in the spring of 2009. On the other side, the Financial Services Authority as the consolidated supervisor of the British financial markets and institutions has asked Charles River Associates (CRA), a consulting firm, for an evaluation of the proposal which has been published in October of this year. Both documents confirm what is indicated by

45 Quaglia, supra note 44, at 5.
46 Moulds, supra note 40.
47 As threatened by Coupland Cardiff, supra note 40.
50 Impact Assessment, supra note 9.
the mere size of the proposal. This is the fact that the Commission is not just aiming and shooting at one problem to be resolved. The proposal is motivated by several policy objectives which have to be discussed one after the other.

The Policy Objectives

The main concern of the Commission appears to be systemic risk. The Impact Assessment distinguishes two “channels” linking the behavior of funds to the stability of financial markets. Through the “credit channel” systemically relevant banks can be directly exposed to the failure of a large fund. This is what had happened in 1998 with Long Term Capital Management (LTCM), but at this moment the banks, which had lent several billion dollars to the fund, had sufficient liquidity to rescue LTCM by transforming their loans into equity positions. Even if it is true that there is no evidence that hedge funds were the cause of or contributed to the most recent financial crisis through the “credit channel,” the LTCM case illustrates the possibility that a large fund could fail in a moment when the banking system is under stress and thus increase the burden for the central banks and the governments who have to provide liquidity and additional equity in order to prevent the collapse of the financial system. The other link between fund behavior and systemic risk runs through the “market channel.”

When large hedge funds follow common patterns of leveraging by investing in the same or similar opportunities—this is often called “herding” behavior—and they come under stress, the unwinding of large and similar positions can trigger a vicious circle of a continuing decline of asset prices which requires more and more fire sales into a permanently deteriorating market. It appears to be uncontested that this has happened between 2007 and 2009. The Charles River Associates study concludes a comprehensive analysis by stating that the “extent of this selling does appear to have been sufficiently non-trivial to have contributed to a vicious circle of declining prices and for this selling

52 Impact Assessment, supra note 9, at 7 and 64.
53 CRA, supra note 51, at 76.
54 CRA, supra note 51, at 88.
55 CRA supra note 51, at 7 and 64.
56 CRA supra note 51, at 79.
to have had an impact on overall financial markets."\textsuperscript{57} The potential of various types of funds to contribute to systemic risk has institutional or "micro" implications. The staff working document comes to the conclusion, that the management of liquidity risks has posed a serious problem for the AIFM sector. In particular for hedge funds and funds of hedge funds the combination of illiquid investments and pressures for deleveraging and for investor redemption has exposed a severe mismatch which has contributed to the present crisis.\textsuperscript{58}

A second concern motivating the EU Commission is investor protection.\textsuperscript{59} The working document\textsuperscript{60} refers to a number of studies which document dissatisfaction of institutional investors with the information they receive from hedge funds and with the resulting intransparency of fund behavior and policies.\textsuperscript{61} The Commission staff is aware that hedge funds do not make public offerings and are rarely selling their securities to retail investors. Even if it is to be assumed, however, that institutional and wealthy individual investors are generally able to look for themselves, the harmonization of a basic set of disclosure and transparency rules could be an improvement. They would relieve the investors from the need to bargain for information and thus allow reduced transaction costs. At the same time a more homogeneous system of transparency might have a beneficial effect on the governance of the fund business; it could reduce conflicts of interest and improve valuation and custody procedures.

Another concern motivating the EU Commission is the efficiency and integrity of financial markets. Hedge funds and private equity

\textsuperscript{57} Impact Assessment, \textit{supra} note 9, at 87.
\textsuperscript{59} Directive, \textit{supra} note 2, at 3.
\textsuperscript{60} Impact Assessment, \textit{supra} note 9, at 19.
funds have been blamed for making excessive use of strategies like "naked" short selling which can undermine the stability of financial markets or may be detrimental to other stakeholders in companies targeted by the funds.\footnote{Impact Assessment, supra note 9, at 21.} The staff working document, however, mentions correctly that short selling and other questionable market strategies are not the exclusive preserve of the AIFM sector; regulation requiring more transparency or imposing stricter controls should be addressed not only to the fund industry but to all market participants.\footnote{Impact Assessment, supra note 8, at 28.}

With regard to the market for corporate control, however, the proposal takes a different position. As mentioned before, the Directive would require a fund which has been designed to acquire controlling shares in companies to inform management, the other shareholders and the representatives of the employees whenever the fund acquires 30 percent or more of the voting rights of a listed or non-listed corporation domiciled in the EU. It is unclear why such a rule would be imposed only upon a specific category of AIFM and not upon other purchasers as well; mandating acquisition transparency should be a rule not only of fund regulation but of the general capital market law dealing with mergers and acquisitions. At the same time it is equally unclear why the threshold triggering the disclosure obligations should be only 30 percent. Laws of Member States provide for a staggered approach, starting at a threshold of 3 percent\footnote{United Kingdom, Spain, Ireland, Germany.} or even 2 percent.\footnote{Italy, Portugal.} In addition, the proposal does not appear to take into account that the acquisition of a controlling block of the voting rights triggers the mandatory bid under the Take-Over-Directive;\footnote{Directive 2004/25/EC of the European Parliament and the Council of 21 April 2004 on takeover bids, 20040.J. (L142). The Directive requires the Member States to provide for a mandatory bid, but leaves it to their legislation to fix the threshold which will trigger the duty to make a bid. There are more specific rules for takeovers of financial institutions; See Directive 2007/44/EC, 2007 O. J. (1247).} it can be argued that this rule provides sufficient protection at least for the other shareholders. The staff working document admits that these issues should be examined and addressed not only for specific institutions, but on a market-wide basis.\footnote{Impact Assessment, supra note 9, at 28.}
A final problem mentioned by the proposal\textsuperscript{68} and discussed by the staff\textsuperscript{69} working document\textsuperscript{69} is the corporate governance impact of AIFM after the acquisition of control of a target company. The main concern is that the controlling funds will try to retrieve the liquidity spent for the acquisition by using the assets of the target company to the detriment of creditors, minority shareholders and in particular of the employees who risk to lose their jobs. This can be illustrated by the example of ProSiebenSatl, the second largest commercial television company in Germany. It had been part of the Kirch media empire which failed years ago. The Kirch shares were acquired by two hedge funds. They owned already a Scandinavian television company which they sold to ProSiebenSatl; the acquisition was exclusively financed by debt. The resulting interest liabilities appear to be higher than the profits made by the combined television firms. Therefore ProSiebenSatl dismissed more than a third of its employees, mostly those producing television programs; the own productions are replaced by mostly older films and series bought at low cost on the international market. The viewer rates declined; and there have been questions if the TV license should not be revoked. Cases like these have triggered emotional reactions. Horst Köhler, the German Federal President and former Managing Director of the IMF, has publicly blamed the “monsters” operating on the globalized financial markets. Franz Müntefering, a former Federal Minister of Labor Relations, has famously equaled hedge funds to “locusts”: they come, they eat, they go, and nothing is left. This populist language is inspired by the stakeholder approach which has traditionally dominated the theory and practice of corporate law on the European continent. This tradition, however, is fading: the Regulation introducing the European Stock Corporation\textsuperscript{70} and the case law of the European Court of Justice\textsuperscript{71} have opened up the rigid corporate law systems of most of the Member States. Increasingly, business firms enjoy the freedom to chose the Member State and the law of incorporation; if they

\textsuperscript{68} Directive Proposal, \textit{supra} note 2, at 3 fn 2.
\textsuperscript{69} Impact Assessment, \textit{supra} note 9, at 21.
wish they can avoid burdensome rules of legal capital or of employee participation on corporate boards, there is slow convergence with the U.S. system which emphasizes shareholder value.\footnote{This is explained in more details by Friedrich Kübler, \textit{supra} note 70, at 235 ff.} For these and other reasons I do not see the need for corporate governance regulation at the European level, this can and should be left to the Member States. And, in spite of discussing the issue, the proposal of the AIFM Directive in fact abstains from suggesting any corporate governance rules.

\textbf{The Costs of AIFMD}

Charles River Associates\footnote{CRA, \textit{supra} note 51.}—on behalf of the FSA—presents an estimate of the costs which would be generated by enacting the Commission proposal. This is a valuable approach to a cost-benefit-analysis; but it is not more than a first step. CRA has based its analysis primarily on interviews with representatives of the fund industry. The emphasis is on costs the various categories of funds would have to face under the proposed regime. As the fund industry is generally opposed to the draft it cannot be assumed that the figures given to CRA have been determined in a particular modest and prudent way. Starting from the CRA analysis I suggest taking the following costs into consideration:

1. First there are the compliance costs which will have to be met by the AIFM who will accept the new regime and continue to operate within the EU. CRA distinguishes one-off and ongoing costs. The sum of the one-off cost is estimated to be up to 3.2 billion dollars for all AIFM.\footnote{CRA, \textit{supra} note 51, at 2.} A more detailed forecast refers to basic points. For hedge funds, private equity and venture capital funds the one-off costs would be 62, 42 and 39 basis points (bp); the ongoing costs 1.2, 13.8 and 24.8 bp.\footnote{\textit{Id.} at 3.} Another part of the analysis splits the costs for the various elements of the proposal. They remain comparatively low for transparency requirements\footnote{Id. at 95. for hedge funds one-off 0.3 bp and ongoing 0.1 bp; somewhat higher figures for private equity and venture capital funds.} are somewhat higher for
independent valuation and depositories and still comparatively low for capital requirements. The estimated costs are considerably higher for the relocation and legal restructuring for AIFM presently domiciled outside the EU. However, these are one-off charges and they are still much less than 1 percent of equity. In addition, it remains completely unclear to which extent a relocation would require a legal restructuring. The corporate law regime of the EU today allows much more flexibility than it did 20 years ago.

2. Another category of cost could be the loss of choice and of favorable opportunities for European individual and institutional investors. This would require that AIFM presently operating from outside the EU and offering investment opportunities to EU residents would decide not to relocate and to withdraw from the Common Market; these funds would not face any of the compliance costs. European investors would not be prevented to continue to make use of their services; there is, and there will be, no rule forbidding European individuals or institutions to do business with AIFM in Zurich or Singapore. In addition, it is at least not unlikely that the market share of the withdrawing AIFM would be absorbed by fund managers willing to comply with the Directive. In this case the burden would again be the compliance costs; and it is to be assumed that the funds and their advisers will shift them to the issuers and/or to the investors.

3. A third category of costs could be a negative impact on growth and employment within the EU. This could occur in two ways. It is conceivable that AIFM which are domiciled in third countries and decide not to relocate would abstain not only from offering investment opportunities within the EU territory but also from investing there. But this is unlikely to happen. The proposal does not provide

77 Id. at 98 and 101.
78 Id. at 99. no burden for hedge funds; 1.5 bp for private equity and 1.9 bp for venture capital funds (all ongoing).
79 Id. Pp. 104 ff. (20 - 30 bp) and 107 ff. (64 bp).
80 Kübler, supra note 70.
81 CRA, supra note 51, at 42.
82 CRA, supra note 51, at 63.
for any rule which would prevent non-European AIF from making capital investments in the EU. And whenever this opportunity offers a competitive return, it will attract capital, regardless from where it comes. It is true that capital coming from AIFM domiciled inside the EU would be burdened with the compliance costs; and they could be reflected in slightly higher costs of capital for the receiving firms. They might prefer the cheaper capital offered by the outside AIFM; in this case the Directive would interfere with the competitiveness of the European fund management.

Looking at the Other Side of Cost-Benefit-Analysis

To what extent can these costs be compensated by benefits the Directive would generate? This question brings us back to the policy objectives which inspire the proposal and confronts with the problem of how these can be quantified. This cannot be discussed in depth here; I have to limit my remarks to the following aspects:

1. The authorization procedure, which is designed by the proposal, will provide the AIFM with a valid “single passport,” allowing them to operate without any further requirement throughout the Common Market. This is generally viewed as a benefit for the fund industry and its customers.

2. The main purpose of the proposed Directive is—as we have seen—to contain systemic risk. This is obviously an extremely relevant objective; today we know much more than three years ago about the costs of bailing out a financial system which operates at the brink of a global breakdown. However, we cannot argue with simple causal relationships, e.g., that without the Directive there will be another crisis which could be avoided if the proposal is enacted. It is much rather an issue of probabilities: what are the risks that we will experience another crisis of the system; to what extent could it be fueled by the strategies of alternative investment funds and how likely is it that their impact will be neutralized by the measures which the proposal suggests. All of this is beyond any precise

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83 Supra, III.
84 CRA, supra note 51, at 43.
85 Supra III. 1.
forecast; the cost-benefit-analysis has to be applied in a much less direct—or much more speculative—way. First of all it is not conclusive that the AIFM industry cannot be blamed for the present financial crisis. The proposal looks into the future; and the next crisis will be different. What counts primarily are the elements of risk provided by an unregulated fund industry. They include—as we have seen—the “credit channel” which may affect systemically relevant banks and the “market channel” which may contribute to the depression of financial markets.86 Hedge funds have been and probably continue to be heavily engaged in the markets of risky derivatives like credit default swaps;87 some of them continue to be highly leveraged,88 and there is evidence that recently their strategies have become more risky.89 Another important factor is the costs of a crisis involving systemic risk.

The most recent experience tells us that they are huge, in the range not only of billions but of trillions of dollars; and their negative impact on government debt will be a heavy burden for many years. By comparison, the costs for the safety and soundness measures suggested by the proposal of an AIFM Directive, primarily for authorization, supervision and capitalization, appear to stay in a range which is appropriate and reasonable. This is obvious for hedge funds.90 Private equity funds and venture capital funds will have to bear a slightly higher burden. However, they tend to be smaller; it can be assumed that many of them will be able to make use of the de minimis exception.91 All these reasons support the conclusion that the EU Commission should be encouraged to transform the safety and soundness elements of its proposal into a draft and present it to the European Parliament and the EU Council for adoption.

86 Supra, IV. 1.
90 See the figures mentioned in VI. 1.
91 See supra note 15.
3. The objective to improve the protection of investors looks primarily to disclosure and transparency. The imposition of mandatory disclosure duties burdens the AIFM with additional costs, but at the same time it relieves the investors to gather information at their own expense; this can result in a net reduction of information costs. In addition, the argument, that big investors can and should look for themselves, is weakened by the “retailization” of the fund business, that is to say by the trend to allow smaller investments to be made into the funds. And, at the same time, mandated transparency can serve the safety and soundness concerns and support market discipline. It therefore appears that the costs for improved disclosure will be matched by several beneficial effects which will be generated by the regulation of information flows.

4. I am much more reluctant to recommend the adoption of rules designed to improve the efficiency and integrity of financial markets. As mentioned before, strategies of undesirable short selling can be used not only by hedge funds but also by many other market participants. This is equally true for “empty selling” of securities which may distort incentives by separating or “decoupling” decision making from the ownership interest. As far as these concerns are legitimate, they should be dealt with by legislation which is addressed to all market participants. This is equally true for the market for corporate control; the duty to disclose block acquisitions to the company and to other shareholders should be imposed upon all investors.

5. The final issue is corporate governance. In spite of the concerns expressed in the working paper of the EU Commission’s staff the proposal abstains from suggesting any rules. This should not be

92 See supra note 76.
93 Scott, supra note 88 at 870.
94 See supra IV. 3.
97 See supra IV. 4.
changed. The corporate governance systems of the Member States continue to differ greatly; the EU has for good reasons abandoned its original intention to harmonize the structures of stock corporations. This decision is to be applauded; the legislative powers to shape corporate law should stay with the Member States.

Conclusion

This brings me to the end of my remarks. I have not been able to discuss all the measures suggested in the proposal of an AIFM Directive. The emphasis is clearly on the safety and soundness of the financial system. It is generally agreed that AIF are likely to enlarge the risks affecting the globalized financial markets, and this includes systemic risk. I therefore recommend to enact at least those elements of the proposal which are designed to contain systemic risk.

98 Kübler, supra note 70.
IX. DEBT RESTRUCTURING
The financial crisis posed major challenges to policy makers and regulators as they worked towards stabilizing financial markets and prevent a further meltdown and the slide of the global economy from its deepest synchronized recession in six decades into possible depression. As countries now move from the initial crisis containment phase, a period of sustained corporate and operational debt restructuring can be expected in order to repair corporate balance sheets and to realign the corporate sector to the post-crisis economy. The insolvency law is the most important tool to support orderly corporate debt restructuring. Many countries have enacted reforms to their legal frameworks relevant to corporate debt restructuring over recent years. In fact, the major thrust of insolvency reform across many jurisdictions over the last twenty years has been the development of legislation to facilitate business reorganizations. However, in many emerging economies, the corporate restructuring regime does not even exist. These countries would have realized the need for introducing legal reforms to introduce efficient and effective corporate restructuring regimes. Given that changes to insolvency laws and the underlying institutional structure take time to effect, country authorities need to begin diagnosis of the debt problem and to anticipate the legal bottlenecks at an early stage. Furthermore, the onset of a crisis could present an opportunity for the authorities to galvanize relevant stakeholders into reform mode.

The global financial crisis has highlighted the need to provide for framework for out-of-court restructurings which would facilitate wide scale debt restructurings. This would need the support of the policy makers. There is substantial international experience from which to draw in this area. The London Approach introduced the evolution of government sponsored guidelines for multi-creditor out-of-court debt

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restructurings. In 2000, INSOL International published the Statement of Principles for a Global Approach to Multi-Creditor Workouts. Many countries drew from the London Approach and INSOL Principles as a basis to develop their own guidelines to encourage out-of-court corporate debt workouts. To be optimal in the aftermath of a crisis, such guidelines will likely need to operate in a structured framework involving government enhancements, such as regulatory suasion on banks to sign on to the workout principles.

**Out of Court Corporate Restructuring in India**

India sought inspiration from the London Approach and INSOL Principles to introduce Corporate Debt Restructuring (CDR) Scheme in August, 2001 to provide for a voluntary out of court restructuring mechanism in cases of multiple-creditors financing. As the formal insolvency law failed to provide quick and timely restructuring, the banks and financial institutions, and the corporates have found the CDR mechanism as an effective and fast track tool for work outs, in particular because it can be invoked even before an asset turns non-performing. The Scheme has since been revised in 2003, 2005, and 2008. The guidelines as issued and revised by the RBI offer complete insight into the working of the CDR system by detailing the process of initiation, working and conclusion of the CDR mechanism. Though the CDR guidelines attempt to provide comprehensive mechanism the system cannot be said to be one without any loopholes and some amends are desirable in wake of ever changing economic scenario. Prior to the introduction of the CDR mechanism, the options available to the corporate crippled with huge debt burden were the ones which necessarily involved the intervention of the judicial authorities. Further under the already available routes a company could resort to restructuring only in extreme circumstances. Thus the precondition for taking recourse under the previous solutions was that either the borrower's account should have been an NPA or the borrower company should have been a sick company under SICA. All this and more made it necessary for India to adopt a formal restructuring model for promoting economic stability and growth by aiming at saving the viable business from mess of closure.

**Legal Basis of CDR**

CDR is a non statutory mechanism and a voluntary system for which corporate coming within the purview of eligibility criteria set by the
guidelines of RBI can opt for provided they reach an understanding with their creditors. The system of CDR is based on two agreements namely (a) Debtor-Creditor Agreement (DCA); and (b) Inter-Creditor Agreement (ICA). These two documents form the very basis of the mechanism and provide legal basis to the system. The debtors or the corporate for the purpose of availing benefits of the CDR mechanism are required to accede to the DCA either at the time of original loan documentation (for future cases) or at the time of reference to Corporate Debt Restructuring Cell. Similarly all the participating creditors shall have to enter into a legally binding agreement—ICA, with necessary enforcement and penal clauses, to operate the System through laid-down policies and guidelines. The ICA signed by the creditors will be initially valid for a period of three years however the same can be renewed for further periods of 3 years thereafter. If 75 percent of creditors by value and 60 percent of the creditors by number, agree to a restructuring package of an existing debt (i.e., debt outstanding), the same is binding on the remaining creditors. Creditors not signatory to ICA may also be bound by the CDR mechanism if they join for restructuring in a particular case.

The DCA also entails the duties and responsibilities of the borrower in form of an undertaking by virtue of which the borrower undertakes to adhere to the terms and conditions of the restructuring scheme which is approved by the CDR Empowered Group. One of the most important elements of Debtor-Creditor Agreement would be “stand still” clause which remains binding for 90 days, or 180 days by both sides. Under this clause, both the debtor and creditor(s) agree to a legally binding “stand-still” whereby both the parties commit themselves not to taking recourse to any other legal action during the “stand-still” period, this would be necessary for enabling the CDR system to undertake the necessary debt restructuring exercise without any outside intervention, judicial or otherwise. However, the stand-still clause will be applicable only to any civil action either by the borrower or any lender against the other party and will not cover any criminal action. Further, during the stand-still period, outstanding foreign exchange forward contracts, derivative products, etc., can be crystallized, provided the borrower is agreeable to such crystallization. The borrower will additionally undertake that during the standstill period the documents will stand extended for the purpose of limitation and also that he will not approach any other authority for any relief and the directors of the borrowing company will not resign from the board of directors during the stand-still period.
Reference to CDR System

Reference to Corporate Debt Restructuring System can be triggered by:

- Any or more of the creditors who have a minimum twenty percent share in either working capital or term finance, or
- Concerned corporate, if supported by a bank or Financial institution having stake as in (i) above.

The above eligibility criterion is further qualified by the following conditions:

- The CDR mechanism is available only in case of multi-creditor financing.
- Corporates indulging in frauds and malfeasance even in a single bank are ineligible for restructuring under CDR mechanism.
- Willful defaulters are not entertained under the CDR mechanism.
- Cases of borrowers against whom recovery suits have been filed by lenders are eligible only if supported by at least 75 percent of the lenders (by value).
- Cases in formal restructuring before the Board for Industrial & Financial Reconstruction (BIFR) cases are not eligible for restructuring under the CDR system.

The CDR mechanism is not available to those cases that involve only one financial institution or one bank. It is an organizational framework institutionalized for speedy disposal of restructuring proposals of borrowers availing finance from more than one banks and financial institutions. The CDR mechanism is aimed for restructuring of debt availed by large borrowers having exposure of a hundred million rupees and above by banks and institutions. The financial exposure covered is both fund-based and non-fund based. There is no requirement of the borrower’s account being a NPA or the borrower company being a sick company under SICA or being in default for a specified
period before reference to the CDR mechanism. However, potentially viable cases of NPAs get priority.

As a general principle, willful defaulters are not entertained under the CDR mechanism. But modifications introduced in the system have been laid down for the identification of the willful defaulters. In deserving cases therefore, the Core Group may review the reasons for classification of the borrower as willful defaulter and satisfy itself that the borrower is in a position to rectify the willful default provided he is granted an opportunity under the CDR mechanism. However, corporates indulging in fraud and malfeasance even in a single bank continue to remain ineligible for restructuring. The restructuring of such cases under the CDR mechanism may be carried out with the approval of the Core Group only.

Cases of borrowers against whom recovery suits have been filed by the lenders may be eligible for consideration under the CDR system however the initiative to resolve the case under the CDR system must be supported by at least 75 percent of the lenders (by value). Nevertheless, for restructuring of such accounts under the CDR system, it should be ensured that the account meets the basic criteria for becoming eligible under the CDR mechanism.

Cases before BIFR are not eligible for restructuring under the CDR system. However, large value BIFR cases may be eligible for restructuring under the CDR system on specific recommendation being made by the CDR Core Group. The Core Group shall recommend exceptional BIFR cases on a case-to-case basis for consideration under the CDR system. It should be ensured that the lending institutions complete all the formalities in seeking the approval from BIFR before implementing the package.

In August 2008, the RBI decided to make the CDR mechanism also available to the corporates engaged in non-industrial activities, if they are otherwise eligible for restructuring as per the criteria laid down for this purpose. Subhiksha, the retail giant having around 1600 outlets in India, approached CDR for corporate debt restructuring in January 2009 since their balance sheet did not keep pace with their growth. Subhiksha is the first non-manufacturer to opt for CDR. RBI’s move to allow realty companies to restructure their loans in a bid to
stimulate the sector and avoid accumulation of bad loans at the lenders has helped the developers. Indian real estate developers are in talks with lenders to restructure debt and lower interest cost to tide over the cash crunch.

**Structure of CDR Mechanism**

The edifice of the CDR mechanism in India stands on the strength of a three-tier structure: (i) CDR Standing Forum; (ii) CDR Empowered Group; and (iii) CDR Cell.

**CDR Standing Forum**

CDR Standing Forum is at the upper most tier of CDR mechanism in India and is a general body which represents the all financial institutions and banks participating in the CDR system. It serves the purpose of providing an official platform for both the creditors and borrowers by consultation to amicably and collectively evolve policies and guidelines for working out debt restructuring plans in the interests of all concerned. CDR Standing Forum is a self-empowered body, and it is placed under an obligation to lay down policies and guidelines, and monitor the progress of corporate debt restructuring. The composition of the Forum, frequency of meeting, powers and duties are all well defined under the guidelines issued by RBI. The heads of some important financial institution of the country such as Industrial Development Bank of India, State Bank of India, ICICI Bank Limited, Indian Banks’ Association as well as Chairmen and Managing Directors of all banks and financial institutions participating as permanent members in the system. Principle of rotation is followed for filling up the post of chairman of the Forum. Forum undertakes review and monitoring of the progress of the corporate debt restructuring by meeting once every 6 months. It reviews the individual decisions of the CDR Empowered Group and CDR Cell. The CDR Standing Forum may also formulate guidelines for dispensing special treatment to those cases which are complicated and are likely to be delayed beyond the time frame prescribed for processing.

A CDR Core Group is carved out of the CDR Standing Forum to assist the Standing Forum in convening the meetings and taking decisions relating to policy, on behalf of the Standing Forum. The Core
Group consists of Chief Executives of IDBI, SBI, ICICI Bank Limited, Bank of Baroda, Bank of India, Punjab National Bank, Indian Banks’ Association, Deputy Chairman of Indian Banks’ Association representing foreign banks in India and a representative of Reserve Bank of India. The CDR Core Group also lays down the policies and guidelines to be followed by the CDR Empowered Group and CDR Cell for debt restructuring. These guidelines must suitably address the operational difficulties experienced in the functioning of the CDR Empowered Group. The CDR Core Group shall also prescribe the PERT chart for processing of cases referred to the CDR system and decide on the modalities for enforcement of the time frame. The CDR Core Group also has a responsibility to lay down guidelines to ensure that over-optimistic projections are not assumed while preparing/approving restructuring proposals especially with regard to capacity utilization, price of products, profit margin, demand, availability of raw materials, input-output ratio and likely impact of imports/international cost competitiveness.

**CDR Empowered Group**

The CDR Empowered Group is entrusted with task of deciding individual cases of corporate debt restructuring which consists of ED level representatives of IDBI, ICICI Bank Ltd. and SBI as standing members, in addition to ED level representatives of financial institutions and banks who have an exposure to the concerned company. While the standing members perform the function of facilitating the conduct of the Group’s meetings, voting is done in proportion to the exposure of the lenders only. In order to make the CDR Empowered Group effective and broad-based and operate efficiently and smoothly, it must be ensured that participating institutions/banks approve a panel of senior officers to represent them in the CDR Empowered Group and ensure that they depute officials only from among the panel to attend the meetings of CDR Empowered Group. Further, nominees who attend the meeting pertaining to one account should invariably attend all the meetings pertaining to that account instead of deputing their representatives.

The level of representation of banks/financial institutions on the CDR Empowered Group should be at a sufficiently senior level to ensure that a concerned bank/FI abides by the necessary commitments.
including sacrifices, made towards debt restructuring. There should be a general authorization by the respective boards of the participating institutions / banks in favor of their representatives on the CDR Empowered Group, authorizing them to take decisions on behalf of their organization, regarding restructuring of debts of individual corporate. The primary responsibility of the CDR Empowered Group is to consider the preliminary report of all cases of requests of restructuring, submitted to it by the CDR Cell. After the Empowered Group decides that restructuring of the company is prima-facie feasible and the enterprise is potentially viable in terms of the policies and guidelines evolved by Standing Forum, the detailed restructuring package is worked out by the CDR Cell in conjunction with the lead institution. However, if the lead institution faces difficulties in working out the detailed restructuring package, the participating banks / financial institutions can decide upon the alternate institution / bank which would work out the detailed restructuring package at the first meeting of the Empowered Group when the preliminary report of the CDR Cell comes up for consideration.

The CDR Empowered Group is mandated to look into each case of debt restructuring, examine the viability and rehabilitation potential of the Company and approve the restructuring package within a specified time frame of 90 days, or at best within 180 days of reference to the Empowered Group. The CDR Empowered Group decide on the acceptable viability benchmark levels on the some critical parameters, which may be applied on a case-by-case basis, based on the merits of each case. The parameters include Return on Capital Employed (ROCE), Debt Service Coverage Ratio (DSCR), Gap between the Internal Rate of Return (IRR), the Cost of Fund (CoF), and Extent of Sacrifice.

Usually the CDR Empowered Group meets on two or three occasions in respect of each case referred to it. This provides an opportunity to the participating members to seek proper authorizations from their CEO / ED, in case of need, in respect of those cases where the critical parameters of restructuring are beyond the authority delegated to him/her. The decision of the CDR Empowered Group is final. If restructuring of debt is found to be viable and feasible, the company would be put on the restructuring mode. If restructuring is not found viable, the creditors would then be free to take necessary steps for immediate
recovery of dues and/or liquidation or winding up of the company, collectively or individually.

**CDR Cell**

The CDR Standing Forum and the CDR Empowered Group are assisted by a CDR Cell in all their functions. The CDR Cell is at the lowest rung of the structure of the CDR mechanism and it is entrusted with the primary duty to undertake the initial scrutiny of the proposals received from borrowers/lenders, by calling for proposed rehabilitation plan and other information and put up the matter before the CDR Empowered Group, within one month to decide whether rehabilitation is prima facie feasible. If the plan is found to be feasible, the CDR Cell will proceed to prepare detailed Rehabilitation Plan with the help of lenders. The CDR Cell is also empowered to engage experts from outside, if necessary. If not found prima facie feasible, the lenders may start action for recovery of their dues.

All references for corporate debt restructuring by lenders or borrowers are be made to the CDR Cell. It shall be the responsibility of the lead institution / major stakeholder to the corporate, to work out a preliminary restructuring plan in consultation with other stakeholders and submit to the CDR Cell within one month. The CDR Cell must ensure that the restructuring plan is prepared in terms of the general policies and guidelines approved by the CDR Standing Forum and the same is placed for consideration of the Empowered Group within 30 days for decision. The Empowered Group can approve or suggest modifications but must reach a final decision within a total period of 90 days. However, for sufficient reasons the period can be extended up to a maximum of 180 days from the date of reference to the CDR Cell.

**Categories of Debt Restructuring**

The debt restructuring under the CDR system was categorized into two categories by virtue of revision of the guidelines in 2003. Accounts, which are classified as “standard” and “sub-standard” in the books of the lenders, are restructured under the first category (Category 1). Accounts which are classified as “doubtful” in the books of the lenders are restructured under the second category (Category 2). The difference between Category 1 and Category 2 is that additional finance,
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if any, is to be provided by all creditors of a Category 1 irrespective of whether they are working capital or term creditors, on a pro-rata basis. While, in case of Category 2 cases it is not binding on creditors to take up additional financing worked out under the debt restructuring package.

Hence a second category of CDR is introduced for the cases where the accounts have been classified as doubtful in the books of the lenders and if a minimum of 75 percent of creditors (by value) and 60 percent creditors (by number) satisfy themselves of the viability of the account and consent for such restructuring, subject to the following conditions:

- It will not be binding on the creditors to take up additional financing worked out under the debt restructuring package and the decision to lend or not to lend will depend on each creditor bank/FI separately. In other words, under the proposed second category of the CDR mechanism, the existing loans will only be restructured and it would be up to the promoter to firm up additional financing arrangement with new or existing creditors individually.

- All other norms under the CDR mechanism such as the standstill clause, asset classification status during the pendency of restructuring under CDR, etc., will continue to be applicable to this category also.

All the other features of the CDR system as applicable to the First Category will also be applicable to cases restructured under the Second Category.

Sanction and Implementation of the Approved Packages

In order to enhance the efficacy of CDR mechanism a realistic time schedule has been prescribed by the CDR Standing Forum. Once the final restructuring plan is approved and confirmed by the Empowered Group, CDR Cell issues a Letter of Approval (LOA) for the Restructuring package to all the concerned lenders. The individual lenders are required to sanction the restructuring package within 45 days from the date of issue of LOA and thereafter fully implement it in the next 45 days. The status of sanction and implementation of restructuring packages is reviewed frequently at Empowered Group meetings.
However, in order to place greater emphasis on implementation of the approved packages, a Standing Committee of Core Group Member Banks constituted by the Core Group takes up close monitoring to ensure that the packages are implemented expeditiously.

**Monitoring Mechanisms**

The success of CDR mechanism depends essentially on close monitoring of each and every package approved by the CDR Empowered Group (EG). The monitoring mechanism comprises (i) Monitoring Institution (referring institution); (ii) Monitoring Committee; and (iii) external agencies of repute to complement monitoring efforts and also to carry out concurrent audit, special audit/valuation etc. The Monitoring Institution is required to monitor all aspects of implementation of the package and furnish a consolidated report on the status of sanction and implementation of the approved package to CDR Cell every month, in the prescribed format.

The Monitoring Committee (MC) is company-specific and is constituted by the Empowered Group at the time of approval of a restructuring package. It comprises representatives of the referring bank/ institution, one or two other CDR lenders having major exposure in the case, one lender with minor exposure and the CDR Cell. The promoters/representatives of the company besides representatives of the concurrent auditor, lenders’ engineer, if considered necessary, are invited for the meetings as special invitees. Whenever larger issues such as relating to sharing of charge, matters relating to working capital tie-up, permission for expansion/modernization, etc. are to be discussed then other lenders including consortium members are invited for the meetings. The concerned companies are required to refer all proposals for expansion, diversification, mergers/demergers, equity raising, one time settlements, partial pre-payment to CDR members/non-CDR lenders to the Monitoring Committee for due scrutiny and recommendation to Empowered Group for taking appropriate decision.

The MC is purely a recommendatory body and does not have powers for according approvals. The Monitoring Committee meetings are expected to be convened by the Monitoring bank/institution every month while the package is under implementation by the concerned lenders and thereafter at an interval of every two-three months to
review the progress of implementation and also to discuss and resolve outstanding issues connected with the case. The implementation of the package means giving effect to the approved package by the lenders and compliance of the terms and conditions (stipulated in the package) by the borrower/promoter, to ensure that the package is in place in the true spirit of CDR mechanism. The objective of the CDR is to keep the package working as envisaged and review the need for changes/corrections required in deserving circumstances. In certain situations, the need for invoking various stipulations of security or events of default might arise which also is examined by MC and suitable recommendations are made to EG including withdrawal of the package, if necessary.

The Monitoring Committee provides the requisite feedback to the lenders regarding performance of the company vis-a-vis CDR projections, various developments such as industry-level comparison, growth prospects, production/marketing constraints, disputes faced by the company, managerial efficiency, etc. The Monitoring Committee’s views/recommendations on various matters concerning the package/company are presented to the CDR Empowered Group by CDR Cell/Monitoring Institution for approval/information. The decisions of the CDR Empowered Group are communicated to the lenders and company/promoter by CDR Cell for action at their end.

The Monitoring Mechanism under CDR plays a dynamic and important role in review of the approved packages, resolution of various issues concerning lenders and borrowers and obtaining feedback on the performance of the company. The monitoring process has greatly contributed to ensuring success of the approved packages.

**Exit Option**

A creditor (outside the minimum seventy-five percent by value and sixty percent by number) who for any internal reason does not wish to commit additional finance will have an option to exit the CDR. At the same time, in order to avoid the “free rider” problem, it is necessary to provide some disincentive to the creditor who wishes to exercise this option. Such creditors can either (a) arrange for its share of additional finance to be provided by a new or existing creditor, or (b) agree to the deferment of the first year’s interest due to it after the CDR package becomes effective. The first year’s deferred interest as mentioned...
above, without compounding, will be payable along with the last installment of the principal due to the creditor.

In addition, the exit option will also be available to all lenders within the minimum 75 percent and 60 percent provided the purchaser agrees to abide by restructuring package approved by the Empowered Group. The exiting lenders may be allowed to continue with their existing level of exposure to the borrower provided they tie up with either the existing lenders or fresh lenders taking up their share of additional finance. The lenders who wish to exit from the package would have the option to sell their existing share to either the existing lenders or fresh lenders, at an appropriate price, which would be decided mutually between the exiting lender and the taking over lender. The new lenders shall rank on par with the existing lenders for repayment and servicing of the dues since they have taken over the existing dues to the exiting lender. In order to bring more flexibility in the exit option, One Time Settlement can also be considered, wherever necessary, as a part of the restructuring package. If an account with any creditor is subjected to One Time Settlement (OTS) by a borrower before its reference to the CDR mechanism, any fulfilled commitments under such OTS may not be reversed under the restructuring package. Further payment commitments of the borrower arising out of such OTS may be factored into the restructuring package.

Prudential and Accounting Issues

Restructuring of corporate debts under CDR system may take place in the three different stages: (a) before commencement of commercial production; (b) after commencement of commercial production but before the asset has been classified as “sub-standard”; and (c) after commencement of commercial production and the asset has been classified as “sub-standard” or “doubtful.” Accounts restructured under CDR system, including accounts classified as “doubtful” under Category 2 CDR, is eligible for some regulatory concession in asset classification and provisioning on writing off/providing for economic sacrifice, which are detailed below, only if:

• Restructuring under CDR mechanism is done for the first time,

• The unit becomes viable in 7 years and the repayment period for the restructured debts does not exceed 10 years,
Promoters’ sacrifice and additional funds brought by them should be a minimum of 15 percent of creditors’ sacrifice, and

Personal guarantee is offered by the promoter except when the unit is affected by external factors pertaining to the economy and industry.

A rescheduling of the installments of principal alone at any of the aforesaid first two stages does not cause a standard asset to be classified in the sub-standard category, provided the above mentioned conditions are complied with and the loan/credit facility is fully secured.

A rescheduling of interest element at any of the foregoing first two stages does not cause an asset to be downgraded to sub-standard category on writing off—providing for the amount of sacrifice, if any, in the element of interest measured in present value terms.

If a standard asset is taken up for restructuring before commencement of production and the restructuring package provides a longer period of moratorium on interest payments beyond the expected date of commercial production/date of commercial production vis-à-vis the original moratorium period, the asset can no more be treated as standard asset. It may, therefore, be classified as sub-standard. The same regulatory treatment will apply if a standard asset is taken up for restructuring after commencement of production and the restructuring package provides for a longer period of moratorium on interest payments than the original moratorium period.

Under CDR a rescheduling of the installments of principal alone, renders a substandard/“doubtful” asset eligible to be continued in the substandard/“doubtful” category for the specified period provided the above mentioned conditions are complied with and the loan/credit facility is fully secured. Further a rescheduling of interest element renders a sub-standard/“doubtful” asset eligible to be continued to be classified in substandard/“doubtful” category for the specified period, i.e., a period of one year after the date when first payment of interest or of principal, whichever is earlier, falls due under the rescheduled terms, provided the above mentioned conditions are complied with and the amount of sacrifice, if any, in the element of interest, measured in present value terms computed is either written off or provision is made to the extent of the sacrifice involved.
The substandard/doubtful accounts which have been subjected to restructuring, etc. whether in respect of principal installment or interest amount, by whatever modality, are eligible to be upgraded to the standard category only after the specified period, i.e., a period of one year after the date when first payment of interest or of principal, whichever is earlier, falls due under the rescheduled terms, subject to satisfactory performance during the period.

During the specified one-year period, the asset classification of substandard/doubtful status accounts will not deteriorate if satisfactory performance of the account is demonstrated during the specified period. In case, however, the satisfactory performance during the specified period is not evidenced, the asset classification of the restructured account would be governed as per the applicable prudential norms with reference to the pre-restructuring payment schedule. The asset classification would be bank-specific based on record of recovery of each bank/FI, as per the existing prudential norms applicable to banks/FIs.

**SME Debt Restructuring Mechanism**

Apart from CDR mechanism, there exists a much simpler mechanism for restructuring of loans availed by Small and Medium Enterprises (SMEs) which was introduced by RBI in year 2008 (vide Circular DBOD No. BP.BC.No.37/21.04.132/2008-09, dated December 8, 2008, on “Prudential Guidelines on Restructuring of Advances by Banks”). This mechanism is applicable to all the borrowers which have funded and non-funded outstanding up to Rs. 10 crore (one hundred million rupees) under multiple/consortium banking arrangement. Under this mechanism, banks may formulate, with the approval of their Board of Directors, a debt restructuring scheme for SMEs within the prudential norms laid down by RBI Banks may frame different sets of policies for borrowers belonging to different sectors within the SME if they so desire. While framing the scheme, banks may ensure that the scheme is simple to comprehend and will, at the minimum, include parameters indicated in the guidelines issued by RBI. The scheme envisages that the bank with the maximum outstanding may work out the restructuring package, along with the bank having the second largest share. Banks should work out the restructuring package and implement the same within a maximum period of ninety days from date
of receipt of requests. The SME Debt Restructuring Mechanism will be available to all borrowers engaged in any type of activity. Banks may review the progress in rehabilitation and restructuring of SMEs accounts on a quarterly basis and keep the Board informed.

**Performance Report of the CDR Mechanism**

CDR mechanism has worked well since inception. Its provisions were relaxed recently to enable enhanced access to the scheme. The SME mechanism is recent and its experience is yet to be known. Since inception CDR has approved 215 cases corporate cases for restructuring with a cumulative debt of Rs. 104,299 crore. As per the statistics available on June 30, 2010, the CDR has witnessed an increased inflow of cases seeking debt restructuring after the global and domestic economic slump. The total number of references received under CDR till December 31, 2008 was 208 cases (aggregate debt: Rs. 90,888 crore), while the number of references increased by 56 cases (Aggregate debt: Rs 27,666 crore) post 2008, similarly there has also been jump in number of approved cases which has increased from 173 (Aggregate debt Rs. 84510) to 215 cases after December 2008. A Detailed industry wise break up of cases is appended hereto as Annex 1.

Since the institution of CDR mechanism it has proved to be beneficial for corporates for number of factors which make it viable for all the stakeholders to opt for procedure provided under the CDR system. The system appears to be attractive because of the following strengths:

- CDR system is a voluntary mechanism which is outside intervention, judicial or otherwise, and it is triggered only once the terms and conditions of the scheme are acceptable to both borrower and lenders.

- The system does not make it obligatory for all the lenders to accede to the scheme and the system also provides an exit route for lenders who wish to exit.

- There’s no requirement of the borrower’s account being an NPA or the borrower company being sick company under SICA or being in default for a specified period before reference to the CDR system.
• Another positive aspect of CDR mechanism for the borrowers is that the debts with high rate of interest can be transferred to lenders with a lower rate and potentially over prolonged payment terms.

• The interest of creditors under the “doubtful” category is protected because it is not binding on such creditors to take up additional financing.

• Providers of additional finance, whether existing creditors or new, have a preferential claim, over the providers of existing finance with respect to the cash flows out of recoveries, in respect of the additional exposure.

The CDR mechanism, though beneficial for the stakeholders, it is not without its limitations, some of which are discussed below in brief:

• One major deficiency in CDR mechanism is that the procedure provided under the system lacks transparency.

• Lead bankers have been provided a very major role in the whole process envisaged under the system due to which lead bankers are the ones who usually dictate the terms of the CDR Scheme.

• Stand-still clause is a very potent device for successful working of the CDR mechanism, but the lacuna which diminishes the efficiency of the stand-still clause is that it is not applicable to cover any criminal action but only civil action.

• Though the exit route has been provided in the mechanism it is available only so long as other institutional participants are prepared to buy out these loans.

• CDR mechanism is a multi-lender system and this it does not apply to borrowers having accounts involving only one FI or one bank.

Since the inception of CDR mechanism, it has shown some advantages and benefits for all the stakeholders; however, the system cannot be said to be a perfect mechanism for restructuring debt-ridden viable entities. There are some areas in which the following improvements may be considered in CDR and SME debt restructuring mechanisms:
• In addition to financial restructuring, more operational restructuring should be encouraged. Financial restructuring involves the evaluation of the business cash flow capabilities and determination of the optimum capital structure required to balance cash flow availability with debt service requirements. But the speed with which non-performing loans (NPLs) are getting resolved has been rapidly decreasing in individual countries. Once they are resolved through out-of-court workouts or other restructuring measures, a substantial proportion of NPLs have reverted to their non-performing status, and that new non-performing loans have been generated. Operational restructuring involves an increase in economic viability through methods such as merger integration, sale of divisions, rationalization of product lines and cost-cutting measures. It includes sale of noncore business and assets to reduce debt levels, large reduction of employment and production capacity, and changing the lines of business. Therefore, operational restructuring would lead to a better working of the debt restructuring mechanism.

• An individual bank may be allowed to settle its dues upfront based on discounted cash flows. The RBI scheme provides that basic objective of CDR should be revival of units, by increasing their production within a specific timeframe and, if necessary, by changing the management with government support.

• There is a need to provide super priority to any lender in post work-out schemes. In other words, in case of a stressed or impaired account if any, the lender provides any further finance for the revival of the account then such finance should have a priority over all other existing secured lenders. Such a statutory provision would encourage lending to such account and improve the prospects of turning around such stressed industrial units.

It can be asserted without doubt that the CDR mechanism resolves the financial difficulties of the corporate sector and enables entities to become viable. Other available options to restructuring may include re-financing or filing for bankruptcy. In practice, restructuring brings to the table the interests of the company along with those of the creditors. This is what sets restructuring apart from other creditor friendly approaches. This restructuring is multifaceted. It usually involves the waiver of part of interest or concessions in payment, or converting the
un-serviced portions of interests into term loans, re-phasing of recovery schedules, reduction in margins, reassessment of credit facilities including working capital, conversion of debentures into equity to give relief on the compulsory payment of interest on the debentures. In addition to these, often, additional finance may be sought for bringing about change in the working of the corporation. Nevertheless, the system has its share of deficiencies, which have been pointed above in this paper, and if the Indian government along with Industry could attack at these problem areas, CDR system could prove to be beneficial not just for lenders or borrowers but for economic system as whole.
### Annex I. Classification of Approval By Industry

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Industry</th>
<th>No.</th>
<th>Aggregate Debt (Rs. crore)</th>
<th>% of share</th>
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<tbody>
<tr>
<td>1</td>
<td>Iron &amp; Steel</td>
<td>25</td>
<td>36673</td>
<td>35.16</td>
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<td>2</td>
<td>Fertilizers</td>
<td>8</td>
<td>8454</td>
<td>8.11</td>
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<td>3</td>
<td>Textiles</td>
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<td>8.54</td>
</tr>
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<td>Petrochemicals</td>
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<td>5493</td>
<td>5.27</td>
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<td>5</td>
<td>Refineries</td>
<td>1</td>
<td>4874</td>
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<td>6</td>
<td>Cements</td>
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<td>4663</td>
<td>4.47</td>
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<tr>
<td>7</td>
<td>Telecom</td>
<td>7</td>
<td>5250</td>
<td>5.03</td>
</tr>
<tr>
<td>8</td>
<td>Sugar</td>
<td>20</td>
<td>5328</td>
<td>5.11</td>
</tr>
<tr>
<td>9</td>
<td>Power</td>
<td>7</td>
<td>3836</td>
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<td>10</td>
<td>Chemicals</td>
<td>13</td>
<td>2717</td>
<td>2.61</td>
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<td>11</td>
<td>Metals (Non-ferrous Metals)</td>
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<td>2171</td>
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<td>12</td>
<td>Electronics</td>
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<td>2132</td>
<td>2.04</td>
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<tr>
<td>13</td>
<td>Infrastructure</td>
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<td>5166</td>
<td>4.95</td>
</tr>
<tr>
<td>14</td>
<td>Pharmaceuticals</td>
<td>6</td>
<td>2130</td>
<td>2.04</td>
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<td>15</td>
<td>Paper/Packaging</td>
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<td>1199</td>
<td>1.15</td>
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<tr>
<td>16</td>
<td>Cables</td>
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<td>765</td>
<td>0.73</td>
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<td>17</td>
<td>Automobiles</td>
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<td>551</td>
<td>0.53</td>
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<tr>
<td>18</td>
<td>Auto Components</td>
<td>7</td>
<td>563</td>
<td>0.54</td>
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<td>19</td>
<td>Wood Products</td>
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<td>463</td>
<td>0.44</td>
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<td>20</td>
<td>Engineering</td>
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<td>0.44</td>
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<td>21</td>
<td>Ceramic Tiles</td>
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<td>22</td>
<td>Ship-Breaking</td>
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<td>176</td>
<td>0.17</td>
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<tr>
<td>23</td>
<td>Rubber</td>
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<td>167</td>
<td>0.16</td>
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<tr>
<td>24</td>
<td>Hotels</td>
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<td>26</td>
<td>Glass</td>
<td>2</td>
<td>82</td>
<td>0.08</td>
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<tr>
<td>27</td>
<td>Plastic</td>
<td>2</td>
<td>214</td>
<td>0.21</td>
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<tr>
<td>28</td>
<td>Retail</td>
<td>1</td>
<td>470</td>
<td>0.45</td>
</tr>
<tr>
<td>29</td>
<td>Battery</td>
<td>1</td>
<td>35</td>
<td>0.03</td>
</tr>
<tr>
<td>30</td>
<td>Other (Dairy, Jewelry)</td>
<td>4</td>
<td>779</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>215</td>
<td><strong>104299</strong></td>
<td><strong>100.00</strong></td>
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</table>
1. Introduction

Despite some debate regarding when industrialization in fact began in South Korea, considering the history of policies up to the present, one may posit that industrialization commenced in 1962, when the government initiated the Five-year Economic Development Plan.\(^1\) Since then, South Korea’s economy has developed rapidly; now, it is an industrially advanced country.\(^2\) South Korea had faced many crises during its development. Some crises came from the outside, such as the 1973 and 1979 oil shocks and the subprime mortgage crisis; some crises arose internally, such as excessive household debt or the 1997 Asian financial crisis.\(^3\)

Economic crises reduce the incomes of enterprises and households, thereby increasing the number of economic entities that are unable to pay their debts. Therefore, it is crucial to resolve the question of how to deal with excessive corporate and household debt during economic recovery. The answer can be either economic or legal. Economically,
increased income may resolve the excessive debt problem; legally, due
date extension or debt write-off may also resolve the problem. These
legal measures either directly or indirectly involve insolvency laws.
Extension of due or write-off of debts in insolvency proceedings is a
direct use of insolvency laws; a creditor’s private debt-settlement with
the debtor is an indirect application of insolvency laws.

Economic indicators indicate that South Korea has successfully over-
come the 1997 Asian financial crisis and the 2008 subprime mortgage cri-
sis. South Korea paid back all of its IMF loans ($19.5 billion) in less than
three years,4 making South Korea the first East Asian country to do so.
South Korea experienced a phenomenal enlargement of its foreign cur-
rency reserves after the crisis.5 Now, the adequate amounts of the reserves
and their efficient use have become major issues.6 South Korea is consid-
ered to be one of the countries that have dealt with the subprime mortgage
crisis most effectively,7 as indicated by its high GDP growth rate.8

4 South Korea paid back the balance of $140 million to the IMF on August
5 Annual International Reserves (In millions of US dollars)

<table>
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<tr>
<td>Amount</td>
<td>19.7</td>
<td>52.0</td>
<td>73.7</td>
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<td>154.5</td>
<td>198.2</td>
<td>210.0</td>
<td>238.4</td>
<td>261.8</td>
</tr>
</tbody>
</table>

6 Yeonho Lee, “An Empirical Study on Optimal International Reserves in Korea,”
*Korean Journal of Economics*, vol. 49, no. 2 (2001), at 5; Finance and Economy
Committee of National Assembly, Adequate Management and Risk management
of International Reserve (2004), Sang-In Hwang, “The Analysis of International
Reserves in Korea after Financial Crisis,” *Journal of Economic Development*
7 *Le Figaro* reported on November 18, 2009: “South Korean economy rose
to an annual rate of 2.9 percent in the third quarter. The world witnessed the
fastest economic recovery among OECD member states.” German *Handels-
blatt* reported on November 30, 2009 that South Korea overcame the global
financial crisis. It quoted an IMF official that many economic indices show
that South Korean economy has begun growing before the other countries.
The official also stated that South Korea made the most efficient and clear
recovery. *Financial Times* reported on February 25, 2010: “South Korea has
had a good crisis. While most other countries fell into recession or stayed off
collapse by putting themselves in hock, it is already back to robust growth.”
8 The table below shows GDP real growth rate of some OECD countries after
the subprime mortgage crisis of 2008.

(continued)
There can be many explanations for the success: political stability, national consensus to overcome the crisis, reasonable financial health capable of supporting government policies, and manufacturing competitiveness. It is also crucial to manage bad loans when attempting to overcome economic crises. Thus, if an economic crisis has been well managed, then the country has also succeeded in managing excessive bad debts. This article begins with an inquiry into South Korean measures to consolidate excessive debts and the conditions and limitations of those measures.

This article is composed of five parts. Section 2, which follows the Introduction, outlines the policy measures responding to the subprime mortgage crisis. It also includes comparison of the subprime mortgage crisis and the foreign currency crisis of 1997 and shows that the Workout was a policy measure applied to both cases with some variation. Section 3 explains the historical and economical background of the Workout, which was the government response to economic crises. Section 4 answers the questions of how the Workout has been evolved and whether the Workout is an efficient insolvency scheme. In the final section, the author compares the executive measures and judicial proceedings upon the economic crises and argues the Korean experience demonstrates the learning curve on the rule of law in the market, which is a key factor for successful restructuring and market economy.

2. Policy Measures in Response to the Subprime Mortgage Crisis

Overview

South Korea was not immune to the global crisis in 2008. External factors, aside from the general downturn of the global economy, such as the withdrawal of foreign capital and cancellation of foreign orders accelerated the crisis inside. Internally, South Korea suffered from a real estate bubble, investment overheating in construction and shipbuilding industries, and relatively short-term foreign loans.

<table>
<thead>
<tr>
<th></th>
<th>Korea</th>
<th>Australia</th>
<th>Canada</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Japan</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>4.8</td>
<td>4.2</td>
<td>2.5</td>
<td>1.8</td>
<td>2.6</td>
<td>1.9</td>
<td>2.0</td>
<td>2.9</td>
<td>2.0</td>
</tr>
<tr>
<td>2009</td>
<td>2.5</td>
<td>2.2</td>
<td>0.6</td>
<td>0.7</td>
<td>1.3</td>
<td>-0.7</td>
<td>-0.4</td>
<td>0.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Policy measures taken by the South Korean government can be summarized in three types. The first type is liquidity assurance. To prevent a liquidity crunch, the government allowed financial institutions to extend due dates for up to a year and provided 10.7 Trillion Won to financial institutions. The second is financial market stabilization. The government set up funds such as the Fund of Fund (10 trillion won), the Bank Recapitalization Fund (20 trillion won) and the Non-performing Asset Management Fund Bond (20 trillion won). The third type of policy measure is corporate restructuring.

Corporate restructuring was initiated by the Financial Supervisory Service (FSS). The FSS established the Corporate Credit Support Task Force, which is headed by its chairman. It employed a structured approach under the Corporate Restructuring Promotion Act (CRPA). The FSS also adopted a market-oriented approach through private equity funds and Korea Asset Management Corporation (KAMCO). The corporate restructuring program had two objectives: one was to assure the provision of money to non-ailing firms and the other was to promote a quick exit for ailing firms.

This program started with a credit assessment by creditor banks under the standard set by the FSS. After the assessment, the firms were classified into four categories: A, B, C and D. A means normal and B means temporary liquidity shortage. For A and B firms, creditor banks are in charge of financial support and are responsible for their survival. C means distressed and are subject to the Workout, a restructuring scheme under the CRPA. D means insolvent firms and is subject to either judicial insolvency proceedings, the rehabilitation proceeding or the bankruptcy proceeding.

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9 FSS is a governmental agency in charge of supervising financial institutions. http://www.fss.or.kr/
10 CRPA provides a structured debt rescheduling process among creditor financial institutions. Details are discussed below at 14.
11 Private equity funds were utilized to buy non-performing claims of ailing firms.
12 KAMCO is a government-owned corporation specializing in acquiring and disposing of non-performing loans issued by financial institutions. http://www.kamco.or.kr/eng/index.jsp
Corporate Restructuring in Target Industries

The assessment process was first implemented in target industry groups including construction, shipbuilding and shipping industries and then in other industry in general. Assessment in construction and shipbuilding industries was conducted twice, in January 2009 and in March 2009. In the 1st round of the assessment, 79 construction companies and 20 shipbuilding companies were classified as A or B. 11 construction companies and three shipbuilding companies were classified as C. Two construction companies were classified as D. BIS Ratio impact was -0.1 percent for commercial banks and -0.4 percent for saving banks. As for the second round assessment, 15 firms got C and 5 got D; however, the BIS ratio impact was minimal. No official report was made public regarding the credit assessment of the shipping industry.

The government took industry-specific measures to save firms. The construction industry received full protection on paid-in price by Korea Housing Guarantee Corporation (KHGC) through construction real estate investment trust as shown in Figure 1. The government allowed KHGC, a quasi-government agency, to provide guarantees to real estate investment trusts in order to protect construction firms from unsold apartment units.

Figure 1. Structure of Construction REITs

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Private fund vehicles were also introduced in order to facilitate private investment in real estate development. A typical scheme of a private fund vehicle is illustrated in Figure 2.

In order to provide cash to construction firms, the claims for construction costs were securitized through trustees, illustrated in Figure 3. Guarantees were given for international construction projects.

As for the shipbuilding industry, Korea Development Bank (KDB) offered the “Let’s Ship Together Fund” to facilitate the purchase of ships under construction. FSS also increased Loan to Value (LTV) ratio to allow more money to be poured into the shipbuilding industry. Some regulations were lifted under the Ship Investment Company Act for shipping companies.

Also, four trillion won worth of Shipping Fund was spent to purchase ships from ailing shipping companies.

**Corporate Restructuring in General Industries**

Risk assessment and following restructuring on industry in general was conducted by size starting from conglomerates. Forty-five big corporation
groups, of which credit facilities were more than 0.1 percent of total claims of financial institutions, were evaluated. As a result, nine cash-strapped groups underwent a debt rescheduling program as of June 1, 2009.

Large non-conglomerate firms underwent routine credit assessment under the CRPA; in June 2009, 22 firms were given C classification and 11 were classified as D, among 433 firms with credit facilities over 50 billion won. From July to October 2009, small and medium size enterprises (‘SMEs’) went through the assessment as well. 185 were classified as C and 102 were classified as D among 4,164 companies (40,734 in pool). Assessment and restructuring of smaller firms was followed; firms with credits facilities of 3 to 5 billion won in September, 2009 and 1–3 billion won in November, 2009.

Comparison of Economic Situations between 1997 and 2008

Ten years prior to the subprime mortgage crisis, South Korea experienced the 1997 Asian financial crisis, so-called “IMF Crisis.”

South Koreans call the Asian Financial Crisis the “IMF crisis.” On December 3, 1997, the government promised to follow the policies suggested by IMF in return for a relief loan. The media expressed lament about the loss of economic sovereignty, comparing it to the day Korea was colonized by the Japanese on August 29, 1910.
The nation suffered enormously during the “IMF Crisis” from unprecedented unemployment and insolvencies. When the subprime mortgage crisis swept the nation, many Koreans were still haunted by the memory of suffering during the 1997 crisis. On the other hand, the government could use what it had learned about crisis management during the previous crisis. In order to gain a comprehensive understanding of the Korean crisis management policy, it is helpful to compare the crisis management policies of 2008 to those of 1997.

Table 1, which compares major economic indicators between 1997 and 2008, shows that the economic situation in 1997 was much more severe than that of 2008. During the 1997 financial crisis, however, global economy was not as bad, so South Korean products had good sales in the global market, which was not the case during the subprime mortgage crisis of 2008.

Most importantly, the South Korean government handled the situation under the subprime mortgage crisis without borrowing money from the international financial institutions, whereas the IMF loan was

<table>
<thead>
<tr>
<th>1997</th>
<th>Major Economic Indicators</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>376.31</td>
<td>KOSPI</td>
<td>1,124.47</td>
</tr>
<tr>
<td>25.0%</td>
<td>Interest Rates of Certificates of Deposit</td>
<td>3.9%</td>
</tr>
<tr>
<td>1415.2</td>
<td>Foreign Exchange Ratio</td>
<td>1257.5</td>
</tr>
<tr>
<td>USD 20.41 Billion</td>
<td>International Reserve</td>
<td>USD 201.22 Billion</td>
</tr>
<tr>
<td>7.04%</td>
<td>Bank’s BIS Ratio</td>
<td>12.31%</td>
</tr>
<tr>
<td>6.0%</td>
<td>Non Performing Loan Ratio</td>
<td>0.86%</td>
</tr>
<tr>
<td>424.6%</td>
<td>Corporate Debt Ratio</td>
<td>130.6%</td>
</tr>
<tr>
<td>1.2</td>
<td>Interest Coverage Ratio</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Source: FSS Press Release on July 30, 2009. As of the end of 1997 and 2008. KOSPI is the Korea Stock Price Index. The Foreign Exchange Ratio is the exchange rate of the Korea Won per US Dollar. The Interest Coverage Ratio is business profits divided by financial costs.
a critical measure in overcoming the 1997 crisis. Therefore, it was possible to implement measures without considering external pressure during the subprime mortgage crisis.

When the foreign currency crisis hit the nation in late 1997, the South Korean government took policy measures that appeared contradictory. It raised the interest rate to push financially ailing firms off the market; but at the same time, the government provided assistance, such as big deals, insolvency postponement scheme, cooperative loans program, and among others, the Workout.

**Big Deals**

Since the foreign currency crisis in 1997, the government tried to reduce insolvencies by doing mergers between duplicate industries among chaebols. These measures are called the Big Deals. The Big Deals consolidated excessively invested markets into a single company in order to reduce competition and to improve the company’s financial structure. It was a measure to boost the companies’ competitiveness through selection and concentration. It is not different from the industry rationalization policies in the 1970s and the 1980s that resulted in cartels between competing companies to solve redundancy and over-investment problems in the heavy chemical industry.

It is remarkable that those merger deals were decided by the government and high-profile politicians, instead of a bargaining process among the companies. Companies selected to be bought out tried to influence the government to prevent being bought out. The companies fought over the leadership if a new independent firm was formed as a result of the merger. Table 2 shows the progress of the Big Deals. It is apparent that the government or politicians were not over the old habit of the Industry Rationalization Plans.

14 The Big Deals were resolved at the Dialogue of Government and Business Circle in July 1998 under the strong demand of the president Kim Dae Jung.
Table 2. The Progress of the Big Deals

<table>
<thead>
<tr>
<th>Industry</th>
<th>Big Deal Plans</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiconductor</td>
<td>Hyundai Electronics + LG Semiconductor</td>
<td>Acquisition by Hyundai</td>
</tr>
<tr>
<td>Generating Plant</td>
<td>Hyundai Heavy Indus. + Hankook Heavy Indus. + Samsung Heavy Indus.</td>
<td>Acquisition by Hankook Heavy Indus.</td>
</tr>
<tr>
<td>Petrochemical</td>
<td>Hyundai Petrochemical + Samsung Petrochemical</td>
<td>Unsuccessful</td>
</tr>
<tr>
<td>Aircraft Manufacturing</td>
<td>Samsung Aero Indus. + Daewoo Heavy Indus + Hyundai Space Aero</td>
<td>A new entity established</td>
</tr>
<tr>
<td>Railroad Car</td>
<td>Hyundai Precision + Daewoo Heavy Indus. + Hanjin Heavy Indus.</td>
<td>A new entity established</td>
</tr>
<tr>
<td>Ship Engines</td>
<td>Hankook Heavy Indus. + Samsung Heavy Indus.</td>
<td>A new entity established</td>
</tr>
<tr>
<td>Oil Refinery</td>
<td>Hyundai Refinery + Hanwha Energy</td>
<td>Acquisition by Hyundai</td>
</tr>
</tbody>
</table>

Insolvency Postponement Agreement

Since the insolvency of Hanbo Group\(^{15}\) in 1997, the public’s concern that there would be a domino effect grew. So the government introduced a new protective tool for companies that were suffering from temporary financial difficulties. On March 24, 1997, chief executive officers of commercial banks agreed to rescue financially sound companies from collapsing as a result of fund shortages based on a rumor about insolvency. On April 14, CEOs from 10 banks consented to form the Consultative Body of Financial Institutions for the Normalization of Business Firms.\(^{16}\) On April 18, CEOs from 35 banks gathered to sign the Agreement among Financial Institutions to Promote Normalization of Ailing Firms and to ensure Efficient Disposition of Non-Performing Loans (‘Insolvency Postponement Agreement’). Even though the agreement was purportedly

\(^{15}\) Hanbo group was the 14\(^{th}\) largest conglomerate in total sales volume when it went bankrupt in 1997.

\(^{16}\) This body was the first organization among financial institutions for handling non-performing loans and restructuring of debtor firms.

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self-induced by financial institutions, it was actually designed by the government.

The thrust of the agreement was to postpone the declaration of non-payment of notes, which resulted in the ban on bank transactions. Creditors also offered emergency funds. It opened the possibility for an ailing company to recover and normalize during the breathing spell, if it showed some potential. On April 21, 1997, Jinro Group\(^\text{17}\) was selected as the first target for the agreement, followed by Daenong group\(^\text{18}\) in May and Kia Group\(^\text{19}\) in July. From April to October, this Agreement was applied to a total of 25 companies; however, only one company, Saman Corporation, succeeded in reviving. Among the other 24 companies, eight companies\(^\text{20}\) filed for the corporate reorganization proceedings. The remaining 16 companies applied for the composition proceedings. Moreover, when the IMF asked the abolition of this scheme on December 5, 1997, it became more difficult to maintain the Insolvency Postponement Program and it disappeared after December.

**Cooperative Loans Program**

In October 1997, the government introduced a new measure, “Cooperative Loan Program,” to protect the national economy from the disastrous impact of a potential bankruptcy by big companies. If the Insolvency Postponement Agreement focused on reviving ailing companies on the verge of bankruptcy, the Cooperative Loan Program intended to aid companies suffering from temporary financial difficulties. Banks were already offering partial syndicate loans. However, it lacked enforcement so that it was difficult to unify opinions inside creditor banks. So, the government tried to systematize the measure.

Starting from 50 billion won for Jinro in July 1997, a total of 3.4 trillion won was poured into 15 groups. However, normalization of those companies took more time than expected and additional aid was

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\(^{17}\) Jinro group was the 19th largest conglomerate in total sales volume in 1997.

\(^{18}\) Daenong group was the 35th largest conglomerate in total sales volume in 1997.

\(^{19}\) Kia group was the 8th largest conglomerate in total sales volume in 1997.

\(^{20}\) Kia Motors, Asia Motors, Daenong Corp, Daenong Heavy Industry, and Midopa.

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continuously needed. Therefore, the government and financial institutions understood that the Cooperative Loans Program were not sufficient to ease the difficulty.

3. The Workout

When big corporate firms continued to stay on the verge of bankruptcy in spite of the Insolvency Postponement Program and the Cooperative Loans Program, the government initiated a non-judicial restructuring program to save failing firms and, eventually, financial institutions. As the government worried about banks going bankrupt, which may result from massive bankruptcy of ailing business firms, a program which could prevent ailing firms from being put into judicial insolvency proceedings was required. The Workout program, which started in June 1998, was based on the Workout Agreement\(^{21}\) formed by all 210 domestic financial institutions. The agreement and its related rules specified the details of the process, standards of decisions, and even penalties making the Workout program a binding restructuring scheme. FSS in effect assumed a central role in establishing and implementing the Workout. Many large firms, including corporate groups, went under the Workout instead of judicial proceedings.\(^{22}\)

In 1998, 104 firms were selected as target firms of the Workout, out of which eight firms were dropped, and the Workouts commenced against 96 firms. As of 2003, 44 firms graduated from the Workouts, 14 firms were under self-implementation, 7 firms were under the process and 18 firms unsuccessfully completed the Workout.

The total claims filed for the Workout in 1998 amounted to one quadrillion and 37 billion won, among which claims against Daewoo

\(^{21}\) The official title of the agreement was “Financial Institutions Agreement for Promotion of Corporate Restructuring.” The agreement expired in 2000.

\(^{22}\) After the 1997 financial crisis, corporate restructuring had been conducted in a different way depending on the size of the firm. Five of the largest corporate groups entered agreements for the improvement of financial structure based on voluntary negotiation. Six to sixty-four of the largest groups were subjected to the Workout, if necessary. Small and medium size enterprises were restructured and financially supported by individual financial institutions. Since 2000, the Workout has been applied to firms with debt of more than fifty billion won.
The debt payment was delayed for 69 percent (719 trillion won) of that amount and 17.6 percent (182 trillion won) went for the conversion to equity. Considering that usually over 30 percent of claims were converted to equity investment in the judicial reorganization proceedings, the Workouts had relatively low conversion to investment rate.

**Comparison of Policy Measures between 1997 and 2008**

There are significant similarities between policy measures taken in 1997 and in 2008. During both crises, the executives showed clear and strong intention of taking the initiative. FSS was in charge of corporate restructuring and the Workout was a major tool of government-initiated corporate restructuring programs in both crises. As the Workout is a restructuring scheme among financial institutions, FSS has a voice in the Workout as a financial supervisory agency over financial institutions.

The Workout, however, had a different scope and nature during the two crises. The Workout during the 1997 crisis was implemented under the direct guidance of FSS without any statutory basis: it was only based on the workout Agreement for all domestic financial institutions, which was signed as a result of the urging of FSS on June 28, 1998. The secretariat of Corporate Restructuring Commission was located in

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the building of FSS and most high officers of Corporate Restructuring Commission came from FSS.

The Workout upon the subprime mortgage crisis was implemented based on the Corporate Restructuring Promotion Act (CRPA). Intervention of FSS was rather indirect in the sense that target firms were selected pursuant to the standard which was established in the process of financial supervision by FSS. Although it has been observed that FSS put its nose into the selection of target firms and decision making on the Workout plans in some cases, the scope of such intervention seemed to be limited to big firms and the degree of the intervention less strong.

The Workout during the 1997 crisis focused mainly on large firms, including conglomerates, such as the DAEWOO group. Most SME insolvency cases underwent judicial proceedings. The Workouts for SMEs started in 2000, when the Workouts for big firms decreased. During the subprime mortgage crisis, however, the Workout for SMEs became a routine process in handling non-performing loans of financial institutions. For example, IBK, which specializes in providing loans to SMEs, has more than 1,000 Workout cases for SMEs. This appears to be the reason why the number of judicial insolvency cases for business corporations did not increase as expected, even though the total number of judicial insolvency cases has increased as showed in Table 4.

In both crises, the Workout played the main role in corporate restructuring. Even though the Workout of 1997 and 2008 vary in

### Table 4. Number of Judicial Proceedings

<table>
<thead>
<tr>
<th>Year</th>
<th>Rehabilitation</th>
<th>Bankruptcy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corporation</td>
<td>Individual</td>
</tr>
<tr>
<td>2006</td>
<td>78</td>
<td>42</td>
</tr>
<tr>
<td>2007</td>
<td>117</td>
<td>103</td>
</tr>
<tr>
<td>2008</td>
<td>365</td>
<td>229</td>
</tr>
<tr>
<td>2009</td>
<td>670</td>
<td>521</td>
</tr>
</tbody>
</table>

Source: Supreme Court of the Republic of Korea.

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23 The former Industrial Bank of Korea.

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detail, they were largely similar in that they are both extra-judicial creditor-led procedures. The reason why the phenomenon occurred will be discussed further in the next section.

4. Backgrounds of Government Intervention

Insolvency Schemes of Korea

In most countries, restructuring of ailing firms is conducted through negotiations between creditors and debtors during the initial stages and through judicial insolvency proceedings in later stages. The government may provide some aid to restructuring through bailout loans, government guarantee or tax aid in certain cases.

Figure 4 illustrates the current insolvency scheme in Korea.24 Foreclosure is a typical measure of civil enforcement, which is regulated by the Civil Enforcement Act. As is the case in other countries, Korea has judicial insolvency schemes including the bankruptcy proceeding and the rehabilitation proceeding in addition to foreclosure process in non-insolvency situations. The bankruptcy proceeding and the rehabilitation proceeding are traditional procedures for liquidation and reorganization, respectively. The Debtor Rehabilitation and Bankruptcy Act (DRBA) of 2006 governs these insolvency proceedings.25 Individual debtors can apply for a separate proceeding called the individual rehabilitation proceeding.

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24 Figure 4 also supports the assertion that bankruptcy, reorganization, Workout and voluntary rescheduling can be implemented only if each proceeding assures better outcomes to creditors and debtors than other proceedings below.

Figure 4 also shows another distinctive feature of Korea in insolvency schemes—government intervention. Most governments are tempted to intervene into insolvency situation of some business firms for various reasons, including the economic or political importance of firms, unemployment management, or the personal interests of decision makers. In most cases, government intervention is limited to a certain firm or industry for a certain period of time. But that is not the case in South Korea.

Policy Measures over Farmers’ Debts

The list of government intervention cases is quite lengthy, even before the 1997 crisis. The first instance was the intervention intended to manage farmers’ debts through high interest rates. In 1959, the government provided funds to replace the personal loans with high interest rates with moderate rates. Since then, measures to swipe high-rates loans with low-rates loans were repeatedly taken. The funds for

26 The Workout, introduced in 1988, is another example of government intervention. The Workout, however, became a statutory insolvency proceeding when CRPA I was enacted in 2001. Although the government still has some control over the practice, it is fair to put it in the category of statutory insolvency proceeding, which is out of direct government intervention.
farmers and fishermen were formed and were continuously supplied with low interest rates. The interest rate was lowered and the repayment date was extended for the return of late policy loans till now. Until recently, farmers’ debts were not regarded as ones which were to be subject to judicial insolvency proceedings. The fact that a bill was submitted lately to the National Assembly to write off debt of farm households through the insolvency proceedings shows the general awareness that it is no more expectable for the government to solve the debt problem.

Policy Measures over Ailing Firms in 1969

In the late 1960’s, the government faced the situation in which several big firms were on the edge of bankruptcy. It was the first time in Korea that the government saw an insolvency issue as a national agenda. The government saw the situation from the perspective of industrial policy and decided which firms should be saved and how. A task force was established at the Blue House and made its decision regarding about 100 ailing firms. Between 1969 and 1971, there were three instances of clear-outs: 30 ailing firms in 1969, 56 in 1970, and 26 firms in 1972. The task force decided whether to continue to provide loans or not. The Korea Development Bank and other major banks took charge of providing rescue loans to ailing debtor firms under instructions by the task force. In rare cases, the task force had some firms undergo the corporate reorganization proceeding.

Presidential Order of August 3, 1972

The Korean economy was heavily dependent on exports. The downturn of the world economy caused by the abolition of the U.S. gold standard in 1971 had a direct and serious impact on the Korean economy. Most firms were burdened by high interest rates. On August 3, 1972, the President issued the “Presidential Emergency Order for Economic Stability and Growth” of August 3, 1972 (“August 3rd Order”) pursuant to Article 73 of the 1969 Constitution.27 The order

27 Article 73 of the Constitution of 1969: “(1) In case of internal turmoil, external menace, natural calamity or a grave financial or economic crisis, the President may take minimum necessary financial and economic actions or issue,
had the same binding force as a statute enacted by the National Assembly. The order required each debtor firm to report its debt from lenders who were not financial institutions to the tax authorities and banned loan repayment. Reported debts were exchanged for claims with 8 percent annual interests, which were to be repaid for 5 years after 3 years deposit. In those days, average interest rates between debtor firms and money lenders were over 2 percent a month.

The August 3rd Order resulted in a nation-wide stay over claims by private money lenders, the main source of loans in the country, who were notorious for their high interest rates. It dramatically illustrated the approach of the government toward insolvency issues. In the era of economic development, the fall of large firms was evil and the government was deemed to have such authority to adopt any measures to save ailing firms.

**Industrial Rationalization Measures**

Policy measures for restructuring targeting ailing large companies and major industries was undertaken under the Industry Rationalization Measures from early 1970’s to late 1980’s. When a certain industry or corporate group was in danger of bankruptcy, the government established and implemented Industrial Rationalization Measures. After assessing insolvent industries or companies, the government decided

in this regard, orders having the effect of Act, only when it is required to take urgent measures for maintenance of national security or public peace and order, and there is no time to await convening of the National Assembly. (2) In case of grave state of hostilities affecting national security, the President may issue orders having the effect of Act, only when it is required to preserve the integrity of the nation, and it is impossible to convene the National Assembly. (3) If the President has taken any action or issues any order pursuant to paragraphs (1) and (2), he/she shall promptly notify it to the National Assembly and obtain its approval. (4) If the President failed to obtain the approval as referred to in paragraph (3), the action or the order shall lose effect forthwith. In such case, the Acts which were amended or abolished by the order in question shall automatically regain their original effect at the moment the order failed to obtain approval. (5) The President shall, without delay, put the developments under paragraphs (3) and (4) on public notice.”
whether to allow the company to stay in the market, so that it could offer extensions, debt-exemption, relief loans or tax benefits. The Industry Rationalization Plans were employed four times—in 1972, 1982, 1984 and 1986.28

The Presidential Emergency Order on August 3, 1972 offered financial aid to 61 industries that were chosen under the Industry Rationalization Plan tried to improve facilities, systemize, merge or be bought out, improve financial structures or develop new technologies.

Excessive focus on heavy and chemical industries since the late 1970’s led to over-investment and weakened the overall financial health of those industries. The government aimed to ameliorate redundancy and over-investment in the industries through mergers or manufacturing specialization. During the investment control period, governmental support continued through relief loans and financial relief packages in 1982. The government saved target firms from bankruptcy by the provision of rescue loans, tax-cuts and reduction in competition, all under the name of Industrial Rationalization Measures. Industrial Rationalization Measures were adopted again in the 1980’s when shipping and overseas construction industries were in danger of bankruptcy.

From 1984 to 1985, the government implemented Depressed Industry Rationalization Measures. These measures were applied to the shipping industry and overseas construction industry; companies in these industries were subject to merger or third-party takeover. The government provided support if these firms took the designated measures. The words “rescue loans” became popular in those days.

Table 5. Industrial Rationalization Measure

<table>
<thead>
<tr>
<th>Period</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>61 Industries</td>
</tr>
<tr>
<td>1982</td>
<td>Heavy and Chemical Industries</td>
</tr>
<tr>
<td>1984-1986</td>
<td>Shipping and Overseas Construction Industries</td>
</tr>
<tr>
<td>1986-1988</td>
<td>57 Firms, Shipping and Overseas Construction Industries</td>
</tr>
</tbody>
</table>

28 Some literature put the policy measures on ailing firms from 1969 to 1971 in the category of Industrial Rationalization Measures.
From 1986 to 1988, the government divided insolvent companies into two groups: individual insolvent companies and companies subject to rationalization. Out of 57 individual insolvent companies, 49 companies were subject to rationalization under “Tax Reduction Act” and eight companies were subject to third-party takeover. And 21 companies were taken care of as rationalization measures by industry to complement rationalization of shipping and oversees construction rationalization.

The Industry Rationalization Measure was not taken after the 1990’s because of political opposition. Also, there was certain pressure for the government to engage each company directly and openly. However, financial aid in the form of relief loans appeared sporadically after this period.

**Background of Government’s Intervention**

The reasons for such government intervention can be found in South Korea’s economic development strategy. The government has always led economic development in South Korea: the government decided where to invest, who manages the firms, and how to fund financial projects. This approach reappears in the debtor and creditor relationship. The government decided to handle bad debts of distressed corporations from the industrial policy perspective. In other words, the government regarded the foreclosure of large companies to be a failure of its industrial policy.

Intervention was possible because the government substantially controlled most financial institutions. While implementing the economic development plans, the government had control over the governance of most financial institutions, including banks, so that the banks could finance bailouts. In this so-called government-led banking, the government practically plays the role of a creditor.

### 5. Evaluation of the Workout

As mentioned earlier, the South Korean government has experience with solving the issues of distressed companies (especially large

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companies) by government intervention since 1960. Therefore, few Koreans found government intervention during the 1997 financial crisis or the 2008 subprime mortgage crisis disturbing. The Workout is just an extension of the past industry rationalization process in a varied form. In the following section, the characteristics of the Workout are analyzed in order to determine whether it was more effective than judicial insolvency proceedings.

The London Approach

The South Korean government explained to the public that the Workout was something similar to the London Approach.\(^{30}\) In the mid 1970s, Britain’s inflation and unemployment rose, causing companies serious financial difficulties. Banks directly engaged companies’ restructuring to deal with bad debts. However, the attempt was not very successful because they lacked experience and the insolvency law was inadequate. The Bank of England took the role of a proactive mediator. Its role was to facilitate a dialogue between creditor banks. Even though there was no legal base for the Bank of England to participate in restructuring, it was broadly accepted by the general trust about its independency, discretion and fairness.

After 1989, the United Kingdom experienced another recession because financial institutions ran short-term bonds to protect capital and which resulted in serious liquidity crisis for companies. Then, the Bank of England participated again in corporate restructuring. This process is known as the London Approach. The biggest feature of the London Approach was voluntary participation by the creditor banks, while the Bank of England participated minimally. Due to financial liberalization, many foreign financial institutions became creditors. Thus, it was both controversial and practically impossible to give aid to specific entities, such as large domestic banks.

In the early 1990s, the Bank of England was involved in 160 workouts and helped out by advising on restructuring schemes, if creditor banks requested assistance. If the creditor bank did not want the help,

the Bank of England would not intervene. In fact, creditor banks often executed workouts independently. Even though the Bank of England did not exercise legal enforceability during the workouts, it played the role of a mediator through its moral authority.

Under the London Approach, the workouts occurred extra-judicially and creditors made decisions unanimously while debtors continued to conduct business. The debtor company continued to deal with and negotiated with creditor banks. CPAs independently decided whether the indebted companies were viable. The indebted company exchanged information and documents with creditors. Main creditors and debtor companies discussed whether to continue long-term aid and under what conditions. To facilitate the discussion, a bank would function as a representative; sometimes a joint conference of creditors would be held to decide important issues. If companies suffered from lack of liquidity, creditor banks would lend more funds. The discussions led to business solutions, such as due extension, additional funds or, if necessary, even the change of board of directors, asset sales, and takeover.

The London Approach is different from the Korean Workouts in two respects. One is the role of the financial supervisory authority. In the London Approach, the Bank of England created an opportunity for all creditors to gather and give neutral opinions and make requests, whereas in the South Korean Workouts, the Financial Supervisory Service (FSS) took the lead in assessing the financial health of the debtor companies and in planning during the 1997 crisis or at least urged financial institutions to decide which firms should undergo Workouts during the 2008 crisis. It is not unusual for the FSS to express its opinion to financial institutions about a certain issue, including the details of the Workout Plans or voting of a creditor bank. Considering the dynamics between the government and financial institutions, it was difficult for creditor financial institutions to make the decision with which the FSS did not agree.

Another difference between the programs was procedural structure. The London Approach did not require a particular style or sequence in negotiation for restructuring between a debtor firm and creditor banks or between banks. The process differed depending on the circumstances of each case. The details of the Korean Workout, however, were established in detail by the Workout Agreement or CRPA.
these reasons, it is not fair to say that the Workout was similar to the London Approach. Rather, the Workout had the spirit of the Industrial Rationalization Measure and structure of an insolvency proceeding wearing a hat of the London Approach.

**Comparison of Workout and Judicial Rehabilitation Proceeding**

The Workout was born in the aftermath of 1997 crisis by econocrats. They either did not have faith in the capacity of the courts to handle big failing firms or did not want to give up their control over them. Although the Workout process is similar to that of the reorganization proceedings, the Workout is an insolvency proceeding independent of judicial proceedings. It is helpful to compare its principles with those of judicial proceedings—particularly, the rehabilitation proceeding. The Workout has some crucial differences with the rehabilitation proceeding. First difference is the automatic stay. When a main bank calls for a meeting of creditor financial institutions, member financial institutions are not allowed to exercise their claims. The scope of automatic stay upon the call for the meeting is more extensive than those under the U.S. Bankruptcy Code as there is virtually no exception to or relief from the stay in the Workout. The automatic stay, however, is not allowed under the DRBA. Secondly, the board of directors principally maintains control even after the Workout has begun. It is highly similar to debtor-in-possession (DIP) in the U.S. Bankruptcy Code. In the judicial rehabilitation proceeding, the authority to dispose and manage debtor’s business is vested in the receivers appointed by the court. Third difference is protection of the debtor’s guarantor. In the Workout, creditor financial institutions do not exercise their claims against the debtor’s guarantor. In the judicial rehabilitation proceeding, however, guarantors receive no protection.

As a matter of fact, these three measures are very attractive to debtor companies, so there was an effort to embrace them in the judicial insolvency proceedings, while the new insolvency law (DRBA) was drafted. And it is somewhat ironic that the very econocrats who

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31 When the workout was introduced in 1998 and CRPA I was enacted in 2001, the judicial proceedings for rehabilitation were the corporate reorganization proceeding and the composition proceeding. When CRPA II was enacted in 2007, the DRBA provides one rehabilitation proceeding.

32 CRPA Article 9 (Suspension of Exercise of Rights to Claims).
designed the Workout, which employed these principles, ardently opposed the adoption of those measures into the DRBA.

The Evolution of the Workout

The Workout has evolved during the last ten years. When it was first introduced in 1998, it was based on the Workout Agreement among domestic financial institutions. The lack of statutory grounds hindered the efficacy of the Workout program, and legal disputes were inevitable. As foreign financial institutions were not bound by the Workout Agreement, they insisted on more repayment than that to domestic financial institutions. To overcome such deficiencies in the Workout resulting from lack of statutory grounds, the government enacted the CRPA in 2001 (CRPA I)\(^{33}\) to give statutory grounds to the Workout program. The CRPA I contained almost the same or even somewhat more elaborate contents than the original Workout Agreement. Twenty-five companies newly underwent the workout program under the CRPA I, officially called a bank administration process.

After CRPA I expired in 2005 as scheduled, financial institutions established a voluntary agreement that carried provisions replicated from the CRPA I. Six big firms went under the Workout process based on this voluntary agreement among creditor financial institutions between 2005 and 2006.

In 2007, the Ministry of Finance and Economy succeeded in reenacting CRPA II, bearing almost the same content as the CRPA I. The current CRPA II provides rules on management procedures of creditor financial institutions or main creditor banks of ailing firms. It is fair to say that the CRPA II, which institutes an insolvency procedure, is a non-judicial insolvency process in Korea.

The Workout consolidated its position as the new leading insolvency procedure while its legal founding moved from agreements to legislation, and to agreements and then again to legislation. When the Workout was introduced, even the econocrats who initiated the procedure thought it would be temporary. The fact that CRPA I and CRPA II were both

\(^{33}\) In order to distinguish CRPA of 2001 and CRPA of 2007, this paper refers to CRPA of 2001 as CRPA I and CRPA of 2007 as CRPA II.

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enacted with expiration date attests to this fact. However, the creditor financial institutions were more favorable to this system. Moreover, the opposition diminished. Thus, the econocrats are now preparing to enact the law permanently, as it is expected to expire at the end of 2010.

The targets of the Workout also show how the Workout has evolved. When it was introduced in 1998, it was applied to only 64 corporate groups. However, from 2000, the limit of application expanded to those companies whose total credit is more than 50 Billion won. This standard was specified in CRPA I. As a matter of fact, the Workout is applied to almost all debtor companies because they are subject to debt adjustment procedure under financial institution agreement, which is practically identical to the Workout. Meanwhile, only domestic financial institutions were subject to the Workout in 1998, whereas the scope of the CRPA I and CRPA II expanded to include financial institutions doing business in the country.

The government’s role with regard to the Workout has also evolved. In 1998, the FSS led the Workout so that the Corporate Restructuring Coordination Committee (CRCC) was formed in FSS and employees from the FSS were handling the Workout for each company. However, when the corporate restructuring was almost completed after the financial crisis of 1997, the FSS became a mere guardian. The CRCC was abolished and the Conciliation Committee of Financial Institution was newly established to settle disputes among financial institutions. The Korean Financial Investment Association, General Insurance Association of Korea, Korea Chamber of Commerce and Industry, Korea Institute of Certified Public Accountants, Korean Bar Association and Korean Federation of Banks recommended the members of the Committee. Generally, a former FSS executive was appointed as its chairperson.

There are more reasons that the Workout is more favorable to creditor financial institutions than the rehabilitation procedures. First, while creditor financial institutions play a leading role in drawing the plan in the Workout, creditor financial institutions have a very limited role in the rehabilitation procedure because the administrator and the court take the lead. Second, in rehabilitation procedures, the credit is frozen during the repayment period (ten years maximum) and is to hurt asset soundness. Third, it is normal that there is debt exemption in rehabilitation procedure whereas creditor financial institutions are not very fond of it.
The evolution aimed to reduce governmental intervention and increase initiatives by creditor financial institutions. Until 1998, Korean financial institutions did conduct restructuring. The Workout changed this by paving the path for financial institutions to restructure voluntarily. It is very important to eliminate the involvement of the government in restructuring and insolvency process because the intervention of the government inevitably distorts the fair allocation of resources.

Even if the Workout becomes a voluntary restructuring process, a workout in its daily expression, there remains a question whether the Workout is an efficient scheme for restructuring.

Efficiency of the Workout

The most important issue is whether the Workout is an efficient restructuring scheme. The author conducted empirical research in order to assess the performance of the Workout. The followings are the summary of those findings.

Expediency of Proceedings

From the beginning till the completion, the Workout took 4.77 years and the reorganization proceeding took 4.77 years. So there is no statistically significant difference (p = 0.859). The composition proceeding took 6.18 years, which is longer than the time required for the Workout or the reorganization proceeding (p = 0.002). This result disproves the argument that the Workout is much faster than the reorganization proceeding. It shows that the courts’ effort to conclude proceedings promptly is actually working. Also, the Workouts take as much time as the reorganization proceedings, even though the Workout has a systematic, majority-led debt adjustment procedure. Therefore, the efficiency of the Workout is cast in doubt.

35 The full version of this empirical research was published at “A Study on Workout (Corporate Restructuring),” Commercial Law Review, vol. 24, no. 4 (Korea Commercial Law Association, 2006). The sample of research was 38 Workout firms, 29 reorganization firms and 20 composition firms, which were listed firms in the Korean Securities Exchange during between 1997 and 2004.
Maintenance of Business

Workout gives another chance to ailing companies that show some signs of viability. Thus, it is helpful to know how many ailing companies have actually turned around. Among 60 listed companies that were subject to the Workout, 38 of them have totally normalized, 11 were suspended, and 11 were delisted. The revival rate for the Workout is higher than the revival rates for companies that underwent other procedures. It is because companies that are subject to the Workout had sounder financial status than companies that underwent liquidation or composition. After the Workout was introduced, most companies which were eligible for the Workout were put into the workout instead of the judicial insolvency proceedings.

Table 6. Status of Cases

<table>
<thead>
<tr>
<th></th>
<th>Concluded</th>
<th>Suspended</th>
<th>In Process</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workout</td>
<td>38 (63%)</td>
<td>11 (18%)</td>
<td>11 (18%)</td>
<td>60 (100%)</td>
</tr>
<tr>
<td>Reorganization</td>
<td>29 (50%)</td>
<td>10 (17%)</td>
<td>19 (33%)</td>
<td>58 (100%)</td>
</tr>
<tr>
<td>Composition</td>
<td>20 (54%)</td>
<td>7 (19%)</td>
<td>10 (27%)</td>
<td>37 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>87 (56%)</td>
<td>28 (18%)</td>
<td>40 (26%)</td>
<td>155 (100%)</td>
</tr>
</tbody>
</table>

Restructuring processes other than a liquidation type bankruptcy mean to share the going concern value of the indebted company. When the debtor cannot repay its debt, the creditor will obtain the whole or part of future values in exchange of credit exemption or postponement of payment. Some debts might be discharged, but others would be exchanged to equity, in which case the creditor might acquire some or the whole future value of the company.

Table 7 illustrates the change in major shareholders among the listed companies that underwent the Workout, the reorganization proceeding and the composition proceeding, respectively. During the Workout, 33 companies out of all 48 saw change in major

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36 This chart is based on the “major shareholders’ status” in the business report disclosed by each company. If the report lacked information or was unclear about it, the information was obtained directly or left “unspecified.”
Corporate Restructuring During Crises in South Korea

shareholders; but in reorganization proceedings, major sharehold-
ers changed for 43 companies out of 45. Reorganization emphasized
sale of enterprises to third parties. The Court had receivers dispose
dispose
of reorganized companies. Thus, in the reorganization proceeding, it
was very common to use measures such as amortization of outstand-
ing stocks, third party acquisition of new stocks, and debt-for-equity
swap. However, in the Workout, it was very important for indebted
companies to maintain liquidity. This also shows that enterprises
that were subject to the Workout were in better shape than those that
underwent the reorganization process; it also explains that the Work-
out was helpful for the major shareholders to protect their control
over the company.

If a listed company satisfies the listing requirement, the company is
considered to be running normally. Only 28 percent of Workout com-
panies were delisted which is lower rate than companies that under-
went reorganization or the composition process. It is because those
companies have relatively healthier financial health so that it is easier
to maintain the business.

**Financial Situation**

Financial statements of listed companies that filed for Workout, the
reorganization proceeding or the composition proceeding were used
to assess change in financial status between 1997 and 2004. There were significant differences in business profits at the time of the beginning and the completion. As of the time when the process began, the average profit of the companies under the Workout was 28.1 billion won whereas the companies under the reorganization proceeding had lost 10 billion won. And the companies under the composition marked 3.3 billion won (p = 0.040).

However, the situation turned by the time of completion. The companies that completed the reorganization proceeding reported profits of 30 billion won, whereas the Workout companies reported 13 billion won and composition companies reported only 5.2 billion. The reorganization companies grew even more through the reorganization proceeding, reporting 40 billion won of additional growth. However, the Workout companies lost 15 billion won and composition companies reported growth in business profits of 1.9 billion won.

The difference permits a holistic understanding of the result of restructuring. If reorganized companies performed far better than those that completed the Workout, it means that the restructuring in the reorganization proceeding was much more effective. Until now, the advocates of the Workout criticized the reorganization proceeding because the Workout reduces the company’s value by handicapping the business. However, the statistics point in the other direction.

37 Financial statements before and after the process commenced were obtained from the database of the Korea Listed Companies Association database and Data Analysis Retrieval and Transfer System (DART) of the Financial Supervisory Service. Financial information on a total of 87 companies was available (30 completed, four in the process and nine suspended in the Workout; 17 completed and 10 in process in the reorganization proceeding; ten completed and six in process in the composition proceeding).
These empirical findings show that the Workout is not necessarily more effective than the reorganization proceeding. The Workout does not achieve significant improvement in profits after the completion of the process and it requires a similar length of time. Companies that completed the Workout show the same level of achievement as the companies that completed composition.

The Workout is basically led by the creditors. Thus, it is inevitable that its result is more favorable to creditors. That is the main reason why debt exemptions or a debt-for-equity were executed less frequently than in judicial insolvency proceedings. Creditor financial institutions tend to maintain status quo as much as possible. Also, the main creditor bank, as the leading organ of the process, inevitably works in its favor. Therefore, it is not surprising that several avoidance actions are brought in cases that were sent to judicial insolvency proceeding after failing in the Workout.

Court Awareness

Even though the Workout played a major role in corporate restructuring in 1997 and in 2008, it is crucial to note that judicial proceedings commenced in earnest at the same time. The 1997 crisis brought judicial proceedings to the front line of the national economy. Judicial insolvency proceedings appeared on the front page of daily newspapers and the number of filed cases increased drastically. Before the crisis in 1997, they did not take a major role as an insolvency scheme, as shown in Table 9.

Considering the quantity, the Workout has dealt with many more debt adjustment cases than judicial proceedings since 1997. Several thousand ailing firms went under the Workout whereas the total number of judicial insolvency cases is less than a few thousand. This is also true as regards the amount of debts which is restructured through the process. As the Workout targeted big firms from the beginning, the total mounts of debts handed by the court was less than the Workout. Even though a few big corporate groups, such as Kia, Hanbo and Jinro, were under the court proceedings, the largest one, Daewoo, was under the Workout. Such a phenomenon was magnified when the scope of the Workout was extended in 2001 and the quasi Workout was implemented after 2005. It is fair to say
that the Workout is the most frequently applied insolvency scheme in Korea.

However, the increase in court awareness is a trend that is hard to ignore. Public opinion demands legitimacy of policy measures by the government. As executive measures are not free from judicial review, econocrats desired to establish statutory grounds for their functioning. The judiciary became more active in handling insolvency cases. Along with the increase in awareness, the society in general changed, so that insolvency became must less stigmatized.

Table 9. Number of Judicial Insolvency Cases

<table>
<thead>
<tr>
<th>Year</th>
<th>Reorganization</th>
<th>Composition</th>
<th>Bankruptcy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>40</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>1986</td>
<td>26</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>1987</td>
<td>30</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>1988</td>
<td>26</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>1989</td>
<td>27</td>
<td>2</td>
<td>37</td>
</tr>
<tr>
<td>1990</td>
<td>15</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>1991</td>
<td>64</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>1992</td>
<td>89</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>1993</td>
<td>45</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>1994</td>
<td>68</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>1995</td>
<td>79</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>1996</td>
<td>52</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>1997</td>
<td>132</td>
<td>322</td>
<td>461</td>
</tr>
<tr>
<td>1998</td>
<td>148</td>
<td>728</td>
<td>733</td>
</tr>
</tbody>
</table>

Source: Supreme Court of Korea.
6. Conclusion

Many factors must be considered in deciding whether it is desirable that Korean corporate restructuring was concentrated in the Workout. A tentative conclusion can be drawn based on generally accepted assumptions, even though it is difficult to judge so decisively because of changes in Korean economic situation over the past ten years and the evolution of the Workout.

The following assumptions would be generally accepted in the corporate restructuring of ailing companies. First, it is important that the market moves according to predictable patterns. It also applies to companies leaving the market or corporate restructuring of ailing companies. Second, it is crucial that corporate restructuring is done swiftly. If non-performing loans are accumulated instead of being swiped out, it will harm creditor financial institutions and the national economic health. Third, even though there are times that the government can or should take measures to save a particular company from insolvency or from mass insolvency during the time of crises, those measures should not distort the insolvency system. The distortion causes counter-effects, such as concealment of insolvency.
During times of economic crises, the government has two options; one is to implement executive measures and the other is to put ailing firms into judicial insolvency proceedings. One may glean a better understanding by comparing executive measures and judicial proceedings. Preemptive measures are feasible only as executive measures. Executive measures are vulnerable because they lack legitimacy. An empirical study reveals that Workout was slightly faster than the reorganization proceedings, but the judicial proceeding was more effective in restructuring. Judicial proceedings apparently sent a clearer message to the market.

During crises, the government wants to save financial institutions—banks, in particular—to protect the whole economic system. Saving banks can be a good reason for saving ailing firms. Saving ailing firms, however, has the potential danger of causing business firms to accumulate bad debts and of causing banks to accumulate non-performing loans, which might eventually cause more serious problems.

Even in non-crisis situations, government’s intervention in insolvency of business firms has a tendency to prevent ailing firms from leaving the market. The government is tempted to prevent reorganization because the entire society suffers from unemployment or readjustment of debt for a while. Also, distressed companies try harder to exert influence if they think there is a possibility that the government might save them from reorganization. Financial institutions are reluctant to reveal insolvent credit because it has bad influence on its financial soundness.

The most obvious standard for distressed companies is the insolvency law. Legal norms discard government’s arbitrary decision. Therefore, it is most desirable for distressed companies to be handled according to insolvency laws. For the same reason, it was not desirable that the government intervened in insolvencies since 1969. Certainly, one can argue that the government had to intervene because the insolvency law or insolvency practices are not reliable. However, it is difficult to find signs of efforts to improve the insolvency law and its practice before 1997.

During the past fifty years, it can be said that the South Korean solution for the economic crises has been government intervention; but at the same time, the role of insolvency laws has also expanded while
the awareness about the importance of legal norms for dealing with distressed companies increased.

This curve shows how the Korean government mixed the two options. Even though insolvency laws were enacted in 1962, they did not play any significant role during the economic development era. Econocrats believed that they had the authority and competency to handle debt issues of certain magnitudes. Even the court did not realize the importance of judicial insolvency proceedings in the order of the market until the 1990s. And the court enacted Supreme Court Rules to overcome criticism against the reorganization proceeding.

The Asian crisis of 1997 changed the stream and a flood of consumer bankruptcy ensued. The government, however, took executive measures again in 2008 subprime mortgage crisis, instead of pushing financial institutions to clear out their non-performing loans. The function of judicial proceeding has recently expanded and the executive branch has started to recognize this new trend.

Econocrats wanted statutory grounds for their power exercise. There are some examples, such as 1986 Industrial Development Act for industrial rationalization measures, 1997 Financial Industry Restructuring Act, 2001 Act on Special Measures for the Relief of Agricultural and Fishing Households’ Debts, 2001 and 2007 Corporate Reorganization Promotion Act for Workouts.

The judiciary also became more concerned with insolvency issues. In the past, the court regarded big insolvency cases as a matter of economic policy, but not anymore. The court took initiative in renovating reorganization proceedings by enacting the Supreme Court Rules in 1992 and 1996. It established insolvency divisions and dispatched the most competent judges to advance insolvency practices. *Practice Guides* published by the Insolvency Division of Seoul District Court set the standard for insolvency practice nationwide.

The Korean government intervened in the bankruptcy situation of individuals, business firms, and financial institutions during the past 50 years. Such intervention can be interpreted in different ways. The crises were too serious to be handled by the court, which might not have been competent to handle the cases. Or econocrats were so eager
to maintain their control over big economic issues. It was evident that econocrats did not have faith in judicial proceedings as far as serious insolvency issues were concerned.

Considering these trends, two key factors can be drawn for successful restructuring in emergency situations: clear rules and overall write-off of debts. The more discretionary the government exercises are, the more distorted the market order becomes. Without overall write-off of debts, restructuring cannot be successful. Farmers’ debts are an eminent example.
The downturn of the real economy might have hit bottom but we still have some fear about sinking into a double-dip recession. Many business corporations may have to resolve excess-capacity problems to match reduced consumer demands. Under declining gross-sales conditions, some parts of existing debts owed by many business corporations may become excessive. Without revitalizing these business corporations by means of debt restructuring, another economic crisis may recur.

Insolvency Law Reforms and Expedited Practice in Japan

Significant changes in reorganization occurred in Japan between late 1990s and early 2000s. The Civil Rehabilitation Law was enacted in 1999 to replace the previous Composition Law of 1922. This was followed by a series of changes in bankruptcy related laws, such as (1) the enactment of the new Law for Recognition and Assistance for Foreign Insolvency Proceedings, adopting the UNCITRAL Model Law in 2000; (2) the enactment of the new Corporate Reorganization Law (CRL) in 2002, replacing the previous CRL of 1952; (3) the enactment of the new Bankruptcy Law (BL) in 2004, replacing the previous BL of 1922; and (4) the enactment of the new Company Law, which includes many new tools to facilitate the reorganization of healthy and distressed business corporations in 2005. The new Company Law also revised provisions regarding the Special Liquidation Proceeding. Chapter 4 of the Revised Act on Special Measures for Industrial Revitalization (RASMIR) of 2007 enabled the establishment of the Business Reorganization ADR mentioned below.

Along with the above legal reforms, the Japanese courts have widely opened their gates to rehabilitation and reorganization cases that are being handled more speedily. The handling of bankruptcy cases has been speeded up. In civil rehabilitation cases in Tokyo, a plan will be generally
confirmed by the court about six months after the filing of a petition to open the case. In corporate reorganization cases, which are generally larger in size than the civil rehabilitation cases, a plan will be generally confirmed within one year after the commencement of the case.

In the past ten years, a lot of private equity funds that target distressed companies were created and advisory/consulting/turnaround firms specialized in rehabilitating distressed businesses became widespread in Japan.

The Industrial Revitalization Corporation of Japan (IRCJ)

The IRCJ was created in May 2003 by the Japanese Government to dispose of non- and poorly-performing loans, as well as to revitalize ailing companies with excessive debts to overcome a prolonged recession that lasted over ten years.

The IRCJ rescued 41 enterprise groups consisting of nearly 200 companies by March 2005 and dissolved itself in March 2007, one year earlier than was scheduled.

Upon receiving an application made by a company and its main bank holding the biggest exposure to the debtor company, the IRCJ conducted due diligence and developed operational and financial restructuring plans. Then, the IRCJ proposed to buy debts owed to financial institutions or requested acceptance of the debt restructuring plan involving partial debt forgiveness and/or debt equity swaps as stipulated by the proposed plan. After the solicitation made by the IRCJ, most financial creditors either sold their debts to the IRCJ or accepted the plan. Outstanding stocks were wiped out or diluted in most cases and the IRCJ infused new equity into the company. The IRCJ sent hands-on turnaround managers to replace incumbent managers and operated the debtors’ business.

Within one or two years since the opening of each case, the IRCJ sold the purchased debts and/or equities to new owners by means of mergers and acquisitions. The IRCJ was financed by the government guarantee and successfully closed its business with profit.
Newly Started Business Reorganization Alternative Dispute Resolution (BRADR)

The Guidelines of the Out-of-Court Workout were established in 2001 in Japan. It referred to the London Approach and INSOL 8 Principles adopted by the Committee organized by the National Bankers’ Association and others, for which I served as a chair. More than 40 large corporations were reorganized using the Guidelines. The Business Reorganization ADR was created by Japanese Association of Turnaround Professionals (JATP) last November with the approvals of the Minister of Economy, Industry and Trade and Ministry of Justice based on the aforementioned RASMIR. Turnaround experts, who were appointed in each case by the selection committee of JATP that I chaired, preside over workouts using fair rules that are similar to the Guidelines.

The BRADR started its business this March and has been handling several big reorganization cases, including public companies. The government-owned organizations may guarantee a substantial part of debts owed by a debtor during the workout process as DIP financing. In cases where unanimous consent could not be reached, the debtor may file a court-administered mediation proceeding and the Court may issue an order recommending that holdout creditors accept the proposed plan with possible amendments. If the creditors do not object to the order within two weeks, the order becomes effective to bind the relevant parties. If the creditors object to the order, the debtor should convert the case to a statutory reorganization proceeding in which the proposed plan may be treated as a pre-negotiated plan.

Creation of Enterprises Turnaround Initiative Corporation (ETIC)

The bill to establish a new quasi-governmental corporation to assist revitalization of ailing companies became a law on June 19, 2009 and the new corporation started its business on October 16, 2009. The new law is similar to the IRCJ law with minor amendments. The targeted companies are mainly mid-sized corporations the failure of which may have adverse impact on local economies. Other small- and mid-sized companies can be reorganized with the assistance of SMEs Turnaround Associations, which were created in 47 prefectures in 2003, the year when the IRCJ was created. Larger corporations could be reorganized...
by expedited workout without the purchase of debts by the public sector, possibly assisted by the aforementioned BRADR. To infuse new money in distressed SMEs, there are regional funds that are created to help revitalization of local enterprises in each prefecture as well as private equity funds that are specialized to invest in distressed companies. In addition to the new ETIC, we have several options to restructure business corporations in Japan such as: (1) expedited statutory reorganization procedures supervised by Courts, (2) aforementioned new BRADR, (3) SME Turnaround Associations, (4) Enterprises Restructuring Group of the Resolution & Collection Corporation, (5) local restructuring funds in every 47 prefectures, and (6) private equity funds specialized in investing in distressed corporations, etc. This competitive environment might have contributed to improve professional expertise in the restructuring of distressed corporations in Japan.

Larger corporations are going to be saved through the provision of loans and/or infusion of equities by the Development Bank of Japan (DBJ), which is government owned, under the guarantee of the Japanese Government according to the special emergent legislation.

**Japan Air Lines (JAL) Revitalization**

The Minister of Land, Infrastructure, Transportation and Tourism appointed five experts as members of JAL Revitalization Taskforce on September 25, 2009 and the Taskforce, which I chaired, started overall due diligence to draft an operational and financial restructuring plan for JAL. Nearly one hundred experts participated in doing the due diligence and formulating the draft plan intensively. Discussions were held countless times with JAL’s management and staff, five major banks that are owed biggest exposures by JAL, including DBJ and other key stakeholders. The Taskforce completed the draft reorganization plan on October 26, 2009. The draft plan contemplated to solicit huge amount of debts forgiveness, debts equity swaps for creditor financial institutions as well as huge amounts of capital infusion as equities to DBJ and others.

The Government-owned JAL started its business in 1951 and was privatized in 1987. JAL owns many obsolete jumbo jet aircrafts which consume a lot of fuel. JAL could not replace these old ineffective planes with smaller more energy-efficient planes due to a cash shortage, and sold air tickets at lower prices to fill vacant seats even at a loss. Japanese central
and municipality governments have constructed too many local airports and JAL could not refuse to use these ineffective local airports even if it meant large losses. JAL bears huge amounts of legacy costs including pension payments to retirees, similar to General Motors.

Our draft plan includes strategies and tactics to resolve these problems, such as the replacement of airplanes, closing down unprofitable local operations, and cutting legacy costs mentioned above to make JAL profitable as early as possible. The members of the taskforce were to be co-chief restructuring officers for JAL, who would negotiate with stakeholders including creditors, unions, retirees and others, soliciting them to accept the plan and consummating the plan substantially. However, the Minister of Finance and DBJ refused to infuse new money into JAL and requested us to let the newly established ETIC take over our role on October 26. ETIC is able to raise new money, which will be infused into JAL under the guarantee of the Japanese government. I don’t know the true reason why the MOF preferred the ETIC instead of DBJ as an equity provider to JAL. Currently the ETIC is doing another DD in order to decide whether it will help JAL or not. JAL also filed a petition to commence BRADR on November 13, because BRADR has convenient tools in terms of priority status of emergency loans extended during the pending case. Upon filing a petition made by JAL, the Tokyo District Court commenced the case on January 19, 2010 and ETIC decided to help the JAL on the same day.

It may be good for Japan to have so many tools to accomplish similar goals, but it also becomes difficult to choose the most appropriate ones from among them.

Proposal to Create a Quasi-Governmental Organization to Revitalize Ailing Corporations

In order to save ailing business corporations that are socially useful, providing liquidity and assisting their restructuring effort is essential to restore the health of the national economy in each country. To serve that purpose, it could be effective to establish a government-backed special purpose corporation operated by private sector professionals who possess rich experience and specialized expertise of reorganizing troubled companies in each country. The corporation administers the following workout processes.
The Solution process consists of the following stages:

1. Application is made by ailing companies that are useful for the national economy.

2. After preliminary due diligence, a decision whether to help the applicant is to be made.

3. Notice of standstill or stay to financial creditors (i.e., moratorium).

4. Facilitating provision of finance by financial institutions under the guarantee of Governmental agencies.

5. Financial and business due diligence conducted by professional experts.

6. Developing business and financial restructuring plans for the companies assisted by professional experts.

7. Soliciting and persuading creditors and other affected parties to accept the proposed restructuring plans.

8. Execution of the accepted plans.

9. In some cases, purchasing debts and infusion of capital may be useful.

   Independence from political interference and freedom from corruption is not only critical but also essential for the effectiveness of the organization and its officers.

   The staffs must consist of professional experts recruited from the private sector, not of government bureaucrats. Moreover, staff with advanced skills for turnaround management is essential.

   Japan up to now is not in a situation where my proposed solution above is in need. But some countries which are struggling with severe economic downturn need a scheme for an expedited workout solution assisted by international organizations. Obtaining unanimous consent would be very difficult in those countries where out-of-court workout solution is not usually used. The majority rule
involving the courts or other appropriate authorities may be helpful in these situations.

**Rules for Organization and Proceedings**

1. Troubled companies (TC) are able to apply for assistance from the corporation (CO).

2. TC must be economically useful for the country and its people.

3. CO should help only those companies whose continued operation is beneficial for the country and its people.

4. Upon the decision by the Board of Directors (BOD), the CO undertakes preliminary due diligence (DD) research on the TC’s usefulness, possibility of survival, financial status and other related matters, within two weeks after the filing of the application.

5. Within a few days after the completion of the DD, the BOD must decide whether the CO will assist the TC or not.

6. Once the assisting decision (AD) is made by the BOD, the CO issues a notice of standstill (NS) immediately by fax or other appropriate devises to all relevant creditors of the CO.

7. The relevant creditors (RC) include banks, financial institutions, bond holders, indenture trustees and other financial creditors to whom the CO owes debts. Trade creditors with huge claims, whose participation is indispensable for sustainable restructuring of the CO, could be included in the RC category.

8. Upon issuance of the NS, all RC are prohibited to take any collection actions against the CO and their co-debtors, including guarantors, to maintain their exposure as of the issuing date of the NS. Prohibitions include:

   • any acts to collect or recover a claim.

   • commencement or continuation of judicial or administrative action or proceeding.

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• enforcement of a judgment.

• obtainment or repossession of property.

• realization of secured rights.

• any acts to create, perfect or enforce any lien or secured rights.

• setoff of any debts.

9. Within a week after the NS, the CO and the TC must convene a creditors’ meeting and report the present status of the TC.

10. Within two months after the NS, the CO should study the past, present and future financial and operational status of the TC under DD aided by external professional experts, and the TC must draft operational and financial reorganization plans (Plans) assisted by the CO and other professional experts.

11. When the TC is loss making and/or insolvent (i.e., liability exceeds assets), the Plans must provide appropriate means to turn to profitability and dissolve insolvency within three years.

12. The Plans must be equal, fair, equitable and feasible.

13. When the Plans provide for debt forgiveness and/or debt equity swap, claims should be treated on pro rata and/or pari passu principles.

14. When the Plans provide for impairment of claims by any means, the equity of the TC should be wiped out or diluted, if any.

15. Should incumbent managers be responsible for the TC’s difficulty, the Plans must provide for the replacement of the management of the TC.

16. Within two weeks after the Plans are completed and the BOD are satisfied that the Plans meet abovementioned requirements, the BOD should approve the Plans.

17. Within one month after the approval of the Plans by the BOD, the TC and the CO should solicit and persuade the RC to accept the Plans.

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18. Within one month after the acceptance of the Plans, the TC must execute and consummate the Plans.

19. Upon the substantial consummation (SC) of the Plans, the process is completed.

20. Anytime before the completion of the process, the BOD can cancel the assistance decision when the Plan does not meet the aforementioned criteria or unforeseeable changes in other circumstances occur.

21. During the period that begins with the AD and ends with the SC or the abovementioned cancellation, the CO may ask financial institutions to provide financing to the TC to defray its overhead costs under the guarantee of the governmental agency.

22. The CO is entitled to purchase and sell the TC’s debts and equities. The CO is also entitled to obtain the TC’s equities by other means and dispose of them.

23. When the case is converted to statutory insolvency proceedings, the loan debts owed to financial institutions by the TC which were provided under the aforementioned Rule 21 will be treated as priority debts in the same way as administration expenses.
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CHAPTER 22
Principles of Household Debt Restructuring

LUC LAEVEN AND THOMAS LARYEA

Introduction

This note assesses the case for government intervention in household debt restructuring and presents key principles for household debt restructuring programs that could be adapted to individual country circumstances.

Motivation for Government Intervention

Household indebtedness has reached historically high and likely unsustainable levels in several countries hit by the current financial crisis (Figure 1). In some countries the indebtedness stems from excessive credit booms in the run-up to the crisis, and this has been exacerbated by recent sharp declines in house prices. In other countries, where foreign-currency-denominated loans are prevalent, it was also the result of a balance sheet effect triggered by currency depreciation.

Figure 1. Household Indebtedness in 2000 and 2006 (% of Nominal Disposable Income)
Household debt overhang and debt servicing problems feed into different but connected downward spirals. First, they weaken bank balance sheets through an increase in nonperforming loans. This in turn may lead to a reduction in credit availability which puts further pressure on house prices and prices of other asset classes. The resulting decrease in wealth and collateral value further worsen the household debt problem. Second, household debt problems can negatively impact consumption. This may turn into lower growth and higher unemployment, compressing household income and further feeding into both downward spirals.

At times of financial crises, governments often contemplate debt restructuring to deal with social problems that arise when households are no longer able to repay their loans. Such problems can be particularly pronounced when the distressed debt involves household mortgage loans (Figure 2).

Figure 2. Household Mortgage Indebtedness in 1996 and 2006 (% of Nominal Disposable Income)


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While governments with fiscal space may decide to pursue restructuring policies on the basis of social considerations, the design of such debt restructuring programs should be based on sound economic principles.

This note assesses the case for government intervention in household debt restructuring and proposes a template for a household debt restructuring program that could be adapted to individual country circumstances.2

The Case for Government Intervention

It should be noted at the start that to resolve the debt overhang problem, the economy as a whole will have to bear a cost of resolution of distressed loans. The purpose of policy is to minimize the inefficiencies associated with a resolution of the problem. Any government intervention will involve distortions. However, the question is whether the benefits of intervention exceed its costs. Moreover, if intervention involves government financing, the extent of intervention should be constrained by the degree of fiscal space available and its potential negative impact on public debt sustainability.

Two sets of issues may interfere with a market-driven solution and can justify a more proactive policy action than simply letting the courts and normal bankruptcy procedures, together with voluntary loan workouts, attempt to address the problem. First, a crisis affecting the household sector such as the one faced in a number of countries today may involve a very large number of bankruptcy cases—even larger in absolute numbers than corporate sector bankruptcies. A timely resolution of such bankruptcies through the court system would not be feasible even for countries with the highest institutional

2 The analysis does not address the weakening supply of credit or temporary liquidity problems of households, nor does it address efforts to support asset prices or banking sector resolution. The note also does not deal with complexities associated with the link between household debt and structured credit products (for example, through securitization) as in some advanced economies. A complete analysis that would address these other problems could alter the design of the debt restructuring strategy and call for additional policy measures not covered by the note.
capacity and the most efficient legal systems.\textsuperscript{3} Additionally, voluntary loan workouts can give rise to attrition problems, with delays that are optimal for the individual negotiators but not for the economy as a whole. Such delays and potential associated gridlock problems of market-driven solutions, the legal costs involved, and the associated destruction of wealth call for a more “organized” resolution strategy.

Household debt restructuring can also be warranted on account of addressing externalities that arise when massive loan defaults by households result in unnecessary and costly liquidations, including foreclosures on real estate. Such problems are particularly severe when homeowners possess negative equity in their homes. Although financial institutions have already initiated voluntary restructuring schemes in several countries (e.g., Mexico, Lithuania, and the United States\textsuperscript{4}) to avoid collateral execution, financial institutions will not fully internalize

\textsuperscript{3} Table 1 in Appendix I indicates the legal costs and time associated with typical corporate (not individual) bankruptcy proceedings in selected economies, highlighting that there is much variation in such costs across countries. These data are compiled in normal times. The noted delays would be expected to be significantly longer in the context of wide-scale corporate insolvencies associated with systemic crises. No similar data on individual insolvency proceedings is available.

\textsuperscript{4} Since the burst of the U.S. housing bubble in 2007, the U.S. federal government has introduced or sponsored several initiatives to prevent rising foreclosures, including the FHASecure program announced in August 2007 and the Hope for Homeowners (H4H) program started on October 1, 2008. These efforts have met with only very limited success in stemming foreclosures, largely because they target severely delinquent borrowers who without more generous support will not be able to service their mortgage payments. In March 2009, the U.S. Treasury introduced a more comprehensive initiative aimed at mitigating mortgage foreclosures, the Homeowner Affordability and Stability Plan. The program establishes guidelines for affordable loan modifications and refinancing aimed at reducing monthly payments to sustainable levels and provides incentives for loan modifications for borrowers, lenders, and other participants of the mortgage market, including through the personal bankruptcy mechanism as the last resort. It also includes other measures to support the housing market, including through increased funding commitments to the government-sponsored agencies, renter assistance, grants for innovative local programs to reduce foreclosures, and counseling for the most heavily indebted borrowers.
the negative externalities generated by such unnecessary liquidations. House prices will not stabilize as long as there is an expectation of continuing house price deflation, exacerbated by widespread foreclosures. In addition, foreclosures can have a negative effect on neighborhood values. Essentially, this can be seen as a multiple equilibria situation: in one equilibrium, debt overhang is resolved more rapidly, leading to a stabilization of house prices and resumption of growth; in the other, debt overhang lingers, resulting in further declines in house prices and contributing to a worsening of the recession.

In addition to taking into account the capacity of the legal and institutional system to handle wide scale case-by-case restructurings, the case for government intervention depends on the dimension of the debt problem, both from the perspective of the debtors (households) and the creditors (banks). If the scale of distressed household debt is relatively small and/or banks are sufficiently sound, coordination problems are not overwhelming, and foreclosures are not widespread enough to create significant negative externalities, then the problem can be left to private sector borrower/creditor debt renegotiations. Box 1 summarizes some operational guidelines for assessing the scale of the problem. Government intervention is needed when both the scale of distressed household debt is sufficiently large to have macro implications and banks in distress are paralyzed by insufficient capital to absorb expected losses, lack of internal capacity to carry out individualized restructurings, or by coordination failures. The capacity of the legal and institutional framework to support individualized restructurings will also be a factor informing government intervention.

Whether government intervention in the form of financial support is feasible and credible depends on its impact on public debt sustainability and the available fiscal space. When government bank recapitalization programs are also envisaged, authorities need to consider any overlap between the costs of debt restructuring and the costs of bank recapitalization when assessing the impact of government intervention on public debt. Debt restructuring, by generating writedowns in asset values on banks’ balance sheets, will negatively impact the capital position of banks, and will thus most likely have to be accompanied by a bank recapitalization program. Such a recapitalization program will need to be calibrated in the amount necessary to bring the banks back to solvency after debt restructuring.
Box 1: Assessing the Size of the Problem: Some Operational Suggestions

A practical issue in deciding whether household debt restructuring may be needed is how to assess the size of the problem. This involves collecting and analyzing data on several possible dimensions of distressed household debt.

**Current picture.** A comprehensive assessment requires information on outstanding amounts of nonperforming (gross) household debt, both in nominal terms and in percentage of the total loan portfolio of banks, as well as data on such debt by type of credit (mortgages, credit cards, car loans, and other consumer credit), currency of denomination, amounts and number of days past due, and collateral values (accounting values according to the bank records). These stock data provide a static framing of the problem, which can be usefully compared to the broader picture of all household debt, whether performing or nonperforming. In addition, if data are available, indicators such as loan-to-value (LTV), loan-to-disposable income (LTDI), original and current debt-service-to-disposable income may allow for grouping household borrowers according to their most current financial condition.

**Evolution over time.** This involves assessing the transition in credit quality for household claims in distress, i.e., how quickly household debt is moving on a deteriorating path from “watch status” to the various nonperforming categories (i.e., substandard, doubtful, and loss), based on the extent of time loans are actually overdue. The trend over time of total household debt in distress (in absolute amounts and appropriately scaled) and the evolution of the shares of debt in different credit quality categories (particularly the incidence of “loss” credits) allows an assessment of whether the problem is becoming wider and deeper, or may become so going forward, or is instead relatively stable. In addition, information on real estate prices may help assess to what extent “negative equity” (or LTV greater than one) of mortgage loans is, or is expected to become,
Box 1. (Continued)

a problem for household borrowers and lenders. However, it should be kept in mind that the definition of nonperforming loan categories may differ somewhat across countries, and that in crisis situations with rapidly rising unemployment and falling house prices, past trends may be a poor guide for future developments.

**Distribution across financial institutions.** Of immediate interest, from both a financial stability and a contingent liability standpoint, is how concentrated the problem is among individual banks. Here, at least two dimensions matter. First, whether the institutions most affected are those that play a key, systemic role in the payments and settlement system, or in other key financial segments such as the interbank market, where exposures could act as a channel of further spillover effects. Second, whether the institutions affected have enough cushion, in terms of provisions, loan loss reserves, and overall capitalization, in order to be able to absorb the losses involved without violating prudential capital requirements or other supervisory norms that would trigger corrective action.

**Impact on financial institutions.** This involves assessing the impact of restructuring strategies on the financial institutions involved. This requires, for example, evaluating the likely impact of reduced rates or lengthened maturities for distressed claims undergoing restructuring on financial institutions’ cash flows, liquidity, and earnings. Similar exercises would involve assessing the impact of additional provisions on profitability and capitalization of the institutions most affected, and the dependence of their earnings on continued household debt service. These exercises are typically conducted in collaboration with banking experts, the supervisory authorities, and the lending institutions involved.

Note: This box was prepared primarily by Mauro Mecagni (IMF, Strategy, Policy, and Review Department).
Design of Government Intervention in Household Debt Restructuring

When considering the extent of and nature of government intervention in household debt restructuring, two broad approaches—that are not mutually exclusive—can be envisioned.

*Under the first approach, the government establishes the legal and institutional framework that supports case-by-case restructuring.* If operation of the framework is sufficiently predictable, this will also catalyze restructurings that take place out of court. A reasonably effective legal system for credit enforcement, including through foreclosure, is necessary to support extension of credit in the economy and to bring debtors to the negotiating table where restructuring is warranted. However, the wealth destruction and extreme liquidity pressures that can arise in systemic crises can be exacerbated by wide-scale resort to credit enforcement measures. In particular, as discussed above, widespread foreclosure of mortgaged property can further depress house prices. It is therefore important that an effective court-supervised insolvency framework be in place for individual debtors, providing for multi-creditor restructuring through the following key legal features: (i) an automatic stay on creditor enforcement and debtor payments during the insolvency proceedings; (ii) when the debt is secured, but the market value of the collateral (including the value of the household property securing a mortgage) is below the value of the loan, the court has the power to restructure the amount of the deficiency as unsecured debt; (iii) the modification of loan terms should take into account the payment capacity of the debtor; and (iv) a “fresh start” through discharge of financially responsible debtors from the liability for unsustainable debts at the end of the liquidation or rehabilitation period.  

5 In addition, debt counseling services can be an effective tool to encourage individuals to address their debt problems at an early stage by providing individuals with professional advice on their legal rights and responsibilities and on applicable procedures for negotiation. The insolvency law can facilitate their use by making resort to debt counseling services a condition to debtors filing for rehabilitation in insolvency proceedings. For a general discussion of key principles of individual insolvency law, see further INSOL International (2001), “Consumer Debt Report, Findings and Recommendations.”
Case-by-case debt renegotiations between a creditor and debtor can result in an adjustment in loans on a voluntary basis to reduce debt payments through (i) interest rate reductions, (ii) principal amount reductions, and/or (iii) maturity extensions. These three methods of debt reduction are often mixed to improve incentives for both lenders and borrowers to participate. For example, interest rate reductions alone, while attractive for the borrower, may severely reduce the cash flow position of the lender. Maturity extensions allow such adverse impact on the cash flow of the lender to be spread over a longer period of time, thereby making interest rate reductions more affordable to the lender. In addition to putting in place the relevant legal and institutional framework, the government can play an important role in facilitating such case-by-case workouts by creating proper incentives and removing impediments for loan restructuring. For example, governments can enhance participation by supporting nonbinding guidelines for private sector led restructuring.

A second approach involves the establishment of a government-sponsored debt restructuring program that involves some form of financial support. Such programs could cover a certain group of borrowers or loans, or could include all loans. Government support could come in a multitude of forms. The government could provide financial support to the banks that restructure, or it could establish a separate asset management company to purchase and resolve distressed assets. Furthermore, the government can provide direct support to the households through some form of subsidy, such as debt forgiveness, interest or exchange rate subsidies, or tax incentives.

When household debt overhang is widespread and severe, and the capacity of the banking system to restructure loans is limited, voluntary workouts that rely on a case-by-case restructuring of loans become a less attractive option, making a comprehensive debt restructuring

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6 Examples of government-sponsored debt restructuring programs that targeted certain groups of loans are the 1933 Home Owners Loan Corporation program in the United States, the 1998 Punto Final program in Mexico, the 2000 debt restructuring program in Uruguay, the 2002 credit card debt program in Korea, and the 2008 Indymac loan modification program in the United States. See Appendix II for a brief description of previous country episodes of household debt restructuring.

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program a more effective approach to resolve the debt overhang. At the same time, comprehensive debt restructuring programs risk being too generous by offering restructuring to borrowers that without debt restructuring would have been able and willing to make payments on their debt. Ideally, debt restructuring programs should be designed such that they lead to a “separating equilibrium” in which only borrowers that are unable to repay their debt take advantage of the program. The degree of government intervention depends on the scale of the problem, the ability of debtors and creditors to absorb losses, and the fiscal space of the government.

Any government sponsored debt restructuring program should help restore the viability of individual borrowers, while minimizing the direct fiscal cost, reducing the risk of bank failures, and establishing the basis for the recovery of the real sector. These multiple goals may not be fully compatible and policy choices may need to be made as to where the balance is struck. The design of a debt restructuring program should incorporate a number of basic features:7

- **Objective:** Turn troubled loans into performing loans, while mitigating the moral hazard created by offering debtors the opportunity to not repay on the loan’s original terms. The program could be directed to reduce debt service requirements of certain borrowers that have experienced increases in their scheduled loan repayments as a result of adverse interest rate or foreign exchange rate shocks, or to address the build-up of a substantial amount of nonperforming loans.

- **Scope:** The program should, where feasible, be selective and target borrowers who cannot meet their debt service obligations but whose ability to service their debt is likely to be restored upon restructuring. The restructuring program could be designed to compensate the targeted group of borrowers either partially or in full—but in any case at a sufficient level to restore sustainable debt levels and servicing capacity of borrowers. Defining criteria for such selectivity and reliably applying the criteria could be a

7 These basic features are designed on the model of a single (main) creditor for each household debtor and thus do not address creditor coordination and inter-creditor equity issues that would arise in countries where multiple creditors of household debtors are prevalent.
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major challenge, especially where data is unreliable and political or social considerations are pressing factors. In cases where public funding is used, it would need to be sufficient to cover each qualifying participant. Conversely, the scope of the program would be subject to the public funding envelope.

- **Proportionality**: The degree of government intervention in the program should depend on the scale of the problem, the capacity of creditors and debtors to absorb losses, and on the fiscal space of the government. Intervention should not impede on government debt sustainability and burden sharing between creditors and debtors should depend on their ability to absorb losses.

- **Participation**: Participation should be on a voluntary basis. Banks should be induced, not forced, to restructure their debts with borrowers. Compulsory restructuring, outside of the court-supervised insolvency process will give rise to legal challenges and should be avoided.

- **Simplicity**: Given the large number of loans involved in household debt restructuring, design should be based on simple rules and verifiable information to speed up restructuring and reduce the potential for abuse. These rules should be based on analysis of the structure of the banks’ household loan portfolios, and, where it is not available already, banks will need to share with the government the necessary information to conduct such analysis should public funds be used to support the program.

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8 However, banks’ participation may be enhanced by making it mandatory for banks that receive public funds, e.g., in the context of a government-orchestrated bank restructuring program.

9 Compulsory loan restructuring programs have been rare. In the corporate debt context, Uruguay introduced a framework for compulsory restructuring of small loans in June 2000 to deal with large-scale debt overhang in the corporate sector. Under the program, loan maturities were extended under gradually increasing repayment schedules. Compulsory restructuring decreases the bargaining power of banks in the debt restructuring process, which could be beneficial in circumstances where banks, have capacity to restructure but are recalcitrant. However, the risk of legal challenge and the potential to deteriorate the credit culture likely outweigh potential benefits of compulsory restructuring.

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• **Transparency and accountability**: The program should include mechanisms that allow the authorities to monitor the progress in restructuring to ensure the accountability of the program participants, and to make adjustments to the program if necessary. Mechanisms such as ongoing reporting and audit requirements are especially important if public funds are used, as they would help safeguard the integrity of the program and the most effective use of taxpayers’ money.

**Implementing a Government-Sponsored Debt Restructuring Program**

Before embarking on a government-sponsored debt restructuring program for the household sector, several factors must be taken into account, including ongoing efforts to restructure loans by banks and the dynamic impact on the quality of banks’ loan portfolios. Close coordination with key market players may help to identify the need for and size of public intervention. Also, loan restructuring could set perverse incentives for borrowers going forward, negatively affecting the level of nonperforming assets. To avoid multiple rounds of debt restructuring, government-sponsored debt restructuring programs should generally not be introduced before macroeconomic policies have stabilized the economy and a bank recapitalization program has been put in place to restore the banking sector to health, taking into account prospective losses from debt restructuring. Debt restructuring should not be regarded as an instrument that can displace sound macroeconomic policies.

The advantage of a restructuring program that provides systematic loan modifications for a large pool of borrowers is that it offers a streamlined approach that can take advantage of economies of scale. This reduces coordination costs, thereby enhancing participation by a large number of banks and borrowers. At the same time, it should be realized that any debt relief generates moral hazard by offering debtors the opportunity to avoid repaying on the loan’s original terms. Where possible, design should mitigate such moral hazard and lead to a “separating equilibrium” in which only borrowers that are unable to repay their debt take advantage of the program. Depending on the financial situation of households, conditions can be attached to participation in the program. These can include penalties that would
present a disincentive for borrower defaults on restructured loans. For instance, borrowers may be required to allow banks to deduct direct loan repayments from their payrolls and incur the penalty of the original loan terms being restored if they default on the restructured terms. Alternatively, participation could require upfront cash payments, although such penalties may not be an option if households are already cash-strapped. Beneficiaries could also be reported to the central credit register (if this exists) as restructured borrowers, limiting the scope for new loans. Above all, the borrowers’ capacity to repay has to be a key element of design.

A government-sponsored debt restructuring program may include a combination of the following additional elements:

(i) **Incentives for Borrowers.** In general, borrowers will recognize the benefit of restructuring. Government incentives may be on occasion warranted to overcome obstacles to borrowers seeking restructuring, e.g., in cases of significant negative equity, where it may be individually efficient for borrowers to walk away from their mortgages, but costly to the economy as a whole. In such cases, the government might give incentives to borrowers to restructure loans on a voluntary basis through loan subsidies on restructured debt (such as subsidized interest rates for borrowers),

10 The Punto Final program adopted by Mexico in 1998 is an example of a debt relief program that involved government subsidies to bank creditors. The program targeted mortgage holders, agribusiness, and small and medium-sized enterprises and offered large government subsidies in the form of loan discounts. The program offered rapid debt relief but at a very large cost to the taxpayer.

11 The Homeowners Support Mortgage Scheme introduced by the U.K. Treasury in early December 2008 to reduce the number of home foreclosures offers homeowners struggling to make mortgage payments an option to defer mortgage payments and includes a government guarantee on deferred interest payments for those banks participating in the scheme.
mortgages, so that repayment depends on the value of the house when sold (possibly accompanied by the government sharing in the upside).

(ii) **Incentives for Lenders.** Government incentives may include offering tax credits for restructured loans, low interest rate credit lines to banks, or tying the restructuring to a government-sponsored bank recapitalization program.\(^\text{12}\) While the government may consider giving banks incentives to restructure loans by temporarily easing provisioning requirements on restructured loans, or by imposing unusually stringent provisioning on non-restructured debt—such measures are to be avoided. Experience suggests that formal forbearance may only work in the framework of a comprehensive and credible bank restructuring program that entails capital injections from bank shareholders. Nonetheless, in view of the potential for moral hazard and conflicts of interest, regulatory forbearance is risky even in the context of a bank restructuring program. Thus, banking authorities should use this resource only very cautiously and in exceptional circumstances.\(^\text{13}\)

(iii) **Legal and Institutional Reforms.** The utility of a debt restructuring program is increased where backed up by an effective legal, institutional and regulatory framework for the enforcement of

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\(^{12}\) Many countries allow their banks to upgrade restructured loans that prior to restructuring were classified as loss or doubtful into the substandard category after a new debt profile has been prepared on the basis of a more realistic repayment capacity of the borrower. After a certain number of payments on the basis of the new schedule have been made (international practices vary between 6 to 12 monthly payments), such restructured loans can often be upgraded further.

\(^{13}\) While not best-practice, some countries have eased provisioning requirements when faced with a surge in nonperforming loans. For example, when faced with rising delinquencies on credit cards in 2002, Korean authorities allowed credit card issuers to roll over delinquent credit card loans, a practice known as “re-aging,” to ease the burden of provisions and charge-offs of these loans for issuers. Similarly, authorities in Taiwan POC when faced with a distressed credit card market in 2005, allowed restructured loans to be reclassified as performing, effectively granting credit card issuers regulatory forbearance.
creditor rights. In particular, an effective personal bankruptcy framework for addressing collective enforcement of creditor claims and rehabilitation of debtors may also be useful where multiple creditors are present. While use of such credit enforcement tools on a case-by-case basis would not be feasible to resolve large scale defaults on household debt that may arise in a systemic crisis, the credible threat of their use as a last resort is important to set markers for the behavior of debtors and creditors.

(iv) Specific Measures to Address Loans Denominated in Foreign Currency. When distressed household debt is largely denominated in foreign currency, consideration could be given to converting the debt into local currency. However, such conversion gives rise to a number of problems. In principle, local-currency conversion eliminates borrowers’ exposure to exchange rate flexibility, though its effects on the banking system will be country specific and depend on the net open currency positions of financial institutions. That said, such conversion is likely to be prohibitively expensive for the banks and their borrowers, especially in systems with high levels of foreign currency denominated loans, unless its costs are transferred to the government.  

In addition, local-currency conversion may have adverse side effects on foreign exchange markets as lenders demand foreign currency to rebalance their portfolios. Then, for conversion to be an option, the foreign currency mismatch at financial institutions needs to be solved first, and this requires the availability of foreign-currency-denominated liquid assets. Public support could be granted to banks in the form of dollar-denominated or indexed restructuring bonds to reduce the currency mismatch that arises on banks’ balance sheets after loans are converted into local currency, though the feasibility of such bonds depends on

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14 In November 2008, Hungarian commercial banks—faced with increased credit risk of their loan portfolios denominated in foreign currency due to a sharp depreciation of the local currency—signed a gentleman’s agreement with the ministry of finance on a foreign-currency loan workout program that includes the option to convert foreign currency loans into forint-denominated loans. The conversion part of the program has thus far not been taken up by borrowers because of the perceived cost of conversion implied by domestic interest rates that are much higher than interest rates on foreign currency loans.
country circumstances, including the degree of dollarization of the economy.\textsuperscript{15} In particular, such bonds may not be sufficiently liquid to resolve funding problems at banks. In any case, forced conversion—e.g., through legislative fiat—should be avoided.\textsuperscript{16} Such forced conversion would give rise to legal challenges, may lead to a run on the currency as banks try to rebalance their portfolio, and would undermine the overall credit worthiness of a country.

(iv) \textbf{Administrative Measures as Last Resort.} If the size of the debt problem is overwhelming and other tools, including government financial support, are ineffective, administrative measures may become a last resort. Such measures include the imposition of a standard way of modifying distressed loans (possibly differentiated according to local market conditions) and a payment moratorium or foreclosure ban on distressed loans. A debt payment moratorium is particularly problematic because it interferes with contracts, negatively impacting the market’s perception of the quality of contract enforcement going forward, and would not address underlying debt overhang problems. Similarly, the imposition of an administrative ban on foreclosures does not solve the underlying debt overhang problems and could generate incentives to default by reducing the associated penalty, thereby exacerbating

\textsuperscript{15} Such foreign-currency denominated restructuring bonds have been used before in Bulgaria (1994, 1997, 1999), Korea (1998), Mexico (1995–96), Poland (1991), and Uruguay (1982–84), while foreign-currency-indexed restructuring bonds have been used in Indonesia (1998–2000) and Nicaragua (2000–01). However, in all these countries, these bonds have been issued as part of more general bank restructuring programs rather than household debt restructuring programs. \textit{See} David Hoelscher, 2006, \textit{Bank Restructuring and Resolution} (Washington: International Monetary Fund), for further details.

\textsuperscript{16} The 2002 Argentine asymmetric pesification is an example of a forced debt conversion program that imposed significant losses on banks and depositors, with profound negatively implications for financial intermediation and economic growth going forward. The program started with an external debt moratorium, an end to convertibility of the local currency, and the introduction of a dual exchange regime. A month later, the exchange regime was unified, and bank balance sheets were dedollarized at asymmetric rates and indexation, imposing large losses on both banks and depositors.
spillover effects on bank balance sheets. Other administrative measures, such as deposit freezes or the imposition of capital controls should be avoided when possible, given the high economic costs they impose on future financial intermediation.

**Other Policy Responses**

Government-sponsored debt restructuring programs are only one mechanism to restructure household debt. The key advantage of such programs is simplicity and speed—recognizing loan losses up front thus providing immediate relief to borrowers. At the same time, debt restructuring does not directly impose losses on borrowers, thus posing incentive problems, including moral hazard. These, however, can be mitigated to some degree by targeting a select group of borrowers and through burden sharing with borrowers.

In addition to a government-sponsored debt restructuring program, household debt restructuring may be also be facilitated indirectly through mechanisms supporting the financial health of banks such as: (i) recapitalizations and (ii) government purchases of distressed loans, for example by transferring distressed loans to asset management companies (AMCs) better equipped to resolve these loans. A positive feature of recapitalization is that—depending on its political support—it can be more selective in terms of bank-specific public support, and be based on the strength of the financial institution taking into account prospective losses resulting from the resolution of distressed assets. The transfer of distressed loans to an asset management company may facilitate household debt restructuring (while providing incentives to banks to recognize losses). However, such transfers are not without problems, including the risk of transferring assets at above market prices, thus bailing out existing bank shareholders, offering support beyond that necessary to restore the debt viability of borrowers.

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17 An example of a government program that involved government purchases of distressed loans is the U.S. Home Owners Loan Corporation (HOLC) established to in 1933. To prevent mortgage foreclosures, HOLC bought distressed mortgages from banks in exchange for bonds with federal guarantees on interest and principal. It then restructured these mortgages to make them more affordable to borrowers and developed methods of working with borrowers who became delinquent or unemployed, including job searches.
and political and legal challenges in asset resolution. The experience with asset management companies has been mixed and their success depends largely on the legal and institutional environment.\textsuperscript{18}

Countries typically apply a combination of these resolution strategies—with some more directed toward financial institutions and others more geared towards borrowers—and in the process often incur substantial fiscal costs.\textsuperscript{19} The mix of policy responses will ultimately be crisis specific and depend on a variety of factors, including the nature and depth of the financial crisis, and specific country circumstances.

\textsuperscript{18} While a detailed analysis of pros and cons of using an AMC as a debt restructuring tool goes beyond the scope of this note, in addition to valuation of the assets to be transferred, other key issues that need to be addressed in setting up and operating an AMC include: (i) whether the AMC is fully financed by the government or through a combination of government and other (e.g., official and private sector) financing; (ii) risk/loss sharing arrangements if the AMC has more than one shareholder; and (iii) governance/decision making structure of the AMC.

\textsuperscript{19} For a more extensive overview of how crises resolution policies have been used in past financial crises and the tradeoffs involved, see David Hoelscher and Marc Quintyn, 2003, \textit{Managing Systemic Financial Crises}, IMF Occasional Paper No. 224 (Washington: International Monetary Fund); and Patrick Honohan and Luc Laeven, 2005, \textit{Systemic Financial Crises: Containment and Resolution} (Cambridge: Cambridge University Press).
Appendix I

Table 1. Cost of Bankruptcy Proceedings in Selected Economies

<table>
<thead>
<tr>
<th>Country</th>
<th>Time (years)</th>
<th>Cost (% of estate)</th>
<th>Recovery rate (cents on the dollar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>2.8</td>
<td>12.0</td>
<td>29.8</td>
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Note: This table summarizes weaknesses in existing corporate bankruptcy law and the main procedural and administrative bottlenecks in the bankruptcy process. The indicators include: average time to complete a procedure, the cost of the bankruptcy proceedings, and the recovery rate, which calculates how many cents on the dollar claimants (creditors, tax authorities, and employees) recover from an insolvent firm. Data are based on a prototype firm (a hotel) and refer to bankruptcy proceedings for firms rather than households. Source: 2009 World Bank Doing Business database.
Appendix II

Brief Summaries of Previous Episodes of Household Debt Restructuring

United States (1933)

In 1933, at the onset of the U.S. Great Depression, the Home Owners Loan Corporation (HOLC) was established to prevent mortgage foreclosures. HOLC bought distressed mortgages from banks in exchange for bonds with federal guarantees on interest and principal. It then restructured these mortgages to make them more affordable to borrowers and developed methods of working with borrowers who became delinquent or unemployed, including job searches. Eligible mortgages include mortgages with an appraised value of $20,000 or less ($321,791 in 2008 dollars). Approximately 40 percent of those eligible for the program applied and half of these applications were rejected or withdrawn. Of the one million loans HOLC issued, it acquired 200,000 homes from borrowers who were unable to pay their mortgages. HOLC ended up making a relatively small profit when it was liquidated in 1951, in part because declining interest rates and the government guarantee allowed it to borrow inexpensively.

Mexico (1998)

Following the unsuccessful FOBAPROA bank restructuring program initiated in 1995, the government of Mexico initiated in December 1998 the Punto Final program, which was a government-led debt relief program targeted at mortgage holders, agribusiness, and small and medium-sized enterprises. The program offered large subsidies (up to 60 percent of the book value of the loan) to bank debtors to pay back their loans. The discounts depended on the sector, the amount of the loan, and on whether the bank restarted lending to the sector. For every three pesos of new loans extended by the bank, the government

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20 Some of the cases described in this Appendix touch on the issues that go beyond the intended coverage of the note as outlined in Section A. Table A1 presents data on selected household indicators for each case study (except the ongoing cases).
would assume an additional one peso of discount. The program thus combined loss sharing between the government and the banks with an incentive to restart lending. The program was successful in terms of rapid debt relief but at very large cost to the taxpayer.

### Uruguay (2000)

In Uruguay, a debt restructuring scheme approved in June 2000 offered a framework for the systemic and compulsory restructuring of small loans (up to US$50,000), by extending loan maturities and introducing gradually increasing payment schedules, and a largely voluntary scheme for large borrower workouts, with strong incentives for both banks and borrowers to reach restructuring agreements. Incentives to encourage creditor participation included (i) a flexible classification system for restructured loans to encourage banks to recognize implicit losses; and (ii) a reclassification as a loss with a 100 percent provisioning requirement of the failure to restructure a nonperforming loan within the timeframe provided by the scheme.

### Korea (2002)

A rapid expansion of the credit card market in Korea, encouraged by lax lending standards and other factors, resulted in a distressed credit card market with rising delinquencies in 2002.²¹ Credit card debt as percentage of GDP reached 15 percent in 2002. The credit card crisis spilled over to commercial banks, as commercial banks were heavily exposed to troubled credit card issuers through credit lines. Korean commercial banks’ lending to one single large troubled credit card issuer stood at 38 percent of creditor banks’ combined equity. Nevertheless, Korea’s commercial banks were generally able to absorb the losses for their credit card units without broader repercussions, as affected credit card units were generally merged into the respective parent banks. The stand alone credit card companies were generally more severely impacted by the credit card crisis. The principal ways of dealing with the bad credit card debt were loan write-offs. Other resolution methods employed include sales to third parties and

²¹ See also http://www.bis.org/reofficepubl/arpresearch_fs_200706.01.pdf?noreferrer=1.
Principles of Household Debt Restructuring

debt-to-equity conversions of credit card issuers’ debt. In addition, Korean authorities allowed credit card issuers to roll over delinquent credit card loans, a practice known as “re-ageing.” This form of regulatory forbearance eased the burden of provisions and charge-offs of these loans for issuers.

**Argentina (2002)**

The 2002 Argentine asymmetric pesofication is an example of what not to do. Argentina introduced a heterodox economic program in response to the crisis in January 2002 that included an external debt moratorium, an end to Convertibility, and introduction of a dual exchange regime. In February, the exchange regime was unified, the maturities of time deposits extended (the “corralón”), and bank balance sheets dedollarized at asymmetric rates—Arg$1 per dollar on the asset side, and Arg$1.4 per dollar on the liability side. The assets and liabilities of the banks were also subjected to asymmetric indexation: deposits were indexed to the rate of consumer price inflation while certain loans were indexed to wage inflation.

This policy framework imposed significant losses on banks and depositors. The fiscal cost amounted to about 15 percent of GDP, largely due to fiscal outlays accruing to the banks\(^2\); the losses suffered by banks far exceeded the entire net worth of the banking system. The deposit freeze and conversion resulted in a loss of depositor confidence and the collapse in financial intermediation. The conversion of deposits meant a dollar value erosion of 40 percent. Banks also lost because many of the creditworthy borrowers worrying about a further change in government’s decision opted to pay off their loans. This left the banks with a smaller and a lower quality loan book. Most banks reported significant reductions in both staff and in branches and remained cautious in expanding credit. The conversion led to a severe undercapitalization of the banking system. Moreover, depositors took advantage of exceptions and loopholes in the system, using judicial rulings to release frozen deposits at market exchange rate. In this environment, a large number of banks were weakened and became dependent on the central bank

\(^2\) A large fraction of this fiscal cost includes subsidies to banks to compensate for the asymmetric pesofication and asymmetric indexation.
liquidity window, accounting for 13 percent of total assets in 2003. The crisis had profound effects on the portfolio of the banking system. Private sector credit fell sharply, reflecting the collapse in credit demand and the repayments by existing borrowers. By 2003, the loans to the private sector declined to 15 percent of total assets (US$8.4 billion) while exposure to the public sector increased to 50 percent of total assets.

**Taiwan Province of China (2005)**

Rapid expansion of credit card debt resulted in a distressed credit card market, although credit card losses mostly affected small and specialized institutions. The ratio of nonperforming loans (NPL) to total loans for cash cards peaked at about 8 percent in 2006 (up from about 2 percent a year earlier), and for credit cards at about 3.5 percent (up from about 3 percent a year earlier). The system-wide NPL ratio was not visibly affected and continued its downward trend that began when Taiwan POC’s financial sector reform program began in 2000. Whilst the system-wide NPL ratio was not that much affected by the nonperforming card loans, there was a negative impact on the profitability of domestic banks. Average return on equity of domestic banks dropped to −0.41 percent at end-2006 (from 4.58 percent at end-2005) and average return on assets dropped to −0.03 percent at end-2006 (from 0.31 percent at end-2005). To facilitate renegotiation of debt between credit card issuers and debtors, the authorities initiated a personal debt restructuring program offering better repayment terms, covering 30 percent of outstanding credit card balances. Restructured loans were largely reclassified as performing, effectively granting issuers regulatory forbearance.

**United States (2008)**

A prolonged credit boom, supported by low interest rates and lax underwriting standards, and the expectation of rising house prices, came to a halt in 2007. The burst of the U.S. housing bubble led to rising foreclosures, which further depressed house prices. Foreclosures are on the rise because of household debt overhang,23 coordination failures

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23 About 10 million U.S. homeowners reportedly have negative equity, and more than half of subprime borrowers have debt-to-income (DTI) ratios exceeding 38 percent, a level below which loans are generally deemed affordable in the United States.
in arranging pre-foreclosure workouts, and legal impediments to loan workouts. The U.S. federal government has introduced or sponsored a number of homeowner “rescue” programs, starting with the FHASecure program announced in August 2007, and more recently the Hope for Homeowners (H4H) program, which was activated on

24 Including no-recourse mortgages that allow “under water” borrowers to walk away from affordable loans; bankruptcy law that does not allow modification of unaffordable mortgages on principal residences; and lack of safe harbor for loan modifications that leaves servicers open to lawsuits from disgruntled investors.

25 FHASecure, introduced on August 31, 2007 but significantly amended on May 7, 2008, offered stressed homeowners an opportunity to refinance into FHA-insured loans. The lender had to agree to write the loan off (via a “short refinancing”) for an amount not to exceed 97 or 90 percent of the current appraised home value, depending on the borrower’s recent payment record. The 97 percent LTV applied to borrowers who had not missed more than two monthly payments (individually or consecutively) during the previous year, and 90 percent to borrowers who had missed up to three monthly payments. The payments on the new loan were not to exceed 31 percent of income, and the total of all debt payments (home and non-home) were not to exceed 43 percent. Delinquent borrowers had to pay a 2.25 percent up-front mortgage insurance premium (UFMIP) and 55 basis points annually, while current borrowers paid 1.50 and 0.50 percent. The program, however, has not been successful in overcoming the difficulties identified in the previous section. The number of FHASecure refinancings has been disappointing, and it was phased out at the end of 2008.

26 The H4H program improves on FHASecure by covering severely delinquent borrowers, and providing incentives for second lien write-offs. It applies to mortgages on primary residences originated before January 2, 2008, and to borrowers whose current mortgage payments exceed 31 percent of gross income. The lender has to agree to write the loan off for an amount not to exceed 96.5 percent of the current appraised value, and waive all prepayment penalties and late payment fees. This “short refinancing” is funded by a new 30- or 40-year fixed-rate FHA-insured loan with payments that are at or below 31 percent of income, and ensuring that all debt payments (home and non-home) are at or below 43 percent. For borrowers with higher debt loads, the debt-to-income ratio can be expanded to 38 percent, but, in this case, the new principal amount cannot exceed 90 percent of current appraised value. The 1st lien holder also pays a three percent upfront FHA insurance premium, and the homeowner pays a 1.50 percent annual premium. In addition, if the (continued)
October 1, 2008. These efforts have met with only very limited success in stemming foreclosures.27

In addition, the Federal Deposit Insurance Corporation (FDIC) has introduced a streamlined modification program for the mortgage loans it picked up from failed mortgage lender/servicer IndyMac.28 A similar program for Fannie Mae and Freddie Mac guaranteed mortgages was also introduced by the Federal Housing Finance Agency (FHFA).29 They both use a stepwise decision processes that focuses on affordability, and not negative equity.

homeowner sells the house or refinances the new mortgage, the Department of Housing and Urban Development (HUD) gets back some of the “instant” equity (100 percent in the first year, declining to 50 percent after five years), plus, if the property is sold, 50 percent of any net HPA. Also, borrowers are prohibited from taking out new subordinated liens during the first five years, except when necessary to ensure maintenance of property standards.


28 Under the IndyMac Loan Modification Program, eligible mortgages will be modified into sustainable mortgages at a permanently reduced interest rate to achieve sustainable payments at a 38 percent debt-to-income ratio. Eligibility for the loan modification will be available for borrowers on a first mortgage on their primary residence which is owned or securitized and services by IndyMac where the borrower is seriously delinquent or in default. The loan modification does not involve fees or other charges for the borrower. The IndyMac scheme is an example of a voluntary loan workout scheme.

29 Firstly, they only consider for modification loans that are seriously delinquent (60 days or more for the FDIC program and 90 days for the FHFA program) to borrowers who own and occupy the property, and who have not filed for bankruptcy. The programs then attempt to find the modification with the minimum NPV impact that achieves a 38 percent DTI. The sequential process used by the FDIC program starts by capitalizing the arrearage into the unpaid balance, and if the resulting payment puts the borrower’s DTI over 38 percent, interest rate reductions and amortization term extensions are offered. If the DTI is still over 38 percent, principal forbearance is applied, involving converting a portion of the unpaid balance into a zero interest note due when the mortgage is paid off. Seriously delinquent loans, for which these modifications are insufficient to achieve the DTI targets, can still be considered on a case-by-case basis.
Several large U.S. banks have recently designed voluntary workouts of distressed mortgages. For example, Citigroup announced early November 2008 that it would modify terms on mortgages with debt-to-income ratios in excess of 40 percent. Modifications would include a lowering of the interest rate, extension of the terms of the loans, and as a last resort a reduction in principal.

Also, some states have imposed foreclosure moratoriums, typically of three to six months long, but these are just temporary palliatives that are unlikely to be effective in the long run in the absence of a more comprehensive approach.

**Hungary (2008)**

In November 2008, Hungarian commercial banks—faced with increased credit risk of their loan portfolios denominated in foreign currency due to a sharp depreciation of the local currency—signed a gentleman’s agreement with the ministry of finance on a foreign-currency loan workout program.30

The workout provides the borrowers with the following options: (a) apply to have their foreign currency loans converted to forint-denominated loans. If they do so before the end of the year, they will not be charged additional fees; (b) ask for an extension of the loan duration free of charge if there is a significant rise in their monthly repayments; and (c) ask for a temporary easing of repayment obligations, especially for borrowers who become unemployed. The key elements of the restructuring (i.e., the rate of loan conversion into the local currency and interest rates charged on restructured loans) were left to be determined by the parties involved. The conversion part of the program has not been taken up because of high domestic interest rates.

In addition, the government is preparing a legislation that would allow for temporary government guarantees (up to two years) on mortgage payments for those who become unemployed. While the final details are not available yet, preliminary reports suggest that the

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30 Reportedly, the agreement was signed somewhat reluctantly by the largest nine commercial banks, after the Ministry of Finance had stated it would introduce legislation to the same effect.
guarantees will be available for mortgages outstanding up to 20 million HUF, on primary residence only, and would require that a minimum payment of 10,000 HUF a month is maintained by the borrower.

United Kingdom (2008)

Early December 2008, the U.K. Treasury announced the Homeowners Support Mortgage Scheme to reduce the number of home foreclosures. Under the scheme, U.K. homeowners struggling to make mortgage payments can defer a portion of their payments by up to 2 years. Borrowers with mortgages up to £400,000 and with savings lower than £16,000 are eligible to roll up mortgage payments into the principal, and pay off the principal when conditions improve. The U.K. Treasury will guarantee the deferred interest payments for those banks participating in the scheme. Most of the country’s largest lenders agreed to participate in the program.

Table A1. Household indicators, pre- and post-debt restructuring

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<td>Unemployment rate (in %)</td>
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<td>Private debt/ GDP (in %)</td>
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BIOGRAPHICAL SKETCHES
Biographical Sketches

Jeffery Atik is a Professor of Law and Sayre MacNeil Fellow. He as an AB, with Distinction from the University of California, Berkeley, a J.D. from Yale Law School, and a Ph.D. from Universidad Autonoma de Madrid. Jeffery Atik writes on international finance, international trade, international intellectual property and regulatory competition issues involving NAFTA, the European Union and the WTO. Atik has also taught at Berkeley (Boalt Hall), Boston College, Indiana-Bloomington, Lund (Sweden), Suffolk, and UCLA law schools, and at Washington-St. Louis and The Fletcher School of Law and Diplomacy. Atik is a member of the United States’ NAFTA Chapter 19 roster and has served on three NAFTA binational panels, including the review in Softwood Lumber from Canada. He practiced law with Shearman & Sterling (New York), Testa Hurwitz (Boston), and Brown & Dobson (Milan). He is a member of the New York, Connecticut, Massachusetts and Missouri bars.

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Linda M. Beale received a B.S. degree in chemistry magna cum laude from Duke University, an M.A. and Ph.D. in linguistics from Cornell, where she was a Herbert Lehman Fellow, a J.D. summa cum laude from Cornell Law School, and an LLM in taxation from New York University. Prior to her entry in law teaching, Professor Beale clerked with Judge Dorothy Nelson on the Ninth Circuit and worked at Cleary, Gottlieb, Steen & Hamilton in New York (with one year in Washington, D.C.) as a tax associate. Her work with Cleary’s many financial institution and multinational corporate clients included a wide range of tax issues such as securitizations, partnerships, and cross-border corporate mergers and acquisitions. She has also served as a congressional staffer, a Peace Corps volunteer in Colombia, and a university administrator at Binghamton University.
Professor Beale’s scholarship has focused on various aspects of corporate tax shelters, proposing more transparent financial reporting of aggressive tax transactions and higher standards for taxpayers and tax advisers as a means of discouraging the tax minimization norm that facilitates aggressive tax positions. She has also written and spoken extensively about the patenting of tax strategies, most recently at the Drake-Tundra 2009 Intellectual Property Roundtable, and serves on the ABA Tax Section’s task force on tax strategy patents. Her scholarship can be accessed through SSRN at http://ssrn.com/author=83521. Professor Beale also maintains a weblog, http://ataxingmatter.blogs.com/tax/, dedicated to discussion of tax and budgetary matters in the context of the demands of democratic egalitarianism.

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Prior to assuming her current position, Ms. Bolger was Managing Director and Associate General Counsel for Standard & Poor’s Ratings Services where she had worldwide responsibility for Ratings Services’ legal regulatory affairs. She joined Standard & Poor’s in 1990 and held positions in the Ratings Services’ legal department responsible for many aspects of the ratings business. Prior to joining Standard & Poor’s, Ms. Bolger was associated with the law firm of Dechert, Price & Rhoads where she advised Standard & Poor’s on many aspects of the ratings business. Ms. Bolger holds a bachelors degree in Government from Smith College and a law degree from Tulane University School of Law.

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Sean Hagan is General Counsel and Director of the Legal Department at the International Monetary Fund. In this capacity, Mr. Hagan advises the Fund’s management, Executive Board and membership on all legal aspects of the Fund’s operations, including its regulatory, advisory and lending functions. Mr. Hagan has published extensively on both the law of the Fund and a broad range of legal issues relating to the prevention and resolution of financial crisis, with a particular emphasis on insolvency and the restructuring of debt, including sovereign debt.

Prior to beginning work at the IMF, Mr. Hagan was in private practice, first in New York and subsequently in Tokyo. Mr. Hagan received his Juris Doctor from the Georgetown University Law Center and also received a Master of Science in International Political Economy from the London School of Economics and Political Science.

Tomohiro Hirano is an assistant professor of the University of Tokyo. He received the degree of Doctor of Economics from the University of Tokyo in 2010. Previously, he was a research fellow at the Financial Services Agency of Japan for three years. His research area is financial frictions and macroeconomics. In particular, he has written papers on asset price bubbles, such as “Asset Bubbles, Endogenous Growth, and Financial Frictions,” “Financial Institutions, Asset
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**Friedrich Kübler** is a Professor at the University of Pennsylvania Law School. Mr. Kübler is an expert on corporations, banking and mass media. He has written or co-written more than 20 books and other independent publications and has published more than 100 articles in contract and property law; corporations, banking and securities regulation; and mass media and legal theory, many of them comparing American with European legal structures. His textbook on German corporate law has seen six editions and was recently translated into Spanish. Last year, he published a textbook on German Mass Media Law. He is a member of the American Law Institute and has served on the boards of the Deutscher Juristentag (the German institution corresponding to the American Law Institute) and the German Association of Comparative Law. He was a Commissioner of the German Interstate Commission for the Regulation of Media Concentration and served on the board of the Hessian Public Service Broadcasting Entity. He is a member of the European Shadow Financial Regulatory Committee and of the Frankfurt Academy of Sciences.

**Luc Laeven** is Deputy Division Chief in the Research Department of the International Monetary Fund. Prior to this, he was a Senior Economist at the World Bank. His research focuses on international banking and corporate finance issues and has been published in top academic journals, including the *Journal of Finance*, the *Journal of Financial Economics*, the *Review of Financial Studies*, and the *Review of Economics and Statistics*. He has also co-edited a book on *Systemic Financial Crises: Containment and Resolution* published by Cambridge University Press and a Reader on International Corporate Finance. He is a Research Fellow of the Centre for Economic Policy Research (CEPR) in London and has studied at Tilburg University, the University of Amsterdam, and the London School of Economics.

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Cromwell in New York and London. He has taught European Union Law at the University of London, School of Oriental and African Studies and is a frequent speaker on international finance, debt restructuring and financial regulatory reform. His practice at SNR Denton includes advice to government and private sector clients in their dealings with multilateral financial institutions and foreign investment, with a specialty on Africa.

Jerry W. Markham is a Professor of Law, Florida International University at Miami. Mr. Markham is a prolific, nationally recognized scholar and proven classroom teacher in the fields of corporate finance, banking, commodities trading, and securities regulation. He came to the Florida International University College of Law from the University of North Carolina where he was a member of the law faculty for 12 years. Before that, he served for 10 years as an adjunct professor at the Georgetown University School of Law.

In addition to numerous law journal articles, Markham is the author of a three-volume financial history of the United States that was selected as a Choice Outstanding Academic Title in 2002. He also published a book on the Enron era scandals, and is completing a two-volume work on the subprime crisis that shook the nation in 2008. Markham has co-authored four casebooks on corporate law and banking regulation. He also has published a two-volume treatise and a history book on the law of commodity futures regulation, and was the principal coauthor of a two-volume treatise on broker-dealer regulation. Markham also served as a peer reviewer for the RAND study on fee based brokerage accounts that was commissioned by the Securities and Exchange Commission.

Before his move to academia, Professor Markham served as secretary and counsel, Chicago Board Options Exchange, Inc.; chief counsel, Division of Enforcement, United States Commodity Futures Trading Commission; attorney, Securities and Exchange Commission; and a partner with the international firm of Rogers & Wells (now Clifford Chance) in Washington, D.C. In law school, he served as Editor-in-Chief of the Kentucky Law Journal and was named to the Order of the Coif.

Toshiyuki Miyoshi is director of the Supervisory Planning Office at the Supervisory Bureau of Japan’s Financial Services Agency
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Prior to joining the FSA, Mr. Miyoshi was Senior Advisor to Executive Director for Japan at the International Monetary Fund in Washington, D.C., from 2002 to 2006. He also worked on regional monetary cooperation in East Asia at the International Bureau of the Ministry of Finance, and was private secretary to Senior State Secretary for Financial Reconstruction from 1999 to 2000.

Mr. Miyoshi graduated from the University of Tokyo in 1991 and received the degree of Master of Philosophy in Politics from the University of Oxford in 1995.

Richard H. Neiman is Vice Chairman of the Global Financial Services Regulatory Practice at PricewaterhouseCoopers LLP. Prior to joining PwC, Mr. Neiman served as the Superintendent of Banks for the State of New York from March 2007 until May 2011. In that capacity, he was responsible for the supervision of all state-chartered depository institutions, including the majority of the U.S. branches and agencies of foreign banks. Mr. Neiman also served as Chairman of the Foreign Bank Regulatory Committee of the Conference of State Bank Supervisors.

While serving as New York’s chief banking regulator, Mr. Neiman was appointed by U.S. House of Representatives Speaker Nancy Pelosi in November 2008 as one of five members of a Congressional Oversight Panel created to oversee the implementation of the Emergency Economic Stabilization Act, including the Troubled Asset Relief Program (TARP).

Previously, Mr. Neiman served as executive vice president and general counsel of TD Waterhouse Group, a major broker/dealer and president and CEO of its affiliated national bank TD Bank USA. Earlier, he was general counsel of the global equities group at Citibank, and a director in the regulatory advisory services practice of what was
then Price Waterhouse LLP. He began his career in the Office of the Comptroller of the Currency in Washington, DC, serving initially as a staff attorney and then as special assistant to the chief counsel.

He currently serves as an advisory board member at Columbia Business School’s Chinese Business Initiative and as a member of the Bretton Woods Committee. He also serves on the board of the Harlem Educational Activities Fund (a mentoring and college preparatory organization) and on the advisory board of the Henry Street Settlement, one of New York’s oldest social services organizations.

In 2010, Mr. Neiman received the Foreign Policy Association’s Medal for Public Service, a distinguished honor whose prior recipients have included Treasury Secretary Timothy Geithner and New York City Mayor Michael Bloomberg. In 2009, he received the Distinguished Public Service Award from the Rockefeller College of Public Affairs and Policy.

Michael Nonaka is an associate in Covington and Burling LLP’s Financial Institutions practice group in Washington, D.C. He represents banks and other financial institutions on a wide variety of bank regulatory, enforcement, legislative and policy issues. Mr. Nonaka has extensive experience advising clients on financial services legislation such as the Dodd-Frank Wall Street Reform and Consumer Protection Act. He is a graduate of the University of Pennsylvania Law School.

Prof. Soogeun Oh of Ewha Womans University, Seoul, Korea is a leading scholar in insolvency law of Korea. As the chairperson of the Special Committee for the Amendment to the Insolvency Law, he drafted the Korean insolvency law of 2006.

He has represented Korea in various international settings including UNCITRAL, FAIR and ADB seminars since 1998. He was also elected as the chairperson of the 42nd Commission session of the UNCITRAL in 2009.

Mark Sobel is Deputy Assistant Secretary for International Finance, U.S. Department of the Treasury. Mark Sobel has also served as Acting Assistant Secretary for International Affairs. He is also the Deputy Assistant Secretary for International Monetary and Financial Policy in the U.S. Treasury Department. In this capacity, Mr. Sobel advises senior Treasury officials on a range of issues: coordinating the Department’s participation in the G-7/20, overseeing U.S. positions on financial and institutional policies in the IMF, providing analyses on U.S. balance of payments developments, managing the Exchange Stabilization Fund, developing foreign exchange policy and formulating international banking and securities market policies. In this latter regard, he oversees technical level discussions between the U.S. and the European Commission in the context of the Financial Market and Regulatory Dialogue, chairs financial regulatory discussions with Japan, China, Mexico, Canada and Australia, and leads the Department’s preparations for the Financial Stability Board. Mr. Sobel has worked at the Department for over two decades. Prior to assuming his current position in 2000, Mr. Sobel served, inter alia, in the U.S. office at the IMF, and was Director of the Department’s International Monetary Policy and Transition Economy office.

Shinjiro Takagi has been an advisor of Nomura Securities Co., Ltd., since 2007. He was admitted to Japanese bar in 1963. After being in private practice for 25 years, he moved to the bench as the Judge of Tokyo District Court in 1988, the President & Chief Judge of Niigata and Yamagata District Court in 1995, and the Judge of Tokyo High Court (Court of Appeal) in 1998. He retired from the bench in 2000. After resuming private practice, he successfully reorganized a lot of big corporations.

He was Professor of Law at Dokkyo University from 2000 to 2003 and at Chuo University Law School from 2003 to 2006. He received a Doctor of Law (Ph.D.) degree in 2002.
He served the Chair of the Committee for Guidelines of Multi-Creditors Out of Court Workout established by the Japanese Bankers’ Association, etc., in 2001, and also chaired other two committees that were organized by Ministry of Economy, Trade and Industry from 2001 to 2003, i.e., the Advisory Committee regarding Law Reformations including Corporate Reorganization Law and the Drafting Committee of Guidelines for Early Business Revitalization.

He was Chair of Industrial Revitalization Corporation of Japan from 2003 to 2007. He is the chair of the Selecting Committee of the Presiding Professionals of Business Reorganization Alternative Dispute Resolution since 2008.

He wrote numerous books and articles regarding Japanese and foreign insolvency and other related matters.

**D. Jean Veta** is a partner in the law firm of Covington and Burling LLP. Her litigation and regulatory practice focuses on civil and regulatory enforcement matters, government investigations, internal corporate investigations, and congressional investigations, primarily on behalf of financial institutions and their officers and directors. She has served as Chair of the firm’s Financial Institutions Group and is recognized by *Chambers USA* as a leader in the field of Financial Services Enforcement and Investigations. Ms. Veta was a finalist for Regulatory Lawyer of the year at the 2012 Chambers USA Woman in Law Awards. She also is recognized in the 2011 edition of *Best Lawyers in America* for banking law, is listed as one of Washington’s *Super Lawyers* in white collar criminal defense, and is recommended by *The Legal 500* for SEC investigations and enforcement actions. Her practice includes the representation of clients on a broad array of regulatory enforcement matters, including anti-money laundering, lending discrimination, safety and soundness, and other government investigations. Prior to rejoining Covington in 2001, Ms. Veta was Deputy Associate Attorney General at the United States Department of Justice, where she was responsible for a wide range of legal and policy issues.

**José Viñals** was appointed to the position of Financial Counsellor and Director of the Monetary and Capital Markets Department of the International Monetary Fund on April 15, 2009. Prior to his
appointment, Mr. Viñals was Deputy Governor at the Bank of Spain from July 2006.

After joining the Bank of Spain in 1984, he held a number of senior positions and has served on a range of advisory and policy committees at the central bank and within the European Union, including as Chairman of the European Central Bank’s International Relations Committee.

A former faculty member in the Economics Department at Stanford University, he holds a master’s degree in economics from the London School of Economics and a Ph.D. in economics from Harvard University. Mr. Viñals has published widely on macroeconomics, monetary policy, and financial issues, and is a research fellow at the Centre for Economic Policy Research.

Arthur E. Wilmarth, Jr. is a Professor of Law, George Washington University. Professor Wilmarth joined the faculty in 1986, following 11 years in private law practice. Prior to joining the Law School, he was a partner in the Washington, D.C., office of Jones, Day, Reavis & Pogue. Professor Wilmarth teaches courses in banking law, contracts, corporations, and American constitutional history.

He is the author of numerous articles in the fields of banking law and American constitutional history, and co-author of a book on corporate law. In 2005, the American College of Consumer Financial Services Lawyers awarded him its prize for the best law review article published in the field of consumer financial services law during the previous year.

Professor Wilmarth has testified before committees of the U.S. Congress, the California legislature, and the D.C. Council on bank regulatory issues. In 2010, Professor Wilmarth served as a consultant for the Financial Crisis Inquiry Commission, the body created by the U.S. Congress to investigate the causes of the Financial Crisis. During 2008–09, Professor Wilmarth served as chair of the Section on Financial Institutions and Consumer Financial Services of the Association of American Law Schools, after serving as the section’s chair-elect and annual program chair during 2007–08. He is a member of the editorial board of the Journal of Banking Regulation, published by Palgrave Macmillan Ltd.
Hiromi Yamaoka is Associate Director-General, Financial System and Bank Examination Department, Bank of Japan. He received the degrees of Bachelor of Laws from the University of Tokyo in 1986 and Master of Laws from the Boalt School of Law, University of California at Berkeley in 1990. He is admitted to the New York State Bar. He joined the Bank of Japan in 1986 and has held various positions. He was Representative in Paris during 1994–96, Head of Economic Outlook Group, Research and Statistics Department in 1997–98, Director and Senior Economist, Policy Planning Office Division I in 1998–2004, and Head of Large Bank Surveillance Division, Financial Systems and Bank Examination Department in 2006–07. Prior to taking his present position, he was Alternate Executive Director for Japan at the IMF during 2007–2010.

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Professor Yoshino graduated from the Faculty of Economics at Tohoku University in 1973 and obtained a Ph.D. in economics from The Johns Hopkins University in 1979. He has been Visiting Scholar at the Massachusetts Institute of Technology, Visiting Lecturer at the University of Tokyo, Visiting Professor at the University of New South Wales (Australia), Fondation Nationale des Sciences Politiques (Paris) and Goteborg University (Sweden, where he received an honorary doctorate degree). He was Assistant Professor at State University of New York at Buffalo and Associate Professor at Saitama University (Japan), before he joined Keio University in 1990. He specializes in monetary and fiscal policy.

Professor Yoshino holds board memberships and chair positions at a number of government committees, and has been Director of Financial Research and of the Training Center of the Financial Services Agency since 2004. He was selected as “World Top 100 Educators’ Award, Cambridge, UK, 2009.”

Publications include: Yoshino, Naoyuki and Thomas Cargill, Postal Saving and Fiscal Investment in Japan, Oxford University Press, 2003; Yoshino, Naoyuki and Sahoko Kaji and Ayako Suzuki, “The Basket-Peg, Dollar-Peg and Floating Exchange Rate

Toshiki Yotsuzuka is currently a Professor of Finance at Waseda University’s Graduate School of Finance, where he teaches quantitative investment courses such as Fixed Income Investments, Hedge Fund Strategies, and Asset Allocation.

Dr. Yotsuzuka was a Managing Director at Salomon Brothers Inc, where he worked from 1989 through 1997 in the areas of Japanese Fixed Income Arbitrage and Japanese Convertible Arbitrage. In addition to his primary responsibilities as Head of Proprietary Research and Risk Management, Dr. Yotsuzuka also served on the firm’s Global Risk Management Committee, and was a member of the Board of Directors of Salomon Swapco Inc, a AAA-rated derivatives subsidiary.

Prior to his career at Salomon, Dr. Yotsuzuka was an Assistant Professor at the Graduate School of Business of the University of Chicago from 1987 to 1989. He returned to academia in 1997 to hold faculty positions at Hosei and Hitotsubashi Universities before moving to Waseda University in 2004.

Dr. Yotsuzuka has also served on the Board of Directors of Simplex Holdings Inc. since 1997. He was also a Board Member at Simplex Asset Management Co. Ltd., a hedge fund firm based in Tokyo, from 1999 through 2008. Dr. Yotsuzuka received his Ph.D. in Economics from the Massachusetts Institute of Technology.

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From 1998 to 2010, she was Head of Division at the Legal Services of the European Central Bank (ECB), firstly of the Institutional Law Division (until 2006) and then of the Legal Advice Division. During this time, she represented the ECB on the Legal Committee of the
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Chiara Zilioli has always worked at the core of European integration, having previously been a Senior Legal Counsel at the European Monetary Institute (EMI) (1995 to 1998) and, before that, a member of the Legal Services of the Council of the European Union (EU) (1989 to 1993).

She is a lecturer of Community law and Central Banking law at the Institute for Law and Finance (Johann Wolfgang Goethe-Universität, Frankfurt) and at the Collegio Europeo di Parma. She was visiting professor at the European University Institute in Florence in 2003, and gave a specialized course at EUI's 2012 Academy of European Law.

She has published a variety of articles, as well as three books, on EU law and international law topics.

As of June 2010, Chiara Zilioli is Deputy Director General of the ECB’s Directorate General HR, Budget and Organization.