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An Ounce of Prevention: The Power of Public Risk Management in Stabilizing the Financial System

David Moss

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Rev. 1/27/09

Abstract

The magnitude of the current financial crisis reflects the failure of an economic and regulatory philosophy that had proved increasingly influential in policy circles over the past three decades.

This paper suggests (1) that contrary to the prevailing wisdom, New Deal policies (including federal deposit insurance and bank supervision) worked to stabilize the financial system; (2) that the financial catastrophe of 2007-2009 was not an accident, but rather a mistake, driven by a deregulatory mindset that took 50 years of post-New Deal financial stability for granted; and (3) that the dramatic federal response to the current financial crisis has created a new reality, in which virtually all systemically significant financial institutions now enjoy an implicit guarantee from the federal government that will continue to exist (and continue to generate moral hazard) long after the immediate crisis passes.

Based on this analysis, one major step that is necessary now to help ensure financial stability in the future is to *identify* and *regulate* "systemically significant" institutions on an ongoing basis, rather than simply in the heat of a crisis. To guard against moral hazard (in the face of large implicit guarantees) and to ensure the safety of the broader financial system, these institutions must face significant prudential regulation, they should be required to pay premiums for the federal insurance they already enjoy, and they should be subject to an FDIC-style receivership process in the event of failure.

An Ounce of Prevention:
The Power of Public Risk Management in Stabilizing the Financial System

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The magnitude of the current financial crisis reflects the failure of an economic and regulatory philosophy that had proved increasingly influential in policy circles over the past three decades. This philosophy, guided more by theory than historical experience, held that private financial institutions not insured by the government could be largely trusted to manage their own risks – to regulate themselves. The crisis has suggested otherwise, particularly since several of the least regulated parts of the system (including non-bank mortgage originators and the major broker-dealer Bear Stearns) were among the first to run into trouble. Former Federal Reserve Chairman Alan Greenspan acknowledged in October 2008, "Those of us who have looked to the self-interest of lending institutions to protect shareholders' equity, myself included, are in a state of shocked disbelief."[2]

In the paper that follows, I will suggest (1) that contrary to the prevailing wisdom, New Deal policies (including federal deposit insurance and bank supervision) worked to stabilize the financial system; (2) that the financial catastrophe of 2007-2009 was not an accident, but rather a mistake, driven by a deregulatory mindset that took 50 years of post-New Deal financial stability for granted; and (3) that the dramatic federal response to the current financial crisis has created a new reality, in which virtually all systemically significant financial institutions now enjoy an implicit guarantee from the federal government that will continue to exist (and continue to generate moral hazard) long after the immediate crisis passes.

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[1] In November 2008, I was asked to prepare a draft report on financial regulatory reform for the TARP Congressional Oversight Panel. Knowing that there would be considerable evolution from my initial draft to the final version of the report, the chair of the panel and I agreed that I could (and should) publish my original work separately from the report. This paper is the first of several papers growing out of my research connected with that effort. I am deeply indebted to Cole Bolton, Rebecca Chang, and Arthur Kimball-Stanley for their outstanding research assistance. Cole Bolton compiled the table on federal guarantees, Rebecca provided valuable background on Glass-Steagall and financial deregulation, and Arthur assisted with the development of the figure on bank failures.

[2] Quoted in Edmund L. Andrews, "Greenspan Concedes Error on Regulation," *New York Times*, October 24, 2008. See also Testimony of Alan Greenspan, House Committee on Oversight and Government Reform, U.S. Congress, October 23, 2008 [oversight.house.gov/documents/20081023100438.pdf, accessed 1/13/09], p. 2.

an ongoing basis, rather than simply in the heat of a crisis. The fifty years of relative financial calm that followed the Glass-Steagall Act of 1933, the Securities Exchange Act of 1934, and the Banking Act of 1935 strongly suggest that sound public risk management can make a positive difference. Today, the biggest risk management problem we face in the financial sector is not commercial banks, but rather systemically significant institutions that pose a threat to the broader financial system (because of their size and interconnectedness) and, as a result, carry an implicit federal guarantee. To guard against moral hazard and ensure the safety of the broader financial system, these institutions must face significant prudential regulation, they should be required to pay premiums for the federal insurance they already enjoy, and they should be subject to an FDIC-style receivership process in the event of failure.

Experience demonstrates that open-ended implicit guarantees are often the most dangerous of all. It also suggests that all guarantees must be associated with oversight to control moral hazard and that no private institution should be "too big to fail." The proposals offered in the final section of this paper address all three of these challenges. As the financial crisis has made abundantly clear, government *does* have a vital role to play in managing risks that the private markets have trouble managing effectively on their own. The only question is whether government will do that job well or poorly – whether it will preempt problems or wait for a crisis to erupt before taking action. As the saying goes, an ounce of prevention is worth a pound of cure.

From Crisis to Calm, and Back Again

Financial panics and crises are not new problems. For most of the nation's history, they represented a regular and often debilitating feature of American life. Until the Great Depression, major crises struck about every fifteen to twenty years – in 1792, 1797, 1819, 1837-1839, 1857, 1873, 1893-95, 1907, and 1929-33.

But then the crises stopped. In fact, the United States did not suffer another major banking crisis for just about 50 years – by far the longest such stretch in the nation's history. Although there were no doubt many reasons for this, it is difficult to ignore the federal government's active role in managing financial risk. This role began to take shape in 1933 with passage of Glass-Steagall, which introduced federal deposit insurance, significantly expanded federal bank supervision, and required the separation of commercial from investment banking. The New Deal approach to financial regulation did not begin to be dismantled until passage of the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Depository Institutions Act (Garn-St. Germain) of 1982, which commenced the drive for financial deregulation.[3]

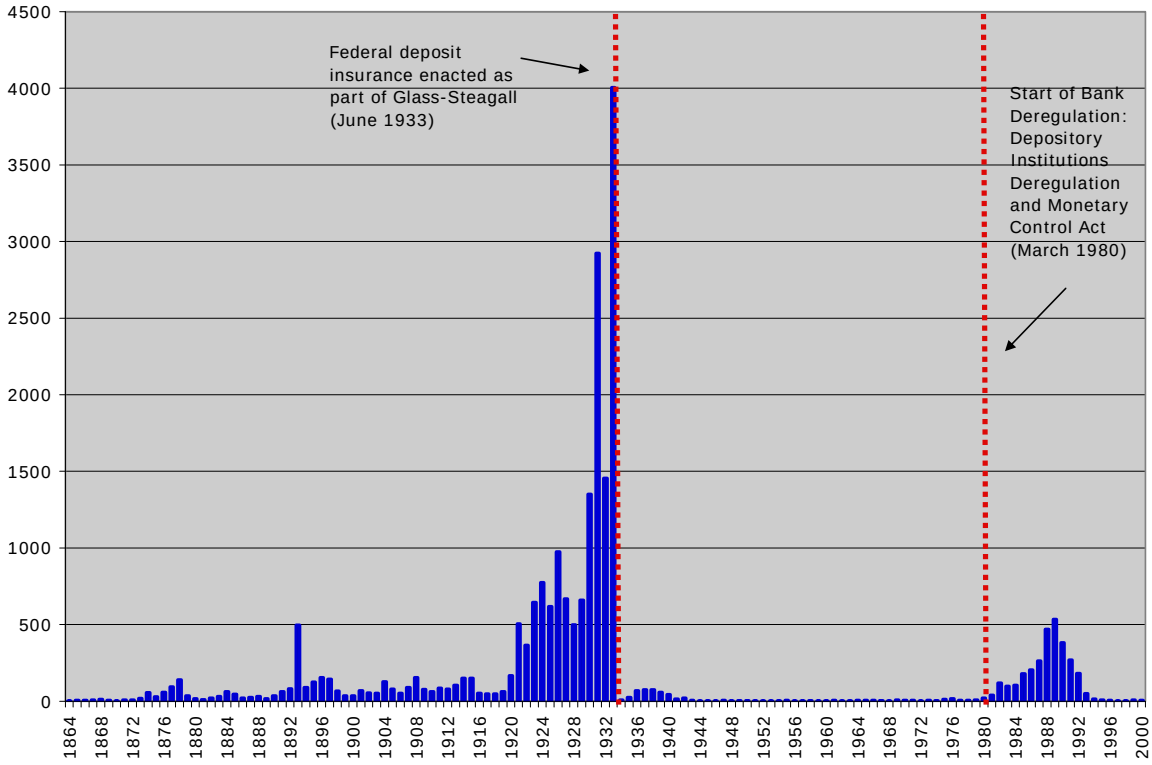
[3] The drive for financial deregulation may be said to have culminated in 1999 with the passage of Gramm-Leach-Bliley, which repealed an important piece of Glass-Steagall, allowing consolidation of banks, securities firms, and insurance companies.

Contrary to prevailing wisdom in many quarters, New Deal financial regulation worked. Indeed, it worked remarkably well. Banking crises essentially disappeared after 1933 (see Figure 1), and this extraordinary achievement was secured without any apparent reduction in economic growth. Not only was the period of 1933-1980 one of unusually strong growth, but the growth was broad based, associated with stable or falling income inequality, rather than rising inequality which took hold after 1980.

Perhaps even more striking, America's post-Glass-Steagall financial system soon became the envy of the world. Although critics had warned that the forced separation of commercial from investment banking would cripple the nation's financial system, American financial institutions from Goldman Sachs to J.P. Morgan dominated global high finance over the remainder of the century.[4]

Figure 1

A Unique Period of Calm Amidst the Storm:
Bank Failures (Suspensions), 1864-2000



Sources: *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: Government Printing Office, 1975), Series X-741 (p. 1038); "Failures and Assistance Transactions," Table BF02, FDIC website (http://www2.fdic.gov/hsob/index.asp).

[4] On the critics of forced separation, see e.g. "Reserve Body Backs Security Affiliates: Glass Plan to Abolish member Banks' Rights to Deal in Investments Held Dangerous," *Wall Street Journal*, January 7, 1933, p. 1.

Beyond attacking the separation of investment from commercial banking, critics of Glass-Steagall had also warned that federal deposit insurance would encourage excessive risk taking (moral hazard). Since depositors would no longer have to worry about the soundness of their banks and might well be attracted by the higher interest rates offered by riskier banks, funds would ultimately flow to weak banks – rather than strong – and losses could mount. Said one opponent in 1933, "a reputation for high character [in banking] would be cheapened and recklessness would be encouraged."[5]

Fortunately, the authors of Glass-Steagall (and the follow-on Banking Act of 1935) prepared for this threat, authorizing not only public deposit insurance but also meaningful bank regulation, designed to ensure the safety and soundness of insured banks. Regulation was necessary to deal with the moral hazard that critics warned about. As we have seen, the strategy of insurance and regulation adopted in Glass-Steagall appeared to work, engendering a powerful dose of consumer protection, a remarkable reduction in systemic risk, and a notable increase in public confidence in the financial system. By all indications, this well designed risk management policy strengthened the financial markets and helped prevent subsequent crises. In fact, significant bank failures – in the form of the S&L crisis – did not reappear until after the start of bank deregulation in the early 1980s, when the essential link between bank insurance and bank regulation was temporarily severed.[6]

A Mistake, Not An Accident

Like the S&L fiasco, the current financial crisis is the product of a mistaken regulatory philosophy – only this time the consequences have proved far more severe. In too many cases, regulators chose not to use tools they already had, or they neglected to request new tools to meet the challenges of an evolving financial system. The failure to regulate the sprawling market for credit default swaps (CDS) in the late 1990s and the SEC's 2004 decision to allow voluntary regulation on the part of major investment firms are two particularly striking examples.[7] In both of these cases and many others, the prevailing view of financial regulation at the time was that less was more, since private actors could be trusted to optimize financial decision making on their own.[8] Sophisticated economic

[5] Bacon, *Congressional Record* (House), 73rd Congress, 1st Session, may 20, 1933, p. 3959; quoted in David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* (Cambridge: Harvard University Press, 2002, p. 118.

[6] See Moss, *When All Else* Fails, p. 313. Bank deregulation is often said to have started with the Depository Institutions Deregulation and Monetary Control Act of 1980 (P.L. 96-221, 94 STAT. 132) and the Depository Institutions Act of 1982 [Garn-St. Germain] (P.L. 97-320, 96 STAT. 1469).

[7] See Peter S. Goodman, "The Reckoning: Taking Hard New Look at a Greenspan Legacy," *New York Times* (October 8, 2008); Stephen Labaton, "S.E.C. Concedes Oversight Flaws Fueled Collapse," *New York Times* (September 26, 2008); Stephen Labaton, "Agency's '04 Rule Let Banks Pile Up New Debt," *New York Times* (October 2, 2008).

[8] In 2002, for example, Federal Reserve Chairman Alan Greenspan explained his view on "the issue of regulation and disclosure in the over-the-counter derivatives market" this way: "By design, this market, presumed to involve dealings among sophisticated professionals, has been largely exempt from government

reasoning seemed to validate the point; and as the bubble inflated, the results spoke for themselves.

Ironically, it is possible that the success of New Deal financial regulation actually contributed to its own undoing. After nearly 50 years of relative financial calm, academics and policymakers alike may have begun to take that stability for granted. From there, financial regulation looked like an unnecessary burden; and financial theory seemed to lend credence to this view, suggesting that private financial actors could reach optimal arrangements on their own, without any need for government at all. It was as if, after sharply reducing deadly epidemics through public health measures, policymakers concluded that these measures weren't really necessary, since major epidemics were not much of a threat anymore.

But the truth is that private financial markets and institutions had always had trouble managing risk – and especially systemic risk – on their own. The long series of financial crises that punctuated American history up through 1933 testify to this fact, as does the current crisis, which exploded not coincidentally during a period of aggressive financial innovation and deregulation. The government has a pivotal role to play in managing financial risk. The question is how to do that most effectively, not whether to do it at all.

A New Financial Reality: Implicit Guarantees as Far as the Eye Can See

Over the course of 2008, federal officials made absolutely clear that there is almost no limit to the resources they will devote to preventing or halting a systemic panic at a time of general financial distress. The Federal Reserve extended unprecedented support to investment banks, money market funds, and the commercial paper market; it also helped to rescue Bear Stearns, AIG, and Citigroup. The Treasury guaranteed all money market funds, injected capital into a broad range of financial institutions under the Troubled Asset Relief Program (TARP), supported the takeover of Fannie Mae and Freddie Mac, and also supported the operations of the Federal Reserve. The Federal Deposit Insurance Corporation, meanwhile, increased deposit insurance coverage from $100,000 to $250,000 per account, guaranteed all senior unsecured bank debt, and contributed to the rescue of Citigroup. In all, federal agencies have already dispersed more than $2 trillion in responding to the crisis and have taken on potential commitments in excess of $10 trillion. (See Table 1, below.)

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regulation. In part, this exemption reflects the view that professionals do not require the investor protections commonly afforded to markets in which retail investors participate. But regulation is not only unnecessary in these markets, it is potentially damaging, because regulation presupposes disclosure and forced disclosure of proprietary information can undercut innovations in financial markets just as it would in real estate markets." Alan Greenspan, "Regulation, Innovation, and Wealth Creation," Remarks before the Society of Business Economists, London, September 25, 2002 [http://www.federalreserve.gov/BoardDocs/Speeches/2002/200209252/default.htm, accessed 12/21/08].

Table 1

Federal Financial Response to the Economic Crisis, as of 12/31/08

		Funding (billions of dollars as of December 31, 2008)	
		Disbursed So Far	Total Potential Commitment
	Federal Reserve Programs		
1	Commercial Paper Funding Facility	334.1	1,800.0
2	Term Auction Credit	450.2	600.0
3	Money Market Investor Funding Facility	0.0	540.0
4	GSE Mortgage-Backed Securities Purchases	0.0	500.0
5	Citigroup Loss Absorption	0.0	234.0
6	Term Securities Lending Facility and Options Program	171.6	200.0
7	Term Asset-Backed Securities Loan Facility	0.0	200.0
8	GSE Debt Purchases	15.0	100.0
9	Credit Extended to AIG	38.9	60.0
10	AIG Financial Products Assets	24.3	30.0
11	Bear Stearns Assets	29.0	29.0
12	AIG Assets	19.8	22.5
13	Primary and Secondary Credit	93.8	Open-ended
14	Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility	23.8	Open-ended
15	Primary Dealer Credit Facility	37.4	Open-ended
16	Currency Swaps	500.0	Open-ended
	Federal Reserve Total	**1,737.9**	**4,315.5**
	Treasury Programs		
17	Guarantee of Money Market Funds	n/a	3,000.0
18	Troubled Asset Relief Program	247.0	700.0
19	GSE Conservatorship	14.0	200.0
20	Housing-Related Tax Provisions	0.0	12.0
21	Purchases of GSE Obligations and Securities	71.0	Open-ended
22	Supplementary Financing Program	259.0	Open-ended
	Treasury Total	**591.0**	**3,912.0**
	Federal Deposit Insurance Corporation Programs		
23	Temporary Liquidity Guarantee Program	n/a	1,450.0
24	Increase in Limit of Deposit Insurance from $100,000 to $250,000	n/a	700.0
25	Citigroup Loss Absorption	0.0	10.0
	FDIC Total	**0.0**	**2,160.0**
	Housing and Urban Development Programs		
26	Hope for Homeowners	0.0	300.0
27	Redevelopment of Abandoned and Foreclosed Homes	0.0	4.0
28	FHA Secure	n/a	1.0
	HUD Total	**0.0**	**305.0**
	Federal House Financing Agency Programs		
29	GSE Conservatorship	n/a	n/a
30	Streamlined Modification Program	n/a	n/a
	FHFA Total	**n/a**	**n/a**
	National Credit Union Association Programs		
31	Credit Union Homeowners Affordability Relief Program and Credit Union System Investment Program	0.0	41.0
32	Temporary Corporate Credit Union Liquidity Guarantee Program	1.0	n/a
	NCUA Total	**1.0**	**41.0**
	GOVERNMENT TOTAL	**2,329.9**	**10,733.5**

Source: Adapted from U.S. Senate Committee on the Budget, *The Budget and Economic Outlook: Fiscal Years 2009 to 2019*, Testimony of Robert A. Sunshine, Acting Director of the Congressional Budget Office, January 8, 2009, http://www.cbo.gov/ftpdocs/99xx/doc9958/01-08-Outlook_Testimony.pdf, Appendix A, accessed January 12, 2009; Federal Reserve Board, "Federal Reserve Statistical Release--H.4.1--Factors Affecting Reserve Balances of Depository Institutions--January 2, 2009," Fed Website, http://www.federalreserve.gov/releases/h41/20090102/h41.pdf, accessed January 12, 2009. Cole Bolton compiled this table.

Federal Financial Response to the Economic Crisis, cont.

Notes	
The Fed's purchases of commercial paper.	1
28- and 84-day collateralized loans made to financial institutions.	2
The Fed's purchases of assets (CDs and commercial paper) from money market mutual funds.	3
The Fed's purchases of mortgage-backed securities issued by Fannie Mae, Freddie Mac, and Ginnie Mae.	4
The Fed's guarantee of a portion of certain troubled Citigroup assets.	5
The Fed lends Treasury securities to 17 major financial firms. The Fed also offers options on such loans.	6
Loans extended to holders of high-quality securities backed by consumer or small business loans.	7
The Fed's purchases of debt issued by Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.	8
Loans extended to AIG.	9
Assets acquired during the bailout of AIG. Valued at $26.8 billion on December 31, 2008.	10
Assets acquired during JPMorgan's purchase of Bear Stearns. Valued at $27.0 billion on December 31, 2008.	11
Assets acquired during the bailout of AIG. Valued at $20.1 billion on December 31, 2008.	12
Short-term lending to financial institutions.	13
Loans extended to financial companies for the purpose of buying commercial paper from money market mutual funds.	14
Overnight collateralized loans to 17 major financial companies.	15
Dollars made available to 14 foreign central banks. The $500 billion figure listed is a minimum estimated value.	16
The Treasury's guarantee of investors' shares in money market mutual funds.	17
A pool of funds used mainly to recapitalize many of the nation's banks, but also for other select purposes.	18
Costs involved in maintaining the solvency of Fannie Mae and Freddie Mac.	19
Provisions from the Housing and Economic Recovery Act of 2008; largely a tax credit for first-time home buyers.	20
The Treasury's purchases of obligations and securities issued by Fannie Mae and Freddie Mac.	21
A Treasury-security selling program that helps fund Fed facilities. Program began winding down in Nov. 2008.	22
Temporary guarantee of certain non-interest bearing accounts and certain debt issued by FDIC members.	23
Temporary increase in the FDIC's deposit-guarantee ceiling.	24
The FDIC's guarantee of a portion of certain troubled Citigroup assets.	25
A program to help homeowners facing foreclosure refinance into government-guaranteed mortgages.	26
Funding for state and local governments to rehabilitate foreclosed and abandoned houses.	27
Helped homeowners refinance their adjustable-rate mortgages. Program expired on December 31, 2008.	28
Costs involved in acting as conservator to Fannie Mae and Freddie Mac.	29
A program to reduce homeowners' monthly payments on mortgages held by Fannie Mae or Freddie Mac.	30
Two programs which lend to credit unions to help them shore up their own finances and to help them modify troubled mortgages.	31
A temporary guarantee of certain debt issued by credit unions.	32

Note: The Support for AIG figure in the CBO table has been broken into three constituent parts in this table: Credit Extended to AIG, AIG Assets, and AIG Financial Products Assets. Also, the Total Potential Commitment of the Hope for Homeowners program has been changed from $1 billion in the CBO table, to $300 billion in this table. The $1 billion figure given in the CBO table reflects the maximum amount that the CBO believes will likely be lent via this program. The $300 billion figure included in this table, however, reflects the overall amount allocated to this program. Finally, program descriptions in the Notes column of this table draw from the Description column of the CBO table.

As a result of these extraordinary interventions, there can be no doubt that federal policymakers view many of the nation's largest financial institutions as too big – or, more precisely, too systemic – to fail. The only major non-bank financial institution that has been allowed to fail and enter Chapter 11 was Lehman Brothers, and the shock waves emanating from that event made it the exception that proved the rule. The implicit federal guarantees that were once regarded as a special privilege of Fannie Mae, Freddie Mac, and other government sponsored enterprises have now, by all accounts, been extended far more broadly – to essentially every major (systemically significant) financial institution in the country.

All guarantees have the potential to invite excessive risk taking as a result of moral hazard. Unfortunately, implicit guarantees are particularly dangerous because they are typically open-ended, not always tightly linked to careful risk monitoring (regulation), and almost impossible to eliminate once in place. The costly federal takeover of Fannie and Freddie illustrates this point, as does the ever rising costs of federal disaster relief (which represents another open-ended, and implicit, federal guarantee).

As a result, the extension of implicit guarantees to all systemically significant institutions takes moral hazard in the financial system to an entirely new level. Creditors of these institutions will monitor less aggressively, knowing that the federal government stands as a backstop, and they are also likely to pay less attention to the riskiness of institutions in chasing the highest yields. If we are not careful, the inevitable result will be more (and more excessive) risk taking, greater losses, and further crises. If we are going to provide guarantees – and that decision has now already been made – it is essential that we create effective mechanisms for monitoring and controlling the inevitable moral hazard.

A New Approach to Financial Regulation: Targeting Systemic Risk

Today, federal officials wait until after a financial institution is in trouble to decide if it poses a systemic threat to the broader economy. In 2008, Bear Stearns, Fannie Mae, Freddie Mac, AIG, and Citigroup were all deemed too systemic to fail; and taxpayers have been put on the hook for hundreds of billions and perhaps trillions of dollars to help keep them alive.

This is the wrong approach. Regulators should not have to wait until the very last minute, when they are under enormous time pressure and often in the dead of night, to make such momentous decisions. By that point, financial regulation has already failed. The underlying problem can no longer be prevented. All that can be done is stabilize the institution on the basis of an extraordinary infusion of taxpayer dollars. Even then there is no guarantee that the infusion will be sufficient.

A much better approach would be to identify financial institutions with "systemic significance" in advance – that is, in normal times – and to regulate them accordingly.[9] These are institutions that are so big or so deeply interconnected with other financial actors that their failure could trigger cascading losses and even contagion across the financial system. Providing proper oversight of such institutions would help to prevent a crisis from striking in the first place, and it would put public officials in a much better position to deal with the consequences in the unlikely event that a crisis did occur. Once again, an ounce of prevention is worth a pound of cure.

To make this possible, Congress and the President should direct a new regulatory body or an existing regulatory agency to identify financial institutions whose failure would pose a systemic threat to the broader financial system (or would directly endanger "safe-zone" institutions such as commercial banks, pension funds, and insurance companies). Such determinations would be made on an ongoing basis, not simply in bad times, so that a complete list of financial institutions deemed to have "systemic significance" would always be publicly available.

The regulatory body designated to make these determinations (call it a Systemic Risk Review Board) would have broad powers to collect information, both from other regulatory agencies and directly from financial institutions themselves. All financial institutions – from banks to hedge funds – would be required to report to this body, irrespective of other regulatory coverage. Financial institutions would have the right to appeal a determination, but ultimately (if it was upheld or not challenged) the determination would be binding.

Once systemically significant institutions were clearly identified, it would then be necessary to provide appropriate oversight and, at the same time, to clarify (in advance) how such institutions would be regulated and governed at moments of distress.

Prudential Regulation. Precisely because of the potential threat they pose to the broader financial system, systemically significant institutions should face enhanced prudential regulation to limit excessive risk taking and help ensure their safety. Such regulation might include relatively stringent capital and liquidity requirements, most likely on a counter-cyclical basis; an overall maximum leverage ratio (on the whole institution and potentially also on individual subsidiaries); well defined limits on contingent liabilities and off-balance sheet activity; and perhaps also caps on the proportion of short-term debt on the institution's balance sheet.[10]

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[9] On possible strategies for measuring systemic risk, see e.g. Stephen Morris and Hyun Song Shin, "Financial Regulation in a System Context," in Douglas W. Elmendorf, N. Gregory Mankiw, and Lawrence H Summers, eds., *Brookings Papers on Economic Activity, Conference Draft* (Fall 2008) [www.brookings.edu/economics/bpea/~/media/Files/Programs/ES/BPEA/2008_fall_bpea_papers/2008_fall_bpea_morris_shin.pdf, accessed 1/4/09], p. 26 (discussion of "systemic impact factor").

[10] On leverage ratios, liquidity requirements, and counter-cyclical capital requirements, see Stephen Morris and Hyun Song Shin, "Financial Regulation in a System Context," in Douglas W. Elmendorf, N. Gregory Mankiw, and Lawrence H Summers, eds., *Brookings Papers on Economic Activity, Conference Draft* (Fall 2008) [www.brookings.edu/economics/bpea/~/media/Files/Programs/ES/BPEA/2008_fall_bpea_papers/

Whether such enhanced oversight for systemically significant institutions should be provided by a new systemic regulator or by existing regulatory agencies is a question that requires further study and deliberation.

Either way, an important advantage of the proposed system is that it would provide financial institutions with a strong incentive to avoid becoming systemically significant. This is exactly the opposite of the existing situation, where financial institutions have a strong incentive to become "too big to fail," precisely in order to exploit a free implicit guarantee from the federal government. This unhealthy state of affairs can be corrected by being clear about the systemic nature of financial institutions and regulating them appropriately on an ongoing basis, rather than waiting until they are already in trouble to act.

Federal Insurance. To the extent that systemically significant financial institutions will receive federal support in the event of a general financial crisis, such support should be formalized (and paid for) in advance. Historical experience suggests that government guarantees that are explicit, well defined, and closely monitored generate far less moral hazard (excessive risk taking) than open-ended implicit guarantees.[11] As a result, it is important to convert what are now massive *implicit* guarantees into *explicit* ones that are clear, delimited, and well understood.

One option for doing this would be to create an explicit system of federal capital insurance for systemically significant financial institutions. Under such a program, covered institutions would be required to pay regular and appropriate premiums for the coverage, the program would pay out "claims" only in the context of a systemic financial event (determined perhaps by a Presidential declaration), and payouts would be limited to pre-specified amounts. For example, if a systemically significant financial institution with $500 billion in assets were required to buy federal capital insurance equal to 10 percent of total assets, the potential payout by the federal capital insurance program in a systemic event would be $50 billion. In return, the federal government would receive $50 billion in preferred (non-voting) shares, which the affected institution would have the right to repurchase after the crisis had passed.[12]

2008_fall_bpea_morris_shin.pdf, accessed 1/4/09]; Charles Goodhart and Avinash Persaud, "A Party Pooper's Guide to Financial Stability," *Financial Times*, June 5. 2008; Rodrigo Cifuentes, Gianluigi Ferrucci, and Hyun Song Shin, Liquidity Risk and Contagion, Bank of England Working Paper no. 264 (2005) [http://www.bankofengland.co.uk/publications/workingpapers/wp264.pdf, accessed 1/1/09].

[11] See especially Moss, *When All Else Fails.*

[12] On the idea of capital insurance, see Anil K. Kashyap, Raghuram G. Rajan, and Jeremy Stein, "Rethinking Capital Regulation," Paper Prepared for Federal Reserve Bank of Kansas City Symposium on "Maintaining Stability in a Changing Financial System," Jackson Hole, Aug. 21-23, 2008 [http://www.kc.frb.org/publicat/sympos/2008/KashyapRajanStein.08.08.08.pdf, accessed 12/27/08]; Jean-Charles Rochet, "Comments on the article by A.KASHYAP, R.RAJAN AND J.STEIN, 'RETHINKING CAPITAL REGULATION'," Prepared for the Federal Reserve of Kansas City Symposium "Maintaining Stability in a Changing Financial System" Jackson Hole, Wyoming, August 21-23, 2008, Revised version, August 28, 2008 [http://www.kansascityfed.org/publicat/sympos/2008/Rochet.08.28.08.pdf, accessed 1/1/09].

It is important to note that federal capital insurance would not create a new federal liability. Rather, it would make an existing implicit liability explicit. Since it is now understood that the federal government will support systemically significant financial institutions in the event of a crisis, it is only reasonable that these institutions pay premiums for this expected federal coverage in advance of any crisis and that the potential support be well defined and limited. In fact, such a program might well reduce the federal government's ultimate liability since its obligation would be pre-specified and no longer open-ended.

Beyond federal capital insurance, there are other options as well. One potentially attractive option – a convertible debt rule – would involve a regulatory requirement and trigger, but no government guarantee. The basic idea is that systemically significant institutions would be required to carry a sizable amount of special convertible debt, which would automatically convert to equity in the event of a systemic crisis (as declared, for example, by the President of the United States). In this way, systemic financial institutions could count on a significant – and potentially vital – reduction in leverage in times of general distress, without having to sell assets or obtain financial support from the federal government.[13] Whether such an approach would be sufficient on its own remains an open question, but at a minimum it might present a useful complement to a federal capital insurance program.

Receivership Process for Failing Institutions. Under the system proposed here, no financial institution would be too big to fail. Systemically significant institutions might receive automatic capital infusions in times of general financial distress (whether through federal capital insurance or special convertible bonds), but an individual institution would not be propped up or bailed out when it was on the verge of failure. Instead, it would be promptly taken over by a federal receiver and either restructured, sold, or liquidated – in much the same way that FDIC takes over (and, in most cases, promptly restructures and reopens) failing banks.

The federal bankruptcy system was simply not designed for a large, systemically significant financial institution. As a result, regulators often feel the need to prop up ailing institutions to avoid a messy and potentially destructive bankruptcy process. But this cannot be tolerated any longer. Instead, we need a receivership process that works, so that regulators don't have to be afraid to let a systemically significant institution fail. FDIC has proved that this can be done, and it is now time to extend the FDIC-receivership model to all systemically significant institutions. No private entity should ever be too big to fail.

[13] This proposal was inspired by the Squam Lake Working Group on Financial Regulation.

Conclusion

The present financial crisis should remind us that private financial institutions and markets cannot always be counted upon to manage risk optimally on their own. Almost everyone now recognizes that the government has a critical role to play – as the lender, insurer, and spender of last resort – in times of crisis. But effective public risk management is also needed in normal times to protect consumers and investors and to help prevent financial crises from starting in the first place.[14]

New Deal reforms were followed by nearly a half century of relative financial calm. Stabilizing the commercial banking system – through federal deposit insurance, federal bank supervision, and the forced separation commercial from investment banking – proved especially important. Today, the biggest threat to our financial system is posed not by volatile commercial banks (as in 1933), but rather by systemically significant institutions that have the potential to trigger financial avalanches. And the threat posed by these institutions is only compounded by the unprecedented federal guarantees introduced in response to the current crisis and the pervasive moral hazard they spawn.

The best way to address this threat is to do so head on – identifying, regulating, and potentially insuring systemically significant financial institutions on an ongoing basis, before crisis strikes. This would mark a major reform, but an essential one to ensure a healthy and productive financial system for the next half century.

[14] On the government's role as a risk manager, see Moss, *When All Else Fails: Government as the Ultimate Risk Manager*.