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Steven L. Schwarcz

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SMU DEDMAN SCHOOL OF LAW
ROY R. RAY LECTURE
MARKETS, SYSTEMIC RISK, AND THE
SUBPRIME MORTGAGE CRISIS¹

Steven L. Schwarcz*

The recent subprime mortgage meltdown is undermining financial market stability and has the potential to cause a true systemic breakdown, collapsing the world's financial systems like a row of dominoes. This essay uses the subprime crisis to demonstrate that existing protections against systemic risk, which focus on banks and largely ignore financial markets, are anachronistic and misguided. Because companies increasingly access financial markets without going through banks, an effective framework for containing systemic risk must focus on markets.

INTRODUCTION

IN a forthcoming article, I examine financial-market anomalies and obvious market protections that failed, seeking insight into the subprime mortgage crisis.² The crisis can be explained in large part by three categories of factors: conflicts, complacency, and complexity. Running throughout these categories is a fourth factor—cupidity, but because greed is so ingrained in human nature and so intertwined with the other categories, it adds little insight to view it as a separate category.

For example, the excesses of the originate-and-distribute model of mortgage securitization—under which mortgage lenders sell off loans as

1. Copyright © 2008 by Steven L. Schwarcz. This Essay is based on the author's Roy R. Ray Lecture at the Southern Methodist University Dedman School of Law delivered on March 25, 2008. Parts of the essay also derive from the author's forthcoming articles, *Systemic Risk*, 97 GEO. L.J. (forthcoming 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1008326#PaperDownload; and *Protecting Financial Markets: Lessons from the Subprime Mortgage Crisis*, 93 MINN. L. REV. (forthcoming 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1056241.

* Stanley A. Star Professor of Law & Business, Duke University School of Law; Founding/Co-Academic Director, Duke Global Capital Markets Center. The author may be contacted at schwarcz@law.duke.edu. The author testified about systemic risk before the U.S. House of Representatives Committee on Financial Services on October 2, 2007 and has been Academic Advisor to the U.S. Federal Reserve Bank of Cleveland on the subprime mortgage crisis. He thanks the participants in a University of Utah College of Law faculty colloquium and the participants at SMU Law School's 2008 Roy R. Ray Lecture for their comments and the members of the SMU Law Review staff for their research assistance.

2. Schwarcz, *supra* note 1.

they are made which are then packaged into mortgage-backed securities and sold to investors—can be managed by avoiding conflicts, such as aligning the interests of the mortgage lenders and investors.³ The excesses of the form of complacency perhaps most responsible for the subprime mortgage crisis—widespread investor infatuation with securities that have no established market and, instead, are valued by being marked-to-model—have at least in the near-term been discredited by the losses associated with the subprime crisis itself.⁴ Complexity, the third category, was a central culprit responsible for the failure of disclosure in the subprime crisis, but viable solutions appear to be second best.⁵

The subprime crisis, however, has the potential to trigger an even more systemic collapse of our financial markets *for reasons that go beyond these categories*. The risk of this collapse (“systemic risk”) is, more generally, regarded as the risk that an economic shock—in the present case, the subprime mortgage crisis—can trigger a chain of market and/or financial institution failures, resulting in increases in the cost of capital or decreases in its availability.⁶ Because systemic risk is positively correlated with markets, investors cannot diversify it away.⁷

Governments in the United States and abroad are seriously concerned about the subprime crisis and its potential systemic consequences.⁸ The near-failure of Bear Stearns is just a recent example of these consequences.⁹ I will use this crisis to demonstrate, however, that existing protections against systemic risk are insufficient.

ANALYSIS

In the past, regulators have thought about systemic risk primarily in terms of institutional failures—since the Great Depression, for example, a chain of bank failures;¹⁰ and also, since the near-failure of Long-Term

3. *Id.*

4. *Id.*

5. *Id.*; see also Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1, 16-17.

6. Schwarcz, *supra* note 1.

7. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 446 (6th ed. 2003) (arguing that risk that is positively correlated with the market itself cannot be diversified away).

8. See, e.g., *Systemic Risk: Examining Regulators' Ability to Respond to Threats to the Financial System: Hearing Before the H. Comm. on Fin. Servs.*, 110th Cong. 1-3 (2007), available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_house_hearings&docid=f:39903.pdf; Lauren Young, *Bernanke's New Entourage*, *BUS. WK.*, Feb. 11, 2008, at 60 (discussing the Federal Reserve's concern over the subprime mortgage crisis and its potential systemic effect); Tony Pugh, *Risky, Subprime Loans Fuel Mortgage Crisis*, *CHARLESTON GAZETTE*, Aug. 15, 2007, at 3A (noting that there is “international concern because U.S. mortgage debt has been packaged into securities that were sold around the world”).

9. See, e.g., Landon Thomas Jr., *Run on Big Wall St. Bank Spurs Rescue Backed by U.S.*, *N.Y. TIMES*, Mar. 15, 2008, at A1.

10. In response to the stock market downturn of August 1929 and the crash of October 1929, depositors en masse attempted to convert their bank deposits into cash. Gary Richardson, *Bank Distress During the Great Contraction, 1929 to 1933*, *New Data from the Archives of the Board of Governors* 5 (Nat'l Bureau of Econ. Research, Working Paper No. 12590, 2006). Many banks were unable to satisfy all of these demands, causing them to fail

Capital Management (“LTCM”) in 1998, the failure of a large hedge fund which could bring down its contractual counterparties.¹¹ Yet companies increasingly obtain their capital from financial markets, not from banks or other financial institutions. This shift, referred to as disintermediation,¹² makes financial markets increasingly central to any examination of systemic risk. Some financial leaders are already beginning to call for an expanded focus on markets.¹³

The subprime mortgage crisis confirms the importance of this expanded focus. The crisis was triggered not by institutional failure but by market failure. Once investors realized that highly-rated subprime mortgage-backed securities could lose money, they began shunning all complex securitization products,¹⁴ including asset-backed commercial paper, historically thought to be almost as safe as cash.¹⁵ The impact of this crisis is already becoming systemic, extending beyond mortgage- and asset-backed securities to the auction-rate securities market, which many re-

and contracting the money supply. *Id.* These failures, in turn, caused many otherwise solvent banks to default, and many companies, deprived of liquidity, were forced into bankruptcy. FREDERIC S. MISHKIN, *THE ECONOMICS OF MONEY, BANKING, AND FINANCIAL MARKETS* 189 (2d ed. 1989); Richardson, *supra*, at 24.

11. William J. McDonough, President, Fed. Reserve Bank of N.Y., Address Before the Committee on Banking and Financial Services, U.S. House of Representatives (Oct. 1, 1998) (discussing likely consequences of a systemic collapse triggered by a failure of LTCM).

12. WESLEY B. TRUITT, *THE CORPORATION* 107–09 (2006); Steven L. Schwarcz, *Enron and the Use and Abuse of Special Purpose Entities in Corporate Structures*, 70 U. CIN. L. REV. 1309, 1315 (2002).

13. See, e.g., John Gieve, Deputy Governor, Bank of Eng., Speech at the Centre for the Study of Financial Innovation Roundtable: Financial System Risks in the UK—Issues and Challenges (July 25, 2006); Andre Icard, Deputy Manager, Bank for Int’l Settlements, Speech at the Fourth Joint Central Bank Research Conference on Risk Management and Systemic Risk: Risk Measurement and Systemic Risk (Nov. 8, 2005), available at www.bis.org/speeches/sp051108.htm (discussing the “evolution of systemic risk” to include interdependencies among banks, financial markets, and market infrastructure); Yutaka Yamaguchi, Deputy Governor, Bank of Japan and Chairman, Comm. on the Global Fin. Sys., Speech for the Third Conference on Risk Measurement and Systemic Risk: Triangular View of Systemic Risk and Central Bank Responsibility (Mar. 18, 2002), available at <http://www.bis.org/cgfs/conf/mar02h.pdf> (warning that in order to understand systemic risk, one must investigate the nexus among the banking system, financial markets, and the real economy). As this essay was going to press, the U.S. Department of the Treasury released a Blueprint for a Modernized Financial Regulatory Structure (March 2008) that gives greater attention to financial markets.

14. Cf. Schwarcz, *Protecting Financial Markets*, *supra* note 1 (explaining that the subprime mortgage crisis affected equity, mezzanine, and even senior classes of securities, ultimately causing a general “loss of confidence in financial markets”). This problem is sometime referred to as “adverse selection.” In the subprime crisis, investors became uncertain which securitization products were good and which were bad. Investors, therefore, stopped investing in all securitization products. This partly resulted from an inability to value some of the more complex mortgage-backed securities for which there was no active trading market. Valuation therefore was priced off quantitative models. Marking-to-model, however, creates intrinsic valuation uncertainties, and indeed the valuations priced off those models proved hopelessly unreliable.

15. See Mary Brown, *Asset-Backed Commercial Paper Carries High Rise*, INVESTOPEDIA, <http://www.investopedia.com/articles/bonds/08/commercial-paper.asp> (last visited Apr. 7, 2008) (noting that asset-backed commercial paper “can be referred to as a ‘cash equivalent[]’”).

garded as highly liquid and secure,¹⁶ and to credit markets generally.¹⁷ This, in turn, is causing market participants to avoid financial institutions, such as investment bank Bear Stearns, with large portfolios of these securities.

Existing protections against systemic risk are failing in the subprime crisis because they focus almost exclusively on banks, not markets. Furthermore, general regulatory protections against market failure—primarily disclosure under the securities laws,¹⁸ and the “market discipline” approach of the current Bush Administration¹⁹—are not directed against systemic risk per se.

More tailored financial-market regulation is needed because systemic risk is somewhat unique. It results from a type of “tragedy of the commons”²⁰ in which the motivation of market participants “is to protect themselves but not the system as a whole. . . . No firm . . . has an incentive to limit its risk taking in order to reduce the danger of contagion for other firms.”²¹ Even if market participants were able to collectively act to prevent systemic risk, they might not choose to do so because the externalities of systemic failure include social costs that can extend far beyond market participants, such as widespread poverty, unemployment, and crime.²² Market participants will not want to internalize these costs and

16. See Liz Rappaport & Kara Scannell, *Credit Crunch: Auction Rate Turmoil Draws Watchdogs' Scrutiny*, WALL ST. J., Feb. 22, 2008, at C2.

17. See, e.g., Martin Feldstein, *Our Economic Dilemma*, WALL ST. J., Feb. 20, 2008, at A15 (observing “the paralysis of the credit markets”). Part of the reason that credit markets are generally affected is adverse selection as to credit counterparties, not merely adverse selection as to securitization products. See discussion *supra* note 14. Investors have become uncertain regarding which counterparties have large investments in questionable securities, making such counterparties potentially financially shaky.

18. See, e.g., Greg Lumelsky, *Does Russia Need a Securities Law?*, 18 NW. J. INT'L L. & BUS. 111, 122-23 (1997) (observing that “[s]ince before the New Deal, the U.S. philosophy of securities regulation has been based on the provision of continuous, accurate, public disclosure as a remedy against fraud and as a way to reduce risk associated with the purchase and sale of securities”).

19. Ben S. Bernanke, Chairman, Bd. of Governors, U.S. Fed. Reserve Sys., *Hedge Funds and Systemic Risk*, Speech at the Federal Reserve Bank of Atlanta's 2006 Financial Markets Conference (May 16, 2006), available at <http://www.federalreserve.gov/Boarddocs/speeches/2006/200605162/default.htm>; Anthony W. Ryan, Assistant Sec'y for Fin. Mkts., U.S. Dep't of the Treasury, *Remarks Before the Managed Funds Association Conference* (June 11, 2007), available at <http://www.ustreas.gov/press/releases/hp450.htm>. *But cf. supra* note 13 (noting the Administration's increasing focus on financial markets, presumably in response to the subprime mortgage crisis).

20. See, e.g., Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243, 1244 (Dec. 13, 1968) (exemplifying the tragedy of the commons by a commonly-owned pasture that is overgrazed because no individual owner has the right to exclude use by other owners).

21. See PRESIDENT'S WORKING GROUP ON FIN. MKTS., HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG TERM CAPITAL MANAGEMENT 31 (1999), available at <http://www.treas.gov/press/releases/reports/hedgfund.pdf> [hereinafter PRESIDENT'S WORKING GROUP].

22. The widespread poverty and unemployment caused by the Great Depression, for example, apparently fostered a significant increase in crime. See Jeffrey L. Kirchmeier, *Another Place Beyond Here: The Death Penalty Moratorium Movement in the United States*, 73 U. COLO. L. REV. 1, 11 (2002) (discussing an explosion of executions as probably resulting from increased crime due to the Great Depression).

thus will take an insufficient amount of care in preventing them. Therefore, like a tragedy of the commons, the benefits of exploiting finite capital resources accrue to individual market participants, each of whom is motivated to maximize use of the resource, whereas the costs of exploitation, which affect the real economy, are distributed among an even wider class of persons.

Individual market participants also may choose to act selfishly because their returns are assured, whereas a systemic collapse is not necessarily inevitable. LTCM, for instance, knew there was a risk of failure if the markets became irrational, but it chose to stick with models that made money.²³ Ignoring a possible greater risk for the sake of personal gain is not unique to the world of finance. Before the *Challenger* space shuttle disaster, engineers knew of the risk that the rubber O-rings might fail at cold temperature and argued that the launch should be delayed until warmer weather. Engineers also identified the potential for wing damage before the *Columbia* disaster. In both cases, however, NASA administrators appeared to have been less concerned about the possible safety risks than about the impact on their personal reputations of canceling flights.²⁴

So what can we do? It would be ideal to eliminate the risk of systemic collapse, *ab initio*. This could be achieved by preventing financial panics, since they are often the triggers that commence a chain of market failures. For example, doubt arising over a financial market's future liquidity can trigger a stampede to sell first while the market is still liquid, thereby inadvertently destroying the market's liquidity. Contractual counterparties rush to try to close out their positions, causing prices to drop sharply,²⁵ which in turn leads to a vicious cycle in which prices plummet and investors lose confidence.²⁶

23. ROGER LOWENSTEIN, *WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT* 71–75, 173 (2000).

24. RICHARD BOOKSTABER, *A DEMON OF OUR OWN DESIGN: MARKETS, HEDGE FUNDS, AND THE PERILS OF FINANCIAL INNOVATION* 159–61 (2007).

25. This vicious cycle can be exacerbated by the common requirement that a securities account be adjusted in response to a change in the market value of the securities. An investor, for example, may buy securities on credit from a securities broker-dealer, securing the purchase price by pledging the securities as collateral. To guard against the price of the securities falling to the point where their value as collateral is insufficient to repay the purchase price, the broker-dealer requires the investor to maintain a minimum collateral value. If the market value of the securities falls below this minimum, the broker-dealer will issue a "margin call" requiring the investor to deposit additional collateral, usually in the form of money or additional securities, to satisfy this minimum. Failure to do so triggers a default, enabling the broker-dealer to foreclose on the collateral. ZVI BODIE ET AL., *INVESTMENTS* 78–79 (7th ed. 2008). Although "marking-to-market" in this fashion can make trading performance transparent and prevent managers and traders from concealing losses, the "collective and mechanical exercise of such discipline on a widespread scale after a large market shock can create the type of liquidity spiral that leads to a market crisis." John Kambhu, Neel Krishnan & Scott Weidman, *Part 2: Current Trends in Economic Research on Systemic Risk*, 13 *ECON. POL'Y REV.* 17, 17 (2007).

26. Cf. PRESIDENT'S WORKING GROUP, *supra* note 21, at 23 (observing that the "indirect impact" on markets of the failure of individual market participants is potentially "more serious" than such failure itself: "[v]olatility and sharp declines in asset prices can heighten uncertainty about credit risk and disrupt the intermediation of credit[.]" which in

It is impossible to prevent financial panics because they “can be set off by any number of things.”²⁷ In the context of the subprime mortgage crisis, for example, scholars and politicians talk about imposing “suitability” requirements on mortgage loans and otherwise restricting “predatory” lending.²⁸ These types of solutions not only potentially increase the cost of credit and restrict its availability²⁹ but, more importantly, fail to address the next financial crisis, which may be unrelated to home values or mortgages.

Broader actions, such as the Federal Reserve’s bailout of Bear Stearns, can help; but they focus on symptoms of the disease—in this case, financial institution failure—not on the disease’s underlying cause. Ultimately, therefore, these actions are likely to be very costly, especially if the symptoms spread and more financial institutions go bust. And, if the symptoms become too widespread, they may fail utterly.

The focus, instead, should be on treating the underlying disease—which in this case is financial-market collapse due to a loss of investor confidence. Bear Stearns, and potentially other financial institutions as well, are in trouble not because of problems with economic fundamentals but because of falling prices of mortgage-backed securities, requiring these institutions to mark their securities down to the collapsed market prices. That, in turn, creates fear among these institutions’ contractual counterparties, who then (as in Bear Stearns’ case) refuse to have further dealings with the institution.

If market prices of these securities can be raised to levels that more closely reflect their real value, this fear would dissipate. Moreover, once investors regain confidence, credit markets will reopen, mortgage money will once again become available, and home prices will begin rising. This is a sensible market solution to the otherwise intractable problem of home foreclosures resulting from the collapsing housing market.

PROPOSAL

Regulatory responses therefore should focus on restoring investor confidence in financial markets—in this case, starting with the markets for mortgage-backed securities. Raising confidence, however, requires that parties begin investing again in these markets. At least at the outset, the government itself may need to act as an investor of last resort for this

turn “could cause a contraction of credit and liquidity, and ultimately[] heighten the risk of a contraction in real economic activity”).

27. Eduardo Porter, *Shanghai What-If: How a Shock Can Become a Shock Wave*, N.Y. TIMES, Mar. 4, 2007, at WK3 (quoting an observation by Alan Blinder, a Princeton University economist and former vice chairman of the Federal Reserve).

28. See Laurence E. Platt, *Predatory Lending Developments*, 1590 PRAC. LAW INST./CORP., 37 (2007).

29. G. Marcus Cole, Wm. Benjamin Scott & Luna M. Scott Professor of Law, Stanford Univ., Speech at the University of Utah Law Review Symposium: Subprime Meltdown: The Law and Finance of the American Home Mortgage Foreclosure Crisis (Feb. 25, 2008).

purpose.³⁰ (This is radically different from so-called “liquidity injections” by the U.S. Federal Reserve Bank in response to the subprime mortgage crisis, which do not actually ensure market liquidity but merely provide a more attractive borrowing environment for banks.³¹)

By acting as an investor of last resort, however, the government potentially creates two costs. The first is moral hazard—the greater tendency of people who are protected from the consequences of risky behavior to engage in such behavior³²—which would result if the government’s action assures speculators that their investments would be safe if market prices ever collapse. The second cost is the shifting of the economic burden from market participants to taxpayers, who effectively would fund the government’s investments.³³ Nevertheless, both of these costs can be managed and arguably avoided.

To mitigate moral hazard, the government as investor could follow a policy of “constructive ambiguity” under which it has the right but not the obligation to purchase securities, and the rules by which it decides whether to purchase would be uncertain to third parties.³⁴ (This contrasts sharply with the Federal Reserve Bank’s bailout of Bear Stearns.) To further mitigate moral hazard and to avoid shifting costs to taxpayers, the government should purchase securities only at a deep enough discount to ensure ultimate repayment of its investments, ideally at a profit, while stabilizing market prices well below the levels paid by speculating investors.

Even if these costs cannot be completely eliminated, governmental action should be justified because of the devastating effect of a systemic collapse of the financial system. For example, just taking into account direct, but not social, costs,³⁵ the tab from the subprime mortgage crisis—even if it does not cause a full systemic collapse—“could run up to \$500 billion” globally.³⁶ When there is an indeterminate risk of catastrophic

30. Cf. E. PHILLIP DAVIS, *DEBT, FINANCIAL FRAGILITY, AND SYSTEMIC RISK* 268 (1992) (suggesting there may be a need for a “market maker of last resort” to protect financial markets).

31. See, e.g., Jeremy W. Peters, *The Basics: The Banks Roll Up Their Sleeves*, N.Y. TIMES, Aug. 19, 2007, at 2 (Wk. in Rev.) (observing that when the Federal Reserve makes “liquidity injections” into the banking system, “the [Federal Reserve] doesn’t even use real money[.]” and explaining that liquidity results from offering Federal Reserve loans to banks at the discount rate, a lower interest rate than the “Fed funds rate” that banks would charge other banks on interbank loans).

32. See, e.g., Charles G. Hallinan, *The “Fresh Start” Policy in Consumer Bankruptcy: A Historical Inventory and an Interpretive Theory*, 21 U. RICH. L. REV. 49, 84 (1986).

33. See Steven L. Schwarcz, *Sovereign Debt Restructuring: A Bankruptcy Reorganization Approach*, 85 CORNELL L. REV. 956, 961-66 (2000) (discussing the moral hazard and taxpayer costs created when the IMF acts as a lender of last resort to financially-troubled nations).

34. Cf. DAVIS, *supra* note 30, at 123.

35. See *supra* note 22 and accompanying text (discussing social costs).

36. David Henry & Matthew Goldstein, *The Bear Flu: How It Spread*, BUS. WK., Jan. 7, 2008, at 30, 32. See also *Tightening the Safety Belt*, ECONOMIST, Nov. 22, 2007, at 77 (depicting a graph showing Goldman Sachs’ prediction of \$148 billion of losses on subprime collateralized-debt obligations); *Postcards from the Ledge*, ECONOMIST, Dec. 19,

events or large, irreversible effects, regulators often apply a precautionary principle that presumes benefits will outweigh costs.³⁷

One may ask: If the government can profitably invest to stabilize markets, why will private investors not do the same, eliminating the need for governmental interference? At least part of the answer is that individuals at investing firms engage in herd behavior, not wanting to jeopardize their reputations and jobs by causing their firms to invest at a time when other investors have abandoned the market.³⁸ *An investor of last resort is needed to correct this market failure.*

Who should act as the investor of last resort? In a U.S. national context, the Federal Reserve Bank would be the most logical choice, although its power to act in this capacity is ambiguous under existing law.³⁹

In a foreign national context, the obvious contender for investor of last resort would be the nation's central bank. In a multinational context, however, the choice is less obvious. One possibility is the International Monetary Fund ("IMF"), which sometimes takes on this type of role by providing liquidity to troubled countries.⁴⁰ Other possible choices include one or more national central banks, such as the U.S. Federal Reserve Bank or the European Central Bank, although any national central bank acting as an investor of last resort would face possible conflicts of interest between its national and international responsibilities.⁴¹

2007, at 10 (estimating that in the U.S., "[s]ubprime borrowers will probably default on \$200 billion-300 billion of mortgages").

37. See, e.g., Cass R. Sunstein, *Irreversible and Catastrophic*, 91 CORNELL L. REV. 841, 848 (2006).

38. See, e.g., Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023, 1038 (2000) (discussing herd behavior).

39. The Federal Reserve Act defines the Fed's authority. See Federal Reserve Act of 1913, 38 Stat. 263 (codified as amended in scattered sections of 12 U.S.C.). In "unusual and exigent circumstances," the Act enables "the Board of Governors of the Federal Reserve System [to] authorize any Federal reserve bank . . . to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange" if such individual, partnership, or corporation is "unable to secure adequate credit accommodations from other banking institutions." Federal Reserve Act § 13(3), 12 U.S.C. § 343 (2000). Although this may well enable the Federal Reserve Bank to save failing non-bank institutions, such as Bear Stearns, it is dubious whether it enables the Bank to purchase securities in falling markets. If, therefore, the Federal Reserve Bank is to act as an investor of last resort, the Federal Reserve Act may need to be amended.

40. Schwarcz, *Sovereign Debt Restructuring*, *supra* note 33, at 961.

41. Although one might question whether a single international investor of last resort is feasible given the different approaches to financial regulation and supervision among various nations of the world, these differences do not appear to undermine the concept of a unified regulatory approach to systemic risk. International cooperation is the natural and most effective response of states that share an interest in averting a common crisis that affects them individually—despite the many historical, cultural, and legal differences that distinguish nations. See, e.g., James D. Fearon, *Bargaining, Enforcement, and International Cooperation*, 52 INT'L ORG. 269, 271 (1998); RICHARD J. HERRING & ROBERT E. LITAN, *FINANCIAL REGULATION IN THE GLOBAL ECONOMY* 120–123 (1995) (suggesting that systemic risk is analogous to epidemiological risk, in that both can be resolved effectively by international collaboration when "countries agree[] on how to act . . . [and their] cooperation advance[s] to the point of establishing an international agency and jointly financing international action to control and attempt to eradicate" the contagion). Basel II effectively illustrates, for example, that a single regulatory scheme for financial risk can be ap-

My goal, however, is less to suggest who should act in these capacities than to urge that one or more governmental organizations do so before it is too late.

Articles

