

Strengthening Government's Ability to Deal with the Financial Crisis



Thomas H. Stanton
Johns Hopkins University
Center for the Study of American Government



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F O R E W O R D

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, "Strengthening Government's Ability to Deal with the Financial Crisis" by Thomas H. Stanton of Johns Hopkins University.

The nation needs a vibrant, healthy financial sector. Banks and other depository institutions provide safe locations for savings and these funds are used to provide loans to businesses that provide many of the jobs in the economy. However, the United States is now experiencing the worst financial crisis in more than 75 years. In the past year, large financial institutions have failed or required assistance from the government. The crisis has also spread to global financial markets, requiring coordinated action by world leaders in an attempt to protect savings and restore the health of the markets.

As the administration and Congress take actions to address the immediate financial crisis, determining how to place the government's response on a stronger organizational footing is a key step to reducing the likelihood that the nation will experience a similar financial crisis in the future. In his report, Stanton points out the need to address past policies' inconsistencies, lack of transparency, and shortcomings in organizational capacity. In order to do so, he recommends a number of steps to:

- Ensure a perception of legitimacy of the response effort
- Enhance government's institutional capacity to respond effectively
- Supplement current policies to ensure the flow of credit and assist communities to cope with foreclosed homes

We hope that this particularly timely and informative report will be useful to both the new administration and Congress.



Albert Morales
 Managing Partner
 IBM Center for The Business of Government
 albert.morales@us.ibm.com



Jeffrey (Jeff) Smith
 Treasury Industry Leader
 IBM Global Business Services
 jeff.h.smith@us.ibm.com



Jeffrey (Jeff) Smith

EXECUTIVE SUMMARY

Once the full dimensions of the current financial crisis were recognized, federal policymakers responded with rapid and massive support for the financial markets. They struggled to contain problems that seemed to spread uncontrollably from one sector to another and from one failing institution to another. They considered speed more important than organizational niceties.

The government's ultimate response can be divided into three stages:

- **Stage One:** The first stage consisted of the largely ad hoc steps taken by the Federal Reserve and Treasury and other agencies to act quickly to try to mitigate problems as they developed in the financial markets. This stage is largely behind us.
- **Stage Two:** The second stage, demarcated by the advent of the Obama Administration, should involve assessing the government's response to make it more systematic and routine and establishing much-needed prudential supervision and protection against systemic risk (i.e., risk that affects the entire financial system) in the future.
- **Stage Three:** The third stage will involve trying to unwind the government's involvement and return many financial activities largely to private sector control.

Once it recognized the seriousness of the crisis, the Federal Reserve applied monetary policy tools, extended credit to support financial markets, chartered new bank holding companies, and joined with Treasury to decide how to resolve major failing institutions. The Federal Reserve intervened quickly and allocated more than one trillion dollars to help stabilize key financial sectors. Federal Reserve Chairman Ben S. Bernanke is a student of financial crises and

the Great Depression, and is particularly well situated to respond rapidly to the crisis as it unfolds.

The Department of the Treasury also played a major role in the government response. Secretary of the Treasury Henry M. Paulson, Jr., participated in virtually all discussions with respect to resolving major troubled institutions, including decisions concerning Bear Stearns, Fannie Mae and Freddie Mac, AIG, and Citigroup. Especially after enactment of The Emergency Stabilization Act of 2008 (EESA), Treasury possessed an array of policy tools that it used in innovative ways, including support for the Federal Reserve, provision of capital to healthy financial institutions, provision of capital to significant failing institutions, and convening meetings with other organizations to resolve problems.

Other significant federal actors included the Federal Deposit Insurance Corporation (FDIC), the Securities and Exchange Commission (SEC), the Federal Housing Finance Agency (FHFA), the Federal Housing Administration (FHA), and the U.S. Department of Education (ED). Other federal agencies could play a significant role in responding to the crisis, depending on how the crisis further evolves and the policy response that is considered most appropriate.

Recommendations

It is now necessary to place the government's response on a stronger organizational footing. Past policy inconsistencies, lack of transparency, and shortcomings in organizational capacity need to be addressed. Recommendations fall into three categories: restore public confidence, increase governmental capacity, and increase support for the credit markets.

Restore Public Confidence in Fairness of the Response Effort

- **Recommendation One:** Ensure the Perception of Legitimacy
- **Recommendation Two:** Assist Communities to Cope with Foreclosed Homes

Increase Government Capacity to Respond Effectively

- **Recommendation Three:** Authorize and Ensure Capacity of the Federal Reserve to Monitor and Address Systemic Risk
- **Recommendation Four:** Increase Treasury's Capacity to Implement Policy Decisions More Consistently and Effectively and with Greater Accountability to Federal Officials
- **Recommendation Five:** Ensure that the Federal Housing Administration (FHA) has the Capacity to Support the Mortgage Market without Sustaining Major Losses
- **Recommendation Six:** Ensure that the Department of Education has the Capacity to Support the Federal Student Loan Market
- **Recommendation Seven:** Create a Financial Stability and Credit Staff in the Office of Management and Budget to Develop Policy Options for More Effective and Coordinated Government Actions
- **Recommendation Eight:** Create or Strengthen Interagency Working Groups to Bring the Resources of Multiple Agencies to Bear on Addressing the Crisis in a Coordinated Manner

Increase the Flow of Credit

- **Recommendation Nine:** Ensure the Flow of Credit to Major Economic Sectors

Acting quickly on these recommendations is essential at this point in time. The federal government must restore public confidence that the government's response is fair and legitimate. The theory of the free enterprise system was supposed to be that entrepreneurs who served the market well would be rewarded while less capable firms and their leaders would fail. Yet, government has embarked on a massive program to shore up insolvent financial firms with infusions of capital. Perceptions of fairness and legitimacy are needed so that the political process

provides policymakers the capacity, in terms of authority, resources, and discretion, to address the crisis as it continues to expand.

The federal government now needs to ensure that tools are in place at the Federal Reserve to monitor for risk across the financial system and apply measures to reduce the likelihood of future major financial crises. It is also important to increase the capacity of organizations such as Treasury and the FHA that must play significant roles in the government's response. A core theme of this report is that a strong organizational infrastructure is needed; otherwise the effective implementation of policy decisions is very much at risk.

Introduction and Overview

"I was in the Roosevelt Room and Chairman Bernanke and Secretary Paulson, after a month of every weekend where they're calling, saying, we got to do this for AIG, or this for Fannie and Freddie, came in and said, the financial markets are completely frozen and if we don't do something about it, it is conceivable we will see a depression greater than the Great Depression. So I analyzed that and decided I didn't want to be the President during a depression greater than the Great Depression, or the beginning of a depression greater than the Great Depression. So we moved, and moved hard."

President George W. Bush, December 18, 2008.

The United States faces the greatest financial crisis since the Great Depression. The government's response so far has been extensive. Even greater support for the financial system and the economy can be expected in coming months and perhaps years. The Federal Reserve, Department of the Treasury, federal financial regulators, Federal Housing Administration, and Department of Education all have implemented parts of the government's response.

This report, written at the start of the Obama Administration, seeks to explain the evolution of the financial crisis and steps that the government took to try to overcome it and ameliorate its effects. It makes organizational and policy recommendations that might help the Obama Administration deal with the situation once the economy begins to stabilize.

Once they recognized the full dimensions of the crisis, policymakers in the Bush Administration, Secretary of the Treasury Henry M. Paulson, Jr., Federal Reserve Chairman Ben S. Bernanke, and the President of the Federal Reserve Bank of New York, Timothy F. Geithner, intervened quickly and massively in the financial markets.¹ These policymakers faced major constraints as they struggled to contain a crisis that seemed to spread uncontrollably from one economic sector to another and from one failing financial institution to another. As President Bush

rightly observed, it was time to act vigorously. Policymakers considered speed more important than organizational niceties.

President Bush's statement revealed another significant aspect of the Administration's response: the concentration of authority in two key policymakers, Treasury Secretary Paulson and Federal Reserve Chairman Bernanke. These two officials, supported by the Federal Reserve Bank of New York, held tight control over policy deliberations and summoned others as needed. For example, James Lockhart, chief regulator of Fannie Mae and Freddie Mac, was consulted when those two huge institutions were failing, as were federal bank regulators.

Stepping back from the flurry of government actions, one can see that the response can be divided into three stages:

- **Stage One:** The first stage consisted of the largely ad hoc steps taken by the Federal Reserve and Treasury and other agencies to try to act quickly to mitigate problems as they developed in the financial markets. This stage, described in this report, is largely behind us.
- **Stage Two:** The second stage, demarcated by the advent of the Obama Administration, should involve institutionalizing the government's

response to make it more systematic and routine. We also need to establish much-needed prudential supervision and protection against systemic risk (i.e., risk that affects the entire financial system) and future crises. As has been seen in the current crisis, supervision of systemic risk involves different approaches than are customary in safety-and-soundness supervision by regulators today. This report offers nine recommendations to help plug gaps in the existing response and ensure greater government capacity to undertake further actions to address the current crisis.

- **Stage Three:** The third stage, which one hopes we may reach soon, will involve trying to unwind the government's involvement and return many financial activities to largely private sector control. Much work has yet to be done with respect to design of the organizational aspects of the third stage, which will be addressed only somewhat in the present report.² Difficult issues of corporate governance will need to be worked out.³

This report is organized as follows. Section I is this introduction. Section II suggests that the start of a new Administration provides an excellent opportunity to shore up existing agencies, create missing administrative capabilities and new interagency organizations, and help provide a more systematic basis for the government's response. This section makes recommendations, including greater attention to perceptions of fairness in the government's response. Whether specific criticisms are well founded or not, a perception of legitimacy is essential if government is to avoid a political backlash as it spends huge amounts of the national wealth in an effort to end the crisis and its painful consequences.

Section III provides background on the crisis and the multifaceted nature of the government's response during the Bush Administration. While the list of government actions is long, this report highlights only the key policy interventions taken. It recounts the approaches taken by the major organizations and helps to highlight missing institutional capabilities that now should be added to the government's response. Section IV concludes this report.

Recommendations for Next Steps

In the first stage of the government's response, time was of the essence. Now as we enter the second stage it is useful to try to suggest ways to institutionalize and improve coordination of the government's response. Nine recommendations, in three categories, deserve consideration.

Restore Public Confidence in Fairness of the Response Effort

- **Recommendation One:** Ensure the Perception of Legitimacy
- **Recommendation Two:** Assist Communities to Cope with Foreclosed Homes

Increase Government Capacity to Respond Effectively

- **Recommendation Three:** Authorize and Ensure Capacity of the Federal Reserve to Monitor and Address Systemic Risk
- **Recommendation Four:** Increase Treasury's Capacity to Implement Policy Decisions More Consistently and Effectively and with Greater Accountability to Federal Officials
- **Recommendation Five:** Ensure that the Federal Housing Administration (FHA) has the Capacity to Support the Mortgage Market without Sustaining Major Losses
- **Recommendation Six:** Ensure that the Department of Education (ED) has the Capacity to Support the Federal Student Loan Market
- **Recommendation Seven:** Create a Financial Stability and Credit Staff in the Office of Management and Budget to Develop Policy Options for More Effective and Coordinated Government Actions

- **Recommendation Eight:** Create or Strengthen Interagency Working Groups to Bring the Resources of Multiple Agencies to Bear on Addressing the Crisis in a Coordinated Manner

Increase the Flow of Credit

- **Recommendation Nine:** Ensure the Flow of Credit to Major Economic Sectors

Restore Public Confidence in Fairness of the Response Effort

A major task in responding to the crisis is to restore public confidence. The public must have confidence in the fairness of the response effort so that policymakers avoid possible political backlash that can impede the development and implementation of the policies needed to overcome the crisis.

Recommendation One: Ensure a Perception of Legitimacy

Stage one of the crisis involved vigorous responses by both Treasury and the Fed, but neglected consistency, transparency, and attention to the issue of public perception. When Treasury and the Federal Reserve provide hundreds of billions of dollars of support to failing institutions and market segments, there are winners and losers. The public needs to have confidence, not only that the government intervention is working, but also that the decision-making process is open, fair and accountable.

This is the critical issue of legitimacy. Researchers have long understood that legitimacy is essential if authorities wish to be given the discretion that they need to carry out their work effectively. As Tom R. Tyler has written, "Leaders with legitimate authority

have open-ended, discretionary authority within a particular range of behavior. They may act in ways that will most effectively advance their objectives, expecting to receive public support for their actions.⁴ Conversely, to the extent that action by authorities loses the perception of legitimacy, the political process is likely to restrain policymakers' discretion.

Consider some of the issues raised by the actions of Treasury and the Fed in 2007-2008. Major decisions about providing support to firms were often inconsistent. Thus, the arranged merger of Bear Stearns wiped out common shareholders, the infusion of government funds into Fannie Mae and Freddie Mac came in a form that diminished both common and preferred shareholders, and Lehman Brothers was simply allowed to fail. The problem of inconsistency is compounded by recognition that rescue of a firm helps to protect the firms' counterparties. The perception of legitimacy when the government infused billions of dollars of public funds into AIG was not helped by revelations that the CEO of Goldman Sachs, a major AIG counterparty, participated in the process of making that decision.⁵

The Troubled Asset Relief Program (TARP) program, authorized in 2008 to provide financial support to troubled institutions, has been beset by perceptions of inconsistency and favoritism, exacerbated by the nontransparent way that decisions have been made:

“Bankers, regulators and politicians complain of a secretive and opaque process for deciding which banks get cash and which don't. The goal of aiding only banks healthy enough to lend—laid out by the Treasury when the program began—clearly seems to have shifted, but in a way that's hard to pin down and that the Treasury has declined to explain. Part of the problem is that some powerful politicians have used their leverage to try to direct federal millions toward banks in their home states.”⁶

Perceptions of favoritism generate their own political response. Part of that response is an intensification of lobbying by petitioners who believe that they have been neglected despite their worthy claims to receive public largesse. The lack of administrative capacity by federal agencies, which led to a backlog of banks seeking federal relief, was interpreted as

additional signs of political favoritism.⁷

Legitimacy in the eyes of the larger public is important as well. In reaching for experienced Wall Street hands, the Treasury obtained capable financial managers who could help to establish the Treasury's responses. On the other hand, given widespread belief that Wall Street excesses were responsible for the current debacle, excessive reliance on Wall Street as a source of officials and contractors has the potential to arouse popular suspicions and concern. Commentary by Michael Lewis and David Einhorn that, “At every turn we keep coming back to an enormous barrier to reform: Wall Street's political influence,”⁸ is likely to be a harbinger of popular criticism that could lead to significant constraints on the ability of government to respond to the crisis.

Legitimacy must be addressed in several ways:

- It will be important to review each decision concerning the use of public bailout funds to assure that it meets basic tests of transparency and fairness.
- Federal policymakers must assess procedures to make sure that they are seen to be fair so that petitioners for government support whose petitions are rejected, reduced, or delayed, understand the logic behind those outcomes.

Major issues need to be addressed. Long ago Walter Bagehot, the father of modern central banking, argued that the scarce resources of the central bank should be allocated to supporting institutions that are solvent (i.e., their assets exceed their liabilities) but suffering from a lack of liquidity (i.e., ready access to cash in return for a pledge of valuable assets).⁹ The Treasury did create a Capital Purchase Program (CPP) under TARP to provide support to healthy financial institutions suffering from insufficient liquidity. However, especially because of the strong market reaction to the failure of Lehman Brothers, Treasury also used TARP to provide support to Systemically Significant Financial Institutions (SSFI), i.e., those that are insolvent and not merely suffering from a lack of liquidity. This leads to the question whether government shouldn't do more to support insolvent homeowners who are suffering in the current crisis.

Other issues relating to perceptions of legitimacy include criticism that U.S. banks have used their

infusions of government capital to acquire other financial institutions rather than to expand their provision of much-needed lending to individuals and businesses, and criticism of high executive compensation and active lobbying by institutions receiving government support. Some issues are resolvable with improved policy, as discussed below, and others at least require clear public explanation if they cannot be resolved. There are answers to many of these questions.¹⁰ There needs to be fundamental attention to fairness and transparency; the public needs to gain a sense that political leaders have a clear mission, are good stewards of the nation's economy, and will make fair decisions.

Recommendation Two: Assist Communities to Cope with Foreclosed Homes

Foreclosed homes create blight in communities. Empty foreclosed homes are subject to vandalism, weather damage, and significant deterioration in general. Policy planning is needed to determine whether a program of HUD rental assistance might help to mitigate some of that harm by placing renters in foreclosed homes. Again, careful analysis is needed to shape the program to deal with moral hazard, unexpected consequences, and cost-effectiveness. The importance of thoughtful analysis is seen in the Housing and Economic Recovery Act of 2008 which authorized the allocation of several billion dollars to communities to purchase foreclosed homes. The net result is likely to be an increased incentive for lenders to foreclose because of the increased price they may receive from foreclosure thanks to the new program. Again, simple shaping of such a program, in that case to provide the assistance only to homes foreclosed before the effective date of the legislation, could have addressed this shortcoming.¹⁴

Enhance Government's Institutional Capacity to Respond Effectively

Recommendation Three: Authorize and Ensure Capacity of the Federal Reserve to Monitor and Address Systemic Risk

In March 2008, the Treasury presented its *Blueprint for a Modernized Financial Structure*. As have other reports, Treasury's blueprint recommended as the optimal framework a more rational structure for federal financial regulation. Such a reorganization

could help to end today's complex regulatory structure, divided among state and federal agencies and between federal agencies so as to create not only redundancy and an opportunity for institutions to shop for the most lenient regulator, but also gaps between regulators that have left major parts of the financial system unsupervised.

A major Treasury recommendation was to designate the Federal Reserve to be the "market stability regulator," with responsibility not only for monetary policy but also for monitoring and addressing systemic risk. This function would be in addition to the function, which Treasury would leave to a different regulator, of dealing with safety-and-soundness of individual institutions.

The case for rationalizing federal oversight of financial institutions and the financial system, and for harmonization of oversight and supervision with global regulators, is compelling. As Treasury Secretary Paulson recognized in unveiling the *Blueprint*, it also will be politically quite difficult to achieve. Similarly, there are many difficult decisions to make between the important principles enunciated by the GAO for financial regulation reform¹⁵ and the practical details of how actually to implement them. It will be a test for our political system to see whether the current costly debacle can lead to the urgently necessary reforms in financial regulation and supervision.

One part of the Treasury *Blueprint* is especially important. This is the need to provide the Federal Reserve with the mandate, authority, and capacity to monitor and deal with systemic risk. Systemic risk is different from the risk of failure of a single financial institution. First, it involves taking account of interactions among institutions that can amplify risk. Thus, while credit default swaps were a useful device for individual institutions to protect themselves against potential losses on debt that they had purchased, this tool spread risk to numerous "counterparty" institutions when major firms failed, such as AIG and Lehman Brothers. Similarly, the problem of herd behavior, such as when institutions withdrew from providing liquidity to one another, results in systemic crisis rather than a mere need for liquidity by a single institution that ordinarily could be met by borrowing temporarily from the Federal Reserve.

Second, systemic risk is increased due to the propensity of institutions to shift risk to points of particular systemic vulnerability. Prudential supervision of the financial system must take account of Stanton's Law: *Risk will migrate to the place where government is least equipped to deal with it.*¹⁶ In the current debacle, much financial risk accumulated in unregulated parts of the market. Banks shifted risk of subprime mortgages to off-balance-sheet vehicles such as Structured Investment Vehicles (SIVs). The financial system shifted a large volume of subprime mortgages away from regulated financial institutions and funded them through private-label mortgage-backed securities that obtained ratings from the ratings agencies but remained largely beyond the purview of prudential regulation. At least one financial regulator must have the authority, capacity, and discretion to supervise otherwise unregulated parts of the financial markets to protect against such accumulations of systemic risk in the future.

As the nation's central bank, the Federal Reserve is an appropriate body to monitor and address systemic risk. To do so, the Federal Reserve will need expanded authority, both to impose its rules and requirements (such as capital and liquidity-related requirements) on entities currently unregulated at the federal level, such as insurance companies, and to have a greater oversight role with respect to all financial institutions, including broker-dealers. There are subordinate questions, such as whether the Federal Reserve should retain its supervisory authority over state-chartered member banks of the Federal Reserve System. It would seem that the current supervisory role of the Federal Reserve over some financial institutions and holding companies creates conflicting pressures with the larger role of a supervisor responsible for monitoring and protecting against systemic risk. The extension of Federal Reserve supervision to other types of institutions also raises a question whether the current governance structure of the 12 district Federal Reserve Banks and predominant role of commercial banks in selecting the Federal Reserve Bank boards of directors should be changed. However these subordinate issues are resolved, the need is clear: the United States requires a central authority with the mandate, authority, and capacity to monitor and address systemic risk.

Among other issues, the Federal Reserve should monitor emerging financial innovations and their risk

implications. The Fed might not be able to anticipate the risk implications of each new development.¹⁷ The Federal Reserve also will need to continue to strengthen cooperation with other financial regulators around the world. Many other countries have been hurt by the bursting U.S. bubble, in addition to facing problems created by their own institutions.

The Fed will require authority to obtain timely information such as examination reports from other federal financial supervisors and other government agencies.¹⁸ Had the Fed possessed this responsibility and authority some years ago, for example, it might have reported on the high leverage of investment banks subject to the Consolidated Supervised Entity (CSE) program of the Securities and Exchange Commission (SEC), or the high leverage of Fannie Mae and Freddie Mac, compared to other financial institutions serving the residential mortgage market, or the declining standards of the credit rating agencies in assigning credit ratings, or the potential problems of trying to apply loss mitigation to delinquent mortgages that had been securitized in private-label securities. The Fed then could have set standards for corrective action and applied them to these institutions.

Some information might not be accessible to the new regulator. For example, Citigroup (which is currently supervised by the Federal Reserve) sold so-called "liquidity puts" along with its collateralized debt obligations (CDOs) that were intended to protect purchasers of CDOs against the kind of market collapse that ultimately occurred. The *Economist* reports that even the most senior Citigroup managers remained unaware of the firm's exposure to these puts until purchasers of some \$25 billion of CDOs used them.¹⁹ A regulator may have even less access to such information unless the examination process detects it. The markets are fluid and often hard to monitor, but the Federal Reserve is in the best position to try to do so.

If the larger systemic risk supervisor cannot be created along these lines, then a more modest proposal may be helpful. This would be the creation of a federal oversight body, perhaps located as an independent bureau within the Treasury Department, that would be responsible for monitoring systemic risk throughout the U.S. and global financial systems.

This organization would supplement rather than substitute for urgently needed improvements in regulation and supervision of the financial system. It relies on a simple precept: The problem of regulatory capture, which often weakens financial regulators, is less likely to impede an agency without regulatory authority. This logic resulted in creation of the National Transportation Safety Board (NTSB), which can obtain information about transportation accidents but lacks authority to compel adoption of its recommendations. We use the NTSB to supplement the Federal Aviation Administration (FAA), which is responsible for regulating and supervising airline safety. Similarly, a separate NTSB-type watchdog is needed for the financial sector to monitor for points of vulnerability and the impact of new developments on systemic risk.

The NTSB reports to the Secretary of Transportation, who is required to respond in writing within 90 days.²⁰ The NTSB also publishes reports on issues of transportation safety that are of national significance. While federal agencies and the Congress have resisted making many improvements urged by the NTSB, they also have responded to many NTSB recommendations. Especially with the memory of the current financial debacle in the public mind, it is likely that many of the new agency's reports on systemic risk and supervisory shortcomings would find an attentive audience.

Recommendation Four: Increase Treasury's Capacity to Implement Policy Decisions More Consistently and Effectively and with Greater Accountability to Federal Officials

As of November 21, 2008, Treasury had assigned some 48 employees to the new Office of Financial Stability (OFS), primarily officials serving on a temporary basis from elsewhere in Treasury or from other agencies such as the Federal Reserve Board. Treasury officials told the Government Accountability Office (GAO) that the office would require staffing by up to 200 full-time equivalent employees, depending on the type and complexity of activities that Treasury would conduct under TARP.

Given its limited staffing, Treasury adopted a strategy of delegating large parts of its work to others. Treasury largely left to the federal bank regulators decisions about which of the institutions that they supervise would be eligible for TARP funds. Treasury

also engaged contractors to support the TARP program in critical areas, including custodian and cash management services, legal advisory services, investment policy advice and oversight of asset managers, internal controls development, and human resources support. Treasury used a variety of means to expedite the procurement process. EESA expressly permits such expedited contracting processes, as does the Competition in Contracting Act.²¹ Treasury usually priced the TARP contracts and task orders on a time and materials basis.

Treasury relied on self-reporting and required respondents to its solicitations to identify actual or potential conflicts of interest and to propose means of mitigating these. In late November 2008, when GAO conducted its review of the Treasury's implementation of the TARP program, "Treasury was still in the process of developing an oversight mechanism for enforcing financial agents' and contractors' mitigation plans." GAO reported that Treasury was developing its internal control structure for TARP as the program evolved.²² Thus, at this writing the quality of Treasury supervision of its myriad of contractors is not yet clear.

Given the immense volume of taxpayer resources that are being consumed by TARP, Treasury requires increased capacity to deal with the allocation of these funds and to supervise how they are used. Many decisions that Treasury makes, especially in exercising discretion about the use of public money to support troubled institutions, would seem to be inherently governmental, in the sense that they should be performed by federal officials rather than contractors.²³

The government landscape is littered with federal projects that involved excessive delegation without the host agency retaining adequate capacity to assure that contractors faithfully and cost-effectively carried out their responsibilities.²⁴ One approach to providing the Treasury with additional institutional capacity would be to turn the office that implements TARP, the Office of Financial Stability, into a wholly owned government corporation or, perhaps more appropriately, into a performance-based organization. These organizational forms permit government agencies to conduct their operations on a more businesslike basis and with potentially greater organizational capacity and flexibility than is otherwise

permitted by law for most agencies.²⁵ Two wholly owned government corporations within federal departments are Ginnie Mae, within the Department of Housing and Urban Development (HUD) and the St. Lawrence Seaway Development Corporation within the U.S. Department of Transportation. The Office of Federal Student Aid (FSA) is a performance-based organization within the Department of Education. Whichever form is selected, it would be advisable to borrow from the experience of the Resolution Trust Corporation, a temporary wholly owned government corporation, which effectively disposed of assets from the savings and loan debacle, and to make the new organization temporary rather than permanent, with a sunset date in its charter.²⁶ A temporary organization can attract superior talent without undergoing the increasing rigidity that sometimes besets permanent agencies of government. This approach will be especially important if Treasury decides to use TARP to purchase and hold troubled assets from troubled financial institutions.

Recommendation Five: Ensure that FHA has the Capacity to Support the Mortgage Market Without Sustaining Major Losses

Former HUD Secretary Steve Preston pointed out in November 2008 that the volume of FHA mortgage insurance trebled over the prior year. He was candid in his assessment that FHA is not strong enough, either in statutory authority or administratively, to carry the load of a substantial increase in volume without causing significant potential losses to taxpayers. Secretary Preston objected to Congress' refusal to allow FHA to implement modest risk-based pricing for the agency's mortgage insurance program. He also pointed to problems with FHA's patchwork of IT systems, noting that FHA's core loan processing system is still written in COBOL.²⁷

The HUD Inspector General and other housing experts also worry that fraud may overtake the FHA program as subprime lenders and others move their loan production to FHA. Kenneth M. Donahue, HUD's Inspector General, warned that "It looks like an incoming tsunami." FHA lacks the capacity to monitor and respond quickly to fraud. Moreover, the agency's protracted procedures do not allow for prompt removal of fraudulent or abusive lenders from the program.²⁸

An interagency task force, led by the Office of Management and Budget, and consisting of representation from FHA and Ginnie Mae, and preferably also Fannie Mae and Freddie Mac, is needed to review FHA and Ginnie Mae and to make recommendations for improving the systems, procedures, and other aspects of capacity needed to ensure that the government can provide appropriate support for the mortgage market. Ideally, now that Fannie Mae and Freddie Mac are in conservatorship, the government should arrange that these two government-sponsored enterprises (GSEs) provide needed systems and facilities to FHA to ensure capable implementation of the FHA single-family mortgage insurance program.

The task force may also need to determine whether an alternative delivery system would be more appropriate, depending on the anticipated volume of new business. Alternatives might include giving underwriting capability to Ginnie Mae, so that it combines the function of providing mortgage insurance with its current authority to guarantee pools of MBSs, and perhaps also creating a temporary wholly owned government corporation to provide a Ginnie Mae-type guarantee for pools of conventional mortgages. Since time is short, the preferred option might be to use Fannie Mae and Freddie Mac to purchase FHA loans and apply their automated underwriting systems to the origination process.²⁹

Recommendation Six: Ensure that the Department of Education has the Capacity to Support the Federal Student Loan Market

Issues with Department of Education (ED) and support for federal student loan programs do not seem to be as pressing as those relating to FHA. However, ED too would benefit from improved systems and procedures relating both to the federal guaranteed student loan (FFELP) program and the direct student loan program (FDSLPL). Again creating a task force led by OMB would seem to be the appropriate next step. Other members of the task force would include the ED Office of Postsecondary Education and the ED Office of Federal Student Aid. The task force should reach out to reform-minded representatives of state guaranty agencies and other participants in the FFELP program to try to determine whether current market stresses make reform of the structure and inherent incentives and subsidy features of the FFELP necessary.

Recommendation Seven: Create a Financial Stability and Credit Staff in the Office of Management and Budget to Develop Policy Options for More Effective and Coordinated Government Actions

Some years ago the management side of the Office of Management and Budget included a small and effective organization known as the Credit and Cash Management Branch. OMB abolished that office in a reorganization in the mid-1990s. Needed is a new Financial Stability and Credit staff in OMB to provide analytic support for the government's response to the financial crisis. The staff should be in OMB to ensure that its analyses are done by career officials, appropriately shaped to conform to the Administration's policy positions, and presented to political appointees for decision, at the National Economic Council, for example. OMB is especially suitable because of its focus on government performance and effective management and implementation of critical government programs. OMB would need to add staff and establish its credibility with respect to financial issues; given the priority of financial issues in coming years, the investment would be worthwhile.

This staff could include desk officers with responsibility for gathering information from each federal financial and credit agency and for placing that information into a set of policy briefings and policy options. The staff would attempt to anticipate needs of the various financial sectors, potential improvements in federal support for those sectors, and an assessment of the benefits and costs of each option. The staff would be particularly attuned to trying to ensure the capacity and accountability of agencies playing important roles in the government's response.

The staff could help to anticipate unintended consequences of interactions among the diverse aspects of the government response. Observers point to a number of unintended consequences of actions by the Treasury, Fed, and FDIC. As Mark Zandi, chief economist and a co-founder of Moody's Economy.com, said, "You put your finger in the hole in one part of the dam and another hole opens up elsewhere and you have to put your finger there.... You can see that with guaranteeing bank debt; it raised the cost for Fannie and Freddie. When you guaranteed money market funds, you guaranteed problems for banks and people shifted deposits."³⁰ In this context of complex interactions among policy responses it

would be helpful for a policy planning office to consult with multiple agencies to try to ensure more consistent outcomes.

The staff also should consider longer term issues and factor those considerations into the policy options. For example, the ED use of a standby purchase facility for federally guaranteed student loans, discussed in Section III below, may be a useful practice to emulate in other government responses. Rather than simply buying student loans, ED is trying to maintain the private sector loan infrastructure by allowing conduits to sell student loan asset-backed securities to investors, while assuring liquidity and a market price for those securities in the event that private investors lack the liquidity or confidence to hold those securities by themselves.

The staff can help policymakers to avoid the horns of major dilemmas. For example, should government consult with lenders and other market participants before rolling out major initiatives? If the government does consult, as in the rescue of AIG, it appears to be favoring interested parties with its decision. On the other hand, if government does not consult with market participants it loses the necessary sense of how the market may respond to various policy options. The staff can help to remove this dilemma; while policy planners would be authorized to sound out market participants in developing policy options, major decision makers could shield themselves from the perception that they somehow were influenced by those market participants. Having the policy planning function staffed by career federal officials at OMB rather than by political appointees can help to enhance the perceived legitimacy of such discussions.

Recommendation Eight: Create or Strengthen Interagency Working Groups to Bring the Resources of Multiple Agencies to Bear on Addressing the Crisis in a Coordinated Manner

At least two working groups would help to ensure a more consistent government response than was possible under the pressure of time in the first stage that has now come to an end. One of the working groups should consist of the federal credit agencies that comprised the former Federal Credit Policy Working Group, led by OMB. Major federal agencies that administer credit programs include FHA, Ginnie Mae, ED, the U.S. Department of Agriculture

(USDA), SBA, Export-Import Bank of the United States, and VA. Agencies could present briefings on their programs and legislative constraints that impede more effective contributions to the government's response. The decline in SBA small business lending despite the increased credit needs of small businesses would be the type of problem that should come promptly before the working group. Agencies also should inform the working group about administrative limitations, such as staffing and systems, which they consider potentially to impede effective and cost-effective action.

The other working group would consist of federal regulatory agencies with financial responsibilities, including the federal bank and thrift regulators, FHFA and the Farm Credit Administration, the SEC and Commodity Futures Trading Commission (CFTC) and federal agencies with the capacity and mission to minimize fraud and abuse, such as the Federal Trade Commission and the Department of Justice. This working group should be headed either by a senior official with close ties to the president but who does not represent any one of the participating agencies, or by the Secretary of the Treasury.³¹ The Treasury has recommended expanding the President's Working Group on Financial Markets (PWG) to serve that kind of coordinating role. The Treasury's *Blueprint for a Modernized Financial Regulatory Structure*³² proposes using the PWG as a central coordinating group for proposing improvements in federal supervision of the financial system. As is true of the PWG, the group itself would not possess actual power, which would remain with the Secretary of the Treasury and the participating agencies.³³

It should be recognized that tension exists over the jurisdiction and roles that the various financial agencies seek to play. The United States has too many regulatory agencies to oversee institutions that serve overlapping market segments. Absent the regulatory consolidation recommended in the Treasury report, a working group at least can help to deal with overlapping jurisdictions and gaps in oversight. The tension between small banks and large ones, state-chartered banks and federally chartered national banks, and banks and credit unions, for example, reflects itself in jockeying among federal financial regulators. Similarly, there are tensions between the SEC and CFTC and the SEC and Federal Reserve. Given the

failures of financial supervision that contributed heavily to the current crisis, the White House will need to play a major role in assuring that these "turf" issues do not preclude development of a sound financial regulatory structure for the United States and indeed globally.³⁴

Increase the Flow of Credit

Recommendation Nine: Ensure the Flow of Credit to Major Economic Sectors

Many have asked whether it was wise to structure the capital infusions under TARP to be voluntary with lenders without requiring that banks increase their lending in return. The posture of the U.S. Treasury Department, countenancing vague assurances by lenders that receive assistance, contrasted with that of the United Kingdom. The U.K. Treasury required that all institutions receiving capital infusions maintain, "Over the next three years, the availability and active marketing of competitively-priced lending to homeowners and to small businesses at 2007 levels."³⁵ Important policy planning questions are, "Which of the two policies is most suitable for conditions in the United States?" and, "If U.S. banks are reluctant to lend, should the federal government expand its direct lending and loan guarantee programs to serve creditworthy borrowers that continue to find credit inaccessible?"

The Roosevelt Administration engaged in federal lending through the Reconstruction Finance Corporation (RFC). In the 1930s, as today, banks were reluctant to lend in the face of a declining market.³⁶ Perhaps, rather than criticizing banks, the government should implement systematic programs of credit support to key sectors of the market. Given that programs from the RFC were dispersed among federal agencies such as the Small Business Administration, Export-Import Bank of the United States, and Ginnie Mae, and given the press of time, it would seem that coordinated programs of lending through separate federal agencies would make more sense than trying to recreate a central lending facility.

The Office of Management and Budget should assemble interagency task forces to enhance the ability of particular federal programs and assess how best to provide needed support to the credit markets. This may involve needed increases in statutory authority

as well as operational capacity. One thinks for example of the Small Business Administration that, with expanded statutory authority, could have pumped potentially billions of dollars of direct loans into the small business sector. Many small businesses would inevitably be rocked by the recession; but this kind of program could at least help to protect those firms with business prospects that suddenly found their credit drying up.³⁷ OMB is the appropriate organization to carry out this function. It is well situated and has the capacity to monitor and improve the performance of federal agencies.

The Crisis and Government's Response

The need for these recommendations can be seen in a review of the way that the federal government, and especially Treasury and the Federal Reserve, responded to the crisis in 2007-2008. The difficulty of fashioning a systematic, fair, and transparent process at that time can be seen by recounting first the nature of the crisis and the way that its expanding dimensions confounded development of a systematic government response.

The Unfolding Crisis

The crisis began as a period of unprecedented prosperity, both in the United States and globally. People began to speak of the “Goldilocks economy,” neither too hot nor too cold, supported by an accommodative monetary policy.³⁸ As George Soros and others pointed out, the illusion of a Goldilocks economy rested not only on unsustainable levels of investment in housing, the well known “housing bubble,” but also a much larger amount of overinvestment in the larger economy, which Soros calls a “super bubble.”³⁹ While analysts long observed that both individual households and the United States government were over-leveraged and borrowing to sustain consumption beyond their means, few foresaw the dire consequences when it came to an end.

As home values began to decline it became apparent that many parts of the country—notably California, Florida, Nevada, and Arizona—were seriously overbuilt. These were parts of the country that had experienced the greatest appreciation in home values; when the bubble burst, housing prices there fell the furthest. Other hard-hit states were in parts of the Midwest that depend on the automobile industry. While mortgage borrowers in much of the rest of the country remained largely current on their

payments, homeowners in these states began to experience delinquency, default, and foreclosure in record numbers.

New complex securities and other financial structures had distributed the risk of pools of mortgages across many different investors. Investors that had purchased highly-rated mortgage securities suddenly found that their holdings lost substantial value. Investors, including commercial banks, Wall Street investment banks, pension funds, foreign central banks and other holders, suddenly found themselves unable to determine the extent of their likely losses as mortgage defaults continued to mount. As analysts looked at each part of the market, the reality of high leverage became apparent. One institution after another—commercial banks and thrift institutions, Fannie Mae, Freddie Mac, Wall Street investment banks, and nonbank institutions such as large mortgage lenders—lacked sufficient capital to cushion against losses.

Even though some 97 percent of American homeowners were paying their mortgages on time,⁴⁰ numerous financial companies without adequate capital, including banks, thrifts, and nonbank lenders, began to fail. Failing institutions included not only those concentrating in the mortgage sector such as Fannie Mae and Freddie Mac, which together funded about 40 percent of the mortgage market; Countrywide Financial Corporation, the country's largest mortgage lender; and IndyMac and Washington Mutual, two of the largest thrift institutions; but also other firms that held risky mortgage securities.

Many financial institutions lacked a clear picture of the volume of losses they were about to suffer. More

importantly, lenders suddenly realized that companies with whom they did business, their counterparties, were going to take losses too. The lack of transparency about likely losses meant that institutions could not be sure whether their counterparties might not become insolvent and unable to repay their loans. Lenders stopped lending to one another and to others. The credit markets froze and the housing crisis became a financial crisis.

The Federal Reserve added liquidity to the market to offset investor concerns. But the financial crisis continued. With firms unwilling to lend to one another, borrowers suddenly were deprived of funding. Worse, rumors flew about investment banks and other financial companies that were suspected of being insolvent. To the extent they could, investors withdrew their funds from those companies and thereby precipitated failures that otherwise might not have occurred. Investment advisers had counseled borrowers such as local governments to borrow short term and simply roll over their debt. Again the rosy scenario prevailed; few had thought that it might be expensive or impossible to secure the kind of repeating short term funds that this strategy required. Suddenly these borrowers too faced the prospect of defaulting; their obligations remained outstanding, but the borrowers could not fund them at reasonable cost, if at all.

For want of credit, companies and other borrowers began to lay off employees and even to close. The crisis, which had expanded from mortgages to a financial crisis, expanded again, this time from the financial sector to the larger American and global economies. The cycle is not yet complete. As people lose their jobs, increasing numbers will default on their mortgages. Home values will fall further and assets in investors' hands and on lenders' books will lose yet more value.

At this writing in early 2009 the economy continues to spiral downwards. The millions of foreclosures that seem likely because of mortgages that borrowers and lenders imprudently originated are likely to be joined by additional millions of foreclosures as people lose employment and become unable to maintain payments even on mortgages that originally had been sound. Housing prices continue to decline so that increasing numbers of mortgages, in the millions, become larger in size than the value of

the mortgaged residence, thereby encouraging yet further defaults and foreclosures. The United States and many countries around the world face the prospect of a brutal recession.

The Government's Multifaceted Response

The government responded with an impressive array of policy tools, often deployed in innovative ways. It is useful to look at the major organizations involved in the response and the policy tools available for their use.⁴¹ Gaps in organizational responsibility had allowed risk to accumulate in parts of the financial system that were not subject to the kind of prudential supervision that might have mitigated threats to the larger financial system and economy. Similarly, but to a lesser extent, gaps in organizational authority and available tools also shaped the government's pattern of response.

Major federal organizations involved in responding to the financial crisis included the Treasury Department and the Federal Reserve System, which includes the Board of Governors, the Federal Open Market Committee (FOMC), and district banks such as the Federal Reserve Bank of New York (FRBNY). Other significant federal actors included the Federal Deposit Insurance Corporation (FDIC), the Securities and Exchange Commission (SEC), the Federal Housing Finance Agency (FHFA), the Federal Housing Administration (FHA), and the United States Department of Education (ED). A myriad of other federal agencies could play a significant role in responding to the crisis, depending how the crisis is defined and the policy response that is considered most appropriate.

An abbreviated timeline of some of the major events relating to responses by the Treasury and Federal Reserve is provided on the following pages.⁴²

The Federal Reserve System

The Federal Reserve System is an unusual organization. The Federal Reserve Board is an agency of the United States. It supervises the twelve Federal Reserve Banks, which serve public purposes but are owned by commercial banks. The Board of Governors implements monetary policy through the Federal Open Market Committee (FOMC), which consists of the

seven governors of the Federal Reserve Board plus five presidents of the 12 district Federal Reserve Banks.⁴³ The Federal Reserve System funds itself from its operations, i.e., outside of the budget and appropriations processes. The Federal Reserve System earns money primarily from interest on the Treasury securities that it holds for monetary operations and, after paying its expenses, returns money to the federal government each year.⁴⁴

In its responses to the crisis the Fed applied both monetary policy and other tools, often in untraditional ways.⁴⁵ Figure 1 shows how the Federal Reserve System increased its involvement in the economy. Note how the volume of assets funded by the Federal Reserve increased by over 150 percent in one year, from yearend 2007 to yearend 2008. If one counts member institutions' stock purchases in the Federal Reserve Banks as capital, then one could say that the leverage of the Federal Reserve System more than doubled, from 23:1 to 52:1 in a single year. As the rest of the financial sector was deleveraging, the Federal Reserve stepped in to take up assets and increase its leverage.⁴⁶

Monetary Policy Tools: Injecting Additional Funds into the System

- **Open Market Operations:** The Fed was concerned about the consequences of the liquidity crisis that developed starting in August 2007. It purchased billions of dollars of Treasury securities to inject extra funds into the financial system and lowered interest rates aggressively.

Because of the traditional role of New York as a national and global money center, the Federal Reserve Board and FOMC implement monetary

policy through FRBNY, which actually buys and sells the Treasury securities in amounts that are determined appropriate to meet the Board's monetary targets. FRBNY conducts its transactions through a group of about 20 financial institutions known as "primary dealers." The list of primary dealers includes firms such as Goldman Sachs, J.P. Morgan Securities, and Morgan Stanley. Firms that have withdrawn include Countrywide Securities, Merrill Lynch, Lehman Brothers and Bear Stearns.⁴⁸

Extensions of Credit to Support Financial Markets and Institutions

- **Borrowing from the Discount Window:** The Fed offers member banks the opportunity to borrow money by submitting assets as collateral. Most of this borrowing is done on an overnight basis. In normal times banks are discouraged from borrowing from the discount window, both because of the high cost that the Fed imposes and because such borrowing attracts scrutiny from the bank regulators and the markets. In response to the crisis the Fed lowered the cost of discount window borrowing and also made clear that such borrowing would not be discouraged. The Federal Reserve Banks implement discount window transactions for banks in their districts.
- **Term Auction Facility (TAF) to Make Loans to Banks:** Although banks substantially increased their borrowing from the discount window, many institutions feared to do so because of market perceptions that this showed financial weakness. In response the Fed created the Term Auction Facility, as a way to provide longer-term (28-day, or even longer term) money than is

Figure 1: Consolidated Statement of Condition of the Federal Reserve System Yearend 2006-2008

Year	2006	2007	2008
Total Assets	\$873.9 Billion	\$893.8 Billion	\$2.259 Trillion
Total Liabilities	\$843.2 Billion	\$856.7 Billion	\$2.216 Trillion
Total Capital	\$30.7 Billion	\$37.1 Billion	\$42.5 Billion
Leverage (liabilities/capital)	27:1	23:1	52:1

Source: Federal Reserve Statistical Releases H.4.1⁴⁷

Timeline of Major Government Actions by the Federal Reserve and Treasury Department

DECEMBER 2007

December 12, 2007: The Federal Reserve Board announces the creation of a Term Auction Facility (TAF) in which fixed amounts of term funds will be auctioned to depository institutions against a wide variety of collateral.

MARCH 2008

March 11, 2008: The Federal Reserve Board announces the creation of the Term Securities Lending Facility (TSLF), which will lend up to \$200 billion of Treasury securities for 28-day terms.

March 16, 2008: The Federal Reserve Board establishes the Primary Dealer Credit Facility (PDCF), extending credit to primary dealers.

March 24, 2008: The Federal Reserve Bank of New York announces that it will provide term financing to facilitate JPMorgan Chase & Co.'s acquisition of The Bear Stearns Companies Inc.

JULY 2008

July 30, 2008: President Bush signs into law the Housing and Economic Recovery Act of 2008 (Public Law 110-289).

SEPTEMBER 2008

September 7, 2008: The Federal Housing Finance Agency (FHFA) places Fannie Mae and Freddie Mac in government conservatorship. The U.S. Treasury Department announces three additional measures to complement the FHFA's decision.

September 16, 2008: The Federal Reserve Board authorizes the Federal Reserve Bank of New York to lend up to \$85 billion to the American International Group (AIG) under Section 13(3) of the Federal Reserve Act.

September 17, 2008: The Treasury Department announces a Supplementary Financing Program consisting of a series of Treasury bill issues that will provide cash for use in Federal Reserve initiatives.

September 19, 2008: The Federal Reserve Board announces the creation of the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF).

September 19, 2008: The Treasury Department announces a temporary guaranty program that will make available up to \$50 billion from the Exchange Stabilization Fund to guarantee investments in participating money market mutual funds.

September 20, 2008: The Treasury Department submits draft legislation to Congress for authority to purchase troubled assets.

September 21, 2008: The Federal Reserve Board approves applications of investment banking companies Goldman Sachs and Morgan Stanley to become bank holding companies.

OCTOBER 2008

October 3, 2008: Congress passes and President Bush signs into law the Emergency Economic Stabilization Act of 2008 (Public Law 110-343), which establishes the \$700 billion Troubled Asset Relief Program (TARP).

October 7, 2008: The Federal Reserve Board announces the creation of the Commercial Paper Funding Facility (CPFF), which will provide a liquidity backstop to U.S. issuers of commercial paper.

October 8, 2008: The Federal Reserve Board authorizes the Federal Reserve Bank of New York to borrow up to \$37.8 billion in investment-grade, fixed-income securities from American International Group (AIG) in return for cash collateral.

October 14, 2008: U.S. Treasury Department announces the Troubled Asset Relief Program (TARP) under the authority of the Emergency Economic Stabilization Act of 2008.

October 21, 2008: The Federal Reserve Board announces creation of the Money Market Investor Funding Facility (MMIFF) to facilitate the purchase of assets from eligible investors, such as U.S. money market mutual funds.

NOVEMBER 2008

November 10, 2008: The Federal Reserve Board and the Treasury Department announce a restructuring of the government's financial support of AIG.

November 12, 2008: Treasury Secretary Paulson formally announces that the Treasury has decided not to use TARP funds to purchase illiquid mortgage-related assets from financial institutions.

November 23, 2008: The Treasury Department, Federal Reserve Board, and FDIC jointly announce an agreement with Citigroup to provide a package of guarantees, liquidity access, and capital.

November 25, 2008: The Federal Reserve Board announces the creation of the Term Asset-Backed Securities Lending Facility (TALF), to support recently originated consumer and small business loans. The Treasury will provide \$20 billion of TARP money for credit protection.

DECEMBER 2008

December 19, 2008: The Treasury Department authorizes loans of up to \$13.4 billion for General Motors and \$4.0 billion for Chrysler from the TARP.

December 22, 2008: The Federal Reserve Board approves the application of CIT Group Inc., an \$81 billion financing company, to become a bank holding company.

December 29, 2009: The Treasury Department announces that it will purchase \$5 billion in equity from GMAC as part of its program to assist the domestic automotive industry. The Treasury also agrees to lend up to \$1 billion to General Motors. This commitment is in addition to the support announced on December 19, 2008.

JANUARY 2009

January 5, 2009: The Federal Reserve Bank of New York begins purchasing fixed-rate mortgage-backed securities guaranteed by Fannie Mae, Freddie Mac and Ginnie Mae.

January 12, 2009: At the request of President-Elect Obama, President Bush submits a request to Congress for the remaining \$350 billion in TARP funding for use by the incoming administration.

January 16, 2009: The Treasury, Federal Reserve, and FDIC announce a package of guarantees, liquidity access, and capital for Bank of America.

January 16, 2009: The Treasury Department announces that it will lend \$1.5 billion from the TARP to a special purpose entity created by Chrysler Financial to finance the extension of new consumer auto loans.

Note: This is a greatly abridged version of the timeline of actions by the Federal Reserve, Treasury, and other federal agencies, found at <http://www.stlouisfed.org/timeline/timeline.cfm>, accessed January 21, 2009.

usually available from discount window borrowing. The Fed auctions TAF funds and thereby sets the interest rate for these borrowings. All bidders receive the lowest winning bid rate. The auction provides information to the Fed about bank demand for these funds.

- **Other Credit Facilities:** The Fed added other facilities to permit its primary dealers to use illiquid or other assets as collateral to borrow from the Fed. Many of these were investment banks rather than commercial banks that traditionally have been regulated and served by the Federal Reserve System. The Fed accomplished this by invoking statutory authority in exigent circumstances to lend to “any individual, partnership, or corporation.”⁴⁹ This authority had not been used since the 1930s.⁵⁰
- **Support for the Commercial Paper Market:** The market for commercial paper froze after the failure of Lehman Brothers in September 2008. The Fed reacted promptly. First it created a liquidity facility to make loans to banks to purchase commercial paper. The Fed took the credit risk of the commercial paper by making the loans to banks non-recourse, so that a bank did not need to bear the risk that commercial paper might later default. The Fed then established a Commercial Paper Funding Facility to purchase three-month highly rated commercial paper from issuers. This standby facility lends to both banks and nonbanks. The Fed followed this with creation of the Money Market Investor Funding Facility to support commercial paper issued by highly rated financial firms, including both banks and nonbanks, again under the exigency authority of the Federal Reserve Act.
- **Support for Consumer and Small Business via Providing Loans to Holder of Asset Backed Securities:** In November 2008 the Fed created a \$200 billion Term Asset Backed Securities Loan Facility (TALF) to provide loans to holders of high-rated asset backed securities that fund consumer and small business loans. These loans include student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration (SBA). The SBA had found that its own secondary market program froze up even though SBA loans provide a full-faith-and-credit guarantee of most of the obligation, with some risk-sharing by the originating

lender. Treasury committed \$20 billion to help guarantee the Fed's facility against loss.

The Fed also used other lending tools, such as creation of temporary reciprocal currency agreements with foreign central banks, as the crisis spread to new areas of concern.

Financial Regulation

The Federal Reserve Board is responsible for issuing regulations relating to bank holding companies and member banks of the Federal Reserve System. Even though evidence mounted about the extent of likely defaults on subprime and other nontraditional mortgages, the Federal Reserve Board and other bank and thrift regulators did not intervene with adequate consumer protections. In mid-2007, when many still saw the crisis as one of subprime and other nontraditional mortgages, the Federal Reserve Board joined with the other federal bank regulators to strengthen consumer protection requirements relating to such mortgages. However, these regulations were prospective in nature and not designed to help address the growing crisis among current borrowers.⁵¹

FRBNY and the other Federal Reserve Banks examine the banks and bank holding companies in their districts and ensure their compliance with capital and other safety and soundness requirements. FRBNY also monitors its primary dealers, including Federal Reserve member institutions and other types of institution—investment banks, insurance companies, etc.—that are not members, and oversees their safety and soundness as a means of strengthening “market integrity in the U.S. Treasury market.”⁵²

In responding to the crisis, the Federal Reserve Board allowed non-bank institutions to adjust their operations and become bank holding companies. At this writing, the Fed has approved a petition by GMAC to become a bank holding company. 2008 saw a progression of companies, including investment banks Goldman Sachs and Morgan Stanley, obtaining approval of their applications to become bank holding companies. Other successful applicants included American Express Company and its travel arm, and several insurance companies that became bank or thrift holding companies. If GMAC is able to meet the conditions set by the Federal Reserve Board it then would be eligible under Bush

Administration guidelines to receive capital infusions from the Treasury pursuant to the Emergency Economic Stabilization Act of 2008, discussed below. As *American Banker* reported, "The clear goal for these firms is to get funding from the Treasury's Troubled Asset Relief Program."⁵³

Resolution of Failing Institutions

Because of its leading role in the New York financial market, FRBNY can seek to resolve matters concerning failing institutions. This happened in 1998 with the failure of Long Term Capital Management (LTCM), a hedge fund organized by two Nobel Prize winners in Economics and a former Vice Chairman of the Federal Reserve. LTCM failed when its sophisticated models failed to include the possibility, which then occurred, that Russia would default on its sovereign debt. LTCM was highly leveraged and had assumed huge derivative positions that could have shaken the markets in the event of an LTCM failure and default. The President of the Federal Reserve Bank of New York, William J. McDonough, organized a meeting of leading U.S. and European banks with exposure to LTCM and organized a rescue.⁵⁴

FRBNY used this approach, plus providing government assistance, in conjunction with the failures or potential failures of Bear Stearns and American International Group (AIG), which were resolved, while letting Lehman Brothers fail. Participants describe sleepless weekends at FRBNY as each of the assistance packages was contemplated and negotiated. It was the FRBNY president who put together the original plan for AIG.⁵⁵

In the case of Bear Stearns, which suffered a liquidity crisis in March 2008, the Federal Reserve Board first authorized the Federal Reserve Bank of New York to advance \$13 billion to JPMorgan Chase to lend to Bear Stearns. This was intended to stabilize Bear Stearns while a possible acquisition was negotiated. A few days later JPMorgan Chase agreed to acquire Bear Stearns. FRBNY arranged to create a new Delaware limited liability corporation (LLC) called Maiden Lane LLC, after the lower Manhattan street where FRBNY is located. FRBNY extended credit to the new LLC to purchase \$30 billion of assets from Bear Stearns and hired a private firm to manage the portfolio for FRBNY. Except for the first \$1 billion of losses, neither Bear Stearns nor

JPMorgan Chase was liable for losses from these assets; conversely, FRBNY also receives any gains from their eventual disposition.⁵⁶ The Fed relied on the exigency provision of the Federal Reserve Act to authorize its provision of support. The liquidity crisis affecting Bear Stearns led the Fed to create the Primary Dealer Credit Facility, described above, to provide a more stable source of standby credit for the Fed's primary dealers.

In the case of AIG, the Federal Reserve Board authorized FRBNY to lend up to \$85 billion to the insurance company. AIG had suffered a liquidity crisis but was neither a primary dealer nor an insured depository institution subject to FRBNY supervision. The Fed responded again by invoking the exigency provision of the Federal Reserve Act as authority for the transaction. The Fed later expanded its assistance to AIG and swapped billions of dollars in cash for investment-grade fixed income securities held by AIG. FRBNY used new Delaware limited liability corporations called Maiden Lane II and Maiden Lane III as intermediaries in the transactions.

In November 2008 the Federal Reserve, Treasury, and FDIC announced a combined effort to shore up Citigroup. The Treasury and FDIC provided guarantees on a pool of about \$306 billion of residential and commercial mortgage loans and securities and derivatives relating to such loans. Treasury invested \$20 billion of TARP funds into Citigroup and the Fed provided standby funding for the asset pool if needed and Treasury. Once again FRBNY President Timothy Geithner was heavily involved in negotiating the rescue. Additional support may be necessary.

The U.S. Treasury Department

The Treasury, and especially Secretary of the Treasury Henry M. Paulson, Jr., played a major role in responding to the financial crisis. Secretary Paulson participated in virtually all of the discussions with respect to resolving troubled institutions, including the decisions concerning Bear Stearns, AIG, and Citigroup.

Treasury is administratively one of the stronger and better organized departments of the federal government. It carries out its functions through a well organized system of bureaus and offices.⁵⁷ EESA established a new Office of Financial Stability (OFS)

in Treasury headed by an Assistant Secretary, to administer the Troubled Asset Relief Program (TARP).

On September 20, 2008, the Treasury proposed draft TARP legislation to allow it to purchase up to \$700 billion of so-called troubled assets. In response, and after some hesitation, Congress enacted EESA, which became law on October 3. On November 12, Secretary Paulson announced that TARP would not be used to purchase troubled assets; rather, Treasury instead intended to spend the first increment of TARP funds, up to \$350 billion, to provide infusions of capital for troubled banks and other nonbank institutions such as AIG. This meant that the contracts that Treasury had just solicited to hire asset management firms might not be used.

EESA provided Treasury with a number of policy tools in addition to those which it already possesses. Treasury used many of these tools in innovative ways.

Support for the Federal Reserve by Auctioning New Securities

On September 17, 2008, Treasury announced the Supplementary Financing Program. Under the program the Treasury auctions more new securities than it actually needs to finance government operations. Treasury deposits the proceeds at the Federal Reserve, thereby increasing the volume of Treasury securities available to the Fed to conduct open market operations. While Congress did not expressly authorize this program, it did so indirectly by raising the statutory debt limit.⁵⁸

Provision of Capital to Healthy Financial Institutions

The Capital Purchase Program is a voluntary program that allows banks and thrift institutions and bank and thrift holding companies to apply to Treasury for infusions of funds. Treasury purchases senior preferred shares in the institutions on standardized terms. These include providing the government an annual 5 percent dividend for five years and 9 percent annually thereafter. The government also receives warrants for common shares in participating institutions. Treasury also imposes standards for executive compensation and corporate governance for the period when Treasury's shares are outstanding. Treasury set a ceiling of \$250 billion for this program.

Provision of Capital to Significant Failing Institutions

In September 2008, Treasury issued commitments to purchase up to \$200 billion in senior preferred stock to Fannie Mae and Freddie Mac as a part of the government's takeover of the two failed GSEs. Treasury extended this support under authority of the Housing and Economic Recovery Act of 2008 (HERA).

Treasury then generalized this approach, using newly granted authority under EESA. Treasury's Systemically Significant Failing Institutions Program (SSFI) provided capital to institutions such as AIG that were considered to pose risk of systemic harm if they failed. Under EESA Treasury may purchase securities of any "financial institution," which is broadly defined to include any institution regulated and having significant operations in the United States, including a bank, thrift institution, credit union, securities broker or dealer or insurance company. The broad definition also authorizes Treasury to provide assistance to other firms, including non-financial firms, operating in the U.S. Among the factors that Treasury said that it might consider before extending support under the SSFI program were:

- The extent to which the failure of an institution could threaten the viability of its creditors and counterparties
- The number and size of financial institutions that are seen by investors or counterparties as similarly situated to the failing institution, or that would otherwise be likely to experience indirect contagion effects from the failure of the institution
- Whether the institution is sufficiently important to the nation's financial and economic system
- The extent and probability of the institution's ability to access alternate sources of capital and liquidity

Ability to Convene Meetings with Other Organizations to Resolve Problems

Because of its standing as the most significant Executive Branch department concerned with financial matters, the Treasury is able to convene meetings with other federal agencies to seek to resolve pressing financial issues. In addition to this institutional capacity, it appears that Treasury under

Secretary Paulson was especially active in convening such meetings.

Because these meetings were usually ad hoc in nature, Treasury seemed to have considerable flexibility in deciding whom to invite and whom to exclude, except for the consultation requirements that Congress imposed in EESA with respect to TARP. Thus, one account of the close cooperation of Treasury, the Federal Reserve Board and FRBNY in addressing the failure of Bear Stearns noted that while Secretary Paulson kept President Bush informed personally and worked closely with Fed Chairman Bernanke and FRBNY President Geithner, that cooperative relationship “largely excluded Mr. Bush’s team of economic advisers.”⁵⁹ The resolution effort also largely excluded the SEC, primary regulator of Bear Stearns.⁶⁰

This type of ad hoc approach to interagency cooperation appears to have been a pattern throughout 2008. Treasury Secretary Paulson and Chairman Bernanke joined James Lockhart, head of the Federal Housing Finance Agency, to inform the CEOs of Fannie Mae and Freddie Mac of the decision to have the GSEs go into conservatorship. Secretary Paulson stated explicitly that he would not purchase preferred stock in the two companies unless they went into conservatorship. A different combination of officials, Secretary Paulson and Chairman Bernanke and SEC Chairman Christopher Cox, worked together to develop the original TARP legislation.⁶¹

Treasury pointed to its role in coordinating with other federal agencies and private organizations, as the case may be, to help to forestall the growing number of foreclosures on homeowners who defaulted on their home mortgages. These include the HOPE NOW alliance of private sector mortgage participants and nonprofit housing counselors, work with the American Securitization Forum to develop a loan modification framework to allow servicers to modify or refinance loans more quickly and systematically, and cooperation with the FHFA, Fannie Mae, Freddie Mac, and HOPE NOW to announce a streamlined mortgage loan modification program.⁶²

In some cases Treasury convened top officers of private financial institutions with mixed results. In 2007 the Treasury had convened major banks to attempt to form a private consortium to purchase

troubled assets, but that effort was not successful.⁶³ In mid-September 2008, Secretary Paulson convened the heads of major banks at the Federal Reserve Bank of New York to attempt to provide a private sector rescue of the failing investment bank, Lehman Brothers. That rescue did not happen and Lehman Brothers failed. However, the talks did have an unexpected result: The heads of Bank of America and Merrill Lynch engaged in negotiations leading to the announcement that Bank of America would acquire Merrill Lynch.⁶⁴ It was at this time that AIG made known its need for government support.⁶⁵

The Treasury Secretary also chairs the President’s Working Group (PWG), established by executive order in 1988 and used by Secretary Paulson to a greater extent than had been done by some of his predecessors. The PWG “serves as a forum to discuss and coordinate public policy issues but has no regulatory or examination authority.”⁶⁶ The PWG consists of the Treasury, Federal Reserve Board, SEC, and CFTC, with other federal financial supervisors such as the Office of the Comptroller of the Currency (OCC) and Federal Reserve Bank of New York sometimes participating.

Other Federal Agencies

Other federal agencies played significant roles in the government response to the crisis included the Securities and Exchange Commission, the Federal Housing Finance Agency, Federal Deposit Insurance Corporation, Federal Housing Administration, and the U.S. Department of Education.

Securities and Exchange Commission (SEC)

The SEC is responsible for investor protection and supervision of financial markets to ensure that they are fair, orderly, and efficient, and to protect the markets against fraud. The primary emphasis of the SEC has been on requiring public companies to disclose material financial and other information to investors. The SEC also is responsible for supervising the nation’s largest investment banking firms, known as broker-dealers. Under the SEC’s “Consolidated Supervised Entity” (CSE) program, broker-dealers were put into a special program intended to provide more comprehensive supervision of the broker-dealers and affiliated companies. The five broker-dealers were Lehman Brothers, Bear Stearns, Merrill Lynch, Goldman Sachs and Morgan Stanley. Among other

supervisory tools, the SEC was responsible for monitoring risk and setting capital standards for these firms on a consolidated basis.

In 2008, Bear Stearns failed and was acquired by JPMorgan Chase, Lehman Brothers failed, Bank of America acquired Merrill Lynch, and Goldman Sachs and Morgan Stanley became bank holding companies subject to supervision by the Federal Reserve. As a result, the future role of the SEC's CSE program is in doubt.⁶⁷ On June 23, 2008, the SEC and Federal Reserve concluded a memorandum of understanding that calls for improved collaboration, coordination, and information sharing in areas of common regulatory interest.

The SEC took steps to try to improve the functioning of financial markets, including actions to strengthen oversight of credit rating companies, temporarily limit certain forms of short selling of stock, examine money market fund portfolio holdings, and improving oversight of the credit default swaps market. The SEC also required financial institutions to improve disclosure of off-balance-sheet arrangements and reviewed the applicability of fair value accounting rules.⁶⁸

Federal Housing Finance Agency (FHFA)

The Housing and Economic Recovery Act of 2008 (HERA) created the FHFA as a stronger version of three other organizations:

- The former Office of Federal Housing Enterprise Oversight (OFHEO), the safety and soundness regulator of Fannie Mae and Freddie Mac
- The former Federal Housing Finance Board (FHFB), the regulator of the Federal Home Loan Bank System, another GSE
- The unit in HUD that oversaw the missions of Fannie Mae and Freddie Mac. HERA finally gave the regulator of Fannie Mae and Freddie Mac much of the mandate, authority, and supervisory discretion that the federal bank regulators possess.⁶⁹

OFHEO had been a small agency, seriously constrained by the appropriations process and possessing limited authority, compared to its responsibility to try to supervise two of the largest financial institutions in the United States. Together Fannie Mae and

Freddie Mac funded over \$5 trillion in mortgages. Their regulator, by contrast, had a budget in 2007 of about \$60 million to supervise the enterprises and try to engage in litigation relating to an enforcement action it had brought.

As Fannie Mae and especially Freddie Mac began to falter, the Fed offered support to shore up the value of the companies' debt obligations and mortgage-backed securities (MBSs). However, this proved inadequate and on September 7, 2008, the two companies went into government hands. The Treasury accompanied the announcement of the government's conservatorship of the two companies with a commitment to infuse capital, in the form of senior preferred stock, to maintain the value of investments in the GSE debt obligations and MBSs. The Treasury also announced that it was standing by to provide a facility to purchase MBSs of the two companies.

The FHFA appointed new CEOs and approved the appointment of directors for the two companies. HERA, because it was enacted before the two GSEs failed, requires FHFA to undertake some 25 rule-makings, often within tight deadlines. It is not clear that FHFA will proceed with these rulemakings or that the agency has received guidance as to the proper course of action that it should take. Meanwhile, in government hands, the two GSEs have been instrumental in channeling government-backed credit to the mortgage market at a time when investors fear to invest in most mortgages without government backing.

Federal Deposit Insurance Corporation (FDIC)

The Federal Deposit Insurance Corporation has three basic responsibilities: to provide federal insurance for deposits in banks and thrift institutions, to supervise state-chartered banks that are not members of the Federal Reserve System, and to resolve failing or troubled institutions. Figure 2, from the FDIC, reflects the fragmented nature of federal bank regulation and shows the allocation of banks and thrifts among federal supervisory institutions.⁷⁰ The FDIC directly supervises institutions that, with exceptions, tend to be small in size. While the FDIC supervises over 60 percent of the institutions with federal deposit insurance, these institutions hold only 16 percent of the total assets.

The FDIC played a significant role in the federal response to the crisis. As part of EESA, the Congress expanded deposit insurance coverage to include \$250,000 per account.⁷¹ This helped to protect banks against runs as investors sought safe places for their money.

On October 14, the FDIC announced an additional program, called the Temporary Liquidity Guarantee Program, to guarantee newly issued senior debt of banks, bank holding companies and other financial institutions and by guaranteeing non-interest bearing transaction accounts in full, regardless of the dollar amount involved. The guarantee of senior unsecured debt applied to issuances by participating institutions between October 14, 2008, and June 30, 2009. The point of the prospective guarantee was to facilitate liquidity for these institutions and offset fear and uncertainty in the financial market about the potential risks of such debt. The guarantee on non-interest bearing transaction accounts was temporary and expires December 31, 2009. It is intended to support smaller solvent banks that otherwise might suffer runs on accounts above \$250,000.

The FDIC also created a special program to modify mortgage loans held by a failed thrift institution, IndyMac, presently in conservatorship at the FDIC. The FDIC sought to avoid the costs of foreclosure to the lender and hardship for borrowers by trying to convert many of the IndyMac loans into performing loans, or to refinance them into the Hope for Homeowners program of the FHA, discussed below. In January 2009 Citibank announced that it would implement the same type of loss mitigation program.

The FDIC strongly advocated that such a program be adopted more broadly, and that "the government establish standards for loan modifications and pro-

vide for a defined sharing of losses on any default by modified mortgages meeting those standards."⁷² The Chairman of the FDIC, Sheila C. Bair, expressed concern that "Over the next two years, an estimated 4 to 5 million mortgages will enter foreclosure if nothing is done."⁷³ Treasury and the FDIC continued to differ on the merits of the proposal and the issue drew attention from lawmakers on Capitol Hill.⁷⁴

Federal Housing Administration (FHA)

The Federal Housing Administration, now a part of the Department of Housing and Urban Development (HUD), began in 1934 as part of the Roosevelt Administration's response to the Great Depression. There had been a general collapse of the private mortgage insurance industry and investors feared to take on unknown risk; in that environment, mortgages with federal backing were attractive. In today's troubled mortgage market FHA again has proved popular.

HUD Secretary Preston noted in November 2008 that in one year FHA insured over \$200 billion in mortgages, or more than three times the volume of the year before. FHA also provided a way for some 435,000 households to refinance from adjustable rate mortgages into FHA-insured fixed rate mortgages. FHA has an active loss mitigation program that in 2008 helped some 100,000 people avoid foreclosure. HUD has also been active in funding housing counseling to assist troubled borrowers. In 2008 there was some \$410 million available for housing counseling, far more than in earlier years.⁷⁵

By contrast to these successes, the Hope for Homeowners program, intended to help some 400,000 borrowers to refinance their delinquent mortgages and thereby avoid foreclosure, had

Figure 2: Federal Bank and Thrift Regulators

Primary Federal Supervisor	Number of Institutions	Total Assets (dollars in millions) *
FDIC	5,134	\$2,217,547
OCC	1,556	8,334,895
FRB	875	1,803,611
OTS	819	1,217,637
Total	8,384	\$13,573,691

* Figures do not sum to total due to rounding.

Source: Third Quarter 2008 Quarterly Banking Profile. Data are as of 9/30/2008.

limited success. Unless they are well targeted and structured, borrower relief programs can result in many households defaulting a second time, on their restructured mortgages. Concerns also include the need to avoid creating incentives for other borrowers, currently paying their mortgages on time, to become delinquent as a way of obtaining government assistance. Finally, as with TARP and other responses to the financial crisis, the Hope for Homeowners program is voluntary for lenders. Because the program requires lenders to write down some of the principal of the mortgage, lenders, and especially holders of mortgage-backed securities have resisted allowing homeowners to avail themselves of the program.⁷⁶

U.S. Department of Education (ED)

In response to concerns that the liquidity crisis would seriously diminish funding of federally guaranteed student loans (under the Family Federal Education Loan Program, or FFELP), Congress enacted the Ensuring Continued Access to Student Loans Act (ECASLA, Public Law No. 110-350), expanding ED's traditional authority to fund FFELP loans.

The department established the Purchase of Participation Interests (PPI) program to purchase a 100 percent interest in pools of newly originated FFELP loans and thereby provide liquidity for those loans and for student lenders. The department also established a standby facility, the loan purchase program, giving participating lenders the option to sell newly originated FFELP loans to the department. ED also announced its intention to implement a program to provide forward commitments to purchase loans fully disbursed between 2003 and 2009 that are funded by the private sector through loan conduits established by large student lenders. The idea of this support for new Asset-Backed Commercial Paper conduits was to encourage the resumption of increased private funding of FFELP loans while providing a backstop in the event that longer term funding remained unattractive to private investors.

Meanwhile, the Federal Direct Student Loan Program (FDSLPL) continued to grow as colleges switched from the FFELP program to reduce uncertainty in funding. In contrast to FFELP loans, FDSLPL loans are funded directly by the government and thus are unaffected by the liquidity problems facing private lenders.⁷⁷

By contrast to the market for federal student loans, the market for private student loans, without a guarantee from the government, remained largely frozen. As noted above, the Federal Reserve and Treasury announced the creation of the Term Asset Backed Securities Loan Facility (TALF) to purchase consumer and small business loans, including student loans. Student advocates and others protested the inclusion of private student loans in the program on grounds that, similar to subprime mortgage loans, many private loans represented extensions of high-cost credit that borrowers could not reasonably be expected to repay. The Federal Reserve replied that "the formulators of the program were solely concerned with trying to salvage the economy, and not with broader discussions of the government's approach to student loan policy."⁷⁸

Conclusion

The author began this report with an acute sense of the ad hoc nature of the governmental response to the unfolding financial crisis and inconsistencies among many decisions. Research for this report has provided needed balance: Once policymakers realized the urgency of the situation, the government's responses, and especially the actions of the Federal Reserve and Treasury, were rapid and extensive. But it is time now to move to a second stage and to institutionalize the government's responses in ways that restore the public's perception of fairness and legitimacy in government actions on their behalf.

This report suggests that there are two major issues that need to be addressed in the second stage of the government's response:

- **Enhance organizational capacity** of the Department of the Treasury, OMB, and at other agencies such as FHA, to ensure that they can effectively carry out their responsibilities in times that would tax even the strongest organizations.
- **Enhance the perception of legitimacy** by taking actions which improve the perceived fairness and transparency of decisions. The public needs to gain a sense that political leaders have a clear mission, are good stewards of the nation's economy, and will make fair decisions.

Chairman Bernanke and Secretary Paulson laid the foundation of the government's response. It is time for the new Administration to build on it and place the government's response on a more sound organizational footing.

Appendix: Acronyms and Abbreviations

Laws Enacted

ECASLA	Ensuring Continued Access to Student Loans Act, P.L. 110-350, October 7, 2008
EESA	Emergency Economic Stabilization Act, P.L. 110-343, October 3, 2008
HERA	Housing and Economic Recovery Act of 2008, P.L. 110-289, July 30, 2008

Federal Organizations

CFTC	Commodity Futures Trading Commission
ED	U.S. Department of Education
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration, part of HUD
FHFA	Federal Housing Finance Agency, supervisor of Fannie Mae, Freddie Mac, and the Federal Home Loan Bank System
FHFB	Federal Housing Finance Board, now replaced by FHFA
FOMC	Federal Open Market Committee of the Federal Reserve System
Fed	Federal Reserve System, including the Federal Reserve Board, Federal Reserve Banks, and Federal Open Market Committee (FOMC)
FRBNY	Federal Reserve Bank of New York
FSA	Office of Federal Student Aid of the U.S. Department of Education
GAO	Government Accountability Office

HUD	Department of Housing and Urban Development
OCC	Office of the Comptroller of the Currency, part of Treasury Department
OFA	Office of Federal Student Aid of the U.S. Department of Education
OFHEO	Office of Federal Housing Enterprise Oversight, now replaced by FHFA
OMB	Office of Management and Budget
OTS	Office of Thrift Supervision, part of Treasury Department
PWG	President's Working Group, inter-agency group consisting of heads of the Federal Reserve Board, SEC, and CFTC, and other federal financial supervisors, chaired by the Treasury Secretary
RFC	Reconstruction Finance Corporation, New Deal government corporation
RTC	Resolution Trust Corporation, temporary government corporation that sold assets of failed savings and loan institutions
SBA	U.S. Small Business Administration
SEC	Securities and Exchange Commission

Federal Programs

CPP	Capital Purchase Program of the Treasury Department (part of TARP)
CSE	Consolidated Supervised Entity program of the Securities and Exchange Commission

FDSL	Federal Direct Student Loan Program
FFELP	Federal Family Education Loan Program, a guaranteed loan program
PPI	Purchase of Participation Interests program of the U.S. Department of Education, to fund federally guaranteed student loans
SSFI	Systemically Significant Failing Institutions Program of the Treasury Department (part of TARP)
TAF	Term Auction Facility of the Federal Reserve
TALF	Term Asset Backed Securities Loan Facility of the Federal Reserve
TARP	Troubled Asset Relief Program, created by EESA, P.L. 110-343

Private Organizations

AIG	American International Group, Inc.
GMAC	General Motors Acceptance Corporation
LTCM	Long Term Capital Management, hedge fund that failed in 1998

Technical Terms

CDO	Collateralized Debt Obligation, a derivative security, usually based on mortgages
LLC	Limited Liability Corporation
MBS	Mortgage-Backed Security
SIV	Structured Investment Vehicle, an off-balance sheet funding device

For Further Reading

Government Accountability Office, "Troubled Asset Relief Program: Additional Actions Needed To Better Ensure Integrity, Accountability, and Transparency," December 2008

Marc Labonte, "Financial Turmoil: Federal Reserve Policy Responses," Congressional Research Service, October 23, 2008

James S. Olson, "Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1933-1940," Princeton University Press, 1988

Mark Zandi, "Financial Shock," FTPress, 2008

United States Department of the Treasury, "Blueprint for a Modernized Financial Structure," March 2008.

Endnotes

1. In this report the terms "Fed" and "Federal Reserve" are used to refer to the Federal Reserve System, i.e. the Federal Reserve Board, Federal Reserve Banks, and Federal Open Market Committee (FOMC).

2. The third stage could take a number of years to play out. See, e.g., Carmen M. Reinhart and Kenneth S. Rogoff, "The Aftermath of Financial Crises," prepared for presentation at the American Economic Association, January 3, 2009.

3. There are huge governance implications of Alan Greenspan's statement that, "I made a mistake in presuming that the self interest of organizations, specifically banks and others, was such that they were best capable of protecting their own shareholders and the equity in the firms." Kevin G. Hall, "Greenspan takes some blame for financial meltdown," McClatchy Newspapers, October 23, 2008, http://www.mcclatchydc.com/staff/kevin_hall/v-print/story/54712.html, accessed 12-06-2008.

4. Tom R. Tyler, *Why People Obey the Law*, Yale University Press, 1990, p. 26.

5. Gretchen Morgenson, "The Reckoning: Behind Insurer's Crisis, Blind Eye to a Web of Risk," *New York Times*, September 28, 2008.

6. Damian Paletta and David Enrich, "Political Interference Seen In Bank Bailout Decisions; Barney Frank Goes To Bat For Lender, And It Gets An Infusion," *Wall Street Journal*, January 21, 2009.

7. David Cho and Lori Montgomery, "Delays in Bank Aid Spur Frustration; As Requests Pile Up, Executives Leery Of Treasury's Silence on Bailout Decisions," *Washington Post*, January 23, 2009, p. D01.

8. Michael Lewis and David Einhorn, "How to Repair a Broken Financial World," op-ed commentary, *New York Times*, January 4, 2009.

9. Walter Bagehot, *Lombard Street: A Description of the Money Market*, 1873, pp. 197-199. More precisely, Bagehot would achieve this result by having the central bank lend only on the basis of superior collateral posted

by the institution receiving support.

10. See, e.g., Markus Brunnermeier, Andrew Crockett, Charles Goodhart, Avinash D. Persaud, and Hyun Shin, "The Fundamental Principles of Financial Regulation," preliminary conference draft, International Center for Monetary and Banking Studies, January 2009, p. 3.

"But why does the failure of banks, and of some other financial institutions, involve systemic externalities that are not present when an ordinary manufacturing or service-sector firm goes bust. The basic answer comes from the fact that the failure of a banking-type institution, say Lehman Bros, Northern Rock or Glitnir, weakens the other banks and financial markets with which they were involved, whereas the failure of, say, a car company or a laundry tends to strengthen the remaining companies in the same sector, by removing a competitor. And lying behind this is the even more important consideration that the continued health of the financial system, and even more so of the banking sector within it, is key to the satisfactory functioning of the wider economy, to a qualitatively different extent from most other sectors."

11. The use of HUD grants for mortgage assistance was a feature of the Emergency Housing Act of 1975, Pub. L. 94-50, enacted July 2, 1975, for example.

12. See, e.g., Christopher Mayer, Edward Morrison, and Tomasz Piskorski, "A New Proposal for Loan Modifications," January 7, 2009.

13. Consumer protections for borrowers should include improved disclosures such as Alex Pollock's one-page mortgage disclosure form. See, <http://www.aei.org/scholars/scholarID.88/scholar.asp>.

14. This was understood before the legislation passed. See, *Washington Post*, editorial, "Congress's Fixer-Upper: A plan to stabilize neighborhoods could create more foreclosures," July 22, 2008, p. A20.

15. Government Accountability Office, "Financial Regulation: A Framework for Crafting and Assessing Proposals to Modernize the Outdated U.S. Financial

Regulatory System," GAO-09-216, January 8, 2009. The framework for evaluating regulatory reform proposals is summarized on p. 4.

16. The author first presented this dynamic in testimony before the Senate Banking Committee in a hearing on *The Safety and Soundness of Government Sponsored Enterprises*, October 31, 1989, p. 41, pointing out how disparities in capital requirements and supervision would drive mortgage risk to the place with weakest requirements and oversight.

17. See, e.g., Charles L. Evans, President and Chief Executive Officer, Federal Reserve Bank of Chicago, "Financial Disruptions and the Role of Monetary Policy," November 27, 2007 ("In each of these cases [of financial innovation leading to financial harm], markets eventually learned from the crises. This resulted in improved approaches to risk management that could address the new types of market risks.")

18. The Treasury *Blueprint* provides a useful summary of new tools that the Federal Reserve would need to carry out its responsibilities as the supervisor of the larger financial system.

19. "A special report on the future of finance," *Economist*, January 24-30, 2009, p. 17.

20. Authority for the NTSB is found in United States Code, Title 49, Chapter 11.

21. EESA Section 107(a) provides: "For purposes of this Act, the Secretary may waive specific provisions of the Federal Acquisition Regulation upon a determination that urgent and compelling circumstances make compliance with such provisions contrary to the public interest. Any such determination, and the justification for such determination, shall be submitted to the Committees on Oversight and Government Reform and Financial Services of the House of Representatives and the Committees on Homeland Security and Governmental Affairs and Banking, Housing, and Urban Affairs of the Senate within 7 days." The Competition in Contracting Act also permits such expedited contracting procedures. See 41 U.S.C. Section 253(c).

22. Government Accountability Office, "Troubled Asset Relief Program: Additional Actions Needed To Better Ensure Integrity, Accountability, And Transparency," December 2008, p. 43. Details of Treasury's contracting presented in this report are taken from this GAO report.

23. See, e.g., Dan Guttman, "Inherently Governmental Functions: The Legacy of 20th Century Reform," chapter 3 in, Thomas H. Stanton and Benjamin Ginsberg, eds., *Making Government Manageable*, Johns Hopkins University Press, 2004, pp. 40-65.

24. See, e.g., Dan Guttman, "Government By Contract:"

The White House Needs Capacity to Review and Revise the Legacy of 20th Century Reform," working paper, available at http://www.napawash.org/pmc/papers/government_by_contract.html, accessed January 4, 2009

25. On the special organizational attributes of government corporations, see, e.g., Thomas H. Stanton and Ronald C. Moe, "Government Corporations and Government Sponsored Enterprises," Chapter 3 in *Tools of Government: A Guide to the New Governance*, Lester M. Salamon, Editor, Oxford University Press, 2002.

26. On the impressive way that the RTC engaged in continuous process improvement, see, e.g., Thomas H. Stanton, "Lessons Learned: Obtaining Value From Federal Asset Sales," *Public Budgeting & Finance*, vol. 23, no. 1 (Spring 2003), pp. 22-44.

27. HUD Secretary Steve Preston, Prepared Remarks at the National Press Club, November 19, 2008, available at <http://www.hud.gov/news/speeches/2008-11-19.cfm>, accessed January 2, 2009.

28. Barry Meier, "As FHA's Role Grows, So Does the Risk of Fraud," *New York Times*, December 10, 2008.

29. Using the GSEs to support the mortgage market is discussed in Thomas H. Stanton, "Fannie Mae and Freddie Mac: What Happened and Where do We Go From Here?" testimony presented to the Committee on Oversight and Government Reform, U.S. House of Representatives, December 9, 2008.

30. Quoted in Steven Sloan and Cheyenne Hopkins, "Unintended: One Fix Often Spurs Others," *American Banker*, November 26, 2008. Sloan and Cheyenne point to a number of such unintended consequences of new policies.

31. Because the federal bank regulators are not subject to budget control by OMB, OMB might not have the leverage needed to ensure productive coordination among agencies that belong to the PWG.

32. Department of the Treasury, *The Department of the Treasury Blueprint for a Modernized Financial Regulatory Structure*, March 2008, p. 75.

33. One interesting model from a quite different context comes from President Lyndon Johnson's use of interagency groups to generate an effective response to the 1964 Alaska earthquake. The career-level interagency council was effective because it sought to solve cross-cutting problems rather than trying to exercise independent authority over the individual agencies. See, Dwight Ink, "Managing Change That Makes a Difference," chapter 7 in Thomas H. Stanton, ed., *Effective Government: Blueprints for Responding to the Challenge of September 11*, editor, M.E. Sharpe Publishers, 2006. Mr. Ink urges that that model be taken as an illustration of the type of organizational

innovation required in the current financial crisis rather than as a blueprint to be followed.

34. On means of fostering interagency collaboration more generally, see, Thomas H. Stanton, "Improving Collaboration by Federal Agencies: An Essential Priority for the Next Administration," working paper, available at <http://www.napawash.org/pmc/papers/collaboration.html>, accessed January 4, 2009.

35. H.M. Treasury, "Treasury statement on financial support to the banking industry," no. 105/08, October 13, 2008, available at http://www.hm-treasury.gov.uk/press_105_08.htm, accessed January 4, 2009.

36. James S. Olson, *Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1933-1940*, Princeton University Press, 1988, chapter VIII.

37. This was a recommendation of Senator Obama's presidential campaign. See, e.g., "Barack Obama and Joe Biden: A Rescue Plan for the Middle Class," undated, p. 7. The plan also proposed financial support for the municipal bond market.

38. See, e.g., Amy Yee, "Business leaders laud the Goldilocks Economy," *Financial Times*, June 1, 2005.

39. George Soros, *The New Paradigm for Financial Markets: The Credit Crisis of 2008 and What it Means*, PublicAffairs, 2008, p. 82. Many have written about the larger credit bubble. See, e.g., Jonathan Shaw, "Debtor Nation," *Harvard Magazine*, July/August 2007, pp. 40ff.

40. Edward V. Murphy, "Financial Market Intervention," Congressional Research Service, September 29, 2008, p. 2.

41. Lester Salamon has pioneered the analysis of what he calls tools of government. It would be most informative if the next edition of the excellent volume that he edited, *Tools of Government: A Guide to the New Governance*, Oxford University Press, 2002, would include monetary policy and other major tools that the government has deployed in the current crisis.

42. This timeline is excerpted from a more extensive timeline prepared by the Federal Reserve Bank of St. Louis, available at <http://www.stlouisfed.org/timeline/timeline.cfm>, accessed January 21, 2009. In the interests of brevity, major items have been omitted. These include market developments, monetary policy actions of the Federal Open Market Committee, and actions of other federal agencies.

43. A good account of the FOMC and its historical antecedents is found in a legal decision, *Melcher v. Federal Open Market Committee*, 644 F. Supp. 510 (D. DC, 1986).

44. In 2007 the Federal Reserve returned over \$34 billion to the Treasury. Board of Governors of the Federal Reserve System, *Annual Report 2007*, p. 335.

45. A series of excellent Congressional Research Service reports provides greater depth on the Fed's use of these tools. See, Marc Labonte and Gail E. Makinen, "Monetary Policy and the Federal Reserve: Current Policy and Conditions," August 22, 2008; Marc Labonte, "Financial Turmoil: Federal Reserve Policy Responses," October 23, 2008; and Mark Jickling, "Containing Financial Crisis," November 24, 2008.

46. As AEI's Alex Pollock observes, it is impossible for every institution to deliver at once; someone must increase leverage to compensate, here the Federal Reserve.

47. Statistical Releases H.4.1 for December 28, 2006; December 27, 2007; and December 29, 2008.

48. "Primary Dealers List," available at http://www.newyorkfed.org/markets/pridealers_current.html and http://www.newyorkfed.org/markets/pridealers_listing.htm, accessed December 29, 2008.

49. The law provides: "In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System, by the affirmative vote of not less than five members, may authorize any Federal reserve bank ... to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are indorsed or otherwise secured to the satisfaction of the Federal reserve bank: Provided, That before discounting any such note, draft, or bill of exchange for an individual or a partnership or corporation the Federal reserve bank shall obtain evidence that such individual, partnership, or corporation is unable to secure adequate credit accommodations from other banking institutions." 12 U.S.C. Section 343.

50. Federal Reserve Bank of New York, "The Discount Window," <http://www.newyorkfed.org/aboutthefed/fedpoint/fed18.html>, accessed December 29, 2008; and Walker F. Todd, "FDICIA's Emergency Liquidity Provisions," *Economic Review*, Federal Reserve Bank of Cleveland, vol. 29, No. 3, 1993, p. 16.

51. See, e.g., Edmund L. Andrews, "Fed Shrugged as Subprime Crisis Spread," *New York Times*, December 18, 2007; Jeannine Aversa, "Fed to Unveil Home Mortgage Plan," Associated Press, December 18, 2007.

52. See, e.g., Statement Regarding New York Fed Meeting with Primary Dealers, November 6, 2006, available at <http://www.newyorkfed.org/newsevents/news/markets/2006/an061105.html>, accessed December 30, 2008.

53. Steven Sloan, "Reviving the Banking-Commerce Debate," *American Banker*, November 21, 2008.

54. See, e.g., Roger Lowenstein, "Long-Term Capital: It's a Short-Term Memory," *New York Times*, September 7, 2008.

55. Andrew Ross Sorkin, "Where Was Geithner in Turmoil?" *New York Times*, November 25, 2008.

56. See, Timothy F. Geithner, statement before the Senate Committee on Banking, Housing, and Urban Affairs, April 3, 2008.

57. Treasury bureaus include major agencies such as the Internal Revenue Service, Bureau of Engraving and Printing, U.S. Mint, Bureau of the Public Debt, and two financial institution regulators, the Office of Comptroller of the Currency and Office of Thrift Supervision. Treasury offices are divisions of the Treasury, headed by Assistant Secretaries and Undersecretaries. Some offices help the Secretary to formulate policy, e.g., Domestic Finance, Economic Policy and Tax Policy. Other offices help the Secretary to manage the department, for example, the offices of Management/CFO and Inspector General.

58. Marc Labonte, "Financial Turmoil: Federal Reserve Policy Responses," Congressional Research Service, October 23, 2008, p. 19.

59. Steven Lee Myers, "Bush Backs Fed's Actions, but Critics Quickly Find Fault," *New York Times*, March 18, 2008.

60. Kara Scannell and Susanne Craig, "SEC Chief Under Fire as Fed Seeks Bigger Wall Street Role," *Wall Street Journal*, June 23, 2008, p. A1.

61. Peter Baker, "A Professor and a Banker Bury Old Dogma on Markets," *New York Times*, September 20, 2008.

62. Neel Kashkari, Letter to Elizabeth Warren, Chairperson, Congressional Oversight Panel, December 30, 2008, pp. 3-4.

63. Vikas Bajaj and Michael M. Grynbaum, "Banks Create a Fund to Protect Credit Market," *New York Times*, October 15, 2007; Mark Jickling, "Containing Financial Crisis," Congressional Research Service, November 24, 2008, p. 15.

64. See, e.g., "Merrill Lynch & Company Inc.," *New York Times*, October 9, 2008. The acquisition required government assistance.

65. Gretchen Morgenson, "The Reckoning: Behind Insurer's Crisis, Blind Eye to a Web of Risk," *New York Times*, September 28, 2008.

66. Department of the Treasury, *The Department of the Treasury Blueprint for a Modernized Financial Regulatory Structure*, March 2008, p. 44.

67. Office of Inspector General, Securities and Exchange Commission, *SEC's Oversight of Bear Stearns and Related Entities; The Consolidated Supervised Entity (CSE) Program*, Report No. 446-A, September 25, 2008.

68. See, Securities and Exchange Commission, "SEC Actions During Turmoil in Credit Markets,"

<http://www.sec.gov/news/press/sec-actions.htm>, accessed 01-11-2009.

69. The weak accountability structure has long been an issue with the GSEs. See, e.g., Thomas H. Stanton, *A State of Risk: Will Government-Sponsored Enterprises be the Next Financial Crisis?* HarperCollins, 1991; and Thomas H. Stanton, "Federal Supervision of Safety and Soundness of Government-Sponsored Enterprises," *The Administrative Law Journal*, vol. 5, no. 2 (Summer 1991), pp. 395-484.

70. Federal Deposit Insurance Corporation, Strategic Plan 2008-2013. The table is available at <http://www.fdic.gov/about/strategic/strategic/bankingindustry.html>, accessed January 2, 2009.

71. Although the increase was designated temporary, there is a good chance that the increase will be permanent.

72. Statement of Michael H. Krimminger, Federal Deposit Insurance Corporation, before the Subcommittee on Financial Services and General Government, Committee on Appropriations, United States Senate, December 4, 2008.

73. Statement of Sheila C. Bair, "Oversight of Implementation of the Emergency Economic Stabilization Act of 2008 and of Government Lending and Insurance Facilities," before the Committee on Financial Services, U.S. House of Representatives, November 18, 2008.

74. See, e.g., Cheyenne Hopkins, "Treasury Warned: Modify Loans or No More Tarp Funds," *American Banker*, December 11, 2008.

75. HUD Secretary Steve Preston, Prepared Remarks at the National Press Club, November 19, 2008, available at <http://www.hud.gov/news/speeches/2008-11-19.cfm>, accessed January 2, 2009.

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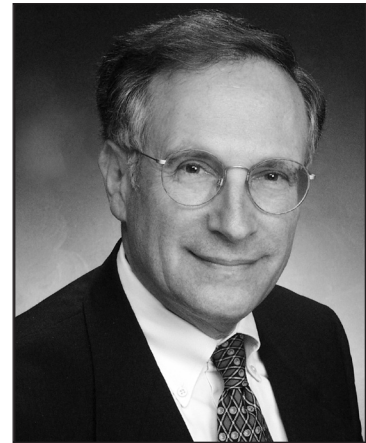
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ABOUT THE AUTHOR

Thomas H. Stanton is a Fellow of the Center for the Study of American Government at the Johns Hopkins University, where he received the award for Excellence in Teaching. Mr. Stanton serves on the board of directors of the National Academy of Public Administration and is a former member of the federal Senior Executive Service.

As a Washington, DC, attorney, Mr. Stanton's practice relates to the capacity of public institutions to deliver services effectively, with specialties relating to organizational and program design, federal credit and benefit programs, government enterprises, and regulatory oversight. His writings on public administration have appeared in publications including *Public Administration Review*, *The Administrative Law Journal*, *American Banker*, and *The Wall Street Journal*. He edited, with Benjamin Ginsberg, *Making Government Manageable: Executive Organization and Management in the 21st Century*, Johns Hopkins University Press, 2004. He also edited, *Meeting the Challenge of 9/11: Blueprints for Effective Government*, M.E. Sharpe Publishers, 2006.



Mr. Stanton's publications on government and the financial markets include two books on government-sponsored enterprises (GSEs). Concerns expressed in *A State of Risk: Will Government-Sponsored Enterprises be the Next Financial Crisis?* (HarperCollins, 1991) helped lead to enactment of several pieces of legislation and the creation of a new federal financial regulator in 1992.

Mr. Stanton's BA degree is from the University of California at Davis, MA from Yale University, and JD from Harvard Law School. He is fluent in German and has conducted research in several different countries. The National Association of Counties awarded him its Distinguished Service Award for his advocacy on behalf of the intergovernmental partnership.

KEY CONTACT INFORMATION

To contact the author:

Thomas H. Stanton

Center for the Study of American Government
Johns Hopkins University
1717 Massachusetts Ave. NW, Suite 104
Washington D.C. 20036
(202) 965-2200

e-mail: tstan77346@gmail.com



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For additional information, contact:

Jonathan D. Breul

Executive Director

IBM Center for The Business of Government

1301 K Street, NW

Fourth Floor, West Tower

Washington, DC 20005

(202) 515-4504, fax: (202) 515-4375

e-mail: businessofgovernment@us.ibm.com

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