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APRIL OVERSIGHT REPORT*

Assessing Treasury's Strategy: Six Months of TARP

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Executive Summary*

With this report, the Congressional Oversight Panel examines Treasury's current strategy and evaluates the progress it has achieved thus far. This report returns the Panel's inquiry to a central question raised in its first report: What is Treasury's strategy? While there is disagreement among Panel members about whether it is appropriate to present alternatives to Treasury's strategy at this time, this report also examines potential policy alternatives available to Treasury, in the event such alternatives become necessary.

This report comes on the six month anniversary of the passage of the Emergency Economic Stabilization Act of 2008 (EESA). In a letter received by the Panel on April 2, 2009, Treasury Secretary Timothy Geithner described four major challenges that Treasury's strategy seeks to address: (1) the collapse of the housing market; (2) frozen secondary markets that "have constrained the ability of even creditworthy small businesses and families" to get credit; (3) uncertainty about the health of financial institutions and the valuation of assets on their balance sheets; and (4) the existence of "troubled legacy assets" on the balance sheets of financial institutions that affect their capitalization and limit their ability to make loans. The Panel appreciates Treasury's explanation of its goals, and it hopes this report inspires a more informed conversation over the fundamental questions raised by Treasury's strategy.

In addition to drawing on the \$700 billion allocated to Treasury under the EESA, economic stabilization efforts have depended heavily on the use of the Federal Reserve Board's balance sheet. This approach has permitted Treasury to leverage TARP funds well beyond the funds appropriated by Congress. Thus, while Treasury has spent or committed \$590.4 billion of TARP funds, according to Panel estimates, the Federal Reserve Board has expanded its balance sheet by more than \$1.5 trillion in loans and purchases of government-sponsored enterprise (GSE) securities. The total value of all direct spending, loans and guarantees provided to date in conjunction with the federal government's financial stability efforts (including those of the Federal Deposit Insurance Corporation (FDIC) as well as Treasury and the Federal Reserve Board) now exceeds \$4 trillion. This report reviews in considerable detail specific criteria for evaluating the impact of these programs on financial markets. Six months into the existence of TARP, evidence of success or failure is mixed.

Evaluating the wisdom and success of these efforts requires a broader understanding of the basic choices available to policymakers during this crisis. To deal with a troubled financial system, three fundamentally different policy alternatives are possible: liquidation, receivership, or subsidization. To place these alternatives in context, the report evaluates historical and contemporary efforts to confront financial crises and their relative success. The Panel focused

* The Panel adopted this report with a 3-2 vote. Senator John E. Sununu and Rep. Jeb Hensarling voted against the report. Additional views are available in Section 2.

on six historical experiences: (1) the U.S. Depression of the 1930s; (2) the bank run on and subsequent government seizure of Continental Illinois in 1984; (3) the savings and loan crisis of the late 1980s and establishment of the Resolution Trust Corporation; (4) the recapitalization of the FDIC bank insurance fund in 1991; (5) Sweden's financial crisis of the early 1990s; and (6) what has become known as Japan's "Lost Decade" of the 1990s. The report also surveys the approaches currently employed by Iceland, Ireland, the United Kingdom, and other European countries.

Experiences from other times and other countries illustrate the benefits and problems these basic approaches present to dealing with failing banks. In the 1980s savings and loan crisis, for example, the U.S. government liquidated unhealthy financial institutions by transferring depositors to another bank, selling off assets, writing down some debt and wiping out investors. There can be considerable political barriers to this approach, and a surprise or poorly-explained liquidation can reduce market confidence and heighten uncertainty about future government interventions in financial markets. But liquidation also avoids the uncertainty and open-ended commitment that accompany subsidization. It can restore market confidence in the surviving banks, and it can potentially accelerate recovery by offering decisive and clear statements about the government's evaluation of financial conditions and institutions.

Another option is government reorganization of troubled financial institutions using conservatorships, as in the case of Continental Illinois in the U.S. and the financial crisis in Sweden in the 1990s. This approach entails an in-place reorganization in which bad assets are removed, failed managers are replaced, and parts of the business are spun off. Depositors and some bondholders are protected, and institutions can emerge from government control with the same corporate identity but healthier balance sheets. This option also offers clarity to markets about the balance sheets of the reorganized financial institutions and encourages capital investment in the newly-reorganized entity. But reorganization can also tax government capacity and resources. If they are not quickly returned to private hands, government-run financial institutions also pose a risk that political pressure will press the institutions to lend to favored interests and support public policy at the expense of the bank's health, although there is no evidence that this has occurred in recent banking crises.

The third option is government subsidization of troubled institutions. Japan's approach was characterized by a series of direct and indirect subsidizations. Subsidies may be direct, by providing banks with capital infusions, or indirect, by purchasing troubled assets at inflated prices or reducing prudential standards. Cash assistance can provide banks with bridge capital necessary to survive in tough economic times until growth begins again. But subsidies carry a risk of obscuring true valuations. They involve the added danger of distorting both specific markets and the larger economy. Subsidization also carries a risk that it will be open-ended, propping up insolvent banks for an extended period and delaying economic recovery.

A review of these historical precedents reveals that each successful resolution of a financial crisis involved four critical elements:

- **Transparency.** Swift action to ensure the integrity of bank accounting, particularly with respect to the ability of regulators and investors to ascertain the value of bank assets and hence assess bank solvency
- **Assertiveness.** Willingness to take aggressive action to address failing financial institutions by (1) taking early aggressive action to improve capital ratios of banks that can be rescued, and (2) shutting down those banks that are irreparably insolvent.
- **Accountability.** Willingness to hold management accountable by replacing – and, in cases of criminal conduct, prosecuting – failed managers.
- **Clarity.** Transparency in the government response with forthright measurement and reporting of all forms of assistance being provided and clearly explained criteria for the use of public sector funds.

Historical precedents always involve some differences from the current crises. Nonetheless, experience can provide an important comparison against which current approaches can be tested.

One key assumption that underlies Treasury's approach is its belief that the system-wide deleveraging resulting from the decline in asset values, leading to an accompanying drop in net wealth across the country, is in large part the product of temporary liquidity constraints resulting from nonfunctioning markets for troubled assets. The debate turns on whether current prices, particularly for mortgage-related assets, reflect fundamental values or whether prices are artificially depressed by a liquidity discount due to frozen markets – or some combination of the two.

If its assumptions are correct, Treasury's current approach may prove a reasonable response to the current crisis. Current prices may, in fact, prove not to be explainable without the liquidity factor. Even in areas of the country where home prices have declined precipitously, the collateral behind mortgage-related assets still retains substantial value. In a liquid market, even under-collateralized assets should not be trading at pennies on the dollar. Prices are being partially subjected to a downward self-reinforcing cycle. It is this notion of a liquidity discount that supports the potential of future gain for taxpayers and makes transactions under the CAP and the PPIP viable mechanisms for recovery of asset values while recouping a gain for taxpayers.

On the other hand, it is possible that Treasury's approach fails to acknowledge the depth of the current downturn and the degree to which the low valuation of troubled assets accurately reflects their worth. The actions undertaken by Treasury, the Federal Reserve Board and the FDIC are unprecedented. But if the economic crisis is deeper than anticipated, it is possible that Treasury will need to take very different actions in order to restore financial stability.

By offering this assessment of Treasury's current approach and identifying alternative strategies taken in the past, the Panel hopes to assist Congress and Treasury officials in weighing the available options as the nation grapples with the worst financial crisis it has faced since the Great Depression.

Section One: Assessing TARP Strategy

This is the fifth TARP oversight report of the Congressional Oversight Panel. In our first and second reports, we asked the question, “What is Treasury’s strategy?” In the absence of a clear answer to that question, in our third report, we looked at whether Treasury’s programs produced a clear value for the taxpayer by valuing the preferred stock that Treasury had purchased using TARP funds. In our fourth report, we looked in detail at the mortgage crisis, a key component of the financial crisis that gave rise to the TARP. Now we return to the issue of strategy as a new Administration begins to announce its intentions in detail for the TARP.

This report takes up four related topics: (1) an analysis of Treasury’s strategy, (2) a preliminary assessment of the direction of key financial and economic indicators since the inception of the TARP, (3) a detailed analysis, comprising the majority of this report, of approaches to bank crises historically, and (4) an analysis of the alternatives facing Treasury. The Panel strongly believes that Treasury should continue to explain its strategy to Congress and the public. Financial institutions, businesses, and consumers are more likely to return to healthy investment in the economy if they believe that the federal government is following an intelligible road map. Articulating a clear strategy for financial stabilization would have the following benefits:

- **Public Confidence.** If Treasury is frank in its explanation of its strategy and transparent in its execution, Congress and the public will have greater confidence that taxpayer dollars are being used appropriately or, conversely, will be able to engage with the Administration in an informed manner to advocate change.
- **Expectations.** A clear strategy that sets forth the guiding principles for future actions by the Administration, including the FDIC and the Federal Reserve Board, would provide the public with a basis for planning future investment and consumption.
- **Metrics and Accountability.** A clear strategy will also provide Congress and the public with standards and metrics by which to measure its progress and judge its success.

The six month anniversary of the enactment of the TARP¹ presents a useful opportunity for the Panel to assess TARP strategy to date and review alternative courses of action for moving forward with this massive financial rescue program. This report will discuss ways to stabilize

¹ The Emergency Economic Stabilization Act of 2008 (EESA), Pub. L. No. 110-343, passed on October 3, 2008.

and rebuild our nation's banking system, based both on current expert and government analyses and on the experiences – good and bad – of similar efforts in the past and elsewhere in the world. These alternative approaches will provide Congress and Treasury with a framework for considering course changes should they become necessary.

A. The Federal Government's Current Strategy

In a letter sent on April 2, 2009, Secretary Geithner provided the Panel with a description of Treasury's strategy for combating the financial crisis. Secretary Geithner described four major challenges that Treasury's strategy seeks to address: (1) the collapse of the housing market; (2) frozen secondary markets that "have constrained the ability of even creditworthy small businesses and families" to get credit; (3) uncertainty about the health of financial institutions and the valuation of assets on their balance sheets; and (4) the existence of "troubled legacy assets" on the balance sheets of financial institutions that affect their capitalization and limit their ability to make loans. The letter describes the manner in which each of Treasury's programs addresses these challenges. The Panel commends Treasury for this response, but believes that a clearer understanding of Treasury's strategy is discernable from statements made by senior officials and Treasury's latest TARP initiatives. The Panel believes that Treasury's strategy can be described as follows:

- **Address Bank Solvency and Capitalization.** This was accomplished first through the Capital Purchase Program (CPP) and the Systemically Significant Failing Institutions (SSFI) Program, then through the Targeted Investment Program (TIP), and, in the future, will be accomplished through the Capital Assistance Program (CAP). The PPIP will leverage public and private capital to create markets for troubled assets in order to remove them from the balance sheets of financial institutions.
- **Increase Availability of Credit in Key Markets.** Treasury is coordinating with the Federal Reserve Board and FDIC to restart key credit markets through the establishment of Federal Reserve Board lending facilities targeting money and capital markets. Another facility, the Term Asset-Backed Securities Lending Facility (TALF), is designed to restart secondary markets to increase lending for auto sales, college loans, credit cards and small businesses. One of the two components of the PPIP is designed to revive markets for mortgage-backed securities (MBS). This effort is also an element of continuity between the current and previous administrations.
- **Assess the Health of Financial Institutions.** The first step of the CAP is a coordinated supervisory assessment, the so-called "stress test," that will provide regulators with an analysis of the ability of the 19 largest banks to withstand worse-than-anticipated economic conditions. In conformity with Treasury's assumptions, regulators will be relying extensively on the work of the incumbent financial management of the 19 firms in making these assessments.

- **Directly Address the Foreclosure Crisis.** The Administration’s housing plan, examined in the Panel’s March oversight report,² seeks to help families and stabilize real estate values in communities with high levels of foreclosures, thus contributing to a revival of real estate values.
- **Increase Long-Term Confidence Through Regulatory Reform.** While regulatory reform will not be discussed at great length in this report, it is clear that Treasury believes that a comprehensive plan for reforming financial regulation will boost market confidence.³

Treasury’s expectation is that these measures, in concert, will keep the large banks afloat until the economy revives, propelled by the liquidity provided by TALF and the resolution of housing market and household finance weakness that will come from addressing the foreclosure crisis. The revival of the economy will lead to recovery of the asset side of bank balance sheets and a return of the major banks to health.

Treasury’s strategy is profoundly linked to Treasury’s assumptions about the nature of major financial institution weakness, about the proper role for government when it has invested in private financial institutions, and whether the value of troubled assets can be restored through programs like PPIP and TALF. The discussion below examines this strategy in greater detail and offers some initial evaluation of Treasury’s efforts to stabilize the financial system. This section also examines several key metrics of economic performance.

1. COP Efforts to Ascertain Treasury’s Strategy

The Panel’s conclusions about Treasury’s strategy laid out above are in part based on Secretary Geithner’s April 2 letter explaining Treasury’s understanding of the origins of the crisis and describing the Department’s strategy, in part derived from public statements by senior officials, and in part inferred from Treasury’s actions. The Panel has pressed Treasury for a clear statement of its strategy for stabilizing the financial system since it first posed the question in its initial oversight report in December 2008.⁴ In recognition of the value of a clear strategy to well-functioning markets, the Panel sought an answer to this question from Treasury in its

² Congressional Oversight Panel, *Foreclosure Crisis: Working Toward a Solution* (Mar. 6, 2009) (hereinafter “Panel March Oversight Report”).

³ House Committee on Financial Services, Testimony of Timothy F. Geithner, *Addressing the Need for Comprehensive Regulatory Reform*, 111th Cong. (Mar. 26, 2009) (“These failures have caused a great loss of confidence in the basic fabric of our financial system, a system that over time has been a tremendous asset for the American economy. To address this will require comprehensive reform. Not modest repairs at the margin, but new rules of the game.”).

⁴ See Congressional Oversight Panel, *Questions About the \$700 Billion Emergency Economic Stabilization Funds*, at 4-8 (Dec. 10, 2008) (hereinafter “Panel December Oversight Report”).

January report and in a pair of letters sent to Secretary Geithner.⁵ The findings of the Panel's February Valuation report, which revealed that Treasury provided the top ten TARP recipients with a subsidy of \$78 billion over the market value of the preferred shares purchased,⁶ despite Treasury's representations of these purchases as being made "at par,"⁷ reinforced the importance of a comprehensive explanation by Treasury of its strategy and approach. While the Panel understands the difficulties faced by both the Bush Administration and the Obama Administration in managing the policy response to the financial crisis while going through a change in administrations, the need for a clearly articulated strategy remains paramount. We are pleased that Secretary Geithner will appear before the Panel on April 21, we appreciate his April 2 letter to the Panel, and we look forward to learning more in the coming weeks about Treasury's strategy.

2. An Examination of Treasury's Strategy

Explanations by the Secretary of the Treasury and by senior officials suggest that the Administration views the current crisis as a vicious and self-reinforcing cycle that arose as a consequence of the financial excesses of the past decade. Rapid drops in asset prices and the collapse of millions of unsustainable subprime mortgages led to losses both in the loans themselves and in a myriad of financial products built on those loans. Falling asset values and massive losses prompted system-wide deleveraging by financial institutions. This led to additional drops in prices, which prompted investors to flee capital markets and secondary markets to freeze up. The end result of these processes is a banking system reeling from losses and undercapitalization. Secretary Geithner described these cycles of losses and withdrawal from markets as a "dangerous dynamic" in which the "financial system is working against recovery."⁸ Lawrence Summers, Director of the National Economic Council, described this effect as "the paradox at the heart of the financial crisis," adding, "In the past few years, we've seen too much greed and too little fear; too much spending and not enough saving; too much

⁵ See Congressional Oversight Panel, *Accountability for the Troubled Asset Relief Program*, at 5 (Jan. 9, 2009) (hereinafter "Panel January Oversight Report"); Appendix VIII *infra*, Letter from Elizabeth Warren, Chairperson, Congressional Oversight Panel to Timothy Geithner, Secretary of the Treasury (Jan. 28, 2009) (requesting that Secretary Geithner respond to unanswered questions remaining from the previous two reports); Appendix VI *infra*, Letter from Elizabeth Warren, Chairperson, Congressional Oversight Panel to Timothy Geithner, Secretary of the Treasury (Mar. 5, 2009) (requesting that Treasury provide a detailed explanation of its strategy and respond to three specific questions about strategy).

⁶ See Congressional Oversight Panel, *February Oversight Report: Valuing Treasury's Acquisitions* (Feb. 6, 2009) (hereinafter "Panel February Oversight Report").

⁷ U.S. Department of the Treasury, *Responses to Questions of the First Report of the Congressional Oversight Panel for Economic Stabilization*, at 8 (Dec. 30, 2008) (hereinafter "Treasury December Response to Panel") ("When measured on an accrual basis, the value of the preferred stock is at or near par.").

⁸ U.S. Department of the Treasury, *Remarks by Treasury Secretary Timothy Geithner Introducing the Financial Stability Plan* (Feb. 10, 2009) (online at treas.gov/press/releases/tg18.htm) (hereinafter "Geithner Financial Stability Statement").

borrowing and not enough worrying. Today, however, our problem is exactly the opposite.”⁹ This diagnosis of the financial crisis is driving the Administration’s aggressive interagency effort to revive credit markets and strengthen the balance sheets of financial institutions through capital injections and the removal of toxic assets. Yet this approach assumes that the decline in asset values and the accompanying drop in net wealth across the country are in large part the products of temporary liquidity discounts due to nonfunctioning markets for these assets and, thus, are reversible once market confidence is restored. While critics of this approach warn against a more fundamental solvency problem plaguing the financial institutions holding onto these toxic assets,¹⁰ Treasury and key policymakers in the Administration argue that the recently-passed fiscal stimulus passage, Treasury’s foreclosure mitigation plan, and the public-private program to revive markets for toxic assets will strengthen the fundamental value of these assets.¹¹

The Panel has held two field hearings examining the impact of the financial crisis on America’s communities, one in Clark County, Nevada, the other in Prince Georges County, Maryland.¹² The hearings portray home mortgage-related losses on a large scale. Assessing the extent and persistence of these losses is key to understanding the plausibility of Treasury’s assumptions. This is a matter of underlying housing values, the durability of the new housing stock, and the ability of borrowers to make mortgage payments in the future.

Since Treasury has not provided the baseline economic projections behind its stabilization efforts, this report assumes that consensus growth estimates and the Economic Report of the President are the foundation for Treasury’s efforts. The Administration is in line

⁹ Brookings Institution, *Lawrence Summers on the Economic Crisis and Recovery* (Mar. 13, 2009) (online at www.brookings.edu/~media/Files/events/2009/0313_summers/0313_summers_remarks.pdf) (hereinafter “Summers, *Economic Crisis and Recovery*”).

¹⁰ See, e.g., Desmond Lachman, *Obama Policies Have the U.S. on the Road to Deflation*, *American Banker* (Apr. 1, 2009) (“Particularly striking is the fact that instead of addressing the bank insolvency issue head on, the Administration is choosing to continue the charade that the banks’ problems are largely those of liquidity rather than those of solvency.”); Ian Bremmer and Nouriel Roubini, *Expect the World Economy to Suffer Through 2009*, *Wall Street Journal* (Jan. 23, 2009) (“The U.S. economy is, at best, halfway through a recession that began in December 2007 and will prove the longest and most severe of the postwar period. Credit losses of close to \$3 trillion are leaving the U.S. banking and financial system insolvent. And the credit crunch will persist as households, financial firms and corporations with high debt ratios and solvency problems undergo a sharp deleveraging process.”).

¹¹ Council on Foreign Relations, *A Conversation with Timothy F. Geithner* (Mar. 25, 2009) (online at www.cfr.org/publication/18925/conversation_with_timothy_f_geithner.html) (“So we’re not treating, have never treated, this as a liquidity crisis. It has those two core dimensions. And as you can see, in the president’s broad agenda... you’re not going to be able to fix the financial system without very strong, sustained support from monetary and fiscal policy. And that broad package together has the best chance of getting us... more quickly to the path of recovery.”); Timothy Geithner, *My Plan for Bad Bank Assets*, *Wall Street Journal* (Mar. 23, 2009) (“By providing a market for these assets that does not now exist, this program will help improve asset values, increase lending capacity by banks, and reduce uncertainty about the scale of losses on bank balance sheets. The ability to sell assets to this fund will make it easier for banks to raise private capital, which will accelerate their ability to replace the capital investments provided by the Treasury.”).

¹² These hearings can be viewed in their entirety at the Panel website: www.COP.Senate.gov.

with most forecasts by predicting economic contraction continuing into mid-2009 with recovery commencing in the second half of the year.¹³ This projection is consistent with forecasts issued by the Congressional Budget Office (CBO) and Blue Chip Economic Indicators, though the latter has been steadily downgrading its forecasts each month. As of late February, the Obama Administration projected an annual decline in real Gross Domestic Product (GDP) of 1.2 percent, a slightly more optimistic forecast than the 1.5 percent contraction recently projected by the CBO.¹⁴ The Blue Chip Economic Indicators survey, which offered a projection of a 1.9 percent contraction in its January report, recently downgraded this projection to a 2.6 percent contraction in March.¹⁵ Another economic projection that may be guiding Treasury policy is predicted losses from U.S. toxic assets. Goldman Sachs issued a projection of losses from U.S.-originated credit assets of \$2.1 trillion.¹⁶ Another projection comes from the International Monetary Fund, which expects U.S. credit losses of \$2.2 trillion.¹⁷ For both of these projections, half or less of these losses will take place in the U.S. because a portion of the risks was transferred to foreign investors. While these losses will likely require additional capital infusions from public and private sources, the road to recovery for the banking system will be shorter based on these projections than it would be if the projections of some of the leading pessimists (see below) are borne out.¹⁸ Even if U.S. financial institution losses are “only” \$1 trillion, however, they will nonetheless be approximately twice the entire amount of money allocated by

¹³ White House Council of Economic Advisors, *Economic Report of the President*, at 53 (Jan. 2009) (“The contraction is projected to continue into the first half of 2009, followed by a recovery in the second half of 2009 that is expected to be led by the interest-sensitive sectors of the economy. The overall decline, from the second-quarter level of GDP to the quarter with the lowest real GDP, is projected to slightly exceed the depth of the average post-World War II recession. This pattern translates into a small decline during the four quarters of 2008, followed by a small increase during 2009.”).

¹⁴ Congressional Budget Office, *A Preliminary Analysis of the President’s Budget and an Update of CBO’s Budget and Economic Outlook*, at 19 (Mar. 2009) (“In CBO’s forecast, on a fourth-quarter-to-fourth-quarter basis, real (inflation-adjusted) gross domestic product falls by 1.5 percent in 2009 before growing by 4.1 percent in both 2010 and 2011.”); Office of Management and Budget, *A New Era of Responsibility: Renewing America’s Promise*, at 132 (Feb. 26, 2009).

¹⁵ *Sickly U.S. Economy Set for 2nd Half Rebound: Survey*, Reuters (Mar. 10, 2009) (citing Randell E. Moore, *Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead* (Mar. 10, 2009)).

¹⁶ Jan Hatzius and Michael A. Marschoum, *Home Prices and Credit Losses: Projections and Policy Options*, Goldman Sachs Global ECS Research, at 14 (Jan. 13, 2009) (Global Economics Paper No. 177) (online at garygreene.mediaroom.com/file.php/216/Global+Paper+No++177.pdf).

¹⁷ International Monetary Fund, *Global Financial Stability Report Market Update*, at 2 (Jan. 28, 2009) (“The worsening credit conditions affecting a broader range of markets have raised our estimate of the potential deterioration in U.S.-originated credit assets held by banks and others from \$1.4 trillion in the October 2008 GFSR to \$2.2 trillion.”).

¹⁸ See Douglas J. Elliott, *Bank Nationalization: What is it? Should we do it?*, at 10 (Feb. 25, 2009) (“In sum, the banking system can be restored to the capital levels that held prior to this recession, which were considered more than adequate at the time, if the economy and credit losses perform as the IMF or Goldman Sachs expects. These forecasts are roughly in line with the consensus economic view.”).

Treasury under the TARP, including money allocated to programs like PPIP that has not been expended yet.

While these estimates represent a consensus view of expected economic contraction and credit losses for 2009, critics of Treasury's actions can point to prominent, and significantly more pessimistic, economic projections by economist Nouriel Roubini. Roubini, whose warnings of the collapse of the housing bubble proved prescient, forecasts an economic contraction of 3.4 percent¹⁹ and total credit losses of \$3.6 trillion, half of which would be borne by U.S. banks, in 2009.²⁰

Furthermore, declines in housing prices as shown by the latest data from the Case-Shiller index could indicate that the housing market has yet to hit bottom. The numbers from January 2009 revealed a continued decline in home prices, with the 20-city index showing a 2.8 percent decline from the previous month²¹ and a 19 percent annual decline from January 2008.²² Overall, the 20-city index shows a 29.1 percent decrease from the housing market's peak in the second quarter of 2006.²³

The debate over the use of Treasury's Public-Private Investment Partnerships to purchase troubled assets and achieve price discovery turns significantly on questions surrounding the health and trajectory of the economy as a whole, as well as the relationship the economy as a whole will have to portfolios of bad assets held by banks and other financial institutions. Economic forecasters have predicted that a recovery in GDP will commence in the fall. However, the trend line in adjustments to those predictions has been consistently downward, with the projected beginning of the recovery receding into the future and its scale diminishing. Secondly, it is unclear what the relationship between economic recovery, when it comes, and bank assets will be. Unemployment, a key driver of consumer defaults in areas like mortgages and credit cards, is a lagging indicator, with joblessness typically increasing significantly after

¹⁹ Roubini Global Economics, *RGE Monitor 2009 Global Economic Outlook*, at 1-2 (Jan. 2009) (online at www.rgemonitor.com/redir.php?cid=316328&sid=1&tgid=10000).

²⁰ Nouriel Roubini and Elisa Parisi-Capone, *Total \$3.6T Projected Loans and Securities Losses, \$1.8T of Which at U.S. Banks/Brokers: The Specter of Technical Insolvency*, RGE Analysts' EconoMonitor (Jan. 21, 2009) (online at www.rgemonitor.com/blog/economonitor/255236/total_36t_projected_loans_and_securities_losses_18t_of_which_at_us_banksbrokers_the_specter_of_technical_insolvency).

²¹ Standard & Poor's, *S&P/Case-Shiller Home Price Indices* (online at www2.standardandpoors.com/spf/pdf/index/CSHomePrice_History_033114.xls) (accessed Apr. 3, 2009) (hereinafter "Case-Shiller Indices").

²² Standard & Poor's, *The New Year Didn't Change the Downward Spiral of Residential Real Estate Prices According to the S&P/Case-Shiller Home Prices Indices* (Mar. 31, 2009) (online at www2.standardandpoors.com/spf/pdf/index/CSHomePrice_Release_033114.pdf) (hereinafter "Case-Shiller Press Release").

²³ *Id.*

GDP turns around. More profoundly, recovery in real estate markets following an asset bubble can be very slow in coming. In many parts of the United States, real estate prices did not recover from the real estate bust of the late 1980s until ten years later.

Finally and most importantly, there is the question of the role the health of the banks themselves will play. Treasury's strategy envisions a larger economic recovery pulling the banks back to health. Given the current degree of concentration in the banking industry, many have expressed concern that weak banks will drag the economy down by failing to lend. Japan's "lost decade," discussed in Part B of this section, was in part the story of an economy that suffered anemic yet largely positive economic growth in tandem with a prolonged crisis in the financial sector. To the extent that this is an accurate description of our financial situation, time is not on our side.

Thus, disagreements over the true nature and severity of the economic downturn and expectations of credit losses are at the heart of debates over Treasury's strategy and programs for addressing the financial crisis. While the Panel does not have a view on the accuracy of these economic projections, it does note that Treasury can better anchor its strategy by sharing the baseline economic projections for its current approach. Disclosure of these assumptions for growth and expected bank losses will make debate over contingency strategies, in the event that a course change becomes necessary down the road, more constructive.

a. Address Bank Solvency and Capitalization – Capital Infusions and Leveraged Asset Purchases

Treasury's primary mechanisms for improving bank balance sheets are through its equity investment programs such as CPP and CAP and its forthcoming efforts to provide government financing for leveraged special purpose entities to purchase distressed assets through the PPIP. The basic elements of these programs are described below:

- **CAP.** On February 10, 2009, Secretary Geithner announced plans for the remainder of TARP funds.²⁴ The central component of Treasury's plan is the Capital Assistance Program (CAP), which consists of a two-step program. The first step is a supervisory exercise, the "stress test," in which the 19 U.S. banking organizations with over \$100 billion in assets are evaluated for their ability to absorb losses in worse-than-expected economic conditions. While the 19 largest banks will be required to undergo stress tests, all banks are free to apply to the CAP. Banks deemed to require an additional capital cushion will receive a six month window to raise that capital privately or access it through the CAP. The second component of the CAP will consist of government investments in banks in the form of non-voting preferred securities that can be converted

²⁴ Geithner Financial Stability Statement, *supra* note 8.

into common equity by the bank – an effective call on the preferred exercisable to the government’s detriment when a bank is trouble.

- **PPIP.** On March 3, 2009, Treasury announced the details of the PPIP. The PPIP involves the creation of leveraged special purpose entities, capitalized with small amounts of equity capital from private sources and designed to purchase bad assets from banks. Private investors would capture 50 percent of the profits of these entities. Their purpose is to buy distressed bank assets at prices and volumes that private parties are unwilling to do. Treasury hopes that these transactions will promote bank lending,²⁵ and improve market liquidity. It is unclear whether the introduction of these funds will lead private sector investors who do not benefit from government subsidies to have any greater interest in transacting in distressed assets than they do today. Treasury hopes this program will unfreeze the asset-backed securities market and reverse the negative economic cycle of declining asset prices, deleveraging, and declining asset values.²⁶ PPIP has two components: the Legacy Loan Program targeting distressed loans held on bank balance sheets and the Legacy Securities Program that is intended to facilitate the purchase of certain, primarily asset-backed securities through TALF.

At the time of the announcement of these programs, Mr. Summers expressed his expectation that “further support for capital markets, transparency with respect to the condition of banks, and infusion of capital into the banking cycle, will create virtuous cycles in which stronger markets beget stronger financial institutions, which beget stronger markets.”²⁷ Statements like these provide additional evidence of the assumptions underlying Treasury’s actions, to wit, that senior officials believe that current prices for impaired assets are at or near their lowest levels and will rebound if Treasury can revive markets for these assets.

In Part D of this report, we provide further preliminary analysis of CAP and PPIP. In further reports, as these plans proceed, the Panel will seek to analyze the financial impact of these programs on the banks, the private sector investors in these leveraged investment vehicles, and on the public.

b. Increase Availability of Credit in Key Markets

Another major component of Treasury’s financial stabilization program is its use of TARP funds in coordination with the Federal Reserve Board’s use of its balance sheet to inject over two trillion dollars of financing into credit markets and public-private investment facilities.

²⁵ Although the program takes these assets off bank balance sheets, there does not appear to be any corresponding requirement about a selling bank’s use of the proceeds it receives for those assets.

²⁶ The illiquidity of the asset-backed securities market is obviously closely tied to this economic cycle. As prices have declined, those who hold the assets have been increasingly unwilling to sell.

²⁷ Summers, *Economic Crisis and Recovery*, *supra* note 9.

A common thread among the various facilities that constitute this component of the plan is the assumption of risk by Treasury and the Federal Reserve Board in order to induce renewed private participation in securitization. Senior officials believe that restarting markets will increase credit availability and reduce the liquidity discounts impairing the sale of many toxic assets. Official efforts take the form of Treasury's investments in TALF and PPIP and the lending facilities established by the Federal Reserve Board. Federal Reserve Board Chairman Ben Bernanke stated that the purpose of these programs is "both to cushion the direct effects of the financial turbulence on the economy and to reduce the virulence of the so-called adverse feedback loop, in which economic weakness and financial stress become mutually reinforcing."²⁸ Mr. Summers reinforced this view in his address to the Brookings Institution on March 13, 2009: "Reactivating the capital markets is essential to realistic asset valuation, to restarting nonbank lending, and to enabling banks to divest toxic assets when they judge it appropriate."²⁹

TALF and PPIP have some fundamental differences. TALF seeks to revive asset securitization markets by having the Federal Reserve Board encourage issuance of new high-quality securitized debt instruments through collateralized non-recourse loans; loan principal will be discounted by haircuts on the securities' face value that depend on the type of loans backing the security. PPIP envisions buying existing distressed assets and low quality assets off bank balance sheets using Special Purpose Entities where private sector actors, presumably hedge funds and private equity firms, invest a small amount of capital and stand to gain 50 percent of any profits.

Treasury and the Federal Reserve Board clearly believe that we cannot revive the U.S. economy without healthy asset securitization markets. The phenomenal growth of the size of those markets in recent years and their current centrality to mortgage, auto, student loan and credit card financing would tend to support that belief. Nonetheless, some question the fundamental premise behind the expenditure of TARP funds and assumption of risk by taxpayers, arguing that securitization itself, absent reform, weakens effective risk management by financial institutions.³⁰ Of course, reforming securitization markets, as the Panel

²⁸ Board of Governors of the Federal Reserve System, *Address by Ben S. Bernanke, Chairman, at the Stamp Lecture, London School of Economics, London, England: The Crisis and Policy Response* (Jan. 13, 2009) (online at www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm).

²⁹ Summers, *Economic Crisis and Recovery*, *supra* note 9.

³⁰ *See, e.g.*, Paul Krugman, *The Market Mystique*, New York Times (Mar. 26, 2009) ("Above all, the key promise of securitization – that it would make the financial system more robust by spreading risk more widely – turned out to be a lie. Banks used securitization to increase their risk, not reduce it, and in the process they made the economy more, not less, vulnerable to financial disruption."); Robert Kuttner, *Slouching Towards Solvency*, American Prospect (Mar. 23, 2009) (online at www.prospect.org/cs/articles?article=slouching_towards_solvency) ("At the heart of this entire mess is the system of securitization, which dates only to the 1970s. In principle, it usefully allowed banks to sell off loans and thereby replenish cash to make other loans. But in practice, the system turned into an unsupervised doomsday machine. Not only did the system invite lenders to relax underwriting standards because some sucker down the line was absorbing the risk; more seriously it led to an aftermath that has

recommended in its regulatory reform report of January 29, 2009, is not necessarily incompatible with Treasury's strategy of keeping those markets from freezing. Another criticism of this approach is that markets requiring heavy government subsidization will not lead to true price discovery of assets or create sustainable markets for these assets.³¹ Such subsidization can distort markets and, once ceased, is unlikely to affect later, non-subsidized market transactions. A third concern centers on the terms of the PPIP deal for the American taxpayer insofar as the government is bearing most of the risk while splitting the gains with program participants.

On the other hand, many forms of securitization involve instruments that are straightforward. A revival of securitization markets, if subject to strong regulatory oversight, can help restore financial stability because it re-circulates capital for banks to lend again, and without a functioning secondary market access to credit would be sharply decreased, delaying or even preventing our economic recovery. The Panel urges Treasury, as it works to restart these markets to improve lending, to discuss its vision for reforming securitization within its broader program for modernizing financial regulation.

c. Assess the Health of Financial Institutions

The stress tests build on the efforts under the Capital Purchase Program by the Paulson Treasury Department to assess the health of banks applying for funding under the CPP. The stress tests will analyze whether the targeted banks have the necessary capital to continue lending while absorbing potential losses in the case of a more severe economic decline than anticipated by consensus estimates.³² These examinations involve collaboration between Treasury, federal banking supervisors, and other agencies, and they commenced on February 25, 2009. For some banks, a comparatively clean bill of health from Treasury may provide an opportunity for eased terms and early repayment. This assessment exercise may provide stronger signals to the industry and the market about which banks may face a greater government ownership stake. The actions taken by Treasury following the completion of these stress tests may also offer investors a good indication of future government intervention in financial markets, which could encourage a return to a healthy level of investment. On the other hand, the tests may prove to be

proven impossible to unwind without having government temporarily take the big banks into receivership to sort out what's really on their books.”).

³¹ See, e.g., Jeffrey Sachs, *Obama's Bank Plan Could Rob the Taxpayer*, Financial Times (Mar. 25, 2009) (“It is dressed up as a market transaction but that is a fig-leaf, since the government will put in 90 per cent or more of the funds and the ‘price discovery’ process is not genuine. It is no surprise that stock market capitalisation of the banks has risen about 50 per cent from the lows of two weeks ago. Taxpayers are the losers, even as they stand on the sidelines cheering the rise of the stock market. It is their money fuelling the rally, yet the banks are the beneficiaries.”).

³² Treasury states that the consensus baseline assumptions for real GDP growth are those found in the February projections published by Consensus Forecasts, the Blue Chip survey, and the Survey of Professional Forecasters. U.S. Department of the Treasury, *FAQs: Supervisory Capital Assessment Program* (online at files.ots.treas.gov/482033.pdf) (accessed Apr. 2, 2009).

insufficiently rigorous to give regulators a true picture of the health of financial institutions. Even if the tests are adequate, regulators may lack the will to act on what they learn. In either case, the stress tests would not produce the desired results.

The Panel is interested in: (1) the extent to which the stress tests will rely on risk management models like Value At Risk (VAR), which some have identified as having contributed to risk management failures that fed the financial bubble; and (2) the extent to which the stress tests will be conducted, in the first instance, by the financial management teams of the financial firms themselves. The Panel needs additional information on the stress tests before it can offer further analysis.

3. Federal Government Efforts

Treasury's efforts to date to combat the financial crisis have focused upon improving bank balance sheets and providing liquidity to financial institutions and key credit markets. A critical player in government stabilization efforts is the Federal Reserve Board, which has added over \$1.5 trillion dollars to its balance sheet beyond its normal monetary policy open-market operations.³³ Likewise, the FDIC has also had a major role. FDIC, the Federal Reserve Board, and Treasury are extending over \$1.7 trillion in guarantees as well. See Figure 1 for a complete presentation of Federal resources – outlays, loans and guarantees – that have been provided to date in conjunction with the financial market rescue efforts.

The Panel has broadly classified the resources that the federal government has devoted to stabilizing the economy in a myriad of new programs and initiatives as outlays, loans, and guarantees. Although the Panel calculates the total value of these resources at over \$4 trillion, this would translate into the ultimate “cost” of the stabilization effort only if: (1) assets do not appreciate; (2) no dividends are received, no warrants are exercised, and no TARP funds are repaid; (3) all loans default and are written off; and (4) all guarantees are exercised and subsequently written off.

Outlays constitute \$522.4 billion or about 13 percent of total federal resources and primarily reflect Treasury expenditures under the TARP. The majority of outlays are structured as Treasury's equity investments in financial institutions (\$328 billion) and Treasury co-investments with private investors in mortgage-based loans and securities under the PPIP (\$100 billion). It is possible that the federal government could recoup much of the value of its investments in financial institutions through receipt of dividend payments, financial institutions' repayments of TARP funds, appreciation of the value of the TARP equity investments, and resolution of financial institutions in bankruptcy or receivership. Similarly, the PPIP co-

³³ Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.4.1: Factors Affecting Reserve Balances* (Apr. 2, 2009) (online at www.federalreserve.gov/releases/h41/20090502/) (hereinafter “Fed Balance Sheet April 2”).

investments could be profitable if the mortgage loans and mortgage-backed securities in these funds appreciate in value. On the other hand, insolvency of financial institutions that are funded by the TARP, or poor performance or pricing of PPIP equity investments, would result in a substantial amount of long-term losses to the federal government.

The \$2.0391 trillion in loans almost exclusively represent an expansion of assets on the Federal Reserve Board’s balance sheet as a result of the creation of a variety of new programs. According to Federal Reserve Board Chairman Ben Bernanke, “the great majority of [the Federal Reserve Board’s] lending is extremely well secured.”³⁴ Nevertheless, even if Chairman Bernanke is correct in his analysis, any losses incurred on loans not in the extremely well secured category potentially could create significant long-term losses to the federal government.

Finally, the risks of long-term losses to the federal government posed by the over \$1.7 trillion in guarantees, mostly made by the Federal Reserve Board and FDIC, are difficult to estimate. Potential losses are largely dependent on the specific risks of each guarantee program, some of which (including PPIP) are still being designed, and on underlying economic performance.

Figure 1: Resources Designated for Financial Stabilization Efforts

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
American International Group (AIG)	70	89.3	0	159.3
Outlays ³⁵	70 ³⁷	0	0	70
Loans	0	89.3 ³⁸	0	89.3
Guarantees ³⁶	0	0	0	0

³⁴ Board of Governors of the Federal Reserve System, *Address by Ben S. Bernanke, Chairman, at the Federal Reserve Bank of Richmond 2009 Credit Market Symposium, Charlotte, North Carolina: The Federal Reserve’s Balance Sheet* (Apr. 3, 2009) (online at www.federalreserve.gov/newsevents/speech/bernanke20090403a.htm).

³⁵ Treasury outlays are face values, based on: (1) Treasury’s actual reported expenditures and (2) Treasury’s anticipated funding levels as estimated by a variety of sources, including Treasury pronouncements, GAO estimates, and news reports. Anticipated funding levels are set at Treasury’s discretion, have changed from initial announcements, and are subject to change further. The outlay concept used here is not the same as budget outlays, which under § 123 of EESA are recorded on a “credit reform” basis.

³⁶ While many of the guarantees may never be exercised or exercised only partially, the guarantee figures included here represent the federal government’s maximum financial exposure.

³⁷ Government Accountability Office, *Troubled Asset Relief Program: March 2009 Status of Efforts to Address Transparency and Accountability Issues*, at 9 (Mar. 31, 2009) (GAO09/504) (online at www.gao.gov/new.items/d09504.pdf) (hereinafter “March GAO Report”). This number includes a \$40 billion investment made on November 25, 2008 under the Systemically Significant Failing Institutions (SSFI) Program and a \$30 billion equity capital facility announced on March 2, 2009 that AIG may draw down when in need of additional capital in exchange for additional preferred stock and warrants to be held by Treasury. U.S. Department of the Treasury, Office of Financial Stability, *Troubled Asset Relief Program Transactions Report For Period*

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
Bank of America	52.5	87.2	2.5	142.2
Outlays	45 ³⁹	0	0	45
Loans	0	0	0	0
Guarantees	7.5 ⁴⁰	87.2 ⁴¹	2.5 ⁴²	97.2
Citigroup	50	229.8	10	289.8
Outlays	45 ⁴³	0	0	45
Loans	0	0	0	0
Guarantees	5 ⁴⁴	229.8 ⁴⁵	10 ⁴⁶	244.8
Capital Purchase Program (Other)	168	0	0	168
Outlays	168 ⁴⁷	0	0	168
Loans	0	0	0	0
Guarantees	0	0	0	0

Ending March 31, 2009 (Apr. 2, 2009) (online at www.financialstability.gov/docs/transaction-reports/transaction_report_04-02-2009.pdf) (hereinafter “April 2 Transaction Report”); U.S. Department of the Treasury, *Term Sheet* (Mar. 2, 2009) (online at www.treas.gov/press/releases/reports/030209_aig_term_sheet.pdf).

³⁸ Fed Balance Sheet April 2, *supra* note 33. This figure includes the AIG credit line as well as the Maiden Lane II LLC and Maiden Lane III LLC special purpose vehicles.

³⁹ April 2 Transaction Report, *supra* note 37. This figure includes: (1) a \$15 billion investment made by Treasury on October 28, 2008 under the Capital Purchase Program (CPP), (2) a \$10 billion investment made by Treasury on January 9, 2009 also under the CPP, and (3) a \$20 billion investment made by Treasury under the Targeted Investment Program (TIP) on January 16, 2009.

⁴⁰ U.S. Department of the Treasury, *Summary of Terms: Eligible Asset Guarantee* (Jan. 15, 2009) (online at www.treas.gov/press/releases/reports/011508bofatermsheet.pdf) (granting a \$118 billion pool of Bank of America assets a 90 percent federal guarantee of all losses over \$10 billion, the first \$10 billion in federal liability to be split 75/25 between Treasury and the FDIC and the remaining federal liability to be borne by the Federal Reserve).

⁴¹ *Id.*

⁴² *Id.*

⁴³ April 2 Transaction Report, *supra* note 37. This figure includes: (1) a \$25 billion investment made by Treasury under the CPP on October 28, 2008 and (2) a \$20 billion investment made by Treasury under the TIP on December 31, 2008.

⁴⁴ U.S. Department of the Treasury, *Summary of Terms: Eligible Asset Guarantee* (Nov. 23, 2008) (online at www.treasury.gov/press/releases/reports/cititermsheet_112308.pdf) (hereinafter “Citigroup Asset Guarantee”) (granting a 90 percent federal guarantee on all losses over \$29 billion of a \$306 billion pool of Citigroup assets, with the first \$5 billion of the cost of the guarantee borne by Treasury, the next \$10 billion by FDIC, and the remainder by the Federal Reserve). *See also* U.S. Department of the Treasury, *U.S. Government Finalizes Terms of Citi Guarantee Announced in November* (Jan. 16, 2009) (online at www.treas.gov/press/releases/hp1358.htm) (reducing the size of the asset pool from \$306 billion to \$301 billion).

⁴⁵ Citigroup Asset Guarantee, *supra* note 44.

⁴⁶ Citigroup Asset Guarantee, *supra* note 44.

⁴⁷ March GAO Report, *supra* note 37. This figure represents the \$218 billion Treasury reported anticipating spending under the CPP to GAO, minus the \$50 billion CPP investments in Citigroup (\$25 billion) and Bank of America (\$25 billion) identified above. This figure does not account for anticipated repayments or

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
Capital Assistance Program	TBD	TBD	TBD	TBD ⁴⁸
TALF	55	495	0	550
Outlays	0	0	0	0
Loans	0	495 ⁵⁰	0	495
Guarantees	55 ⁴⁹	0	0	55
PPIF (Loans) ⁵¹	50	0	600	650
Outlays	50	0	0	50
Loans	0	0	0	0
Guarantees	0	0	600 ⁵²	600

redemptions of CPP investments, nor does it account for dividend payments from CPP investments. Treasury originally set CPP funding at \$250 billion and has not officially revised that estimate.

⁴⁸ Funding levels for the Capital Assistance Program (CAP) have not yet been announced but will likely include a significant portion of the remaining \$109.6 billion of TARP funds.

⁴⁹ March GAO Report, *supra* note 37. Treasury has committed \$20 billion of TARP money to TALF already; Treasury later indicated it would expand to a \$100 billion TARP commitment to TALF, but has recently pulled back to a \$55 billion commitment. Michael R. Crittenden, *Treasury Seeks to Free Up Funds by Shuffling Spending in TARP*, Wall Street Journal (Apr. 2, 2009) (online at online.wsj.com/article/SB123870719693083971.html). The increase in funding has coincided with an increase in asset classes eligible for the facility, including allowing legacy securities access to the facility instead of limiting access only to new securitizations.

⁵⁰ This number derives from the unofficial 1:10 ratio of the value of Treasury loan guarantees to the value of Federal Reserve loans under TALF. See U.S. Department of the Treasury, *Fact Sheet: Financial Stability Plan*, at 2-3 (Feb. 10, 2009) (online at www.financialstability.gov/docs/fact-sheet.pdf) (describing the initial \$20 billion Treasury contribution tied to \$200 billion in Federal Reserve loans and announcing potential expansion to a \$100 billion Treasury contribution tied to \$1 trillion in Federal Reserve loans). Because Treasury is responsible for reimbursing the Federal Reserve for \$55 billion of losses on its \$550 billion in loans, the Federal Reserve's maximum potential exposure under TALF is \$495 billion.

⁵¹ Because the PPIP funding arrangements for loans and securities differ substantially, the Panel accounts for them separately. Treasury has not formally announced either total program funding level or the allocation of funding between PPIP Legacy Loans Program and Legacy Securities Program. Treasury initially provided a \$75-100 billion range for PPIP outlays. U.S. Department of the Treasury, *Fact Sheet: Public-Private Investment Program*, at 2 (March 23, 2009) (online at www.treas.gov/press/releases/reports/ppip_fact_sheet.pdf) (hereinafter "Treasury PPIP Fact Sheet"). While SIGTARP has estimated a \$75 billion Treasury commitment, we adopt GAO's higher estimate of \$100 billion. See Senate Committee on Finance, Testimony of SIGTARP Neil Barofsky, *TARP Oversight: A Six Month Update*, 111th Cong. (Mar. 31, 2009) (hereinafter "Barofsky Testimony"); See March GAO Report, *supra* note 37, at 9. We further assume that Treasury will fund the programs equally at \$50 billion each.

⁵² Treasury PPIP Fact Sheet, *supra* note 51, at 2-3 (explaining that, for every \$1 Treasury contributes in equity matching \$1 of private contributions to public-private asset pools created under the Legacy Loans Program, FDIC will guarantee up to \$12 of financing for the transaction to create a 6:1 debt to equity ratio). If Treasury ultimately allocates a lower proportion of funds to the Legacy Loans Program (i.e. less than \$50 billion), the amount of FDIC loan guarantees will be reduced proportionally.

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
PPIF (Securities)	50	0	0	50
Outlays	20 ⁵³	0	0	20
Loans	30	0	0	30
Guarantees	0	0	0	0
Commercial Paper Funding Facility	0	249.7	0	249.7
Outlays	0	0	0	0
Loans	0	249.7 ⁵⁴	0	249.7
Guarantees	0	0	0	0
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility	0	6.1	0	6.1
Outlays	0	0	0	0
Loans	0	6.1 ⁵⁵	0	6.1
Guarantees	0	0	0	0
Homeowner Affordability and Stability Plan	50	0	0	50 ⁵⁷
Outlays	50 ⁵⁶	0	0	50
Loans	0	0	0	0
Guarantees	0	0	0	0
Automotive Industry Financing Plan	24.9	0	0	24.9
Outlays	24.9 ⁵⁸	0	0	24.9
Loans	0	0	0	0
Guarantees	0	0	0	0
Auto Supplier Support Program	5	0	0	5
Outlays	5 ⁵⁹	0	0	5
Loans	0	0	0	0
Guarantees	0	0	0	0

⁵³ Treasury PPIF Fact Sheet, *supra* note 51, at 4-5 (outlining that, for each \$1 of private investment into a fund created under the Legacy Securities Program, Treasury will provide a matching \$1 in equity to the investment fund; a \$1 loan to the fund; and, at Treasury's discretion, an additional loan up to \$1). In the absence of further Treasury guidance, this analysis assumes that Treasury will allocate funds for equity co-investments and loans at a 1:1.5 ratio, a formula that estimates that Treasury will frequently exercise its discretion to provide additional financing.

⁵⁴ Fed Balance Sheet April 2, *supra* note 33. The level of Federal Reserve lending under this facility will fluctuate in response to market conditions and independent of any federal policy decision.

⁵⁵ Fed Balance Sheet April 2, *supra* note 33. The level of Federal Reserve lending under this facility will fluctuate in response to market conditions and independent of any federal policy decision.

⁵⁶ March GAO Report, *supra* note 37, at 9.

⁵⁷ Fannie Mae and Freddie Mac, government-sponsored entities (GSEs) that were placed in conservatorship of the Federal Housing Finance Housing Agency on September 7, 2009, will also contribute up to \$25 billion to the Homeowner Affordability and Stability Plan. *See* U.S. Department of the Treasury, *Making Home Affordable: Updated Detailed Program Description* (Mar. 4, 2009) (online at www.treas.gov/press/releases/reports/housing_fact_sheet.pdf).

⁵⁸ April 2 Transaction Report, *supra* note 37.

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
Unlocking Credit for Small Business	15	0	0	15
Outlays	15 ⁶⁰	0	0	15
Loans	0	0	0	0
Guarantees	0	0	0	0
Temporary Liquidity Guarantee Program	0	0	768.9	768.9
Outlays	0	0	0	0
Loans	0	0	0	0
Guarantees	0	0	768.9 ⁶¹	768.9
Deposit Insurance Fund	0	0	29.5	29.5
Outlays	0	0	29.5 ⁶²	29.5
Loans	0	0	0	0
Guarantees	0	0	0	0
Other Federal Reserve Board Credit Expansion Since September 1, 2008	0	1,169	0	1,169
Outlays	0	0	0	0
Loans	0	1,169 ⁶³	0	1,169
Guarantees	0	0	0	0
Uncommitted TARP Funds	109.6⁶⁴	0	0	109.6
Outlays	TBA	0	0	TBA
Loans	TBA	0	0	TBA
Guarantees	TBA	0	0	TBA

⁵⁹ March GAO Report, *supra* note 37, at 9.

⁶⁰ March GAO Report, *supra* note 37, at 9.

⁶¹ Federal Deposit Insurance Corporation, *Monthly Reports on Debt Issuance Under the Temporary Liquidity Guarantee Program: Debt Issuance under Guarantee Program* (online at www.fdic.gov/regulations/resources/TLGP/total_issuance1-09.html) (accessed Apr. 1, 2009). This figure represents the current maximum aggregate debt guarantees that could be made under the program, which, in turn, is a function of the number and size of individual financial institutions participating. \$252.6 billion of debt subject to the guarantee has been issued to date, which represents about 33 percent of the current cap. *Id.*

⁶² Federal Deposit Insurance Corporation, *Chief Financial Officer's (CFO) Report to the Board: DIF Income Statement* (Fourth Quarter 2008) (online at www.fdic.gov/about/strategic/corporate/cfo_report_4qtr_08/income.html) (provision for insurance losses of \$17.6 billion); Federal Deposit Insurance Corporation, *Chief Financial Officer's (CFO) Report to the Board: DIF Income Statement* (Third Quarter 2008) (online at www.fdic.gov/about/strategic/corporate/cfo_report_3rdqtr_08/income.html) (provision for insurance losses of \$11.9 billion). Outlays reflect disbursements or potential disbursements in conjunction with failed bank resolutions.

⁶³ This figure is derived from adding the total credit the Federal Reserve has extended as of April 1, 2009 through the Term Auction Facility (Term Auction Credit), Discount Window (Primary Credit), Primary Dealer Credit Facility (Primary Dealer and Other Credit), Central Bank Liquidity Swaps, Bear Stearns Assets (Maiden Lane I), GSE Debt (Federal Agency Debt Securities), and Mortgage Backed Securities Issued by GSEs. *See* Fed Balance Sheet April 2, *supra* note 33.

⁶⁴ Committed TARP funds listed above total \$590.4 billion; \$109.6 billion remains uncommitted for the \$700 billion authorization under EESA and is included in this accounting because it will almost certainly be allocated in the future. One potential use of uncommitted funds is Treasury's obligation to reimburse the Exchange

Program (Dollars in billions)	Treasury (TARP)	Federal Reserve Board	FDIC	Total
Total	700	2,326.1	1,410.9	4,437 ⁶⁵
Outlays	492.9	0	29.5	522.4
Loans	30	2,009.1	0	2,039.1
Guarantees	67.5	317	1,381.4	1,765.9
Uncommitted TARP Funds	109.6	0	0	109.6

a. Treasury Programs

Through an array of programs used to purchase preferred shares in financial institutions, offer loans to small businesses and auto companies, and leverage Federal Reserve Board loans for facilities designed to restart secondary securitization markets, Treasury has spent or committed \$590.4 billion.⁶⁶ This figure is down from the \$667.4 billion sum of the upper bounds of all Treasury commitments announced to date.⁶⁷ The discrepancy results from Treasury revising its estimates of anticipated commitments down from the maximum announced program funding levels; for example, Treasury initially announced that it would commit \$250 billion to CPP purchases but now only anticipates spending \$218 billion.⁶⁸ Treasury will also leverage billions more in public and private capital to facilitate large-scale asset purchases of

Stabilization Fund (ESF), currently valued at \$49.4 billion. See U.S. Department of Treasury, *Exchange Stabilization Fund, Statement of Financial Position, as of February 28, 2009* (online at www.ustreas.gov/offices/international-affairs/esf/esf-monthly-statement.pdf) (accessed April 6, 2009). Treasury must reimburse any use of the fund to guarantee money market mutual funds from TARP money. See EESA, *supra* note 1, at § 131. In September 2008, in response to the Reserve Primary Fund “breaking the buck,” see Diya Gullapalli, Shefali Anand, and Daisy Maxey, *Money Fund, Hurt by Debt Tied to Lehman, Breaks the Buck*, Wall Street Journal (Sept. 17, 2008) (online at online.wsj.com/article/SB122160102128644897.html), Treasury opened its Temporary Guarantee Program for Money Market Mutual Funds, U. S. Department of Treasury, *Treasury Announces Temporary Guarantee Program for Money Market Mutual Funds* (Sept. 29, 2008) (online at www.treas.gov/press/releases/hp1161.htm). This program uses assets of the ESF, which was created under the Gold Reserve Act of 1934, to guarantee the net asset value of participating money market mutual funds. *Id.* Section 131 of EESA protected the ESF from incurring any losses from the program by requiring that Treasury reimburse the ESF for any funds used in the exercise of the guarantees under the program. The program has recently been extended through September 18, 2009. U.S. Department of Treasury, *Treasury Announces Extension of Temporary Guarantee Program for Money Market Funds* (Mar. 31, 2009) (online at www.treas.gov/press/releases/tg76.htm).

⁶⁵ This figure differs substantially from the \$2,476-2,976 billion range of “Total Funds Subject to SIGTARP Oversight” reported during testimony before the Senate Finance Committee on March 31, 2009. Barofsky Testimony, *supra* note 51, at 12. SIGTARP’s accounting, designed to capture only those funds potentially under its oversight authority, is both less and more inclusive than, and thus not directly comparable to, the Panel’s. Among the many differences, SIGTARP does not account for Federal Reserve credit extensions outside of TALF or FDIC guarantees under the Temporary Liquidity Guarantee Program and sets the maximum Federal Reserve loan extensions under TALF at \$1 trillion.

⁶⁶ March GAO Report, *supra* note 37, at 9.

⁶⁷ March GAO Report, *supra* note 37, at 9.

⁶⁸ March GAO Report, *supra* note 37, at 9. Treasury also anticipates spending only \$55 billion in TALF funding as opposed to the \$100 billion initially reported. See Figure 1, *supra*, and accompanying notes.

legacy assets through the PPIP, expanding the total impact on the economy without extending more in outlays.

Treasury estimates only \$565.5 billion in commitments.⁶⁹ The discrepancy between this figure and the numbers independently determined by the General Accountability Office (GAO), SIGTARP, and the Panel results from \$25 billion in CPP investments that Treasury expects recipients to repay or liquidate.⁷⁰ Although describing this estimate as “conservative,”⁷¹ neither Secretary Geithner nor Treasury has identified the institutions who will supply these anticipated repayments or when they will supply these repayments. As a result, the Panel agrees with the GAO and SIGTARP estimates of \$590.4 billion in TARP funds already committed.⁷²

b. Federal Reserve Board Facilities

The Federal Reserve Board is taking a similarly unprecedented set of steps to stabilize the financial system and restart credit markets under its emergency powers.⁷³ As of April 1, 2009, the Federal Reserve Board has extended almost \$1.5 trillion in credit to financial institutions independent of normal open market operations.⁷⁴ These credit extensions, including special credit facilities established under its § 13(3) emergency authority, enabled the Federal Reserve Board to use the asset side of its balance sheet to provide liquidity to banks and revive credit markets. These facilities include: the Term Securities Lending Facility, the Primary Dealer Credit Facility, the Asset-Backed Commercial Paper Money Market Fund Liquidity Facility, the

⁶⁹ See, e.g., Alex Tanzi and Rebecca Christie, *U.S. TARP Funding Remaining Estimated at \$134.5 Billion*, Bloomberg (Mar. 30, 2009).

⁷⁰ See, e.g., *id.*

⁷¹ Maya Jackson Randall, *Treasury Has \$134.5 Billion Left in TARP*, Wall Street Journal (Mar. 30, 2009) (online at online.wsj.com/article/SB123828522318566241.html) (quoting Secretary Geithner’s appearance on ABC’s This Week).

⁷² March GAO Report, *supra* note 34, at 9; Barofsky Testimony, *supra* note 48, at 12.

⁷³ Emergency Relief and Construction Act of 1932, Pub. L. No. 72-302, at § 210 (amending Federal Reserve Act, Pub. L. No. 63-43 (1913), at § 13) (codified as amended at 12 U.S.C. § 343). This power, commonly known as the Federal Reserve’s § 13(3) power or lender of last resort power, enables the Board of Governors to authorize any regional Federal Reserve Bank to loan money to a nonbank financial institution. 12 U.S.C. § 343. Additional Depression-era legislation gave the Federal Reserve even broader power to lend outside the financial sector, but Congress revoked this power in 1958. David Fettig, *The History of a Powerful Paragraph: Section 13(3) Enacted Fed Business Loans 76 Years Ago*, Federal Reserve Bank of Minneapolis, The Region (June 2008) (online at www.minneapolisfed.org/publications_papers/pub_display.cfm?id=3485). The Federal Reserve used the § 13(3) power in 1991 to loan money to the FDIC’s Bank Insurance Fund as a stopgap measure until Congress could recapitalize the fund; the recapitalization legislation subsequently granted the Federal Reserve broader § 13(3) power to lend to distressed securities firms and other financial institutions. *Id.* The Federal Reserve also used this authority to facilitate the merger of Bear Stearns and JPMorgan Chase. *Id.* See also David Fettig, *Lender of More Than Last Resort: Recalling Section 13(b) and the Years When the Federal Reserve Banks Opened Their Discount Windows to District Businesses in Times of Economic Stress*, Federal Reserve Bank of Minneapolis, The Region (Dec. 2002) (online at www.minneapolisfed.org/publications_papers/pub_display.cfm?id=3392).

⁷⁴ Fed Balance Sheet April 2, *supra* note 33.

Commercial Paper Funding Facility, the loan to Maiden Lane LLC to facilitate the acquisition of Bear Stearns by JPMorgan Chase, and the lending facilities and Maiden Lane II and III facilities established for AIG.

In addition, the Federal Reserve Board will initially offer up to \$200 billion in loans to participants and is open to expanding the program to up to \$1 trillion.⁷⁵ Assuming Treasury funds its guarantees of TALF loans at \$55 billion,⁷⁶ one can expect the Federal Reserve to ultimately extend up to \$550 billion in loans.⁷⁷

Off balance sheet vehicles such as the Maiden Lane entities and the entities contemplated by PPIP raise a number of serious issues. These entities trigger concerns about transparency and accountability, financial structure, and risk associated with high levels of leverage.

c. FDIC Programs

The FDIC supports the government's financial stabilization efforts through the Temporary Liquidity Guarantee Program (TLGP) and the temporary increase in deposit insurance coverage to \$250,000 per account. Banks that fail are also put into receivership by the FDIC, leading to additional costs for the Deposit Insurance Fund (DIF). The TLGP guarantees newly issued senior unsecured debt for banks, thrifts, and certain holding companies. The program also provides full coverage of non-interest bearing deposit transaction accounts, regardless of amount. As of January 31, 2009, 65 financial institutions issued \$252.6 billion⁷⁸ in debt under the TLGP and paid \$4.5 billion in fees.⁷⁹

The FDIC advances two strategies for covering its increasing costs under these programs. First, it has increased deposit insurance premiums paid by banks. Under the increased premiums, higher-risk banks will pay higher rates. The FDIC has also proposed a special one-

⁷⁵ U.S. Department of the Treasury, *U.S. Treasury and Federal Reserve Board Announce Launch of Term Asset-Backed Securities Loan Facility (TALF)* (Mar. 3, 2009) (online at treas.gov/press/releases/tg45.htm).

⁷⁶ March GAO Report, *supra* note 34; Michael R. Crittenden, *Treasury Seeks to Free Up Funds by Shuffling Spending in TARP*, Wall Street Journal (Apr. 2, 2009) (online at online.wsj.com/article/SB123870719693083971.html) (setting Treasury commitment to TALF at \$55 billion, which represents a reduction from the \$100 billion Treasury initially committed to an expanded TALF).

⁷⁷ See Figure 1, *supra*, and accompanying notes.

⁷⁸ Federal Deposit Insurance Corporation, *Monthly Reports on Debt Issuance Under the Temporary Liquidity Guarantee Program: Debt Issuance under Guarantee Program* (online at www.fdic.gov/regulations/resources/TLGP/total_issuance1-09.html) (accessed Apr. 2, 2009).

⁷⁹ Federal Deposit Insurance Corporation, *Monthly Reports on Debt Issuance Under the Temporary Liquidity Guarantee Program: Fees Assessed Under TLGP Debt Program* (online at www.fdic.gov/regulations/resources/TLGP/fees.html) (accessed Apr. 2, 2009).

time flat-rate assessment to be paid by banks this year.⁸⁰ Second, it has requested increased borrowing authority. Under present law, the FDIC's borrowing from Treasury is limited to \$30 billion.⁸¹ This limit has not changed since 1991.⁸² A bill currently before the Senate would increase the FDIC's borrowing authority to \$100 billion.⁸³ The bill also allows temporary increases above that amount, to a maximum of \$500 billion.⁸⁴ Also, because of the large number and dollar amount of recent bank failures, the Fund's reserve ratio had fallen below the statutory minimum.⁸⁵ The FDIC has extended the period of time within which it intends to return to the statutorily mandated reserve ratio.⁸⁶

4. Measures of Success

In its December report, the Panel asked Treasury "Is the Strategy Working to Stabilize Markets? What specific metrics can Treasury cite to show the effects of the \$250B spent thus far on the financial markets, on credit availability, or, most importantly, on the economy? Have Treasury's actions increased lending and unfrozen the credit markets or simply bolstered the banks' books? How does Treasury expect to achieve the goal of price discovery for impaired assets? Why does Treasury believe that providing capital to all viable banks, regardless of business profile, is the most efficient use of funds?"⁸⁷

In its response to the Panel, Treasury identified two metrics: (1) the average credit default swap spread for the eight largest U.S. banks; and (2) the spread between the London Interbank Offered Rate (LIBOR) and Overnight Index Swap rates (OIS).⁸⁸ According to Treasury, these measures' retreat from the historic levels they reached in the fall of 2008 demonstrates that the

⁸⁰ Senate Subcommittee on Financial Institutions, Committee on Banking, Housing and Urban Affairs, Testimony of Arthur J. Murton, Director, Division of Insurance and Research, Federal Deposit Insurance Corporation, *Current Issues in Deposit Insurance*, 111th Cong. (March 19, 2009) (online at www.fdic.gov/news/news/speeches/chairman/spmar1909_2.html) (hereinafter "Murton Testimony").

⁸¹ 12 U.S.C. § 1824(a) (2009).

⁸² Murton Testimony, *supra* note 80.

⁸³ Depositor Protection Act of 2009, S. 541.

⁸⁴ *Id.*

⁸⁵ Murton Testimony, *supra* note 80.

⁸⁶ Murton Testimony, *supra* note 80.

⁸⁷ Panel December Oversight Report, *supra* note 4, at 4.

⁸⁸ Panel January Oversight Report, *supra* note 5, at 9. Of course, credit default swap spreads for additional banks and other financial institutions may also provide insight into the effectiveness of the government's program, but Treasury specifically limited its December response to the eight largest institutions. Treasury December Response to Panel, *supra* note 7, at 5.

government's programs stemmed a series of financial institution failures and made the financial system fundamentally more stable than it was when Congress passed EESA.⁸⁹

As the Panel noted in its January report, measuring the success of the government's programs is more complicated. The metrics Treasury identified offer only a partial view of the effect that TARP expenditures have had on stabilizing the economy and accomplishing the goals set forth in the EESA.⁹⁰ Of course, it is impossible to assess how well credit markets and the broader economy would have fared absent intervention, just as it is impossible to determine if markets responded to specific programs or merely the implicit guarantee inherent in the responses of Treasury, the Federal Reserve Board, and others in government.⁹¹ Nevertheless, the Panel's review of a broader set of measures reveals a much more nuanced picture of the government strategy's impact on the economy.

Finally, these metrics reflect the shifting nature of the challenge facing the United States and the world economy. We have moved from an acute crisis of confidence in the financial markets and financial institutions as a whole to an apparently prolonged period of weakness in financial institutions and in the credit structures that directly support the real economy. So instead of the LIBOR spread being impossibly high, we see the repeated return of institutions like Citigroup and Bank of America for further capital injections, as well as rising overall corporate bond spreads.

a. Improving Metrics (Good Signs)

The programs initiated by Treasury, alongside those of the Federal Reserve Board and FDIC, merit praise for their ability to revive short-term credit markets that many perceived as in paralysis during the fall of 2008.⁹² By a number of measures, the terms on which capital is available have returned to non-crisis levels, and markets no longer regard the imminent collapse of many institutions as a real possibility. However, the volatility and upward trends in these measures indicate that credit markets still have questions about the health of financial institutions. As such, although Treasury is right to say that the panic atmosphere of October

⁸⁹ Treasury December Response to Panel, *supra* note 7, at 5.

⁹⁰ Panel January Oversight Report, *supra* note 5, at 9-10.

⁹¹ The Panel also notes with appropriate caution the difficulty of disaggregating the economic effects of TARP from the effect of other government responses, including Federal Reserve lending and monetary policy, other Treasury actions, and fiscal stimulus, as well as nongovernment market pressures. Nevertheless, identifying and monitoring measures of success represents a crucial task for those charged with making policy as well as those charged with overseeing policy.

⁹² V.V. Chari, Lawrence Christiano, and Patrick J. Kehoe, *Facts and Myths about the Financial Crisis of 2008* (Oct. 2008) (Federal Reserve Bank of Minneapolis Research Department Working Paper No. 666) (online at www.minneapolisfed.org/research/WP/WP666.pdf) (hereinafter "Minneapolis Fed Paper"). The Minneapolis Fed Paper found little empirical evidence of paralyzed credit markets during the height of the perceived crisis in September and October 2008. *Id.* at 1-3, 11.

2008 has subsided, interbank credit market indicators still reflect continued uncertainty and remain well above what had previously been very long-term stable levels.

- **Credit Default Swap Spreads.** Higher spreads on credit default swaps indicate a willingness to pay more for insurance against default, so a higher spread on an institution's credit default swap means that investors think it is more likely to default on its obligations. Treasury and the Financial Stability Oversight Board (FinSOB) have indicated that falling spreads on the credit default swaps of major financial institutions reflect the perception of a more stable financial sector in which investors are less fearful of such institutions collapsing.⁹³ However, although these spreads have narrowed, they remain volatile.⁹⁴
- **LIBOR – OIS Spread.** Again, both Treasury and the FinSOB have cited the peak of the spread between three-month LIBOR, a measure of quarterly borrowing costs, over OIS, a measure of exceedingly short-term borrowing costs, as an appropriate metric for evaluating the success of Treasury's efforts on the broader economy.⁹⁵ This figure peaked on October 10, 2008, the day before Treasury announced the CPP, and has substantially declined since. The Financial Stability Oversight Board indicated that this measure also indicates calmer markets that are less fearful of major institution failures. The 1-month LIBOR-OIS spread is below where it stood for most of 2008, and the 3-month LIBOR-OIS spread is only slightly above it.⁹⁶ However, both figures are trending upwards in 2009 and remain well above levels that had been stable until late 2007.

⁹³ Financial Stability Oversight Board, *First Quarterly Report to Congress Pursuant to Section 104(g) of the Emergency Economic Stabilization Act of 2008*, at 24-25 (Jan. 16, 2009) (hereinafter "FinSOB January Report").

⁹⁴ *Id.* at 25. For example, credit default swap spreads on Merrill Lynch increased more than 100 basis points after Bank of America CEO Ken Lewis made a comment seemingly endorsing separation of commercial and investment banking; he later clarified the statement to indicate no such endorsement. Andrew Edwards, *Credit Markets: The Rally That Was*, Wall Street Journal (Mar. 27, 2009) (online at online.wsj.com/article/BT-CO-20090327-714105.html); Lizzie O'Leary and Christine Harper, *Bank of America CEO Says He Doesn't Want Banks Split*, Bloomberg (Mar. 27, 2009) (online at www.bloomberg.com/apps/news?pid=20601087&sid=aK_S8qNC2wZo).

⁹⁵ FinSOB January Report, *supra* note 93, at 24.

⁹⁶ Bloomberg, *3 Mo LIBOR – OIS Spread* (online at www.bloomberg.com/apps/quote?ticker=.LOIS3:IND) (accessed Apr. 3, 2009); Bloomberg, *1 Mo LIBOR – OIS Spread* (online at www.bloomberg.com/apps/quote?ticker=.LOIS1:IND) (accessed Apr. 3, 2009).

Figure 2: 3-year LIBOR/OIS Trend⁹⁷



- **TED Spread.** The GAO highlights the TED spread, the difference between a LIBOR average and the interest rate on U.S. Treasuries of the same term, as a credit risk indicator: the higher the spread, the greater the perceived risk and the tighter the credit market.⁹⁸ The TED spread hit its peak in October 2008 but has since declined to a level near the low for 2008, which was a year of great volatility in the spread.⁹⁹

b. Worsening Metrics (Bad Signs)

Despite several measures that indicate that the government's responses to the financial crisis relieved a panic atmosphere in October 2008, other measures indicate that there is an ongoing credit crisis despite extensive expenditures, loans, guarantees, and regulatory forbearance. Credit has become more expensive for both businesses and individuals, and loan

⁹⁷ *Id.*

⁹⁸ Government Accountability Office, *Troubled Asset Relief Program: Status of Efforts to Address Transparency and Accountability Issues*, at 64 (Jan. 30, 2009) (GAO/09-296) (hereinafter "January GAO Report").

⁹⁹ Bloomberg, *TED Spread* (online at www.bloomberg.com/apps/quote?ticker=.TEDSP:IND) (accessed Apr. 2, 2009).

value and volume has declined substantially. Although some contraction of borrowing naturally occurs during economic downturns, the current credit situation continues to inhibit recovery.

- **Mortgage Foreclosures / Defaults / Delinquencies.** Foreclosure rates represent a key indicator of economic health as well as a barometer for the success of TARP efforts at meeting their statutory mandate of mitigating foreclosures. As measured by foreclosure initiations or completions, either as a rate or absolutely, or by delinquent mortgages, this problem continues to worsen.¹⁰⁰
- **Corporate Bond Spreads.** Both GAO and FinSOB monitor the spread between corporate bonds of varying risk characteristics and U.S. Treasuries of the same term.¹⁰¹ These spreads have widened following the implementation of the TARP, narrowed during January and February, but are again widening.¹⁰² As GAO noted, the systematic underpricing of risk in corporate bonds leading up to the financial crisis may account for some of the widening of such spreads.¹⁰³ Furthermore, declining yields on Treasuries may also artificially increase the spread. However, given that this spread continued to increase during March,¹⁰⁴ the widening would appear to indicate that medium- and long-term corporate credit is harder to come by and requires borrowing on less favorable terms.
- **Housing Prices.** Although largely inflated due to the boom period preceding the crisis, home values illustrate part of the picture of dire economic circumstances. Nationally, housing prices have fallen by 29.1 percent since peaking in the second quarter of 2006.¹⁰⁵ The S&P/Case-Shiller Composite 20 index showed a decline of 28.5 percent in

¹⁰⁰ See Panel March Oversight Report, *supra* note 2. See also RealtyTrac, *Foreclosure Activity Increases 81 Percent in 2008* (Jan. 15, 2009) (online at www.realtytrac.com/ContentManagement/pressrelease.aspx?ChannelID=9&ItemID=5681&acct=64847); January GAO Report, *supra* note 98 at 71-73; FinSOB January Report, *supra* note 93, at 35-37.

¹⁰¹ January GAO Report, *supra* note 98, at 66; FinSOB January Report, *supra* note 93, at 26.

¹⁰² Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates: Historical Data* (Instrument: Corporate Bonds/Moody's Seasoned AAA, Frequency: Weekly) (online at www.federalreserve.gov/releases/h15/data/Weekly_Friday_/H15_AAA_NA.txt) (accessed Apr. 2, 2009) (hereinafter "Fed H.15 a"); Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates: Historical Data* (Instrument: Corporate Bonds/Moody's Seasoned BAA, Frequency: Weekly) (online at www.federalreserve.gov/releases/h15/data/Weekly_Friday_/H15_BAA_NA.txt) (accessed Apr. 2, 2009) (hereinafter "Fed H.15 b"); Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates: Historical Data* (Instrument: U.S. Government Securities/Treasury Constant Maturities/Nominal, Frequency: Weekly) (online at www.federalreserve.gov/releases/h15/data/Weekly_Friday_/H15_TCMNOM_Y10.txt) (accessed Apr. 2, 2009) (hereinafter "Fed H.15 c").

¹⁰³ January GAO Report, *supra* note 98, at 66.

¹⁰⁴ Fed H.15 a, *supra* note 102; Fed H.15 b, *supra* note 102; Fed H.15c, *supra* note 102.

¹⁰⁵ Case-Shiller Press Release, *supra* note 22.

January 2009 from its peak in May 2006.¹⁰⁶ Although some of the drop in real estate value reflects a retreat from unsustainable bubble levels, the continued drop in housing prices is a leading contributor to bank asset write downs, recent declines in household net worth, and the weakening broader economy.¹⁰⁷

- **Commercial Real Estate Commitments.** Like housing prices and mortgage measures, commercial real estate commitments illustrate the health of the commercial real estate sector. The Treasury Monthly Snapshot tracks this figure for the institutions it monitors. It recently reported a decrease in both renewals and new commitments, in contrast to rising renewal rates at the end of 2008.¹⁰⁸
- **Commercial Paper Outstanding.** Commercial paper outstanding, a rough measure of short-term business debt, represents another indicator of the availability of credit for enterprises.¹⁰⁹ Financial and asset backed commercial paper dipped to extreme lows in mid-October, largely recovered as of December 31, plunged again during February 2009, and recovered slightly during March.¹¹⁰ Nonfinancial commercial paper levels, largely stable until the end of February, were off more than 10 percent during March.¹¹¹
- **Security Repurchase Agreements.** Like commercial paper, the volume of security repurchase agreements represents another measure of the availability of short-term credit for businesses. As measured by both assets and liabilities, total dollar volume dropped precipitously in Q4 2008.¹¹²
- **Household / Business Debt Growth.** The FinSOB noted that slowing growth of household and business debt has historically represented economic weakness.¹¹³ It

¹⁰⁶ Case-Shiller Indices, *supra* note 21.

¹⁰⁷ Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release Z.1: Flow of Funds Accounts of the United States, Flows and Outstandings Fourth Quarter 2008*, at 105 (Mar. 12, 2009) (R.100 Change in Net Worth of Households and Nonprofit Organizations).

¹⁰⁸ U.S. Department of the Treasury, *Treasury Department January Monthly Lending And Intermediation Snapshot* (Mar. 16, 2009) (hereinafter “January Treasury Snapshot”); U.S. Department of the Treasury, *Treasury Department Monthly Lending and Intermediation Snapshot: Summary Analysis for October-December 2008*, at 3 (Feb. 18, 2009) (hereinafter “2008 Treasury Snapshot”).

¹⁰⁹ FinSOB January Report, *supra* note 93, at 27.

¹¹⁰ Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release: Commercial Paper Outstanding* (online at www.federalreserve.gov/releases/cp/outstandings.htm) (accessed Apr. 3, 2009).

¹¹¹ *Id.*

¹¹² Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release Z.1: Flow of Funds Accounts of the United States, Flows and Outstandings Fourth Quarter 2008*, at 41 (Mar. 12, 2009) (F.207 Federal Funds and Security Repurchase Agreements).

¹¹³ FinSOB January Report, *supra* note 93, at 29-30.

reported substantial deceleration in debt growth between the last quarter of 2008 and the comparable period in 2007. This trend reflects the tightening of credit markets during the crisis.

- **Overall Loan Originations.** The total volume of overall loan originations represents one key measure of the availability of credit. Treasury's Monthly Snapshot report tracks this indicator for twenty of the largest CPP recipients, who collectively represent about 90 percent of the deposits in the banking system. In its most recent report, Treasury cited rising consumer lending, especially in mortgages and student loans; however, seasonal changes in student loan demand and increased refinancing demand largely explain this increase.¹¹⁴ Commercial and industrial lending both fell considerably.¹¹⁵ The combination indicates that credit markets remain tight, especially in the business sector.
- **Overall Loan Balances.** Similarly, the overall volume of loan balances represents an important credit indicator. Treasury's Monthly Snapshot report also tracks this measure for the same set of CPP recipients. Both residential and corporate loan balances dropped for the institutions Treasury monitors monthly, indicating that banks' loan portfolios are shrinking across the board as what new lending does take place fails to replace loans coming off the books or defaulting.¹¹⁶
- **Mortgage Rate Spread.** Mortgage rates represent an obvious metric to determine the terms of credit available to qualified homebuyers, and the spread between such rates and comparable Treasuries indicates the risk premium associated with lending to homeowners versus lending to the federal government. GAO has reported that movement in this measure is associated more with the Federal Reserve Board's decision to purchase mortgage-backed securities rather than with any TARP-related actions.¹¹⁷ The spread between conventional 30-year conforming mortgages and 10-year Treasuries peaked in December 2008; although it has since narrowed slightly, it is still well above historic levels.¹¹⁸ The spread results from conventional mortgage rates, which hit their lowest point since 1971 in March, nonetheless lagging behind the drop in Treasury

¹¹⁴ January Treasury Snapshot, *supra* note 114; 2008 Treasury Snapshot, *supra* note 114, at 3.

¹¹⁵ January Treasury Snapshot, *supra* note 114; 2008 Treasury Snapshot, *supra* note 114, at 3.

¹¹⁶ January Treasury Snapshot, *supra* note 114; 2008 Treasury Snapshot, *supra* note 114, at 3. The increase in mortgage originations is not inconsistent with falling residential loan balances in light of the ongoing foreclosure crisis.

¹¹⁷ January GAO Report, *supra* note 98, at 67-68.

¹¹⁸ Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates (Weekly)* (online at www.federalreserve.gov/releases/h15/current/h15.htm) (accessed Apr. 2, 2009).

rates.¹¹⁹ As with corporate bond spreads, although some of the spread reflects a correction from underpricing of risk leading up to the crisis, it still reflects problematically tight credit markets.

- **Mortgage Originations.** Closely related to the risk premium associated with lending to homebuyers is the overall volume of such lending. A low risk premium coupled with low mortgage volume indicates substantial tightening of lending standards.¹²⁰ The GAO has indicated a substantial drop in this figure, both as measured by originations and applications, since the first quarter of 2008.

c. Indeterminate Metrics (Too Early to Tell)

Some measures of the health of both credit markets and the broader economy are difficult to evaluate as either improving or worsening, either because they are too volatile or because they are contradictory depending on how one examines them.

- **Spreads on Overnight Commercial Paper.** Like the amount outstanding on commercial paper, the yield associated with it as compared to the yield of other modes of short term borrowing constitutes another short-term commercial credit indicator. The FinSOB tracks this figure relative to the AA nonfinancial commercial paper rate. The spread for asset-backed paper has come down dramatically, but the spread for lower-grade paper remains high.¹²¹ It is not immediately clear whether these developments indicate an appropriate response to underpricing of risk in the run-up to the financial crisis or an overcorrection that indicates excessively tight credit inhibiting economic recovery.
- **Credit Card Borrowing.** The total balance outstanding on credit cards and the total unused credit available on credit cards marks another indicator of the availability of liquidity to consumers and small businesses. The Treasury Monthly Snapshot tracks this data for its institutions. Overall for these institutions, credit card lending has changed little since the end of 2008.¹²² This measure may reflect increased household savings

¹¹⁹ Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates: Historical Data* (Instrument: Conventional Mortgages, Frequency: Weekly (Thursday)) (online at www.federalreserve.gov/releases/h15/data/Weekly_Thursday/H15_MORTG_NA.txt) (accessed Apr. 2, 2009); Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Release H.15: Selected Interest Rates: Historical Data* (Instrument: Conventional Mortgages, Frequency: Weekly (Friday)) (online at www.federalreserve.gov/releases/h15/data/Weekly_Friday/H15_MORTG_NA.txt) (accessed Apr. 2, 2009); Fed H.15c, *supra* note 102.

¹²⁰ January GAO Report, *supra* note 98, at 69-70.

¹²¹ FinSOB January Report, *supra* note 93, at 27.

¹²² January Treasury Snapshot, *supra* note 114; 2008 Treasury Snapshot, *supra* note 114, at 3.

rates and weakening consumer demand in response to the weakening economy, or it may indicate a lack of credit available on sufficiently favorable terms.

- **Perceptions of Lending Practices.** The Board of Governors of the Federal Reserve Board conducts quarterly surveys of senior bank loan officers' perceptions of their respective institution's lending practices. Although these surveys ask for subjective evaluations, tracking their evolution over time illustrates how bankers' personal views of the economy and credit markets have changed in response to market events. The Fed's most recent survey, in January 2009, shows that, while the number of lenders tightening loan standards has declined from its October 2008 peak, the number remains above its historical average.¹²³ Similarly, although the results indicate a small uptick in demand for loans and in willingness to make loans, the numbers still stand below their historical averages.¹²⁴

These measures indicate that, although credit markets no longer face an acute systemic crisis in confidence that threatens the functioning of the economy, the underlying financial crisis is far from over and appears to be taking root in the larger economy. Furthermore, Treasury has yet to identify the metrics by which they will measure the ultimate success of the programs they have implemented and are implementing, making it difficult to assess performance.

B. Historical Approaches and Lessons

This report seeks to examine issues of strategy associated with the federal government's use of the powers granted to it by the EESA. Part of that exercise must be to examine the experience of the United States and other countries that have faced similar financial crises in the modern era. In this section of this report, we will look at four major examples of public policy responses to financial crises: The Great Depression in the United States, the savings and loan collapse in the United States, the Swedish banking crisis of the early 1990s, and Japan's banking crisis associated with the "lost decade." In addition, we will briefly survey several lesser banking problems that have arisen in the United States since 1980.

1. The U.S. Depression of the 1930s and the Federal Response

The 1929 stock market crash, the ensuing collapse of production and wealth, and the continued volatility of the markets in the 1930s led consumers and businesses to reduce spending dramatically, caused extraordinarily high bankruptcy rates, and brought about the failure or

¹²³ Board of Governors of the Federal Reserve System, *The January 2009 Senior Loan Officer Opinion Survey on Bank Lending Practices*, at 8-11 (Feb. 2, 2009) (online at www.federalreserve.gov/boarddocs/SnLoanSurvey/200902/fullreport.pdf).

¹²⁴ *Id.*

disappearance of nearly half of all American financial institutions.¹²⁵ During the period between 1929 and 1933 alone, the number of banks in the U.S. declined by one-third, from 24,633 to 15,015, with three waves of crises – October 1930, March 1931, and January 1933 – rocking the financial system.¹²⁶

The causes of the Great Depression and the corresponding crisis in the U.S. financial system were complex and numerous, with the debate among economists and economic historians focusing primarily on the extent to which monetary versus nonmonetary factors influenced the onset and worsening of the Depression.¹²⁷ Nonetheless, there is a general consensus that the contractionary monetary policies that the Federal Reserve Board pursued at the time were a significant contributing factor to the banking crisis of the early 1930s.¹²⁸ These monetary policies were a response to the return to the gold standard on the part of numerous countries during the 1920s, which led to a shrinking of the world's money supply, as central banks around the world scrambled to hoard gold.¹²⁹ The U.S. government's insistence on maintaining the gold standard, coupled with the contractionary actions taken by the Federal Reserve Board, spurred dramatic deflation, with prices of goods falling approximately 25 percent between 1929 and 1933.¹³⁰ The resultant debt deflation, a phenomenon by which the collateral underlying loans shrinks in value, causing the real burden of debt to rise, led the economy to spiral further downward, with consumers and businesses across the country oftentimes owing more than the collateral itself was worth, much as we have seen in recent months with a significant proportion of U.S. households owing more on their mortgages than their homes are worth.¹³¹ Further, high real rates of interest reduced consumption and investment throughout the economy.¹³²

In a parallel that makes the Great Depression quite relevant to the current crisis, many

¹²⁵ Christina D. Romer, *The Great Crash and the Onset of the Great Depression*, at ii (June 1988) (National Bureau of Economic Research Working Paper No. 2639) (online at papers.ssrn.com/sol3/papers.cfm?abstract_id=262094).

¹²⁶ Randall Kroszner, *The Political-Economy of the Reconstruction Finance Corporation's Bail-Out of the U.S. Banking System during the Great Depression* (Apr. 1994) (University of Chicago Working Paper).

¹²⁷ Ben S. Bernanke, *Essays on the Great Depression*, at 7 (2000).

¹²⁸ Christina Romer, *Prepared Remarks to be Presented at the Brookings Institution, Washington, DC: Lessons from the Great Depression for Economic Recovery in 2009*, at 5 (Mar. 9, 2009) (hereinafter "Romer Brookings Remarks"); Charles Calomiris and Joseph Mason, *How to Restructure Failed Banking Systems: Lessons from the U.S. in the 1930s and Japan in the 1990s*, at 17 (Apr. 2003) (National Bureau of Economic Research Working Paper No. 9624); Bernanke *supra* note 127.

¹²⁹ Calomiris and Mason, *supra* note 128, at 17.

¹³⁰ Romer Brookings Remarks, *supra* note 128, at 6.

¹³¹ Calomiris and Mason, *supra* note 128, at 17; *Irving Fisher: Out of Keynes's Shadow*, *The Economist* (Feb. 12, 2009).

¹³² Congressional Oversight Panel, Testimony of Eugene White, *Learning from the Past – Lessons from the Banking Crises of the 20th Century*, at 3 (Mar. 19, 2009) (hereinafter "White Panel Testimony").

economists also cite the collapse of the real estate bubble in the second half of the 1920s as a major contributing factor to the stock market crash, the collapse of the banks, and the Great Depression.¹³³ Existing problems in the housing market were amplified by the debt deflation of 1929-1933, which increased the real value of repaying mortgage loans, and rising unemployment rates and falling incomes, which made it increasingly difficult for homeowners to repay their debts.¹³⁴ Borrowers were unable to make their payments, the value of banks' securities fell, many banks were unable to meet the needs of their depositors, and a lack of confidence in the remaining banks led to a general state of panic. The fact that consumer bank deposits were not insured at this time further contributed to the sense of uncertainty that pervaded the country, leading to historic levels of bank runs and magnifying the effects of those runs.¹³⁵

In an initial effort to prevent banks from failing, President Hoover and Treasury Secretary Andrew Mellon organized a conference in the fall of 1931, at which prominent bankers agreed to form a private lending institution, the National Credit Corporation (NCC). The NCC was designed to serve as a supplement to the Federal Reserve Board by making loans to banks struggling to meet their obligations that did not have sufficient "eligible" securities to serve as collateral receive loans from the Fed.¹³⁶ While this effort did lead to a short-term boost in confidence, by late 1931, it was clear to President Hoover that the NCC would be insufficient. In response, Hoover submitted a bill to Congress on December 7, 1931, that would create the Reconstruction Finance Corporation (RFC) to make loans to banks (as well as to railroads and state and local governments) and relax the collateral requirements for borrowing from the Fed.

From its establishment in February 1932 until March 1933, the RFC was not authorized to make capital investments in troubled banks but rather provided support in the form of fully secured, short-term loans.¹³⁷ By the end of 1932, the RFC had authorized approximately \$1.6 billion in loans, nearly \$1.3 billion of which was provided in loans to banks.¹³⁸ However, the

¹³³ Robert J. Shiller, *The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do About It*, at 14 (2008).

¹³⁴ White Panel Testimony, *supra* note 132, at 8.

¹³⁵ The debate over the creation of the FDIC was quite contentious. For years prior to the onset of the Great Depression, there was little support for nationwide deposit insurance, due in large part to lessons learned from prior failures of state-based deposit insurance systems, as well as concerns about moral hazard. However, in the aftermath of the calamitous bank runs of the early 1930s, proponents of Federal deposit insurance were able to pass a measure temporarily instituting a government deposit insurance program as part of the Banking Act of 1933 (the Glass-Steagall Act). The system was made permanent in 1935. Eugene N. White, *Deposit Insurance*, in Gerard Caprio, Jr. and Dimitri Vitas, *Reforming Financial Systems: Historical Implications for Policy*, at 90-93 (1997).

¹³⁶ Kroszner, *supra* note 126, at 3.

¹³⁷ William Keeton, *The Reconstruction Finance Corporation: Would It Work Today?* Economic Review, at 38 (First Quarter 1992).

¹³⁸ James S. Olson, *Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1933-1940*, at 23 (1988).

shortcomings of this approach quickly became clear, as these secured loans represented a senior claim on bank assets relative to depositors, effectively worsening the default risk faced by junior depositors and providing little help to unhealthy banks.¹³⁹ Indeed, some scholars have contended that receiving a loan from the RFC may have actually increased the probability of bank failure (controlling for exogenous differences among banks).¹⁴⁰ A complicating factor was that the names of banks receiving funds from the RFC often became public, which, in turn, led to a further drop in confidence in those banks. According to Jesse Jones, the Texas banker who became the Chairman of the RFC under Roosevelt, “[i]t became increasingly evident to us that loans were not an adequate medicine to fight the epidemic. What the ailing banks required was a stronger capital structure.”¹⁴¹ The matter of determining whether liquidity or solvency represented the principal problem for struggling financial institutions and of using that determination to guide policy choices is one with distinct relevance to the current crisis.

While President Hoover was hesitant to institute stronger programs, President Roosevelt took swift action upon becoming president in March 1933, instituting a nation-wide bank holiday on March 3 and signing into law the Emergency Banking Act on March 9. This Act legalized the banking holiday, authorized the RFC to make preferred stock investments in financial institutions, instituted procedures for reopening sound banks and resolving insolvent banks, and further broadened the range of assets that would be acceptable to the Fed.¹⁴² Critical to restoring confidence in the banking system was ensuring that only banks liquid enough to do business were re-opened when the banking holiday was lifted. Therefore, banks were separated into three categories, based on an independent valuation of assets conducted by teams of bank examiners from the RFC, Federal Reserve Banks, Treasury, and the Comptroller of the Currency: (1) banks whose capital structures were unimpaired, which received licenses and re-opened when the holiday was lifted; (2) banks with impaired capital but with assets valuable enough to re-pay depositors, which remained closed until they could receive assistance from the RFC; and (3) banks whose assets were incapable of a full return to depositors and creditors, which were placed in the hands of conservators who could either reorganize them with RFC assistance or liquidate them.¹⁴³

The banks that did not initially receive licenses to re-open were further scrutinized in order to determine if they could re-open at a later date without reorganization and without major assistance from the RFC, if they could re-open only after receiving significant aid from the RFC

¹³⁹ Calomiris and Mason, *supra* note 128, at 20.

¹⁴⁰ Calomiris and Mason, *supra* note 128, at 21.

¹⁴¹ Kroszner, *supra* note 126, at 4.

¹⁴² Keeton, *supra* note 137, at 38.

¹⁴³ Olson *supra* note 138, at 64.

and possibly being reorganized, or if they had to be liquidated.¹⁴⁴ It is important to note that financial institutions that were allowed to re-open were nonetheless encouraged to participate in the government preferred stock program, in order to strengthen their capital position and to allow them to expand commercial credit.¹⁴⁵ However, these banks were slow to participate in the preferred stock program, due in large part to the stringent conditions that were placed on banks that sold preferred stock to the government, including the provision that granted the government voting rights and the ability to elect directors in proportion to its stock ownership.¹⁴⁶ Bankers also worried that news of the banks' receipt of government aid would become public, worsening their solvency and liquidity problems rather than helping to cure them.

In June 1933, Congress passed the Banking Act of 1933, which established the FDIC and restricted initial participation to solvent banks upon FDIC's January 1, 1934 launch.¹⁴⁷ Since many banks that had been allowed to re-open following the bank holiday were still in a precarious financial position, fears that they would be rejected from the FDIC, destroying market confidence in their institutions and leading to bank runs, coupled with cajoling on the part of RFC and administration officials likewise concerned that banks being rejected from the FDIC would worsen the crisis, led banks to begin applying at a much higher rate for the RFC preferred stock program. Ultimately, the RFC invested roughly \$1.7 billion in 6,104 banks through its preferred stock program.¹⁴⁸ At one point in 1933, the RFC held capital in more than 40 percent of all banks, representing one-third of total bank capital according to some estimates.¹⁴⁹

In exchange for this government support, the RFC exercised its control of the banks by replacing senior management at some banks and forcing a change in business practices when it determined that changes were needed.¹⁵⁰ The RFC also used its power to negotiate and reduce the salaries of bank managers and executives.¹⁵¹ The RFC preferred stock had a senior claim on bank earnings and common stock dividend payments were strictly limited to a specified maximum until the government investment was repaid, with any remaining earnings going

¹⁴⁴ Olson *supra* note 138, at 70.

¹⁴⁵ Olson *supra* note 138, at 82.

¹⁴⁶ Kroszner, *supra* note 126, at 5.

¹⁴⁷ The Banking Act of 1933 established the FDIC as a temporary government agency and insured up to \$2,500. The Banking Act of 1935 ultimately made the FDIC permanent and insured commercial deposits up to \$5,000.

¹⁴⁸ Jesse Jones, *Fifty Billion Dollars*, at 25-26 (1951).

¹⁴⁹ Federal Reserve Bank of Kansas City, *Speech by President Thomas Hoenig: Too Big Has Failed* (Mar. 6, 2009) (online at www.kc.frb.org/speechbio/hoenigPDF/Omaha.03.06.09.pdf).

¹⁵⁰ Calomiris and Mason, *supra* note 128, at 23.

¹⁵¹ Walker F. Todd, *History of and Rationales for the Reconstruction Finance Corporation*, Federal Reserve Bank of Cleveland Economic Review, at 26 (Fourth Quarter 1992).

towards a preferred stock retirement fund.¹⁵² In fact, the RFC reserved the right to take virtually complete control of any bank that missed dividend payments on the preferred stock (payments that amounted to 6 percent initially but that were later reduced to 4 percent or as low as 3.5 percent).¹⁵³ However, the goal of these government takeovers was to steer the banks back toward profitability – not to maintain long-term government control. As RFC head Jesse Jones noted at the time, he had “no desire to control or manage the banks;” rather, he simply sought to protect the government’s (and, consequently, the taxpayer’s) investment as best as he could.¹⁵⁴

While there were relapses and the Great Depression persisted for some time, it is generally agreed that the RFC played a major role in helping to restore the health of the American banking system.¹⁵⁵ The key steps it followed in resolving failing banks are often cited as the model for dealing with such situations: (1) write down a bank’s bad assets to realistic economic values; (2) judge the character and capacity of bank management and make any needed and appropriate changes; (3) inject equity in the form of preferred stock (but, critically, not until the write-downs have taken place); and (4) receive the dividends and eventually recover the par value of the stock as the bank returns to profitability and full private ownership.¹⁵⁶

It should be noted that the RFC valued banks’ assets varied over the life of the RFC. At the outset, RFC examiners evaluated assets at their fair market value, using this determination to guide them in deciding if an institution was viable, if it could re-open with RFC investment, or if it needed to be liquidated; however, toward the end of 1933, the RFC changed its valuation standards for the purposes of the preferred stock program, giving book value to the highest grade bonds, market value for bonds in default, face value for assets that were fundamentally sound but that could not be converted immediately into cash, and a reasonable valuation for doubtful assets, often including assets derived from real estate.¹⁵⁷ How such a “reasonable valuation” for the banks’ “doubtful” or bad assets was made, however, is not well documented but appears to have relied heavily upon the experience and judgment of federal and state bank examiners. Consequently, scholars have noted that the underlying assumptions with regard to future market conditions that guided the RFCs’ valuations and decisions on banks’ solvency “were (and still are) difficult or impossible to quantify.”¹⁵⁸

¹⁵² Calomiris and Mason, *supra* note 128, at 23.

¹⁵³ Joseph R. Mason, *Reconstruction Finance Corporation Assistance to Financial Intermediaries and Commercial & Industrial Enterprise in the U.S., 1932-1937*, at 20 (Jan. 17, 2000) (online at papers.ssrn.com/sol3/papers.cfm?abstract_id=1337171).

¹⁵⁴ Olson, *supra* note 138, at 125.

¹⁵⁵ Keeton, *supra* note 137, at 47.

¹⁵⁶ Hoenig, *supra* note 149.

¹⁵⁷ Olson, *supra* note 138, at 80.

¹⁵⁸ Mason, *supra* note 153, at 1.

Among the major reasons cited for the relative success of the RFC were that: (1) it required banks to submit their regulatory examinations for inspection and rejected hopelessly insolvent banks; (2) the RFC was a separately capitalized institution with financial and political independence to make decisions as it deemed them necessary; and (3) restrictions on recipients of RFC assistance reduced moral hazard and ensured that banks would not take advantage of the program. Among these restrictions were the voting rights that the government gained, the influence the RFC had over personnel matters, and the seniority of RFC dividends to all other stock dividends.¹⁵⁹

Nonetheless, whether measured by the number of banks that failed, the losses suffered by bank investors and depositors, or the extent to which credit contracted, the Great Depression was the most significant crisis in the U.S. banking system at the time it occurred, and it remains a key point of reference for assessing the severity of the current crisis.¹⁶⁰ In this regard, it is important to emphasize that, while the RFC contributed to the stabilization of the financial system at a time of great crisis, it certainly did not prevent the failure of many financial institutions, nor did it necessarily preserve the deposits individuals had in these failed institutions in the pre-FDIC era. Indeed, considering that the RFC made a point not to invest in hopelessly insolvent banks and, likewise, the FDIC, when established in 1934, did not insure the deposits of insolvent banks, the result was that all stakeholders in failed banks – stockholders, bondholders, and depositors – shared in absorbing the losses.¹⁶¹ Equity in failed banks was wiped out and depositors and non-depository debt holders were paid on a *pro rata* basis as the liquidation of the assets of failed banks proceeded.¹⁶² Specifically, between 1930 and 1933, 10.7 percent of commercial banks in the U.S. failed outright, and, by 1933, debt and equity losses to private investors, bondholders, and depositors totaled \$2.5 billion (approximately 2.4 percent of GDP in 1933).¹⁶³

2. Continental Illinois

Following the banking reforms of the 1930s, including the institution of deposit insurance, the Glass-Steagall Act, and others, the financial sector entered into a long period of tranquility.¹⁶⁴ Bank failures slowed to a trickle as bank regulatory policy focused strongly on maintaining regulatory safe zones of the kind discussed in the Panel’s Regulatory Reform

¹⁵⁹ Calomiris and Mason, *supra* note 128, at 23.

¹⁶⁰ Calomiris and Mason, *supra* note 128, at 8.

¹⁶¹ White Panel Testimony, *supra* note 132, at 1.

¹⁶² Calomiris and Mason, *supra* note 128, at 16.

¹⁶³ White Panel Testimony, *supra* note 132, at 4; Keeton, *supra* note 137, at 38.

¹⁶⁴ Many sources have commented on this period. *See, e.g.*, David Moss, *An Ounce of Prevention: The Power of Sound Risk Management in Stabilizing the American Financial System* (2009) (Harvard Business School Working Paper 09-087) (online at www.hbs.edu/economic-crisis/docs/management-in-stabilizing-the-financial-system.pdf).

Report.¹⁶⁵ Moreover, when failure did happen, the automatic regulatory machinery worked as designed: either the regulators sold the bank successfully or they liquidated the institution, made good on deposit insurance promises, and wiped out the uninsured depositors and other creditors.

Occasionally, bank failures were resolved using the FDIC's "essentiality" authority, but, even then, these failures involved comparatively small investments. Into the 1970s, federal regulators wrung their hands over transactions as small as a \$1.5 million loan to save a troubled \$11 million institution.¹⁶⁶ However, until the 1980's, the federal government did not rescue any bank out of a fear that the institution's failure would pose systemic risk or that the firm was "too big to fail."¹⁶⁷ During the 1982 failure of Penn Square Bank, N.A., federal regulators explicitly chose to liquidate the bank rather than expend the funds necessary to protect some of the nation's largest banks, which had sizeable claims against Penn Square.¹⁶⁸

The bank run on Continental Illinois National Bank and Trust Company (Continental Illinois) was a watershed event that produced a major change in the federal government's response to a failing bank. Continental Illinois enjoyed high growth and the envy of its competitors throughout the late 1970s and early 1980s.¹⁶⁹ However, losses on non-performing loans concentrated in the energy sector and in less-developed-countries (LDC) soared from 1982 through the first quarter of 1984.¹⁷⁰ Continental Illinois had made many of these energy and LDC investments alongside or through Penn Square.¹⁷¹ Because of its substantial investments, Continental Illinois's troubles began with the Penn Square failure, which almost singlehandedly halved its stock price, prompted downgraded credit ratings, and caused its sources of capital to

¹⁶⁵ Congressional Oversight Panel, *Special Report on Regulatory Reform: Modernizing the American Financial Regulatory System: Recommendations for Improving Oversight, Protecting Consumers, and Ensuring Stability* (Jan. 29, 2009) (hereinafter "Panel Regulatory Reform Report").

¹⁶⁶ The FDIC authorized such expenditures under its "essentiality" authority granted in the Federal Deposit Insurance Act of 1950 (FDIA), Pub L. No. 81-797. A bank whose operations the FDIC deemed "essential to the community" could continue to operate with direct infusions of capital rather than being liquidated. FDIA at § 13(c). When the FDIC rescued institutions under this provision during the 1970s, it did so to avert unique problems rather than to stem systemic crises; the threat of urban riots hung over the rescue of minority-owned First Unity Bank of Boston, and a local municipal bond collapse looked imminent if Michigan's Bank of the Commonwealth failed. See Irvine H. Sprague, *Bailout: An Insider's Account of Bank Failures and Rescues*, at 35-76 (1986).

¹⁶⁷ Sprague, *supra* note 166, at 86-91. The rescue of First Pennsylvania Bank constitutes regulators' first recognition of what was then termed the "domino effect," the phenomenon of one bank failure causing trouble at other institutions and touching off a banking crisis. However, in First Pennsylvania's case, regulators feared at worst a regional crisis precipitated by the effect First Pennsylvania's failure would have on the already weak mutual savings banks concentrated in the Northeast. See Sprague, *supra* note 166, at 77-106.

¹⁶⁸ Federal Deposit Insurance Corporation, *History of the Eighties – Lessons for the Future: Volume I: An Examination of the Banking Crises of the 1980s and Early 1990s*, at 241 (Dec. 1997) (online at www.fdic.gov/bank/historical/history/vol1.html) (hereinafter "FDIC History: Volume I").

¹⁶⁹ See, e.g., *Banker of the Year*, *Euromoney*, at 134 (Oct. 1981); *Here Comes Continental*, *Dun's Review*, at 42-44 (1978) (Vol. 112, No. 6).

¹⁷⁰ Sprague, *supra* note 166, at 150-51.

¹⁷¹ Sprague, *supra* note 166, at 150-51.

dry up.¹⁷² Continental Illinois had to borrow on less and less favorable terms just to keep itself afloat.¹⁷³

In May 1984, Continental Illinois's situation became untenable and a potentially catastrophic bank run started.¹⁷⁴ In two days, the bank needed to borrow \$3.6 billion from the Federal Reserve Board's discount window in order to meet its obligations on deposit withdrawals.¹⁷⁵ The announcement of \$4.5 billion in loans from other banks did not stop the bleeding.¹⁷⁶

Regulators paid close attention to the run; more than two thousand banks had investments in Continental Illinois, and almost two hundred of them had more than half of their equity capital invested.¹⁷⁷ There was serious concern that the bank's failure could have left uninsured depositors and creditors exposed, causing many more failures in its wake and spawning a financial crisis.¹⁷⁸

As a result, in order to stave off a systemic crisis, federal regulators acted quickly by announcing \$2 billion in immediate assistance to stop the run.¹⁷⁹ Furthermore, the Federal Reserve Board promised to meet any liquidity needs, and the FDIC promised to protect all of Continental Illinois's depositors and general creditors.¹⁸⁰ Finally, a group of major financial institutions put up \$5.3 billion in unsecured credit.¹⁸¹ With these guarantees, the run stopped and the crisis subsided.

However, having already determined that a deposit payoff would result in a systemic crisis, the government needed to merge the bank with another institution or bail out the bank and reconstitute it with new leadership.¹⁸² Regardless of the outcome, Continental Illinois would

¹⁷² Sprague, *supra* note 166, at 150-51.

¹⁷³ Sprague, *supra* note 166, at 151-52.

¹⁷⁴ Sprague, *supra* note 166, at 152-56.

¹⁷⁵ FDIC History: Volume 1, *supra* note 168, at 243. The speed of the run both surprised and troubled regulators; it represented the first run of such scope on a modern, technologically interconnected bank. Sprague, *supra* note 166, at 152-56.

¹⁷⁶ FDIC History: Volume 1, *supra* note 168, at 243-44.

¹⁷⁷ FDIC History: Volume 1, *supra* note 168, at 250.

¹⁷⁸ A deposit payoff may not have been an option at all for Continental Illinois; after the fact, Comptroller of the Currency Todd Conover told Congress that the FDIC did not have the funds to conduct a deposit payoff for any one of the nation's eleven largest banks should any of them fail. FDIC History: Volume 1, *supra* note 168, at 251. Continental Illinois was the nation's seventh largest bank in 1984. FDIC History: Volume 1, *supra* note 168, at 236.

¹⁷⁹ Sprague, *supra* note 166, at 160.

¹⁸⁰ FDIC History: Volume 1, *supra* note 168, at 244.

¹⁸¹ FDIC History: Volume 1, *supra* note 168, at 244.

¹⁸² Sprague, *supra* note 166, at 165-67, 170.

have new managers; either the acquirers or an FDIC-selected team would operate the bank going forward.¹⁸³

After two months of searching for a merger partner and evaluating many proposals, no viable acquirer emerged.¹⁸⁴ As a result, the FDIC instituted a good-bank-bad-bank restructuring of Continental Illinois. The FDIC took responsibility for \$4.5 billion in bad loans at a price of \$3.5 billion, paid by assuming Continental's debt to the Federal Reserve Board.¹⁸⁵ The FDIC offset the \$1 billion write-off this transaction prompted with a \$1 billion investment into Continental Illinois's holding company, Continental Holding Corporation, and required the holding company to push the capital downstream to the bank.¹⁸⁶ In exchange for its investment, the FDIC received an 80 percent stake, composed of junior preferred stock, in the holding company.¹⁸⁷

The FDIC replaced top management, bringing in a new chairman, former Standard Oil of Indiana chairman John Swearingen, and a new CEO, former Chase CFO Bill Ogden.¹⁸⁸ The FDIC also dismissed members of Continental Illinois's board of directors who had come on before 1980 and had presided over the operations that got the bank in trouble.¹⁸⁹ The bank's remaining shareholders approved the plan in September 1984.¹⁹⁰ Although Continental Illinois did return to viability, it remained closely watched by regulators; FDIC did not sell its last equity stake until 1991.¹⁹¹

Continental Illinois was the first rescue of the entire creditor class of a financial institution since the Depression. However, the stockholders of Continental Illinois were diluted when, in exchange for FDIC support, the FDIC took an 80 percent equity stake in the bank. This stake granted FDIC most of the upside potential and control of the governance of Continental Illinois.

3. Savings and Loan Crisis/Resolution Trust Corporation

¹⁸³ Sprague, *supra* note 166, at 200-201.

¹⁸⁴ Sprague, *supra* note 166, at 180-81.

¹⁸⁵ Sprague, *supra* note 166, at 209-10.

¹⁸⁶ Sprague, *supra* note 166, at 209-10; FDIC History: Volume 1, *supra* note 168, at 244.

¹⁸⁷ Sprague, *supra* note 166, at 209-10; FDIC History: Volume 1, *supra* note 168, at 247-48. These terms bear many similarities to the government's present interest in AIG; Treasury does not have a similar equity stake in any of the over 500 recipients of TARP assistance.

¹⁸⁸ Sprague, *supra* note 166, at 200-209.

¹⁸⁹ Sprague, *supra* note 166, at 215-17.

¹⁹⁰ Sprague, *supra* note 166, at 214.

¹⁹¹ The Wharton School Financial Institutions Center, University of Pennsylvania, *The Collapse of Continental Illinois National Bank and Trust Company: The Implications for Risk Management and Regulation*, at 3 (online at fic.wharton.upenn.edu/fic/case%20studies/continental%20full.pdf) (accessed Apr. 2, 2009).

Unlike commercial banks, savings and loan associations (“S&Ls” or “thrifts”) faced increasingly difficult financial circumstances starting in the late 1960s. From the 1930s onward, thrifts made money by paying out on short-term deposits less than they collected on long-term loans, mostly 30-year fixed rate mortgages. As long as short term interest rates stayed low, this business model remained extremely profitable.¹⁹²

However, the U.S. economy started to overheat and the Federal Reserve Board raised short-term interest rates beginning in the late 1960’s to combat the resulting inflation. High short-term interest rates undermined the thrift business model by forcing the thrift to pay out more on short-term deposits than it collected on long-term fixed-rate loans. The Federal Reserve Board responded by imposing Regulation Q, a provision that capped the rate at which thrifts and banks could pay out interest on deposits.¹⁹³ Because the federal government insured S&L deposits through the Federal Savings and Loan Insurance Corporation (FSLIC, the thrifts’ equivalent of the commercial banks’ FDIC), the interest rate cap did not result in mass deposit defection to higher yielding, uninsured investments.¹⁹⁴

However, in the late 1970s the Federal Reserve Board took further action to combat inflation by sharply increasing short term interest rates.¹⁹⁵ As their customers accelerated their deposit withdrawals to pursue higher interest rates elsewhere through alternative investments, the thrifts clamored for the ability to pursue capital that fled to savings alternatives not affected by Regulation Q caps.¹⁹⁶ Congress eventually responded by allowing S&Ls to pay much higher rates on deposits.¹⁹⁷

While higher payouts stopped the problem of deposit flight, higher costs threatened to bleed the S&Ls to death unless they could find sources of income beyond the single-digit returns on traditional 30-year fixed rate mortgages. As a result, authorities began stripping away the regulations that had governed thrifts’ operations since the Great Depression. The Federal Home Loan Bank Board (FHLBB) permitted the thrifts to begin issuing adjustable rate mortgages in 1979.¹⁹⁸ Congress endorsed this diversification¹⁹⁹ and explicitly authorized further steps,

¹⁹² Barbara Rudolph et al., *Special Report: The Savings And Loan Crisis*, Time (Feb. 20, 1989). Savings and loan bankers were said to operate on the “3-6-3 rule”: they could pay out 3 percent on deposits, collect 6 percent on loans, and make it to the golf course by 3 every afternoon. *Id.*

¹⁹³ Lawrence J. White, *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation*, at 62-65 (1991).

¹⁹⁴ White, *supra* note 193, at 62-65.

¹⁹⁵ White, *supra* note 193, at 67-72.

¹⁹⁶ White, *supra* note 193, at 67-72.

¹⁹⁷ Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA), Pub. L. No. 96-221, at §§ 202-210.

¹⁹⁸ White, *supra* note 193, at 72-73.

¹⁹⁹ Federal Deposit Insurance Corporation, *The S&L Crisis: A Chrono-Bibliography* (online at www.fdic.gov/bank/historical/s&l/index.html) (accessed Apr. 2, 2009) (hereinafter “FDIC Bibliography”).

including greater involvement in consumer lending and commercial real estate.²⁰⁰ Simultaneously, many states dramatically relaxed the rules that governed the investments their state-chartered thrifts could make, allowing the thrifts to get directly involved in similarly unfamiliar, risky investments.²⁰¹

At the same time as thrift regulators began eliminating restrictions on the thrifts' asset options, the regulators also relaxed safety and soundness regulation.²⁰² Federal and state regulators stripped down the net worth requirements that S&Ls had to meet, allowing them to hold less and less capital to support the same amount in deposits.²⁰³ The new net worth guidelines permitted thrifts to substitute net worth certificates from the FSLIC for real capital in the regulator-mandated calculations.²⁰⁴ Changes in accounting rules made it even easier to meet the new lower net worth requirements.²⁰⁵ Finally, the FHLBB made it significantly easier for thrifts to expand through acquisitions by eliminating restrictive stock ownership regulations.²⁰⁶

At the same time that policymakers expanded thrifts' investment options, they subjected the thrifts to reduced examination and oversight; thrift examinations fell nationwide during the early 1980s.²⁰⁷ Examinations and FHLBB activity fell even further in the southwest, the region that would become the epicenter of the S&L crisis.²⁰⁸

The combination of the need for greater returns on loans and assets in order to cover the higher deposit interest rates and the new regulatory freedom to undertake a much wider range of investments led to dramatic expansion of the thrift industry. Economic conditions, especially booms in oil prices and real estate created an environment in which high-yield investments constantly tempted the thrifts.²⁰⁹ This expansion was concentrated in the Sun Belt and in those states with fewer regulatory restrictions.²¹⁰

²⁰⁰ DIDMCA at § 401, *See also* FDIC Bibliography, *supra* note 199.

²⁰¹ FDIC Bibliography, *supra* note 199.

²⁰² Many scholars have pointed to this failure as the critical moment that precipitated the S&L crisis. *See, e.g.,* White, *supra* note 193, at 74-82.

²⁰³ White, *supra* note 193, at 82-84.

²⁰⁴ White, *supra* note 193, at 83.

²⁰⁵ White, *supra* note 193, at 84-87.

²⁰⁶ FDIC Bibliography, *supra* note 199.

²⁰⁷ White, *supra* note 193, at 88-90.

²⁰⁸ White, *supra* note 193, at 89-90. The southwest here refers to the FHLBB's Ninth District, encompassing Arkansas, Louisiana, Mississippi, New Mexico, and Texas.

²⁰⁹ White, *supra* note 193, at 109-111; FDIC Bibliography, *supra* note 199.

²¹⁰ White, *supra* note 193, at 89-90.

However, as the 1980s wore on, the thrifts' fortunes started to change. Oil prices began declining to levels that made boom-time investments unprofitable.²¹¹ Further, Congress eliminated many of the tax benefits for real estate that had led to the building spurt of the early part of the decade.²¹² As a result, by 1985, it became clear that the thrift industry faced serious trouble. Enough S&Ls had folded or were in danger of folding that the FSLIC was insolvent.²¹³

Thrift failures increased during 1987 and into 1988, but the insolvency of the FSLIC meant that rescuing troubled thrifts would cost more than the FSLIC had available in its insurance fund. As a result, the regulators could not intervene in S&Ls that had more in liabilities than assets. This situation left hundreds of institutions in what came to be characterized as a "zombie" stage.²¹⁴ A zombie thrift, one which was insolvent but continued to operate because the FSLIC had not yet intervened to liquidate or sell it, posed a significant asymmetric risk problem. These thrifts had dramatic incentives to take on greater and greater risk in order to generate the returns they needed to reverse their fortunes. At the same time, they had little or no capital of their own left and faced the prospect of imminent closure.²¹⁵ Hence, the taxpayer bore tremendous exposure to the risks undertaken by these zombie institutions.²¹⁶ Thrifts continued to pursue risky strategies long after the need to take them over became apparent and this ultimately added to the total cleanup costs.

Although the FSLIC fund was almost \$10 billion underwater in 1985, when the scope of the crisis had still not become apparent, Congress waited until 1987 to pass the initial recapitalization legislation.²¹⁷ The new law permitted the FSLIC to borrow against its future deposit insurance premium revenue in order to resolve insolvent thrifts immediately.²¹⁸ However, it limited the funds the FSLIC could raise through this authority during any given year.²¹⁹ Nonetheless, the FSLIC began using its newfound borrowing authority to start disposing of the most problematic thrifts by liquidating or forcing them into mergers, paying out insured deposits, and trying to find new buyers for problematic assets. In these transactions, only the insured depositors had full protection. Bondholders and equity holders took losses that depended

²¹¹ White, *supra* note 193, at 111.

²¹² White, *supra* note 193, at 109-111.

²¹³ Timothy Curry and Lynn Shibus, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, FDIC Banking Review, at 27 (Dec. 2000) (online at www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf).

²¹⁴ James R. Barth, Susanne Trimboth, Glenn Yago, *The Savings and Loan Crisis: Lessons from a Regulatory Failure*, at 117-18 (2004).

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ Competitive Equality Banking Act of 1987 (CEBA), Pub. L. No. 100-86.

²¹⁸ *Id.* at § 302.

²¹⁹ *Id.* at § 302(e).

on the value that the thrift itself or its disaggregated assets demanded on the open market; in some cases, debt and equity holders saw their investments wiped out entirely.²²⁰

The FSLIC resolutions cost a great deal of money, and reporting about the scandal increased dramatically. Pressure on legislators increased as well, and Congress passed the Financial Institutions Reform Recovery and Enforcement Act (FIRREA) in 1989.²²¹ FIRREA abolished the FHLBB and shifted regulation of S&Ls to the Office of Thrift Supervision (OTS),²²² transferred the thrifts' deposit insurance function from the FSLIC to the FDIC,²²³ and reinstated many of the regulatory provisions that had been weakened during the previous decade.²²⁴ Finally, FIRREA created the Resolution Trust Corporation (RTC) to address the insolvent S&Ls.²²⁵

The RTC fell under the control of the FDIC and was funded by \$20 billion worth of taxpayer funds and \$30 billion borrowed through a new entity, the Resolution Finance Corporation (REFCORP).²²⁶ FIRREA also mandated that thrifts contribute substantial upfront funding to REFCORP and pay greater deposit insurance premiums.²²⁷ Three subsequent pieces of legislation increased the total funding available to the RTC to \$105 billion, of which it received \$91 billion.²²⁸ Using this funding, by the time its statutory authorization finally ran out, the RTC resolved 747 thrifts at a total cost of over \$150 billion, over \$120 billion of which came from the federal treasury.²²⁹

The failed thrifts themselves were subject to the FDIC resolution process, which universally wiped out the equity holders and put creditors other than insured depositors through a bankruptcy-like process in which there was no guarantee of full recovery. Obviously, this

²²⁰ White, *supra* note 193, at 147-170.

²²¹ Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), Pub. L. No. 101-73.

²²² *Id.* at §§ 401-403.

²²³ *Id.* at §§ 201-226. From the passage of FIRREA until 2004, FDIC maintained the Bank Insurance Fund (BIF) for commercial banks and the Savings Association Insurance Fund (SAIF) for thrifts. This arrangement ended with the Federal Deposit Insurance Reform Act of 2005, Pub. L. No. 109-171, and the creation of the Deposit Insurance Fund to replace the BIF and the SAIF.

²²⁴ Among these provisions were mandates for the percentage of lending devoted to housing investments, greater net worth requirements, a minimum regulatory floor that applied to state and federally chartered thrifts, and new criminal and civil enforcement mechanisms. *See* White, *supra* note 193, at 178-80.

²²⁵ FIRREA, *supra* note 221, at § 501.

²²⁶ FIRREA, *supra* note 221, at §§ 511-12.

²²⁷ White, *supra* note 193, at 176-79.

²²⁸ Curry and Shibut, *supra* note 213, at 29. *See also* Lee Davison, *The Resolution Trust Corporation and Congress, 1989-1993, Part II: 1991-1993*, FDIC Banking Review (2006) (online at www.fdic.gov/bank/analytical/banking/2007apr/br18n3full.pdf).

²²⁹ Curry and Shibut, *supra* note 213, at 27.

process involved the FDIC taking full control of failed institutions until the institutions' assets or businesses were sold off.

The RTC had responsibility for all the assets of insolvent thrifts. Good assets, loans, and investments which were sound and held their value found buyers relatively quickly. But the RTC also inherited a diverse set of troubled assets, and experts expressed great skepticism about the agency's ability to liquidate them.²³⁰ First, the RTC would have to confront an enormous volume of assets, the troubled investments of hundreds of failing thrifts.²³¹ Second, the RTC would have to dispose of an enormous variety of assets, including complex commercial ventures and projects where other viable investors remained.²³² Finally, and most problematically, many of the assets were in serious financial trouble, having already defaulted or requiring credit restructuring.²³³ Nobody knew if these assets were worth anything, much less if the RTC could successfully tap into what market might exist.

But despite the challenges it faced, the RTC disposed of the thrifts' bad assets with far less fanfare than many observers had anticipated. In this effort, the RTC benefitted from most thrifts holding tangible, albeit troubled, assets.²³⁴ While a half-finished real estate development or office building, or a project funded by a loan in default represents a valuation challenge, especially when it involves other investors of varying financial health, it is a solvable one.²³⁵

Other innovations and strategies helped the RTC. It discovered a new market for problematic loans securitized into more palatable chunks.²³⁶ It also found that employing sealed-bid, bulk auctions to dispose of its immense inherited real estate holdings attracted investors looking for bargain-basement prices.²³⁷ The RTC promoted the stories of buyers who made money from purchases of their assets in the hope that more investors would follow.²³⁸ Although

²³⁰ See, e.g., Bert Ely, *The Resolution Trust Corporation in Historical Perspective*, Housing Policy Debate (1990) (online at www.mi.vt.edu/data/files/hpd_1_1/hpd_0101_ely.pdf).

²³¹ *Id.* at 56-58.

²³² *Id.* at 58-60.

²³³ *Id.* at 59-60.

²³⁴ In this respect, the resolution of troubled assets in the present crisis represents a much greater challenge. Not only do the underlying assets face similar valuation problems to what the RTC had to address, but because each step removed from the underlying asset compounds the valuation problem, pooling and securitization make valuation dramatically harder.

²³⁵ Ely, *supra* note 230, at 71-74.

²³⁶ Jerry W. Markham, *A Financial History of the United States, Volume III: From the Age of Derivatives into the New Millennium (1970-2001)*, at 172-73 (2002).

²³⁷ Kerry D. Vandell and Timothy J. Riddiough, *On the Use of Auctions as a Disposition Strategy for RTC Real Estate Assets: A Policy Perspective*, Housing Policy Debate, at 118-19 (1992) (online at [www.mi.vt.edu/data/files/hpd%203\(1\)/hpd_0301_vandell.pdf](http://www.mi.vt.edu/data/files/hpd%203(1)/hpd_0301_vandell.pdf)).

²³⁸ *Id.* at 119 (citing a Wall Street Journal piece from October 3, 1991 that quotes RTC deputy director Thomas Horton as saying, "We think it's the best thing in the world if someone makes money off us. Smart money follows smart money.").

commentators largely panned this strategy,²³⁹ buyers quickly materialized and the RTC managed to dispose of the questionable assets under its control quicker and at less cost to the taxpayer than many anticipated.²⁴⁰ As a result, most modern commentators regard the RTC as a successful enterprise.²⁴¹

4. Recapitalization of the FDIC Bank Insurance Fund / FDICIA

Although insulated from the interest rate shocks that created problems for the thrift industry, commercial banks also faced problems during the 1980s. The same economic conditions that so threatened the S&Ls, namely the end of the real estate boom and the collapse of the price of energy, impacted many viable commercial bank investments as well.²⁴² FDIC interventions in commercial banks topped 250 each year from 1987 to 1989.²⁴³ In all, over 1500 commercial banks failed between 1980 and 1992.²⁴⁴ As a result, the FDIC's Bank Insurance Fund, like the FSLIC before it, did not have the resources to resolve all the troubled institutions.²⁴⁵

In the wake of the Continental Illinois bailout, where the FDIC had to take an equity stake in the institution because it lacked the funds to resolve it, and the S&L crisis, where the FSLIC's insolvency increased the debacle's ultimate costs, pressure mounted to create greater bank rescue authority that would avoid future taxpayer expense. As such, Congress passed the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA).²⁴⁶ FDICIA allocated funds to recapitalize the FDIC's Bank Insurance Fund (BIF) and implemented substantial regulatory and deposit insurance reforms.

FDICIA significantly altered the FDIC's ability to borrow and raise capital in order to address problem institutions. The Act substantially increased the FDIC's borrowing authority to up to \$30 billion and allowed for it to raise emergency funds by borrowing against the proceeds

²³⁹ See, e.g., *id.* at 117.

²⁴⁰ Mark Cassell, *How Governments Privatize: The Politics of Divestment in the United States and Germany*, at 4-8, 26-33 (2003).

²⁴¹ See, e.g., *id.*; Markham, *supra* note 236, at 173 (describing the RTC as a "qualified success").

²⁴² George J. Benston and George G. Kaufman, *FDICIA After Five Years: A Review and Evaluation*, at 7-8 (June 11, 1997) (Federal Reserve Bank of Chicago Working Paper Series, Issues in Financial Regulation WP-97-1) (online at www.chicagofed.org/publications/workingpapers/papers/wp97_1.pdf).

²⁴³ Federal Deposit Insurance Corporation, *Failures and Assistance Transactions, Number of Institutions, United States and Other Areas: 1934 – 2009* (online at www2.fdic.gov/hsob/HSOBSummaryRpt.asp?BegYear=1934&EndYear=2009&State=1) (accessed Mar. 23, 2009).

²⁴⁴ George G. Kaufman, *FDIC Losses in Bank Failures: Has FDICIA Made a Difference?*, Federal Reserve Bank of Chicago Economic Perspectives, at 16 (Third Quarter 2004) (online at www.chicagofed.org/publications/economicperspectives/ep_3qtr2004_part2_Kaufman.pdf).

²⁴⁵ Benston and Kaufman, *supra* note 242, at 8.

²⁴⁶ Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), Pub. L. No. 102-242.

from selling the assets of failed banks.²⁴⁷ FDICIA also set a target and a timeline for the FDIC's insurance funds to meet designated capital ratios.²⁴⁸ These provisions, taken together, substantially increased the resources which FDIC could use to step in and close zombie institutions instead of allowing them to continue pursuing risky strategies.²⁴⁹

The legislation also established a set of new regulatory frameworks centered around capital requirements. Congress required the FDIC to classify banks according to their capitalization status; a decrease in a bank's capitalization status would increase the regulatory tools available to the FDIC to address the situation.²⁵⁰ This policy, dubbed the Structured Early Intervention and Resolution (SEIR) framework, aimed to resolve institutions before they become problematic.²⁵¹ The legislation also sought to make deposit insurance act more like insurance by charging institutions variable premiums based on the likelihood that the FDIC would have to spend money to honor their depository obligations.²⁵²

Finally, FDICIA explicitly endorsed the concept of systemic risk as a justification for taking extraordinary actions. Although mandating that the FDIC, under ordinary circumstances, had to resolve an institution using the least costly method, be it sale, liquidation, receivership, or some other means, FDICIA permitted a waiver of this provision if federal banking regulators reached the conclusion that the institution posed a systemic risk.²⁵³ Although intended to reduce the specter of systemic risk by systematizing the conditions under which it could justify action, FDICIA did represent Congress's endorsement of the concept as something which justified its own set of rules.

5. Sweden

Like the savings and loan and subprime mortgage crises in the United States, the Swedish banking crisis of the early 1990s arose from a real estate bubble that was brought on principally by deregulation in the financial markets. Sweden's banking system was highly concentrated, with the seven largest banks accounting for 90 percent of the market.²⁵⁴ The prior decade of the

²⁴⁷ FDIC History: Volume 1, *supra* note 168, at 103.

²⁴⁸ FDIC History: Volume 1, *supra* note 168, at 103. The Act mandated that the BIF meet its target within 15 years, while allowing the SAIF an open-ended timeframe.

²⁴⁹ Lawrence H. White, Introduction, in *The Crisis in American Banking*, at 5 (Lawrence White, ed.) (1995).

²⁵⁰ FDIC History: Volume 1, *supra* note 168, at 103.

²⁵¹ Benston and Kaufman, *supra* note 242, at 10-11.

²⁵² FDIC History: Volume 1, *supra* note 168, at 104.

²⁵³ FDIC History: Volume 1, *supra* note 168, at 104.

²⁵⁴ Congressional Oversight Panel, Testimony of Bo Lundgren, *Learning from the Past: Lessons from the Banking Crises of the 20th Century* (Mar. 19, 2009). In 1994, there were 91 savings banks and 23 commercial banks in the country. *Sweden: Economic Infrastructure*, The Economist (1996).

1980s was “marked by economic deregulation, the removal of cross-border restrictions on capital flows, financial innovation, and increased competition in financial services.”²⁵⁵ While Swedish banks had previously been required to invest more than half of their assets in low-interest bonds and had been subject to interest rate caps, these regulations were lifted during the period between 1983 and 1985. Lending subsequently increased by 73 percent in real terms.²⁵⁶ The household debt-to-assets ratio grew from 35.8 percent in December 1985 to 38 percent in December 1988.²⁵⁷ This was accompanied by a growth in the corporate debt-to-asset ratio from 65.5 percent to 68.2 percent.

Tax and exchange rate policies also appear to have contributed to the boom. In the late 1980s, “[h]igh inflation interacted with a nominal tax system with full deductibility of interest payments ... making real after-tax interest rates low or even negative.”²⁵⁸ With such low interest rates and restrictions on lending and capital flows removed, borrowers took on unaffordable amounts of debt. Banks lacked sufficient internal controls to counteract the borrowers’ and lenders’ newfound appetite for risk. Government regulators facilitated the bubble with a hands-off approach to real estate and foreign currency lending.²⁵⁹

The danger of these factors was fully exposed when the fixed exchange rate forced Sweden to increase its real interest rates following German re-unification. High interest rates curtailed the demand for real estate and the bubble burst. Between 1990 and 1995, residential real estate values dropped 25 percent and commercial real estate values dropped 42 percent.²⁶⁰ Matters were made worse when the krona was taken off the fixed exchange rate. Its value plummeted 20 percent between November 19 and December 31, 1992. Many Swedish debtors found themselves unable to meet their obligations since 47.5 percent of loans made in 1990 were in foreign currency.²⁶¹ By 1993, domestic non-performing loans had reached 11 percent of GDP.

²⁵⁵ Burkhard Drees and Ceyla Pazarbasioglu, *The Nordic Banking Crises, Pitfalls in Financial Liberalization?* at 1 (Apr. 1998) (International Monetary Fund Working Paper Series, 95/61).

²⁵⁶ This number may slightly overstate the increase because it includes an unknown number of loans between private parties that were converted to bank loans. Peter Englund, *The Swedish Banking Crisis: Roots and Consequences*, *Oxford Review of Economic Policy*, at 84 (1999).

²⁵⁷ *Id.* at 85.

²⁵⁸ *Id.* at 81.

²⁵⁹ Drees and Pazarbasioglu, *supra* note 255, at 4-8.

²⁶⁰ O. Emre Egrungor, *On the Resolution of Financial Crises: The Swedish Experience*, at 5 (June 2007) (Federal Reserve Bank of Cleveland Policy Discussion Paper Series, No. 21) (online at www.clevelandfed.org/research/PolicyDis/pdp21.pdf).

²⁶¹ Englund, *supra* note 256, at 85.

The impact of the economic downturn was already in evidence in the financial sector in 1991 when one of Sweden's largest banks, Nordbanken, announced that it could no longer meet its eight percent capital requirement. Two other major institutions, Forsta Sparbanken and Gota soon found themselves in similar situations. In total, Sweden's banks faced bad debt charges averaging 6.3 percent of total loans in 1992 and 5.6 percent the following year, up from only 0.3 percent in 1989.²⁶² From 1990 through 1993, loan losses were close to 17 percent of total lending.²⁶³

The government responded by taking full ownership of Nordbanken, the majority of which was already owned by the state, and Gota. A loan guarantee was provided to Forsta Sparbanken to help keep it afloat. The acquisitions of Nordbanken and Gota left the government holding 22 percent of the nation's banking assets. These moves naturally shook the faith of foreign creditors in the Swedish economy. To restore confidence, the Riksbank, the Swedish central bank, issued a blanket guarantee to all creditors and depositors on all non-equity claims in Swedish banks in December 1992. The guarantee gave the Swedish parliament, the Riksdag, the breathing room it needed to devise an action program for removing the non-performing loans from the banks' balance sheets.

To ensure maximum transparency and independence, the Riksdag created the Bank Support Authority, an entity separate from the Ministry of Finance and Riksbank, and vested it with the authority to evaluate the financial condition of the struggling banks and recommend an appropriate course of action for each. The Bank Support Authority followed a three-part sequence:

- First, it audited the books of the banks to determine their health;
- Second, it installed state representatives on the boards of banks that required new capital and replaced top management of banks that were nationalized;
- Third, it provided capital injections to banks that were undercapitalized.

In the spring of 1993, the Bank Support Authority set about triaging Swedish banks into three categories. The approach was grounded in the central principle that all capital losses,

²⁶² Citigroup Global Markets, *Swedish Models: Banking Crisis and Recovery in the Early 1990s*, at 12 (Feb. 23, 2009); Drees and Pazarbasioglu, *supra* note 255, at 1.

²⁶³ This includes "reservations for future losses for loans that were still performing." Englund, *supra* note 256, at 90.

regardless of size, had to be covered to revive the banking sector.²⁶⁴ The three categories included:²⁶⁵

- **“Category A.”** These banks were the healthiest, with capital adequacy of at least eight percent. These banks were expected to require minimal public assistance, such as temporary guarantees;
- **“Category B.”** These banks were those that might fall below eight percent capital but were expected to survive with the help of public capital contributions (in exchange for preferred stock) or loans. Banks in this category were also required to raise private capital.²⁶⁶ “B” banks were required to comply with rules on capital use ;
- **“Category C.”** These banks were those that were not expected to survive in their current form. Banks in this category, which included Nordbanken and Gota, were nationalized and their assets were divided between good and bad (legally separate work-out units) by the Valuation Board, a body of expert auditors set up by the Bank Support Authority.

The good assets of the “C” banks were consolidated under the Nordbanken name. The bad assets were transferred to two asset management companies (AMCs): Securum and Retriva. This model was derived from the Resolution Trust Corporation of the U.S. savings and loan crisis. The two AMCs were deliberately over-capitalized, allowing them to perform their salvage operations autonomously without the need to return to the Riksdag for more funding, which would have exposed them to political pressures. In many cases, the AMCs had to take over defaulting companies and assume typical management responsibilities, including hiring and firing management, managing and rehabilitating property, and adjusting business strategies. The government originally estimated that the liquidation operations of the AMCs would take 10 to 15 years to complete. However, better than expected macroeconomic conditions helped to expedite the process and, by 1997, the liquidation was complete.²⁶⁷ Initially, Sweden’s efforts to rescue the financial sector cost it approximately 65 billion kronor, the equivalent of slightly more than four percent of GDP at the time. Most of that expenditure was recovered via proceeds from Securum and Retriva and the partial privatization of Nordbanken. Estimates of the net cost of the government intervention range from zero to two percent of GDP.²⁶⁸

²⁶⁴ Stefan Ingves and Goran Lind, *The Management of the Bank Crisis – In Retrospect*, Quarterly Review, at 12 (Jan. 1996).

²⁶⁵ Lundgren, *supra* note 254.

²⁶⁶ Hoenig, *supra* note 149, at 6.

²⁶⁷ Egrungor, *supra* note 260, at 6.

²⁶⁸ Thomas F. Cooley, *Swedish Banking Lessons*, Forbes (Jan. 28, 2009).

Two features of the Swedish strategy are particularly noteworthy. The first is transparency. As Bo Lundgren noted in his testimony before the Panel, a “key objective was to ensure that our crisis management would be characterized by the greatest possible transparency” in order to bolster confidence in the financial sector.²⁶⁹ Sweden effectively accomplished this by requiring banks to open their books, reveal all potential write-downs, and isolate them via separate good and bad aggregator banks. In addition, the blanket guarantee on all bank liabilities helped calm investors while this program was in progress. The Swedes complemented these policies with a public relations campaign that sent officials from the financial agencies to the world’s various financial centers to explain the strategy and instill confidence in investors.

Second, the Swedes made an effort to ensure that the executors of the program enjoyed political and financial independence. The creation of the Bank Support Authority was a necessary step to avoid any potential conflicts of interest. It beget the Valuation Board and the AMCs, which managed to successfully absorb 7.7 percent of the assets of the financial system (equal to eight percent of GDP) and dispose of them in much less time that had been initially projected.²⁷⁰

6. Japan

In the decades after the Second World War, the Japanese economy underwent an unprecedented economic recovery. By the mid-1970s, it had become the world’s largest exporter of steel and automobiles. Japan’s remarkable post-war growth was guided by government protection of emerging domestic industries, which led to their becoming highly competitive in global markets.²⁷¹ In the 1980s, financial deregulation, low interest rates, and the appreciation of the yen gave rise to a substantial excess of savings and liquidity in Japan. This, in turn, supported increased consumer spending and speculation in the stock and real estate markets, which then led to rapid run-up in asset values.

The bubble finally burst in 1991 as real estate values dropped by 500 trillion yen (US\$4.5 trillion) and the total value of shares lost 300 trillion yen (US\$2.7 trillion).²⁷² This helped set Japan on course for a decade-long “growth recession” that came to be known as the “Lost Decade.” During this period – which actually spanned at least a dozen years – the economy experienced only two years of negative growth. But the protracted economic stagnation was a

²⁶⁹ Lundgren, *supra* note 254.

²⁷⁰ Daniela Klingebiel, *The Use of Asset Management Companies in the Resolution of Banking Crises Cross-Country Experiences*, at 9 (Feb. 2000) (World Bank Policy Research Working Paper Series, No. 2284) (online at papers.ssrn.com/sol3/papers.cfm?abstract_id=282518).

²⁷¹ Paul Krugman, *The Return of Depression Economics and the Crisis of 2008* (2008).

²⁷² Koyo Ozeki, *Responding to Financial Crises: Lessons to Learn from Japan’s Experience*, Japan Credit Perspectives (Aug. 2008) (online at europe.pimco.com/LeftNav/Global+Markets/Japan+Credit+Perspectives/2008/Japan+Credit+Perspectives+Koyo+Ozeki+Responding+to+Financial+Crises+August+2008.htm).

dramatic reversal from the previous decade, when annual GDP growth averaged almost 4 percent. From 1991 to 2003, GDP grew at an annual average of just over 1 percent, well below the growth rates of every other major industrialized country during this period.²⁷³

Japanese policymakers failed to appreciate early on just how significant the impact of the asset devaluation would be on the financial sector. Bank lending had doubled between 1985 and the first half of the 1990s, with most loans geared toward the real estate market.²⁷⁴ Deregulation had eased restrictions on corporate access to capital markets, giving large businesses new alternatives to the banks as sources of capital. Banks were forced to seek new customers, particularly in small business and real estate, which proved to be far riskier business partners than Japan's established corporations.²⁷⁵ As real estate values continued to slide in the mid-1990s, non-performing loans (NPLs) became a growing problem for Japan's banks. According to one estimate, Japan's banks were holding 50 trillion yen (US\$450 billion) in non-performing loans immediately after the burst of the bubble in 1993, which rose to nearly 100 trillion yen (US\$910 billion) by 1996.²⁷⁶

At the outset of the crisis, the Ministry of Finance lacked the legal authority to take banks facing bankruptcy into receivership. Thus, its initial response was to create stability by orchestrating mergers or asset takeovers by other banks. This included the establishment of both private and public asset management companies to help banks clear their balance sheets. But Japanese authorities pinned their hopes on a macroeconomic recovery that would restore the full value of assets and avoid costly writedowns.²⁷⁷ Regulators permitted lax accounting practices that allowed banks to book the value of their loan assets based on how much they could spare within the capital adequacy ratio. The real financial condition of the borrowers was seldom accurately reflected on the bank balance sheet. The same borrower could have different credit ratings from different banks depending on the level of risk each bank could sustain. Such accounting machinations were tolerated in part due to their political consequences. Leaders of Japan's dominant Liberal-Democratic Party sought to protect their powerful construction, real estate, and farming constituencies that were on the other end of the problematic NPLs. As economist Adam Posen notes, "the ongoing political pressures for the rollover (evergreening) of loans to politically favored but bankrupt enterprises, in hopes of preserving jobs, and the near

²⁷³ Charles Yuji Horioka, *The Causes of Japan's "Lost Decade": The Role of Household Consumption*, (Nov. 2006) (National Bureau of Economic Research Working Paper No. 12142).

²⁷⁴ Ozeki, *supra* note 272

²⁷⁵ *Japan's Financial Crisis and its Parallels to US Experience*, Institute for International Economics, at 6 (Adam Posen and Ryoichi Mikitani, eds.) (Sept. 2000).

²⁷⁶ *Id.*

²⁷⁷ Richard Katz, *Japan's Phoenix Economy*, *Foreign Affairs* (Jan./Feb. 2003) (online at www.foreignaffairs.com/articles/58624/richard-katz/japans-phoenix-economy).

total erosion of bank capital between loan and equity losses created incentives for the problem to keep growing.”²⁷⁸

In late 1997, with the failure of a major bank, Hokkaido Tokushoku, and a major securities firm, Yamaichi Securities, the problems in the financial sector reached the level of systemic risk. There were indications in the interbank loan market that a number of other major banks were in trouble as well.²⁷⁹ In February 1998, the Japanese parliament or Diet passed the Financial Function Stabilization Act which provided for capital injections in major banks. The government then purchased 1.8 trillion yen (US\$16 billion) in subordinated debt and preferred shares in 21 major banks that were undercapitalized but officially classified as solvent.

These efforts failed to stabilize the situation and bank lending remained stagnant. Under new authorities granted by the Financial Function Stabilization Act, the Financial Services Authority (FSA) was created and vested with the power to temporarily nationalize banks. In late-1998, the FSA exercised this authority for the first time and nationalized two major banks, Long-Term Credit Bank of Japan (LTCB) and Nippon Credit Bank (NCB), fully guaranteeing their debt to all creditors. This was followed by a second recapitalization effort in March 1999 that injected 7.5 trillion yen (US\$71 billion) into 15 banks. The trend of small-scale recapitalization programs continued for the next several years, but the problem of chronic capital shortage persisted, in part because the size of the recapitalizations was simply insufficient. According to an analysis by economist Mitsuhiro Fukao, as late as March 2002, Japanese banks collectively had only 29.3 trillion yen of core capital to buffer the risks associated with assets of 744.8 trillion and loans of 440.6 trillion, meaning that stated capital was only 3.9 percent of assets and 6.7 percent of loans.²⁸⁰ Furthermore, FSA’s apparent weak enforcement of the conditions attached to participation in the program ensured that the balance sheet problems would persist. Even after LCTB and NCB were nationalized, FSA permitted banks to continue to operate with large amounts of non-performing loans on their books.²⁸¹

Japan’s financial sector did not turn the corner until the introduction of the Financial Revitalization Program in late 2002, under financial services minister Heizo Takenaka. Takenaka believed that honesty in bank balance sheets was the most important source of stability in financial markets.²⁸² Thus, what became known as “Takenaka Plan” called for: (1) more rigorous evaluation of bank assets; (2) increased bank capital; and (3) strengthened governance

²⁷⁸ Adam Posen, *What Went Right in Japan*, at 6 (Nov. 2004) (Peterson Institute for International Economics: Policy Briefs in International Economics, No. PB4-6).

²⁷⁹ Takeo Hoshi and Anil K. Kashyap, *Will the U.S. Bank Recapitalization Succeed? Lessons from Japan* (Dec. 2008) (National Bureau of Economic Research Working Paper Series, No. 14401).

²⁸⁰ *Id.* at 13.

²⁸¹ *Id.* at 14.

²⁸² Heizo Takenaka, *Lessons from Tokyo*, Wall Street Journal (Oct. 22, 2008) (online at online.wsj.com/article/SB122462152605355599.html).

for recapitalized banks.²⁸³ Takenaka's predecessor, Hakuo Yanagisawa, had initiated a program of special inspections of major banks aimed at uncovering the true health of the financial institutions and their debtors in 2001. Yet this commitment to transparency was not accompanied by rigorous enforcement until Takenaka took the helm at FSA. Under Takenaka, the special inspections resumed but with more rigorous enforcement of the auditing rules: assets were evaluated using discounted expected cash flows for NPLs; borrowers were investigated to ensure consistent and reliable classifications across all major bank balance sheets; and deferred tax assets were prohibited from being counted toward tier-I capital. Discrepancies between the banks' self-evaluations and FSA's evaluations were released to the public. Where these special inspections identified a need for capital, it was injected on the condition that the banks abide by business improvement orders.²⁸⁴

Within a year, signs of progress were already evident. The Takenaka Plan was forcing banks to aggressively cut costs, write off non-performing loans and sell their stockholdings.²⁸⁵ In March 2003, Resona Bank was prohibited from counting five years' worth of tax deferred assets as capital, an accounting tactic many banks had previously used to avoid exposure of their vulnerable capital positions. The government rescued the bank with a public capital injection and used its new majority interest to install new management.²⁸⁶ In August, FSA issued "business improvement orders" to 15 recapitalized financial institutions for failing to meet their profit goals for the first quarter of 2003. These orders required the institutions to file business improvement plans and to report their progress to the FSA on a quarterly basis. Those institutions that failed to reform and meet their profit goals were forced to reduce the compensation of top management. One conglomerate, UFJ Holdings, was forced to remove three of its CEOs. Japan was finally holding banks accountable after more than a decade of avoiding the problems in its financial sector.²⁸⁷

In retrospect, most informed observers believe that Japan's greatest mistake was its excessive regulatory forbearance – allowing banks to carry NPLs rather than demanding write-downs. Economists Takeo Hoshi and Anil Kashyap contend that the Japanese officials were in denial about the extent of the problems in the financial sector for most of the 1990s.²⁸⁸ The recapitalization efforts that the government did initiate were insufficient and still failed to require banks to write-down losses on non-performing loans. The only objective pursued forcefully in the recapitalization efforts was increasing loan volumes. However, this only served to keep bad

²⁸³ *Id.*

²⁸⁴ *Id.*

²⁸⁵ Ken Belson, *Persistence Pays: Japan's Bank Regulator Makes Gains*, New York Times (Sept. 30, 2009).

²⁸⁶ Hoshi and Kashyap, *supra* note 279, at 16.

²⁸⁷ Hoshi and Kashyap, *supra* note 279, at 16.

²⁸⁸ Hoshi and Kashyap, *supra* note 279.

debtors and “zombie” banks alive to throw good money after bad. The consensus view among economists who have studied Japan’s economy during this period is that Japan simply kept banks in business for far too long with insufficient capital. The unwillingness to acknowledge the harsh reality of the asset bubble burst in the short-term contributed to the very sluggish growth rate of the Japanese economy that lasted for more than a decade.

Figure 3: Comparative Analysis of Government Resolution of Nationalized Entities

	Shareholder Protection	Bondholder Protection	Depositor Protection	Method of Asset Valuation
Great Depression and Reconstruction Finance Corporation 1930s	Unsecured. Bank failures wiped out shareholders, and state laws often imposed double liability. Shareholders at banks that received RFC investment saw their shares diluted.	Unsecured. Bondholders suffered substantial losses; no consistent policy existed for dealing with bondholders when reorganizing or liquidating banks.	Unsecured. Paid on a <i>pro rata</i> basis as the liquidation of failed banks proceeded. The FDIC, when created in 1933, insured deposits at solvent banks up to \$2,500 (this increased to \$5,000 with the passage of the Banking Act of 1935)	Administrative valuation. Bank examiners from the RFC, Federal Reserve Banks, Treasury, and the Comptroller of the Currency conducted valuation of seized assets.
Continental Illinois	Unsecured. Equity stake diluted by 80 percent FDIC stake resulting from \$1 billion investment in Continental Illinois’ holding company.	Although unsecured, the FDIC rescue plan prevented default on outstanding obligations, thus protecting creditors.	Secured. Fully insured by FDIC.	Administrative valuation. FDIC took control of bad assets at non-market-determined prices.
Savings and Loan Crisis / Resolution Trust Corporation	Unsecured. Received equity remaining after sale of thrift operations or, in liquidation, sale of thrift’s remaining assets. Substantial losses incurred.	Unsecured. Received debt payments remaining after sale of thrift operations or, in liquidation, sale of thrift’s remaining assets. Substantial losses incurred.	Secured. Fully insured by FSLIC.	Market valuation. Thrifts or disaggregated assets sold on open-market by FSLIC, FDIC, or RTC.

	Shareholder Protection	Bondholder Protection	Depositor Protection	Method of Asset Valuation
Sweden 1990s	At the two banks that were nationalized, some shareholders were wiped out (at Gota) and others (at Nordbanken) were bought out at the price of the previous rights issue. At banks that recapitalized privately, owners saw their shares diluted.	Secured. Creditors were covered by a government guarantee.	Secured. Depositors were protected by a government guarantee.	Administrative valuation. The Bank Supervisory Authority established an independent Valuation Board comprised of real estate experts to assign asset values.
Japan 1990s	Unsecured. Shareholder capital was drawn on first before using deposit insurance funds. Thus, most shareholder equity in nationalized banks was wiped out.	Secured. Creditors were covered by a government guarantee.	Secured. A temporary guarantee was instituted in 1996. In 2005, a cap of 10 million yen per depositor was reinstated.	Administrative valuation. Financial Service Authority conducted inspections of bank balance sheets.

C. Europe: Current Crises and Response

Late 2008 saw many of Europe's largest and fastest-growing economies scrambling to implement bank rescue plans. While each country's plan has its own unique features, most included plans to guarantee bank deposits and provide some type of cash infusion for financial institutions. Nationalization of all or select banks often followed but was almost uniformly viewed as an option of last resort and often was confined to only those institutions whose failure was likely to have serious ramifications for the entire economy. As may be anticipated, the aggressiveness of the plan usually tracked the intensity of the country's crisis, which, in turn, was often directly proportional to that country's economic climb over the last decade – i.e., the highest climbers had the sharpest falls.

While the effects of the current downturn are widespread, there are certain differences between the American and European experiences that make some comparisons inapplicable. Most notably, many European countries are struggling with currency issues. As banking across borders has become increasingly feasible even for the average worker, cheap credit and lax lending standards in one part of Europe provides cheap and easy credit for almost any part of Europe. Many Europeans and European institutions, especially those in non-Eurozone countries, took out loans in foreign currencies. Now that the borrowers' home economies and currencies are faltering, the loans have become increasingly difficult to repay. The result is that both borrowers and lenders are damaged.

Iceland, which is among the countries hardest hit by the current downturn, has been deeply impacted by such foreign currency exposure; however, its problems can also be attributed to the ease with which its relatively youthful financial institutions entered these cross-border markets despite a lack of reserves to backstop the nation's banking sector. Ireland, another country that has been profoundly affected by the crisis, has meanwhile avoided vulnerability to cross-market currency fluctuations by adopting the Euro. Adoption of the Euro was not without cost, however, as having the Euro as its currency provided the Irish with wide-spread access to credit with extraordinarily low interest rates, which has been linked to the Irish economy's current difficulties.

Although the U.S. is not plagued by the same currency issues as many European countries, Americans and Europeans alike are struggling with the same problems of mounting debt and mounting unemployment while property values are down throughout both the U.S. and Europe. A newly burst housing bubble has a central place in almost every troubled economy's crisis. And the ubiquitous easy access to cheap credit is likewise at the center of each bubble. Certain economies became housing-focused in part because a rising tide of workers, either foreigners arriving for the first time or native-born citizens returning from abroad, flooded the then-lush job market and needed homes. But the influx of workers in those areas merely seems to have exacerbated, not caused, the bubble, which, in most cases, was a response to easy availability of credit.

Although the British economy is suffering from its own burst housing bubble, its experience is somewhat different from its neighbors'. Unlike Ireland and Iceland, where ready access to mortgage credit led to overbuilding, UK builders failed to keep pace with the housing demand fueled by cheap credit. The combination of high demand and lagging supply soon led housing prices to outstrip wage increases. Subsequently, as credit contracted worldwide, the UK housing bubble burst.

The UK, as home to a global financial center in London, also suffered from economic downturns among its business partners overseas. The sub-prime housing crisis in the U.S. quickly triggered aftershocks in the UK markets as banks such as the Royal Bank of Scotland stumbled under the weight of the U.S. asset-backed securities still on their books.

Finally, the Europeans must contend not only with the issues arising out of linked currencies, but also with the issues arising out of their linked economies. Germany has been the most vocal regarding concerns that they will be asked not only to provide rescue packages for their own financial services industry, but for those of their poorer neighbors as well.

1. Iceland

Iceland has experienced both rapid economic expansion and sharp economic contraction. Following de-regulation in the early 2000s, the Icelandic banking sector expanded quickly, investing heavily in foreign currency loans.²⁸⁹ As a result, the foreign exposure of its major banks totaled 10 times the country's GDP as of the end of 2008.²⁹⁰ With the downturn in the financial markets worldwide, Iceland's three largest banks collapsed in late 2008. The Icelandic króna plummeted, ranking just above the Zimbabwean dollar as of October 2008.²⁹¹

The devaluation had harsh implications for any institution, or household, with foreign currency exposure, and many Icelandic households had such exposure. The relative cheapness of credit in Japanese Yen or Swiss Francs led many average Icelanders to finance their homes and cars in foreign currency instead of their native krónur.²⁹² Additionally, principal payments on local currency mortgages are indexed to inflation, which is projected to rise to 20 percent this year. The combination of devaluation and inflation has doubled the amount of debt many Icelandic families are carrying.²⁹³

The economic crisis has prompted demonstrations and other types of protest that are typically alien to the country.²⁹⁴ Some Icelanders have expressed frustration with the banks for soliciting foreign depositors to whom the whole country is now liable.²⁹⁵ Others have expressed anger with their government for the way it has handled the crisis, successfully calling for the resignation of the head of Iceland's central bank, David Oddsson, through continued protests in downtown Reykjavik late last year.²⁹⁶ While some believe Iceland would have better weathered the last few months if it had adopted the very durable Euro instead of relying on its own króna, there is still some hostility toward the notion of joining the E.U., both because of the cultural implications of such integration with continental Europe (Iceland only just obtained its full

²⁸⁹ U.S. Central Intelligence Agency, *CIA World Fact Book* (online at www.cia.gov/library/publications/the-world-factbook/geos/ic.html) (accessed Apr. 2, 2009).

²⁹⁰ *Id.*

²⁹¹ Tracy McVeigh, *The Party's Over for Iceland, the Island That Tried to Buy the World*, *The Observer* (Oct. 5, 2008) (online at www.guardian.co.uk/world/2008/oct/05/iceland.creditcrunch).

²⁹² *Cracks in the Crust: Iceland's Banking Collapse Is the Biggest, Relative to the Size of an Economy, That Any Country Has Ever Suffered. There Are Lessons to Be Learnt Beyond Its Shores*, *The Economist* (Dec. 11, 2008) (online at www.economist.com/world/europe/displayStory.cfm?story_id=12762027) (hereinafter "*Cracks in the Crust*").

²⁹³ *Id.*

²⁹⁴ *Id.*

²⁹⁵ See Sarah Lyall, *Icelanders Struggle After a Banking Boom Ended with a Thud*, *New York Times* (Nov. 9, 2008).

²⁹⁶ *Id.*

independence from Denmark in 1944) and because of the impact some believe it would have on Iceland's fishing quotas.²⁹⁷

The Icelandic bank rescue plan has included nationalization of its major banks and, in an unusual move for an industrialized country, negotiating \$10 billion in loans from the International Monetary Fund (IMF).²⁹⁸

In nationalizing the banks, Reykjavik used its newly-granted power under an act providing authority reserved for "Unusual Financial Market Circumstances" to purchase a 75 percent stake in each of its three major banking groups, Landsbanki, Glitnir, and Kaupthing (the "banks").²⁹⁹ Under the new act, Iceland's treasury may inject up to 20 percent of the book value of a bank's equity in return for voting shares in the bank that are equal in value to the treasury's capital contribution. The act also granted authority to the Financial Services Authority (FSA)³⁰⁰ to assume the power vested in each institution's shareholders' meeting and to appoint receivership committees to take over the functions of the firms' boards of directors. These committees immediately stopped payment on claims other than priority claims at each institution. The banks' receivership committees then created new, government-owned entities ("new banks") that assumed each bank's domestic operations. The result was equity dilution and assumption of government control similar to that in Continental Illinois, but tougher treatment of non-priority creditors. Domestic customers, employees, and bondholders were not to be affected by the acquisition.³⁰¹

Key to the nationalization of the banks was the intent to keep domestic operations functioning. The banks' web-sites reassured customers that business would continue as usual, with access to online accounts, ATM service, and debit card functionality available without interruption.³⁰²

²⁹⁷ Derek Scally, *Iceland Attempts to Avoid Financial Meltdown*, Irish Times (Oct. 24, 2008) (online at www.irishtimes.com/newspaper/finance/2008/1024/1224715113228.html).

²⁹⁸ Jon Danielsson, *Why Raising Interest Rates Won't Work*, BBC (Oct.28, 2008) (online at news.bbc.co.uk/2/hi/business/7658908.stm) (noting that Iceland is the first industrialized country to request IMF assistance in more than 30 years).

²⁹⁹ On March 9, 2009, Straumur, Iceland's only pure investment bank, was also put into receivership. It is currently closed as the receivership committee unwinds its assets.

³⁰⁰ The FSA is an independent state authority charged with regulating and supervising Iceland's credit, insurance, securities, and pension markets.

³⁰¹ Glitnir, *The Government of Iceland Acquires 75 percent Share in Glitnir Bank* (online at www.islandsbanki.is/english/about-islandsbanki/news/detail/item14983/The_government_of_Iceland_acquires_75_percent_share_in_Glitnir_Bank/) (accessed Mar. 30, 2009).

³⁰² Landsbankinn, *New Landsbanki Islands hf. Established* (online at www.landsbanki.is/english/aboutlandsbanki/pressreleases/?GroupID=720&NewsID=13358&y=0&p=1) (accessed Mar. 30, 2009); Islandskani, *Glitnir's Operations Continued* (online at [63](http://www.islandsbanki.is/english/about-</p></div><div data-bbox=)

The plans did not, however, provide for continued access to deposits for foreign depositors. In the years leading up to the banking crisis, Icelandic banks offered highly attractive interest rates for savings accounts, prompting many Europeans and European entities, such as municipalities, to keep their cash in Icelandic accounts.³⁰³ The accounts were typically set up and managed online, with the savings in overhead used to improve the interest rates.³⁰⁴ Cross-border banking has become increasingly common in Europe and worldwide. As in the case of the Icelandic banks, a bank in a relatively small country can hold funds of hundreds of thousands of depositors worldwide, creating a considerable problem for the country if that bank fails.

A minority of analysts sounded the alarm early, noting that credit-default swap rates for Icelandic banks were rising steadily, signaling instability.³⁰⁵ In addition to instability caused by the weakening global economy, there was a greater issue – the Icelandic central bank did not have sufficient reserves to serve as a credible lender of last resort in the event of a run on the banks.³⁰⁶ While some investors pulled their funds out before the crisis, most did not.

When the new bank entities were created by the receivership committee, the banks' foreign subsidiaries and foreign branches were not merged into the new entities.³⁰⁷ Negotiations for the IMF loan stalled late last year as Iceland ironed out disagreements with the Dutch, British, and other European governments over the status of savings accounts in Icelandic banks held by those countries' citizens.³⁰⁸ The stand-off over the IMF loan was ultimately resolved when several governments loaned money to Iceland to provide payment to these depositors, opening the door to Iceland's receipt of the IMF funds.³⁰⁹ There has been no clear discussion of how or when Iceland will repay the loans to the individual governments.

Additionally, as part of its stand-by agreement with the IMF, the creditors of the Icelandic banks have agreed to delay the sale of any of the banks' assets, essentially placing a

islandsbanki/news/detail/item15927/Glitnir's_Operations_Continued/) (accessed Mar. 30, 2009); Kaupthing, *New Kaupthing Bank Takes Over Domestic Operations of Kaupthing banki hf.* (online at www.kaupthing.com/pages/164?path=K/133944/PR/200810/1262007.xml) (accessed Mar. 30, 2009). See also Icelandic Financial Supervisory Authority, *Based on New Legislation, the Icelandic Financial Supervisory Authority (IFSA) Proceeds to Take Control of Landsbanki to Ensure Continued Commercial Bank Operations in Iceland* (online at www.landsbanki.is/Uploads/Documents/Frettir/fme_announcement.pdf) (accessed Mar. 30, 2009).

³⁰³ *Id.*; *Icelandic Saga; Cash and Local Councils*, *The Economist* (Nov. 15, 2008).

³⁰⁴ David Jolly, *Bailout of Iceland Held Up by Disputes Over Compensating Foreign Savers*, *New York Times* (Nov. 13, 2008).

³⁰⁵ *Icelandic Saga; Cash and Local Councils*, *supra* note 303.

³⁰⁶ *Cracks in the Crust; Iceland*, *supra* note 292.

³⁰⁷ Certain other liabilities also remain in the old banks. These are: certain securities issues; subordinated debt; income tax liabilities; and derivative contracts.

³⁰⁸ Jolly, *Bailout of Iceland Held Up*, *supra* note 304.

³⁰⁹ David Jolly, *Concession By Iceland Clears Path for I.M.F. Aid*, *New York Times* (Nov. 17, 2008).

moratorium on payments to creditors. Under the FSA's plan, the receivership committee of each bank has appointed an appraiser to determine the value of each banks' assets. This process has taken longer than expected and many creditors have disagreed with the appraisers' valuations, creating further delays. Once the process has been completed, the plan contemplates a settlement under which the new banks will provide "market value" compensation to the old banks for the assets that have been transferred.

2. Ireland

Ireland similarly experienced an economic expansion in the 1990s and early 2000s. Nicknamed the "Celtic Tiger" in reference to its ability to attract technology giants such as Dell, Microsoft, and Intel through the promise of low taxes, relatively low wages, and a highly-educated, English-speaking workforce, Ireland's GDP grew at an average of 6 percent during the years between 1995 and 2007, changing the country from one of Western Europe's poorest into one of its richest.³¹⁰ By December 2008, however, the global economic crisis had many worried that Ireland would soon take Iceland's path.³¹¹ Unlike American banks, Irish banks are in trouble not because of loans to individuals, but because of massive growth in lending to property developers spurred into rapid expansion by substantial tax incentives.³¹²

The Irish government has taken a three-pronged approach to addressing its crisis. First, on September 29, 2008, the government became the first in Europe to guarantee all bank deposits, announcing that it had entered agreements with six major banks to guarantee all deposits, covered bonds, senior debt, and dated subordinated debt in exchange for a fee (of undisclosed value) from the banks.³¹³ The plan is estimated to cover approximately €485 billion in liabilities.³¹⁴

Second, the government provided a capital infusion to certain financial institutions. On December 14, 2008, the government announced that it would provide Core Tier 1 capital infusions into several banks as a means of ensuring access to credit for consumers and businesses.³¹⁵ On December 21, 2008, the government released a detailed plan naming specific

³¹⁰ *Tiger, Tiger Burning Bright*, The Economist (Oct. 14, 2004) (online at www.economist.com/surveys/displaystory.cfm?story_id=E1_PNGTDQS).

³¹¹ Paul Cullen, *Developer Says Ireland Risks Iceland-like Financial Crisis*, Irish Times (Dec. 1, 2008) (online at www.irishtimes.com/newspaper/ireland/2008/12/01/1227910421590.html). Despite a local joke predicting that Ireland will become the next Iceland, Ireland has the advantage over its Scandinavian neighbor in that its currency is the Euro and therefore is unlikely to suffer the extreme devaluation that the krona has seen, and, despite the crisis in the Irish banking system, Irish banks are still not nearly as exposed as the Icelandic banks.

³¹² Landon Thomas, Jr., *The Irish Miracle Fizzles*, New York Times (Jan. 4, 2009).

³¹³ On October 9, 2008, the government announced it would extend the program to cover an additional five banks. Ultimately, however, those banks opted out of the program.

³¹⁴ National Treasury Management Agency, *Bank Guarantee Scheme & Recapitalisation* (online at www.ntma.ie/IrishEconomy/bankGuaranteeScheme.php) (accessed Apr. 2, 2009).

³¹⁵ *Id.*

banks and the terms on which those banks would receive funds.³¹⁶ The two banks that received funding through the plan were Bank of Ireland and Allied Irish Bank.³¹⁷ Each institution issued €2 billion in perpetual (non-converting) preferred stock with fixed annual dividends of 8 percent. The shares carried all voting rights on questions of change of control or change in capital structure, and 25 percent of voting rights on appointment of directors, including the right to appoint 25 percent of board members. The banks were permitted to redeem their preference shares within five years at the issue price, or at 125 percent of the issue price any time after five years had passed. The recapitalization was accomplished through purchase of preferred stock. Banks receiving capital were required to implement various programs including: (1) restrictions on executive pay, (2) forbearance on foreclosures of primary residences, and (3) increasing lending to consumers and small businesses.³¹⁸

Finally, the government nationalized the bank that posed the greatest threat to the stability of the Irish economy. On January 15, 2009, the government determined that recapitalization was no longer appropriate for Anglo Irish Bank.³¹⁹ The decision to nationalize Anglo Irish Bank seems to have stemmed from the interplay between the fact that the bank had been determined to be systemically significant (i.e., too big to fail) and the revelation that the bank's chief executive and chairman had enabled the bank to provide €400 million in undisclosed loans to certain hand-picked developers, leading to a crisis of confidence in the bank.³²⁰ That is, absent the €400 million scandal, it is not clear that the Irish government would have made the decision to nationalize the bank. And, obviously, had the bank posed a smaller risk to the economy as a whole, it is also unlikely the government would have seen the need to step in.

The government effected the nationalization by mandating the transfer of 100 percent of the bank's stock to the minister of finance or his nominee. The government also stated that an assessor would be appointed to assess whether compensation should be paid to shareholders and, if so, what the amount of that compensation should be.³²¹ The bank's recently-appointed chairman was kept on, but the CEO and Finance Director were replaced and the board itself

³¹⁶ *Id.*

³¹⁷ Although the release included the terms of a complex plan for providing capital to Anglo Irish Bank, including a €1.5 billion infusion via purchase of preferred shares with certain attached voting rights, the plan was never implemented as the bank was nationalized less than a month later.

³¹⁸ National Treasury Management Agency, *Government Announcement on Recapitalisation* (Dec. 21, 2008) (online at www.ntma.ie/Publications/2008/govt_recap_plan_dec08.PDF).

³¹⁹ National Treasury Management Agency, *Minister's Statement Regarding Anglo Irish Bank* (Jan. 15, 2009) (online at www.ntma.ie/Publications/2009/Minister_Statement_Anglo_Irish_Bank.pdf).

³²⁰ See Landon Thomas, Jr., *As Iceland Goes, So Goes Ireland?*, *New York Times* (Feb. 28, 2009).

³²¹ Anglo-Irish Bank, *General Information on the Nationalisation*, (online at www.angloirishbank.us/Your_Questions_Answered/General_Information_on_the_Nationalisation.html) (accessed Mar. 22, 2009). As of April 1, 2009, no assessor had been appointed.

restructured. The bank's board and management retain day-to-day control of the bank, but the overall business model is determined by the board and management in consultation with the Minister of Finance and the Financial Regulator.³²² The bank has continued as a "covered institution" under the Credit Institutions (Financial Support) Scheme 2008, meaning that "covered liabilities" remain guaranteed by the Irish government until September 29, 2010.³²³ The bank's "covered liabilities" are: (1) all retail and corporate deposits, (2) interbank deposits; (3) senior unsecured debt, (4) covered bonds (including asset covered securities), and (5) dated subordinated debt.³²⁴

3. United Kingdom

While not in the same position as either Iceland or Ireland, the United Kingdom has also implemented a substantial economic rescue plan to respond to its own credit crunch.

The UK Bank Rescue Plan has a number of key pieces:

First, a Special Liquidity Scheme was announced on April 21, 2008. Under this program, the government made £200 billion available in short term loans for financial institutions to use in swapping out illiquid assets (mostly UK or EU mortgage-backed securities) for UK Treasury bills.³²⁵ The plan was slated to last six months but was extended in September 2008.

Second, in October 2008, the government announced a number of initiatives. On October 8, 2008, it was announced that the government would purchase £50 billion in preferred stock (non-voting, first paying) from eight major UK banks, and that it would provide £250 to guarantee bank debts.³²⁶ Later that month, on October 13, the government provided an additional cash infusion of £37 billion to purchase ordinary shares in the Royal Bank of Scotland and Lloyds TSB – HBOS.³²⁷ The process by which the UK government acquired an interest in the banks began with the banks' open offers to their existing shareholders to purchase additional stock. The government agreed in advance to purchase any shares that were not purchased by the shareholders. In fact, very few shareholders showed any interest in purchasing the stock and the British government purchased almost all of the ordinary shares offered. As a result of these transactions, the UK government owns 57.9 percent of one bank and 43.4 percent of the other.

³²² *Id.*

³²³ *Id.*

³²⁴ *Id.*

³²⁵ Bank of England, *Special Liquidity Scheme* (Apr. 21, 2008) (online at www.bankofengland.co.uk/publications/news/2008/029.htm).

³²⁶ Bank of England, *Recapitalisation of the UK Banking System* (Oct. 8, 2008) (online at www.bankofengland.co.uk/publications/news/2008/066.htm).

³²⁷ HM Treasury, *Treasury Statement on Financial Support to the Banking Industry* (Oct. 13, 2008) (online at www.hm-treasury.gov.uk/press_105_08.htm).

In order to secure the assistance of the UK government in purchasing common equity, the banks were required to agree to certain covenants mandating, *inter alia*, that the banks maintain lending to the mortgage and small business markets at 2007 levels, submit restructuring plans to the government, and refrain from paying dividends on ordinary shares. To the extent the government received preferred stock from any banks, the covenants accompanying those transactions provided for the stockholder (i.e., the government) to have the right to appoint a certain number of directors and to receive certain voting rights if the shares did not pay dividends for a number of quarterly periods.³²⁸

On October 16, the UK's central bank, the Bank of England, announced it would change certain disclosure rules to enable banks to borrow funds without having to disclose the loan.³²⁹ The Bank of England also created a Discount Window Facility that allows distressed banks to swap illiquid assets at a discount.³³⁰

In November 2008, the government created a new agency, UK Financial Investments, to manage the government's stakes in RBS and Lloyds, and in any other banks the government subsequently purchases.³³¹

In January 2009, a second bank rescue was announced. This Asset Protection Scheme would provide insurance to banks for future credit risk and would provide a £50 billion infusion for purchase of private sector assets.³³² The Enterprise-Finance Guarantee (EFG) scheme, launched January 14, provides a guarantee for up to 75 percent of a bank loan to a business with up to £25 million in revenue.³³³ The UK has also announced a Homeowner Mortgage Guarantee Scheme to provide a bridge for homeowners who are in danger of foreclosure due to a temporary loss of income.³³⁴

Thus far, Britain's multi-faceted plan of attack closely mirrors that of the U.S., and the UK is facing many of the same challenges that have dogged the American plan.³³⁵ The British

³²⁸ See Panel February Oversight Report, *supra* note 6.

³²⁹ Bank of England, *Operational Standing Lending and Deposit Facilities; Discount Window Facility* (Oct. 20, 2008) (online at www.bankofengland.co.uk/markets/marketnotice081020.pdf).

³³⁰ *Id.*

³³¹ *The Go-Between: Can a New Agency Put the Banks Back on Track?*, *The Economist* (Mar. 5, 2009) (online at www.economist.com/world/britain/displaystory.cfm?story_id=13248185) (hereinafter "*Go Between*").

³³² Graeme Wearden, *Bank Bailout: Key Points of the Government's Statement*, *The Guardian* (Jan. 19, 2009) (online at www.guardian.co.uk/business/2009/jan/19/credit-crunch-bank-bailout).

³³³ *Good Sport: Banks Are Getting By; a Pity About the Customers*, *The Economist* (Mar. 12, 2009) (online at www.economist.com/world/britain/displaystory.cfm?story_id=13278900) (hereinafter "*Good Sport*").

³³⁴ HM Treasury, *New Scheme to Help People at Risk of Repossession* (Dec. 3, 2008) (online at www.hm-treasury.gov.uk/press_132_08.htm).

³³⁵ As the legal analysis accompanying the Panel February Oversight Report noted, "[t]here are differences in government policies and political environments, regulatory structures and corporate law and practice, among

have taken steps to encourage banks to resume lending through the EFG, but have had only limited success in encouraging banks to actually make use of the plan, even in the case of banks in which the government owns a controlling stake.³³⁶ The UK has also had its share of bank bonuses scandalizing the public,³³⁷ and it has had difficulty making sense of many of the more complex components of the current financial system, stymieing efforts to unwind the most troublesome sectors.³³⁸

4. Other European Countries

Several other European countries, including Spain, Germany, and Italy, have implemented measures to address weaknesses in their banking systems and loosen the stranglehold that has persisted on credit markets worldwide. For example, Spain has committed up to €200 billion to guarantee interbank lending³³⁹ and has created a Financial Asset Acquisition Fund to purchase high-quality asset-backed securities.³⁴⁰ At this point, Spain has stated it sees no need for recapitalization of any financial institutions. Italy has provided €40 billion to buy bank debt and has guaranteed individual bank deposits up to €103,000.³⁴¹ Italy has also said that it is prepared to provide capital to banks through the purchase of preferred (non-voting) stock.³⁴² And Germany has announced a €500 billion plan that includes guarantees for private savings and debt guarantees for two of Germany's largest banks, IKB and NordLB.³⁴³

Germany, however, has been more reluctant than other nations to provide capital infusions or similar aid to its or other European institutions due in large part to concerns regarding the so-called “no bailout rule” of the Treaty of Maastricht, which provides that EU

other things,” which have shaped the UK's approach thus far and that therefore make comparisons between U.S. and UK government actions of somewhat limited use. Notably, the British government's decisions may have been impacted by the need to comply with certain European Commission requirements regarding the provision of state aid to private entities, a concern that obviously is inapplicable to the American decision-making process. Timothy G. Massad, *Legal Analysis of the Investments by the U.S. Department of the Treasury in Financial Institutions under the Troubled Asset Relief Program* (Feb. 4, 2009) (online at cop.senate.gov/documents/cop-020609-report-dpvaluation-legal.pdf).

³³⁶ *Good Sport*, *supra* note 333.

³³⁷ *Go-Between*, *supra* note 331.

³³⁸ *The Spiral of Ignorance: Lack of Understanding of the Credit Crunch Is Magnifying Its Damage*, *The Economist* (Feb. 19, 2009) (online at www.economist.com/world/britain/displaystory.cfm?story_id=13144829).

³³⁹ Sharon Smyth, *Spain Said to Plan Savings Bank Bailout to Aid Merger*, *Bloomberg* (Mar. 6, 2009) (online at www.bloomberg.com/apps/news?pid=20601085&sid=a2NQavmsRt7Y#).

³⁴⁰ Paul Day, *Spain Bank Rescue Fund to Include All Big Lenders*, *Reuters* (Oct. 22, 2008) (online at www.reuters.com/article/rbssFinancialServicesAndRealEstateNews/idUSLM8371720081022).

³⁴¹ Raf Casert, *EU Approves Bank Rescue Packages*, *Associated Press* (Dec. 23, 2008).

³⁴² *Id.*

³⁴³ Jann Bettinga and Oliver Suess, *Commerzbank Gets Fresh Bailout as Germany Takes Stake*, *Bloomberg* (Jan. 8, 2009) (online at www.bloomberg.com/apps/news?pid=newsarchive&sid=aEmWIKXc8q4c).

Member States are not to be held liable for the debts of other Member States.³⁴⁴ Nonetheless, despite previously dismissing France's proposed bank rescue fund, German Finance Minister Peer Steinbrück now concedes that if one of the seriously troubled member nations were to default, "the collective would have to help."³⁴⁵ France has been similarly cautious, although there are indications that this stance is not widely popular among the French people, as evidenced by a national strike by the trade unions on March 19, protesting French President Nicolas Sarkozy's current fiscal policies.³⁴⁶

D. Taking Stock: Options for Moving Forward

Disagreement exists among Panel members regarding the need for, and appropriateness of, discussing potential alternative courses for Treasury to take to restore financial stability. This section of the report is nevertheless offered to provide context to Treasury's current efforts and to highlight the considerations involved in choosing potential alternative paths.

1. Lessons Learned

Although diverse in cause, scope, and solution, previous financial crises provide important insights for contemporary policymakers. In particular, past experience suggests that effective solutions for banking crises often have in common certain characteristics without which a bank crisis may well persist or worsen:

- **Transparency.** Swift action to ensure the integrity of bank accounting, particularly with respect to the ability of regulators to ascertain the value of bank assets and hence assess bank solvency.
- **Assertiveness.** Willingness to take aggressive action to address failing financial institutions by (1) taking early aggressive action to improve capital ratios of banks with declining performance and (2) shutting down those banks that are irreparably insolvent.
- **Accountability.** Willingness to hold management accountable and to prevent excessive risk-taking in the future; also, to build public trust that any taxpayer support is designed to protect the system by replacing – and, in cases of criminal conduct, prosecuting – failed managers. Accountability for managers appears critical both in terms of public support and in terms of facilitating an accurate assessment of the financial status of sick financial institutions.

³⁴⁴Mark Thoma, *Should the EU Let a Member Government Default?* RGE Monitor (Feb. 21, 2009) (online at www.rgemonitor.com/euro-monitor/255676/should_the_eu_let_a_member_government_default).

³⁴⁵*Europe's Reluctant Paymaster: The German Government May Have to Concede, Through Gritted Teeth, That it Cannot Avoid Helping Financially Strapped Governments in Europe*, *The Economist* (Feb. 26, 2009) (online at www.economist.com/world/europe/displaystory.cfm?story_id=13184821).

³⁴⁶Ben Hall, *French Protesters Take to the Streets*, *Financial Times* (Mar. 19, 2009).

- **Clarity.** Build support by providing a clear roadmap for the government response with forthright measurement and reporting of all forms of assistance being provided, and clear criteria for the use of public sector funds. This clarity will provide investors, businesses and households with the predictability of government action needed to return to healthy levels of spending and investment.

The successful financial recovery programs on which we focused involved the following steps:

The first step was to assume a level of bank oversight robust enough to hold failed management accountable and to ensure an objective process for valuing bank assets.

The second step was to provide an objective valuation. In the cases we have reviewed, valuations were either conducted on an administrative basis, as in the RTC and, ultimately, in Japan, or through genuine market processes, as in the case of Sweden and the RTC; either way, confidence in the accuracy of the valuation was critical to restarting normal credit functioning. The current crisis in the United States has become protracted at least in part because both the markets and public sector regulators are unable or unwilling to value such assets, which were ultimately financed by complex financial instruments. Treasury views PPIP as an effort to promote price discovery. Some would argue that an effective price discovery process cannot be achieved when some participants are being subsidized by the government.³⁴⁷

The third step was recapitalization, which, of course, cannot be accomplished without confidence in bank asset valuations. The wide range of approaches to the treatment of debt holders in recapitalizations indicates the importance of careful attention to the particular circumstances of a given crisis in determining government policies toward debt holders. By contrast, in every case the Panel looked at, equity holders were either eliminated entirely or heavily diluted by ratios of 3-1 or more.

The process of recapitalization of banks contributes to the restoration of investor confidence through clear identification of which institutions are healthy and which are not. The absence of such reliable determinations can imperil even healthy institutions in a crisis. The U.S. government and the RFC closed all banks during the Great Depression and permitted only the certified-healthy banks to reopen. While aggressive, this tactic proved successful in restoring much-needed confidence that the banking system was sound and that new investments would not be lost in insolvent banks.

Actions such as the establishment of the FDIC/RTC and the creation of the bad banks Securum and Retriva in Sweden had a somewhat different purpose, which was to separate the management of bad assets from those banks that had the capacity to prosper after restructuring.

³⁴⁷ U.S. Department of Treasury, *Public-Private Investment Program* (updated Mar. 30, 2009) (online at www.financialstability.gov/roadtostability/publicprivatefund.html).

The goal was not financial but managerial – ensuring that the management of reorganized banks focused on their institutions’ ongoing business.

Treasury’s stress-testing appears motivated by the desire to sort out healthy from non-healthy banks. In this respect, it is distinctly different from the approach taken by the Bush Administration, which obscured such distinctions through decisions such as the choice to sell preferred stock on the same terms to banks of greatly varying creditworthiness. The latter strategy led to the Panel’s discovering that the taxpayers received stock worth 33 percent less than what they paid for it.

In this regard, it is noteworthy that success in Japan did not result from loosely-targeted capital infusions or from deferring to the incumbent management of troubled banks about key decisions such as asset valuation, but occurred when banking authorities did their own valuation of bank assets and forced balance sheet restructurings reflecting the real value of those assets.

Clear guidelines about the scope, scale, conditionality, and duration of government intervention in the economy are also critical to promoting private sector long-term investment planning and restoring stability to capital markets. The Japanese case demonstrates the hazards of open-ended government assistance. Without predictable limits or a known exit strategy, investors suspected, rightly, that they could continue to rely on capital infusions to large, powerful institutions indefinitely. Important economic actors lacked the incentive to accept their losses, accurately value assets, and put the assets back into their most productive use. Notably, the Japanese system began to recover only after reporting requirements, stricter valuation methods, and other conditions accompanied capital injections.

Finally, the ultimate cost to the public of resolving bank crises depends to a very large degree on the amount of upside the public obtains either in the banks themselves or in the assets of failed banks. The RTC attempted to recover as much as possible for the public and other creditors on the assets the RTC held. In Sweden, the government took all of the upside on the two banks that were nationalized; if the banks survived, the benefits would go entirely to the taxpayers that had rescued them. The result was that net costs for the Swedish government were no more than 2 percent of GDP. By comparison, our valuation report estimated a net subsidy to shareholders of TARP banks in the initial round of TARP transactions as 0.5 percent of GDP. TARP outlays, actual and expected, to date are approximately 4 percent of GDP, and total resources provided by all government agencies in conjunction with the current financial rescue plan could potentially amount to approximately 25 percent of GDP. As our valuation report showed, it is difficult to secure fair treatment for the public as an investor in sick banks without insisting on the public receiving a substantial portion of the upside in the rescued firm in the form of common stock, warrants on common stock, or other equity appreciation rights.

While history provides important lessons, every situation is different from its historical precedents and judgment is always required in applying any lessons. In this particular case,

consolidation among the nation's money-center banks makes that critical part of the system look more like the concentrated systems in Sweden and Japan than the decentralized U.S. system of the Depression era or even the late 1980s. Of course, the U.S. system nonetheless differs considerably from those nations as well. The U.S., for example, can borrow cheaply in a manner that was not available to Sweden during its banking crisis. At the same time, we cannot rely on someone else's consumer demand to rescue us – as to some extent it seems both Japan and Sweden were able to rely on U.S. consumers to rescue them. The implication of this point is that we may in fact be more economically vulnerable to a weakened financial system than either Sweden and Japan were because we cannot rely on some larger economy to generate consumer demand for our goods and services.

2. Treasury's Approach³⁴⁸

Uncertainty in the credit markets intensified with the failure of Bear Stearns and Lehman Brothers. The equity markets subsequently reflected accelerating uneasiness for some time. Between the beginning of January 2008 and September 18 of that year, the Dow Jones Industrial Average declined by 15.22 percent (or 1,985 points), the NASDAQ National Market declined by 15.4 percent (or 401.7 points) and the S&P 500 declined by 16.2 percent (or 233.6 points). While public attention during this period was focused on the equity markets, financial policy makers rightly focused on the status of the much larger global debt markets.

Behind these capital market developments lay the bursting of the real estate bubble and a tidal wave of residential mortgage foreclosures unheard of in the United States since the Great Depression.³⁴⁹ Congress subsequently passed EESA³⁵⁰ in an attempt to alleviate these issues. That Act gave Secretary Paulson the authority he had sought to buy “troubled assets.” But it also gave the Secretary of the Treasury more sweeping general authority to purchase (after

³⁴⁸ An overview of “An Examination of Treasury’s Strategy” and “Federal Government Efforts” appear in Parts A2 and A3 of Section One, *supra*.

³⁴⁹ As the Panel noted in its last report, over a million homes entered foreclosure in 2007 and another 1.7 million in the first three quarters of 2008. Over half a million homes were actually sold in foreclosure or otherwise surrendered to lenders in 2007, and over 700,000 were sold in foreclosure in the first three quarters of 2008 alone. At the end of the third quarter of 2008, one in ten homeowners was either past due or in foreclosure, the highest levels on record. RealtyTrac, *U.S. Foreclosure Activity Increases 75 Percent In 2007* (Jan. 29, 2008) (online at www.realtytrac.com/ContentManagement/pressrelease.aspx?ChannelID=9&ItemID=3988&acct=64847); HOPE NOW, *Workout Plans (Repayment Plans + Modifications) and Foreclosure Sales, July 2007-November 2008* (online at www.hopenow.com/upload/data/files/HOPE%20NOW%20Loss%20Mitigation%20National%20Data%20July%202007%20to%20November%202008.pdf). See also Chris Mayer et al., *The Rise in Mortgage Defaults*, *Journal of Economic Perspectives* (2009) (forthcoming) (reporting 1.2 million foreclosure starts in first half of 2008); HOPE NOW, *supra* note 13; Adam J. Levitin, *Resolving the Foreclosure Crisis: Modification of Mortgages in Bankruptcy*, *Wisconsin Law Review* (2009)(online at papers.ssrn.com/sol3/papers.cfm?abstract_id=1071931).

³⁵⁰ EESA, *supra* note 1.

consultation with the Chairman of the Federal Reserve Board) “any other financial instrument . . . the purchase of which is necessary to promote financial market stability.”³⁵¹

The EESA became law on October 3, 2008. Five days later, however, Secretary Paulson indicated his intention to use the more general EESA authority to make capital infusions directly into financial institutions without purging their balance sheets of asset-backed securities (ABSs) or collateralized debt obligations (CDOs).³⁵² The day before the Paulson statement, British Prime Minister Gordon Brown had announced that the UK would commit up to £50 billion to rescue British banks. In some quarters, the Paulson reversal was seen as a reaction to the Brown decision, made to prevent U.S. capital from flowing to the UK.³⁵³

The new capital infusion program involved the transfer of funds to financial institutions in exchange for preferred stock, and warrants to purchase common stock, of the institution involved.³⁵⁴ In its third report, the Panel commissioned a valuation of these securities by the independent valuation firm of Duff and Phelps, in consultation with Professors William N. Goetzmann and Deborah J. Lucas and Managing General Partner of Blue Wolf Capital Management and former First Deputy Comptroller of the City of New York, Adam Blumenthal. Duff and Phelps found that the average discount for securities issued under other programs was 69 percent, for an overall average discount of about 31 percent.³⁵⁵ This means, in effect, that for every \$100 dollars invested in the combined programs, the market valuation of the securities purchased was only \$66 dollars.

Since October, approximately \$280 billion of capital infusions have been made with TARP funds. Nonetheless, losses on impaired assets have continued to weaken the balance sheets of banks and foster uncertainty in the financial markets.

³⁵¹ EESA, *supra* note 1.

³⁵² U.S. Department of the Treasury, *Statement by Secretary Henry M. Paulson, Jr. on Financial Markets Update* (Oct. 8, 2008) (online at www.treas.gov/press/releases/hp1189.htm).

³⁵³ Landon Thomas, Jr. and Julia Werdigier, *Britain Takes a Different Route to Rescue Its Banks*, *New York Times* (Oct. 8, 2008) (online at www.nytimes.com/2008/10/09/business/worldbusiness/09pound.html) (“In a bold move to restore confidence, Britain announced an unprecedented £50 billion government lifeline for the nation’s banks Wednesday that it hailed as a quicker solution to the credit crisis than a \$700 billion American plan to buy impaired mortgage assets from troubled financial institutions”); Parmy Olson, *Brown Resurgent: The Credit Crisis Has Galvanized British Prime Minister Gordon Brown As He Urges the World To Follow His Bank Bailout*, *Forbes* (Oct. 12, 2008) (online at www.forbes.com/2008/10/12/brown-bailout-credit-biz-cx_po_1012brown.html) (“The recapitalization package that Brown and his finance minister, Alistair Darling, announced last Wednesday... puts Britain ahead of the U.S. on dealing with the crisis. The United States Treasury has since said that it will mimic the British approach and buy stakes in banks.”)

³⁵⁴ Panel December Oversight Report, *supra* note 4, at 6. Government Accountability Office, *Troubled Asset Relief Program: Additional Actions Needed to Better Ensure Integrity*, at 15-16 (Dec. 2008) (GAO/09-161) (online at www.gao.gov/new.items/d09161.pdf); U.S. Department of the Treasury, *Statement by Secretary Henry M. Paulson, Jr., on Actions to Protect the U.S. Economy* (Oct. 14, 2008) (online at www.treasury.gov/press/releases/hp1205.htm).

³⁵⁵ See Panel February Oversight Report, *supra* note 6.

There is no question that the public is well served by effective government strategies for addressing financial crises. The historical case studies reviewed in Part B of this section of the report demonstrate that proposition clearly. Inaction in the face of systemic financial crisis can be enormously costly – economically, politically and socially. But failed action can be equally costly. Wrong steps not only cost time and money, but they also deprive policy makers of the sustained public support necessary to carry out a successful stabilization program.

As discussed in Part A of this section of the report, Treasury’s current approach aims to both restore credit market activity broadly and stabilize particular financial institutions, especially the few institutions that it deems systemically significant. The recently announced Public-Private Investment Fund focuses directly on the problem of impaired assets; that initiative reflects the working premise that it is possible through government-subsidized, highly leveraged asset purchase vehicles to obtain valuations for non-performing or otherwise troubled assets, sell those assets at those values to willing buyers, and perhaps avoid the need for the reorganization or even the break-up of systemically significant financial institutions.³⁵⁶ Treasury has not explained its assumption that the proper values for these assets are their book values – in the case, for example, of land or whole mortgages – and more than their “mark-to-market” value in the case of ABSs, CDOs, and like securities; if values fall below those floors, the banks involved may be insolvent in any event. Treasury has also failed to explain its assumptions about the economic events that would cause investors to default or how long it believes assets will have to be held to produce a reasonable return for private investors. Without non-subsidized buyers, market functioning is an illusion. As some observers have indicated,³⁵⁷ the issue of asset valuation is now as critical to the recovery of the financial system as the precise strategy the federal government follows. There is another reason why this is so. A great part of the financing done in the markets today either flows through the banking system directly to investors or bypasses banks altogether through the same mechanisms of securitization used for mortgage lending. As the TALF program indicates, securitization is especially important for the financing of credit card, automobile, small business, and student loans. Markets for those pools of loans

³⁵⁶ U.S. Department of the Treasury, *White Paper: Public-Private Investment Program* (Mar. 23, 2009) (online at www.treas.gov/press/releases/reports/ppip_whitepaper_032309.pdf) (“This program should facilitate price discovery and should help, over time, to reduce the excessive liquidity discounts embedded in current legacy asset prices. This in turn should free up capital and allow U.S. financial institutions to engage in new credit formation. Furthermore, enhanced clarity about the value of legacy assets should increase investor confidence and enhance the ability of financial institutions to raise new capital from private investors.”); Treasury has also not explained its assumptions that (i) a number of years are available in which to accomplish these goals without simply transferring losses to the taxpayer, and (ii) it is unnecessary or inappropriate to require that common shareholders (except for dilution) and bondholders accept losses on their stakes in bank capital structures.

³⁵⁷ See Ricardo J. Caballero, *Nationalisation Without Prices: A Recipe for Disaster*, Financial Times (Feb. 17, 2009); Charles W. Calomiris, *The U.S. Government Must Take Risks*, Financial Times (Feb. 19, 2009); Douglas J. Elliott, *The Public-Private Investment Program: An Assessment*, Brookings Institution (March 23, 2009) (online at www.brookings.edu/~media/Files/rc/papers/2009/0323_investment_program_elliott/0323_investment_program_elliott.pdf); Matthew Richardson, *The Case for and Against Bank Nationalization* (February 26, 2009) (online at <http://www.voxeu.org/index.php?q=node/3143>).

have also dried up because of fears that unexpected default rates will deflate and freeze at a deflated level the value of those pools. If Treasury's initiative can show that the problems with the ABS markets *were* liquidity rather than inherent value issues, it would be possible to restore the other markets without the need for the overwhelming commitment of taxpayer funds that the TALF contemplates. While the Panel has previously argued for reform of the securitization process, the Panel has not reached a consensus as to whether it is necessary to revive securitization markets in the interim in order to restart lending in the short-term future.

On the other hand, the frozen ABS markets raise several issues discussed earlier in this report. First, to what degree is the freeze a rational reaction to the problems of over-leverage, opacity, and lack of intermediaries' money being truly at risk that were endemic in these markets during the bubble years? Second, should government seek to restart these markets before reforms necessary to solve those problems (for example, increased capital requirements, increased transparency, and reasonable controls on the structure and economics of securitization vehicles) can be implemented? Third, how critical will the securitization system continue to be in financing our economy? Treasury must address these questions in the coming weeks as it discusses its program for modernizing financial regulation to assure markets that it recognizes the importance of such reforms to preventing future crises.

The debate over the ultimate effectiveness of efforts designed to utilize market mechanisms to restore the values of impaired assets turns on whether current prices, particularly for mortgage-related assets, reflect fundamental values or whether prices are artificially depressed by a liquidity discount due to the market strain. If the liquidity discount is real, public-private sector solutions are not only viable but preferable, as they avoid creating new and unpredictable risks that arise from preemptive government seizure of private interests. It is reasonable to assume that a liquidity discount is impairing these assets, for which there is limited trading. Current prices cannot be fully explained without the liquidity factor. Even in areas of the country where home prices have declined precipitously, the collateral behind mortgage-related assets still retains substantial value. In a liquid market, even under-collateralized assets should not be untradable or trading at pennies on the dollar. Prices are being partially subjected to a downward self-reinforcing cycle.

In the view of some, it is this notion of a liquidity discount that supports the potential of future gain for taxpayers and makes transactions under the CAP and the PPIP investments, and not subsidies in the usual sense. This is an issue that will continue to divide observers of Treasury's actions, and ultimately events will bear out whether this approach will work. The Panel notes that Treasury's approach may prove to be a viable and successful strategy, and offers historical context and the discussion of alternate approaches in the event that changes to Treasury's current plans become necessary. The Panel has not reached agreement as to whether a change in strategy is currently needed.

3. Options for Future Action

Lessons from this report’s historical examination of previous efforts at addressing banking crises highlight several paths Treasury can take if future course changes become necessary.

a. Prologue – Understanding the FDIC’s Resolution Authority in the Context of Banks and Bank Holding Companies Facing Distress

When faced with a distressed bank in the current regulatory system,³⁵⁸ the federal government has several options. The options can be characterized as liquidation (after the FDIC has become the bank’s receiver); reorganization (after the FDIC has become the bank’s conservator); or subsidization either through the FDIC or from taxpayer funds.³⁵⁹

Most large banks are owned by bank holding companies or “BHCs.” The BHC issues stock and debt obligations to investors to raise money for the bank and other companies that the BHC owns. For the most part, only the banks are subject to supervisory and regulatory authority by the FDIC and other federal financial supervisors; the Federal Reserve Board regulates BHCs, although as a practical matter few important decisions are taken about banks owned by holding companies without the concurrence of the Federal Reserve Board. The FDIC ensures bank deposits and, when necessary, takes over those banks that fail. The FDIC’s takeover powers relate to banks, not to their parent bank holding companies. When the FDIC has taken over sick banks, it has done so with an eye toward assuring that depositors’ money is safe and that the FDIC’s own insurance fund will remain solvent.

The accounts that are insured by the FDIC are guaranteed up to as specified limit³⁶⁰ without using general taxpayer revenues (except possibly in extreme cases caused by an overwhelming financial collapse or the distress of a single massive institution). The FDIC can place insured deposit accounts with other institutions. In some cases, it can transfer both accounts and branch operations over a weekend.

Historically, only banks, not investment banks like Bear Stearns and Lehman Brothers, have been rescued by the federal government. The failure to rescue Lehman Brothers is only anomalous against this backdrop of extensive government interventions in failing non-deposit

³⁵⁸ In this discussion, the term “bank” includes all insured depository institutions. Treasury is now proposing to give the FDIC “resolution authority” of the type described in this part of the report covering systemically significant non-bank financial institutions. Geithner Financial Services Committee Testimony, *supra* note 3.

³⁵⁹ Although the power of the FDIC is not limited to seizure of systemically significant institutions, the FDIC may be able to define the terms for such failure on a different basis than for other institutions, or additional legislation may clarify its authority to do so.

³⁶⁰ Currently, individual accounts are insured up to \$250,000. This ceiling is temporary; on January 1, 2010 it will revert back to the previous limit of \$100,000 other than for retirement accounts, which will continue to be insured up to \$250,000. Business accounts are also insured up to the \$250,000 limit.

taking institutions. Government non-intervention in the collapse of Lehman Brothers was consistent with 70 years of government policy.

However the failure to rescue Lehman Brothers was not consistent with the involvement of Treasury and the Federal Reserve Board in the rescue of Bear Stearns and its acquisition by JP Morgan Chase in March 2008; the Bear Stearns action marked a new degree of public governmental involvement in the rescue of a non-depository institution. But even if the Bear Stearns rescue was unprecedented (because Bear Stearns was not a bank), the economic result resembled the economic result of the rescue of Continental Illinois in the mid-1980s – in both cases the shareholders of the company received relatively little and the focus was on ensuring that the institution (in the latter case, Bear Stearns) met its fixed obligations.

Subsequent government interventions in Wachovia and AIG followed this pattern. At the same time, the liquidations of the truly insured thrifts – Washington Mutual and IndyMac – by the FDIC followed the same pattern of protecting depositors and wiping out investors.

It is helpful to keep the structure and history of the U.S. banking industry in mind as a backdrop against which to assess the options for dealing with distressed banks.

Option A: Liquidation: Receivership and Breakup or Sale of Distressed Banks.

Rather than subsidizing large distressed banks as going concerns through government investment under the TARP, critically undercapitalized banks could be selected for effective liquidation by being placed into the receivership of the FDIC. Then the FDIC would help resolve the failure, as it has done more than a dozen times already this year.³⁶¹

As receiver, the FDIC could place the bank in liquidation – sell any or all of the bank’s assets, organize a new bank containing assets of the bank, merge all or part of the bank into another bank, or transfer assets or liabilities of the bank to another bank. As it did in the savings and loan crisis of the late 1980s and as it has done when individual banks have failed in the past, the government would continue to protect savings and checking account holders by moving those accounts to another bank or by paying amounts in FDIC-insured accounts directly to the account-holders.

At the same time, the BHC that owns the large bank would almost certainly enter bankruptcy under Chapter 7 or 11 of the federal Bankruptcy Code. (The bankruptcy proceeding would determine the fate of the securities firms and other financial companies owned by the BHC). The result of the receivership and bankruptcy proceedings would likely be to wipe out the

³⁶¹ See Congressional Research Service, *The Federal Deposit Insurance Corporation (FDIC): Summary of Actions in Support of Housing and Financial Markets* (Mar. 5, 2009) (CRS/7-5700) (hereinafter “CRS FDIC Report”).

interests of the BHC's stockholders; in some cases the holders of debt obligations in the BHC could recover part of their investment.³⁶²

The FDIC's Temporary Liquidity Guarantee Program would soften the negative impact of increased liquidations on BHC bondholders.³⁶³ By guaranteeing senior unsecured bonds (including some bonds that are convertible into common stock), the FDIC agreed to treat these bonds more like deposits. This has reduced the likelihood that liquidations will chill investment or have spillover effects on other banks. The fees that bond-issuers pay under the program would also mitigate the costs of its operation, although it is unclear to what extent the FDIC will have the resources to deal with liquidations of large institutions.³⁶⁴

Treasury could supplement this approach for systemic reasons with broader protection for bondholders. This was the approach of the Swedish government, which guaranteed all fixed obligations. Such a guarantee would be extremely expensive. However, the reason to expand the existing FDIC Guarantee Program would be to reassure credit markets generally, or, specifically, to avoid a chain of defaults set off by the consequences of credit default swap obligations coming due as a result of a bond default.

Option B: Receivership

As an alternative to a windup, the government could place a distressed bank into conservatorship. As conservator, the FDIC would try to restore the bank's safe and sound condition (leaving insured and hopefully other deposit holders in place) and carry on the bank's business in the meantime.

In either a receivership or conservatorship, the FDIC can remove failed managers. It can also sell assets at their current market value both to raise funds and to remove the bad assets from the bank's balance sheet, and it can sell off parts of its business. The FDIC could also conceivably use this authority to break up one or more large, systemically significant institutions into several smaller, more manageable banks.³⁶⁵ The preservation of the interests of existing shareholders is not a constraint on the FDIC's exercise of its authority.

This approach is similar to the steps that were taken in countries with crises in relatively concentrated banking sectors in the recent past, including the United Kingdom currently. It is

³⁶² While only bankruptcy courts have the authority to wind down bank-holding companies and non-bank institutions, Congress could provide that authority to the FDIC or another agency moving forward. See Panel Regulatory Reform Report, *supra* note 164.

³⁶³ See generally Federal Deposit Insurance Corporation, *Temporary Liquidity Guarantee Program* (online at www.fdic.gov/regulations/resources/tlgp/index.html) (accessed Mar. 22, 2009); CRS FDIC Report, *supra* note 361, at 5-6.

³⁶⁴ See Part A of Section One, *supra*, for a discussion of the FDIC's financial condition.

³⁶⁵ Simon Johnson, *The Quiet Coup*, *The Atlantic* (May 2009) (online at www.theatlantic.com/doc/200905/imf-advice).

also similar to the approach of the Reconstruction Finance Corporation during the New Deal. The only successful cases noted in Part B of this section of the report that do not effectively fall into the conservatorship category was the RTC experience, which, of course, involved numerous smaller insolvent institutions that disappeared during the crisis.

Treasury could obtain FDIC-type powers over institutions that received TARP funds, similar to the powers the UK government has exercised over some banks. Simply by insisting on voting control as the price for further capital infusions, Treasury would be in a position to exercise more control and to guard the interests of taxpayers.

Option C: Subsidization of Distressed Banks

A third option is that, as the crisis spreads and financial institutions are at risk of becoming insolvent, the government can provide financial resources to keep those institutions afloat (which some may view as “subsidization”). In most cases, before government aid is delivered to a sick bank, the BHC must first support the bank itself, but, again, it is likely that, by the time a crisis is reached, a distressed bank will have already exhausted available assets of its BHC.

Government financial support may be in the form of a loan, a guarantee, or a direct infusion of capital, all of which are among the tools available to Treasury as part of its authority under the TARP. In addition, asset purchases from banks arranged with government involvement and guarantees can be vehicles for government subsidies. In each case, this assistance means transferring value from the taxpayer to the financial institution. Such transfer may be temporary (i.e., when the subsidy must be repaid) or permanent. Subsidization might be provided to all banks that request it or just the banks that threaten systemic risk. The amounts and kinds of subsidization are open-ended.

In most cases, the assistance flows to the bank through the BHC, although some forms of FDIC assistance can flow directly to the bank. This structure is used because often only the BHC can issue preferred stock. By funding the corporation that holds the bank as opposed the bank itself, the government does not achieve a legal claim as a bank creditor that could be senior to other creditors. Instead, the government holds senior preferred equity in the BHC, and is thus at a higher risk of losing its investment in a liquidation proceeding than other creditors. By lending to BHCs, the government increases the risk of taxpayer non-payment. At present, the TARP involves two approaches. The first is the provision of capital for a distressed bank to help it maintain solvency, lending volume, and financial operations during the current crisis. The second is purchase of bad (so-called “toxic”) assets – as Secretary Paulson initially recommended – to remove the threat those assets pose to bank solvency. Under this approach, the government could purchase the assets outright or it could purchase the assets as part of a general restructuring. One restructuring that is widely described involves placing institutions in conservatorship with the FDIC transferring the toxic assets to one or more institutions (so-called

“bad banks”) created specifically to hold and ultimately to sell those assets for the highest amounts possible. In that case, banks stripped of their toxic assets would emerge from receivership as healthier institutions and the separated, bad assets, could be held until their value increased as the markets recovered.

4. Assessing the Options

The overall objective of the TARP and related actions by the FDIC and the Federal Reserve Board is to stabilize the financial system and promote the return of economic growth. The choice of which route to pursue among the options discussed above would appear to depend upon the relative weight that policymakers assign to several other important considerations.

a. Time – Is it on Our Side or Not?

Assuming the most immediate goal is to have functioning major financial institutions, the question is how to achieve that goal as quickly as possible, at the lowest cost to the taxpayers, and with minimal risk to the public interest and the financial system. If, with the passage of time, assets will be restored to their earlier, true values and banks will come back to life on their own accord, then time is on our side. In such a case, the risks of action likely outweigh the risks of inaction.

On the other hand, if the economy is unlikely to recover quickly, so that the banks cannot rely on a rising economy to restore their balance sheets, time is not on our side. The banking system itself creates a possible timing problem. The existence of weak institutions that are sustained only by taxpayer guarantees and infusions of cash threatens the health of all banks, drawing off depositors and undermining public support. Continued operation of systemically significant but weakened institutions at the heart of a nation’s financial system may prevent a robust economic recovery of the sort that would cause time be on our side. In such a case, delay and half steps would seem to be the main enemy.

b. Taxpayer Exposure and Exit Strategy

Subsidization, liquidation, and reorganization all require upfront outlays by the government, and the greater the desire to protect one or another class of otherwise uninsured investors, the greater that initial outlay will be. If Treasury policy was to only protect insured depositors, the costs of either liquidation or reorganization would be quite low. Ensuring all bondholders is costly, and keeping equity holders alive is the most expensive of all, because: (1) protecting equity means you must protect all debt holders as well as the equity holders; and (2) doing so prohibits the public from capturing the upside of a recovered bank.

Under any of the three strategies, the cost to the taxpayer depends not only on which classes of capital policymakers want to support, but also on precisely how insolvent the applicable institutions may be. In the case of liquidation or reorganization, the cost to the

taxpayer is minimal where assets are adequate to cover deposits and, as necessary, guaranteed debt. The total cost of each of these strategies also depends on their effectiveness at thawing credit markets and restoring economic growth. An ineffective strategy is likely to prolong the crisis and require further investment of taxpayer funds.

With regard to subsidization, capital infusions generally come to mean equity (or “common stock”) investments that increase the cost to the taxpayer if banks fail or produce gains if the market recovers. Of course, that assumes that the government is focused on capturing upside opportunities through equity ownership. In the case of the transactions with shaky financial firms under TARP to date, with the exception of AIG, Treasury has taken only small amounts of equity upside in relation to the large risks Treasury has assumed through its preferred stock investments and asset guarantees.

In the case of asset purchases, the bad assets could fail to increase in value, leaving the taxpayers with similar, if not larger, losses. On the other hand, a very successful government asset purchase program would provide the government with 100 percent of the upside in those assets. These assets could gain in value as the market turns around, producing gains to the government upon ultimate disposition. While Swedish authorities were aided by the rapid recovery of the economy both nationally and globally as they sought to dispose assets, such economic recovery is uncertain today, as it was uncertain *ex ante* in Sweden. Similarly, with regard to liquidation and reorganization, the disposal of assets in the current environment may require steep discounts and thus greater taxpayer cost, depending on whether the government, as opposed to the FDIC, is guaranteeing any particular class of investors in the firm.

While the total cost of the various options is open to doubt, liquidation provides clarity relatively quickly. In that sense, allowing institutions to fail in a structured manner supervised by appropriate regulators offers a clearer exit strategy than allowing those institutions to drift into government control piecemeal.³⁶⁶ Liquidation is less likely to be open-ended and stretch over years, as subsidization did in Japan.

Liquidation is also the option least likely to sap the patience of taxpayers. It is noteworthy how little controversy has been associated with the FDIC’s windup of numerous banks and thrifts over the last year. The process for liquidating thrifts such as Washington Mutual and IndyMac has been executed without public alarm. The confidence in this system seems to be related in part to the FDIC’s long established role as conservator and, in part, to the clear rules and purposes the FDIC has in place for its functioning as conservator. By contrast, taxpayers become particularly impatient when subsidies are used to help banks acquire other banks, stave off losses by bank shareholders, or serve existing management.

³⁶⁶ See Hoenig, *supra* note 149.

Thus, while liquidation can offer a clear exit strategy, FDIC's experience with Continental Illinois suggests that reorganization may not offer quite such a clear ending if the government is committed both to minimizing the expenditure of government funds and to making all creditors whole. Unable to find an acquirer, unwilling to pay bondholders less than the value of the bond, and either unwilling or unable to infuse sufficient capital to bring Continental Illinois back to life, the government was forced to own and operate the bank for a prolonged period, retaining an equity stake in that institution for seven years. On the other hand, where there is a willingness to fund losses or to discount payments made to investors, reorganization has been relatively quick.

Finally, liquidation raises concerns related to enterprise value. Liquidation typically breaks up the firm. In some cases, that could involve significant destruction of going concern value. A large multinational institution's franchise value created by the web of consumer, corporate, and international banking relationships may be lost as a result of government seizure and reorganization, a cost that is not imposed on the economy under open bank assistance

But liquidation forms are not so limited. Liquidation can mean a sale of the whole entity to a buyer capable of absorbing and benefiting from the business as a whole. Going concern sales occur with some frequency outside the banking world, even among very complex institutions. Enterprise value might be more easily preserved in a conservatorship. By restructuring their balance sheets, writing down liabilities, and eliminating old equity, such firms might continue in operation and attract significant new capital. It may be true that some firms are systemically significant, but that does not mean every slice of their capital structure is systemically significant. In fact, it may be that a restructuring represents the best way to bring the franchise value back to full life.

c. Government Capacity and Expertise

All successful efforts to address bank crises have involved the combination of moving aside failed management and getting control of the process of valuing bank balance sheets. There are two models for the independent balance sheet valuation: mark to market (Sweden, RTC), and independent administrative pricing overseen by new management (RFC, ultimately Japan). Reorganization and subsidization without effective assessment of asset values does not work, as it can easily lead to the perpetuation of banks in a weakened condition or to significant government subsidies to private parties.³⁶⁷ History offers no examples in which subsidization of existing shareholders and management produced effective assessment of asset values.

The prospect of conservatorships at large U.S. banks raises issues of government capacity to manage such processes at one or more systemically significant financial institutions. Although the FDIC has shown skill and professionalism in dealing with failed banks in the past,

³⁶⁷ See Ricardo J. Caballero, *Nationalisation Without Prices: A Recipe for Disaster*, Financial Times (Feb. 17, 2009).

it has never seized an institution as complex as a systemically significant banking institution would necessarily be. The fact that most such institutions operate in dozens of countries makes their seizure particularly complex. The government's capacity to dispose of bad assets could be overwhelmed by the amount and complexity of the assets held by those institutions.

Some recent large FDIC takeovers may not offer relevant examples. While the FDIC has recent experience acting as the conservator of major financial institutions, that experience does not necessarily translate directly into the complex processes involved in seizing large, complex holding companies with operations spanning many countries. In July 2008, for example, the Office of Thrift Supervision closed IndyMac and placed it under an FDIC conservatorship.³⁶⁸ While IndyMac was the one of the largest mortgage originators in the nation, its day-to-day operations were relatively simple; at the time of seizure, the thrift had only 33 branches, all of which were located in California.³⁶⁹ Similarly, when regulators closed Washington Mutual last September and put it under FDIC conservatorship, the FDIC was able to facilitate the purchase of the thrift by JP Morgan immediately, seamlessly, and with relatively minimal effort.³⁷⁰ While that experience demonstrates how quickly the FDIC can cleanse the balance sheets of a troubled institution and return that institutions to private hands, Washington Mutual's operations were considerably simpler than those of large bank holding companies. The seizure of a large, systemically significant institution – let alone of multiple ones at the same time – may create additional and complex policy challenges.

On the other hand, it is not clear whether (1) the resources of the United States government, including its global reach, are any less in relationship to its largest banks than the resources of the Swedish government were to its largest banks, (2) whether the complexity of a small number of systemically significant financial institutions is actually greater than the complexity involved in a massively multi-institution enterprise like the RTC, and (3) whether these concerns suggest that the preferred approach for large institutions is to look to restructure balance sheets in short order through investor concessions, rather than trying to manage institutions over time to fund complete guarantees for bondholders, which was the approach in Continental Illinois and in Sweden.

³⁶⁸ Federal Deposit Insurance Corporation, *Failed Bank Information: Information for IndyMac Bank, F.S.B., Pasadena, CA* (online at www.fdic.gov/bank/individual/failed/IndyMac.html) (accessed Apr. 6, 2009); Federal Deposit Insurance Corporation, *FDIC Establishes IndyMac Federal Bank, FSB as Successor to IndyMac Bank, F.S.B., Pasadena, California* (July 11, 2008) (online at www.fdic.gov/news/news/press/2008/pr08056.html).

³⁶⁹ Federal Deposit Insurance Corporation, *FDIC Establishes IndyMac Federal Bank, FSB as Successor to IndyMac Bank, F.S.B., Pasadena, California* (July 11, 2008) (online at www.fdic.gov/news/news/press/2008/pr08056.html).

³⁷⁰ Federal Deposit Insurance Corporation, *Bank Acquisition Information: Information for Washington Mutual Bank, Henderson NV and Washington Mutual Bank, FSB, Park City UT* (online at www.fdic.gov/bank/individual/failed/wamu.html) (accessed Apr. 6, 2009).

Several further observations on the subject of complexity and liquidation are relevant. First, Treasury and the Federal Reserve Bank of New York appear to be pursuing a liquidation strategy with AIG. They appear to be selling off the pieces of that gigantic conglomerate while making whole all its creditors. It is less clear what the Administration's strategy is with Fannie Mae and Freddie Mac, but it does not appear to be a short-term liquidation strategy. In neither case does the government's role appear to be beyond its organizational capacity, though it appears in all those cases to be a politically challenging task. In addition, the government would not be limited to current personnel. Among the many retired banking professionals and those currently operating smaller banks, there may be substantial talent available to assist in the management of banks under conservatorships.

d. Competitive Impact on Financial Institutions

Subsidization can have a substantial negative impact on the functioning of competitive markets. It undoes market discipline for financial institution investors, particularly equity investors, and it effectively puts the financial power of the government behind some "private" firms and not behind others. While some institutions – like Lehman Brothers – are left to fail without government assistance, others remain solvent and benefit from increased stock values that take public subsidization into account.

Perhaps the most pernicious impact of subsidization is its effect on prudent banks. Institutions that were conservative in their risk profiles and remained solvent during tough times lose the comparative advantage of that prudence when the government subsidizes imprudent actors. Although liquidation and reorganization can be costly and painful, those processes do not raise the same risks of moral hazard or market distortion that accompany government subsidization.

While systemically significant institutions will have competitive advantages over others because of government financial assistance, if the special protection available to them is not accompanied by heightened regulatory requirements (relatively stringent capital and liquidity requirements, an overall maximum leverage ratio, etc.), then the comparative advantages of size will promote severe market distortions – and impose growing risks on the taxpayer.³⁷¹

e. Impact on Investors and Capital Markets

Some investors would nearly always be wiped out under liquidation or reorganization strategies. This is a harsh outcome, but the investors also reaped profits during the good times, for which they agreed to take the losses when things went sour. This is the nature of a market economy, and it certainly is the fate of most business people who take risks in a market economy. It is also the market discipline that the leaders of the financial community have urged on their fellow citizens for decades.

³⁷¹ See Panel Regulatory Reform Report, *supra* note 164, at 23-24.

Some concern has been expressed that shareholders may include pension funds and municipal governments, which would spread the public costs of liquidation. On the other hand, it would undoubtedly be less expensive to assist the subset of investors that might deserve protections (such as pension funds or municipal governments), than to continue to support all investors in the hopes that some portion of the assistance would flow to these groups. In fact, even when accounting for pension funds, stock ownership is concentrated heavily among higher-income families, which means that protection of investors involves wealth transfers from all taxpayers to a wealthier minority.³⁷² This is particularly true for very low valued stocks and junk bonds, which are typically held by long-term broadly representative investors but which are shifted in a time of crisis to specialty, risk-friendly investors like vulture funds.

It is also possible that a more aggressive approach toward seizures may further undermine the efforts of banks to attract critical private capital. On the other hand, with subsidization, private capital must also factor deep uncertainty about how long the subsidies will last, the underlying value of the assets, and whether taxpayers will eventually insist that banks be liquidated. The post-reorganization bank has a cleaned up balance sheet that would pose almost no risk and would likely be very attractive to investors bringing new capital.

f. Asset Price Transparency

Attempting to ensure that the securities issued by an institution in exchange for a capital infusion are equal in value to that infusion is difficult at best, and some pricing mechanisms are designed to create hidden subsidies. Valuation issues are even more extreme when the government purchases bad assets. While the shares of many larger banks are publicly traded, providing a market price that can be referenced in setting the terms for capital infusions, the banks' assets often have no readily ascertainable market value. If the government pays for the assets at a distress price, reflecting the assets' current market value, the selling institution may be demonstrably insolvent. But if the government pays more for the assets than their current market value, it will simply provide a subsidy to the bank at taxpayer cost. These considerations led to decisions on the one hand to have government initially absorb the losses associated with mark-to-market accounting for distressed assets, as was the case with the RTC and Sweden, and on the other hand, to engage in independent administrative valuation of distressed assets, as was the case in the RFC and in the eventual Japanese approach to the crisis.

Liquidation presents its own valuation challenges. If the government takes over a failed bank, it will eventually sell the assets. It will have to make the decision about how long to hold them and what price to offer initially. By "dumping" assets too quickly, Treasury could depress prices and indirectly impose losses upon other financial institutions, and by holding too long, the taxpayer could take unnecessary risks. This was the challenge facing the RTC when it liquidated the assets of failed institutions in the late 1980s and early 1990s. But, as David Cooke testified

³⁷² Frank Ackerman et. al., *The Political Economy of Inequality* (2000).

to the Panel, the RTC experience is generally viewed as providing lessons in how to sell off assets effectively and efficiently. Ultimately, the RTC was able to restore functioning markets for the kinds of assets (defaulted construction loans, mortgages, and real estate) that typically comprise a large portion of the bad assets of even the largest institutions.

Historical precedents always involve some differences from the current crises and the turmoil in the global financial system over the last nearly two years has produced challenges not faced in prior banking crises. Nevertheless, our review of prior episodes strongly underscores the importance of reliable asset values, an assertive government response to failing financial institutions and a willingness to hold management accountable, including replacement of key officials when necessary. And perhaps most important of all, clear, consistent communications to the public of the government's goals, strategy and progress in achieving its objectives – expressed in terms the broad public can understand – will continue to be critical to sustained support for the current efforts from American taxpayers.

Section Two: Additional Views

A. Richard H. Neiman and John E. Sununu

The report issued today by the Congressional Oversight Panel identifies central issues that should frame the public policy debate on financial stability, including the importance of asset valuation, the extent to which the current crisis is being driven by liquidity as well as credit factors, and the proper relationship between the public and private sectors.

These issues are complex, however, and the Panel did not reach an agreement on either the economic assumptions underlying strategic choices or on the optimal strategy to pursue. Further, we are concerned that the prominence of alternate approaches presented in the report, particularly reorganization through nationalization, could incorrectly imply both that the banking system is insolvent and that the new Administration does not have a workable plan. The stakes for the American people are too high to permit any such misapprehensions to develop and intrude on successful outcomes that affect our national financial security.

Therefore, we have issued this Statement of Separate Views, to highlight what we consider to be the key points and to provide Congress and the public with a fuller context in which to consider the Panel's report.

1. The Primary Mission of the Panel is to Evaluate the Effectiveness of Treasury's Actions

First and foremost, the Panel is charged with evaluating the effectiveness of Treasury's use of the new authority granted it under the Emergency Economic Stabilization Act. It is not our role to design or approve Treasury's strategy, nor should the Panel's mission be expanded to encroach on that authority.

Advocating an alternative strategy comes within the scope of our mission only if Treasury either offers no plan, or attempts to proceed with a plan that the Panel determines cannot reasonably be expected to succeed. As we will describe, neither of these conditions exists at present. Therefore, to the extent that the Panel report focuses more on alternatives and less on evaluation of current activities through objective metrics, we have missed an opportunity to closely engage with our primary task.

2. The Current Treasury Strategy Aligns with Congressional Intent

The new Administration has set forth a comprehensive plan, in particular through the Capital Assistance Program (CAP) and the Public-Private Investment Program (PPIP). Collectively, these programs deal with the need for banks to engage in controlled deleveraging by addressing both the equity and the asset challenges to the balance sheet. The combination of

these two approaches provides a more comprehensive strategy than either capital infusions or asset purchases alone. The Treasury has further allocated funds to directly address mortgage modification and foreclosure mitigation efforts for homeowners.

Taken together, these programs comprise a strategy that aligns with the Congressional intent in passing the TARP legislation. They return to the original concept of asset purchases and address the housing crisis. Furthermore, they embody a preference for maintaining a private banking system via temporary public support or partnership, which is consistent with this country's tradition of private rather than government control of business. Congress passed the EESA to protect the American public from financial chaos, and preventing collapse also avoids the subsequent need for more extensive forms of government intervention in the markets- forms less consistent with our American experience of democratic capitalism.

3. The Current Treasury Strategy is Reasonable and Viable

Much of the Panel's report is premised upon the tension between subsidization and reorganization through nationalization, in considering which options are preferable. Embedded within this tension are profound differences in assumptions, both on the origins of the crisis and on the optimal shape of the financial services industry that emerges post-crisis.

Some still question the viability of any plan involving public support that does not first divest private ownership; however, less drastic options such as public-private sector solutions are based on very reasonable assumptions.

The debate turns on whether current prices, particularly for mortgage-related assets, reflect fundamental values or whether prices are being artificially depressed by a liquidity discount due to the market strain. As stated in the report, one school of thought focuses on the liquidity factor:

“If the liquidity discount is real, approaches such as Treasury’s Public Private Investment Partnership (PPIP) are more likely to succeed. Current prices may, in fact, prove not to be explainable without the liquidity factor. Even in areas of the country where home prices have declined precipitously, the collateral behind mortgage-related assets still retains substantial value.”

We affirm that it is entirely reasonable to assume that a liquidity discount is impairing these assets, and thus that the Treasury has adopted a viable plan based on this valid assumption. Further, we believe that a viable plan should be given the opportunity to work. Speculation on alternatives runs the risk of distracting our energy from implementation of a viable plan and needlessly eroding market confidence. Market prices are being partially subjected to a downward self-reinforcing cycle that could be exacerbated by unwarranted consideration of more radical solutions such as nationalization.

This positive assessment of Treasury's view on the underlying causes of the financial crisis is not meant to suggest that the housing bubble should be re-inflated. But we do admit to being confident that the long-term values of mortgage-related assets secured by American homes remain a good investment.

4. Restoring Financial Stability During an Emergency Takes Precedence over Other Policy Goals

In thinking long-term, other issues remain to be considered. The financial crisis has revealed underlying weaknesses in our regulatory system, and a reform effort will contribute to preventing future crises. Regulatory reform is a process, however, and we should not withhold access to existing tools for restoring financial stability while that reform process is in progress.

Two examples of broader issues that should be addressed in the context of financial stability are 1) the role of securitization in reviving markets, and 2) the need for prudence in setting the degree of transparency for stress-testing of the major banks in connection with the CAP.

Reforms are certainly necessary in securitization and secondary markets, as the Panel has noted on previous occasions. We need to improve the credit quality of securities issued and better manage risk going forward, but this does not mean that securitization should be abandoned in the interim.

The Panel's report presents a variety of views on the role of securitization both in a reformed regulatory structure and as a potential tool in reviving markets. We agree with the perspective which acknowledges that economic recovery depends upon the existence of a functioning secondary market, to re-cycle capital and support credit access for consumers and businesses.

That is why the Federal Reserve has developed the Term Asset-Backed Securities Loan Facility (TALF), in which the Treasury has chosen to invest limited TARP funds. The secondary market has been largely frozen for a wide class of assets, including student loans, auto loans, credit cards, and small businesses credit. An added safeguard is that the TALF will not accept the more exotic forms of securitized structures.

On the issue of transparency, specifically in the stress-testing that federal banking regulators will be performing under the CAP, results should be held confidential. We believe that government agencies and officials who monitor the industry have a public trust and should be held accountable for their oversight. But there is also a critical difference between public information and confidential information, and respecting this distinction is in our national interest. Regulatory examination findings for banks are confidential, and this rule should extend to the results of stress-tests to prevent misuse of information and rumors that could place depositors' funds at risk.

5. The Panel's Mission Remains of Critical Importance

There is much serious and constructive work for the Panel to contribute in evaluating the Treasury's existing initiatives, including the structure of both the TALF and PPIP, and we should be zealous in pursuit of our mission. Open issues that need to be addressed in-depth in future Panel reports include:

- Treasury's decision to limit the number of fund managers for the PPIP, and the eligibility criteria for fund managers;
- The impact of new FASB rules on mark-to-market accounting;
- The implications of redemptions of TARP funds on the design and goals of the program; and,
- Additional metrics to quantify the health of the financial system.

Congress would be much better served by those lines of inquiry, which we believe will identify ways in which to maximize the opportunities for success.

And success is achievable. We have the wherewithal not only to restore financial stability, but to emerge from this crisis in an even stronger position. Prosperity is not a zero-sum game. It is not the case that one person or group necessarily prospers at another's expense. If we stand together in investing in our common future, as individual and as corporate citizens, we continue in our country's tradition of pragmatic optimism and lay the most enduring foundation of all for our lasting economic stability.

B. John E. Sununu

In producing monthly reports assessing the performance of programs under the Troubled Asset Relief Program (TARP), the Congressional Oversight Panel has worked effectively to build consensus among panel members. While it is unusual that any single panel member would fully agree with every sentence and statement in a comprehensive oversight report, in each previous case, I have found broad agreement with the sentiment and priorities pursued, and as a result, voted to support their release.

In reviewing the drafting of the April Oversight Report, however, it became clear that much of the content pursued topics which strayed far from the Panel's core mission. Moreover, the April Report engages in a premature discussion of dramatic changes in Treasury's chosen approach to supporting stabilization in the US financial markets. These and other concerns are more fully discussed in the joint additional views which I have submitted with Richard Neiman.³⁷³ Given the magnitude of these differences, I am unable to support the full April Oversight Report.

In addition to the concerns expressed in the joint additional views, I wish to briefly highlight two significant areas of disagreement with the Report's choice of content and prioritization. In the end, these differences were simply too great to overcome through the submission of supplemental views alone.

1. The main element of the April Report, a discussion of alternatives to the programs Treasury has established under the TARP, takes the Panel too far from its core mission of monitoring and assessing the performance of existing programs and making recommendations for improvement. In utilizing resources to pursue this lengthy discussion (pp. 70-87), the Panel has lost the opportunity to develop a more in depth assessment of key questions including:

- How much lending and what type of lending has been done by firms receiving funding under the Bank Capital Program (CPP)?
- What factors have driven roughly 200 financial institutions to decline CPP funding after their applications had been approved, and what implications does this have for the success of the program?
- How successful have the initial TALF auctions been, and what implications does this have for the structure and price discovery mechanism of the PPIP?
- To what extent has the recent debate and proposed legislation regarding taxation and limitation of executive compensation discouraged firms from participating in CAP,

³⁷³ Part B of Section 2 of this report, *infra*.

TALF, and the PPIP?

2. The April Report contains a lengthy discussion (pp. 60-70) of the unfolding financial crisis in Ireland, Iceland, the United Kingdom, and other European Countries. While a short description of the steps each nation has taken may be appropriate to the context of the Report, attempting a detailed analysis of the economic – and political – response is well outside the core mission of the Congressional Oversight Panel. Given the very dynamic nature of the current crisis, and the relative proximity of recent decisions taken in these countries, it is of little use to employ these examples to guide our oversight of the Treasury Programs.

In summary, the central parts of the April Report of the Congressional Oversight Panel is consumed with discussion which, although interesting to many readers, is at the edge of – and outside – the core mission of the Panel. Expending resources to develop this analysis has precluded a more detailed assessment of the performance of TARP programs to date. Furthermore, the prominence of alternate approaches could be used incorrectly to suggest that the Panel believes that existing programs have failed, or that it has concluded that the Administration Plan is not viable.

Given the weight of these concerns, I am unable to support the release of the April Oversight Report.

Section Three: Correspondence with Treasury Update

As Treasury continues to announce new initiatives, the Panel continues to review and investigate different aspects of the financial crisis and the related programs. Since its first report, the Panel has requested clarification on Treasury's strategy. On March 5, 2009³⁷⁴, Chair Elizabeth Warren replied to Secretary Geithner's letter of February 23, 2009, with a request for a direct response to the Panel's outstanding questions regarding Treasury's overall strategy for combating the financial crisis. The letter requested a reply by March 20, 2009. On April 2, 2009, Secretary Geithner replied.³⁷⁵

Despite months of requests, the Panel was unable to secure a commitment from Secretary Geithner to testify at a Panel hearing regarding Treasury's strategy. In recent days, a date was finally set for April 21. The Panel appreciates the commitment, but it is concerned about the prolonged process.

The Panel was also quite surprised to discover it was excluded from the PPIP term sheet providing information access to GAO and SIGTARP. Thus far, Treasury has offered no explanation for why it would attempt to exclude the Panel from access to this information.

In a letter to Secretary Geithner dated March 25, 2009, the Panel Chair expressed her concerns on these issues.³⁷⁶ While the Panel understands the many demands on Treasury at this time, this delayed response is deeply worrisome. In his April 2 letter, Secretary Geithner promised regular meetings and briefings before major announcements. This would be a significant improvement. A productive working relationship with Treasury would provide greater transparency to Congress and the public.

TALF Inquiry. Recently, the Oversight Board opened an inquiry into the TALF.³⁷⁷ Specifically, the Panel is concerned that the TALF appears to involve substantial downside risk and high costs for the American taxpayer, while offering substantial rewards to a small number of private parties. Equally important, the TALF appears to subsidize the continuation of financial instruments and arrangements whose failure was a primary cause of the current economic crisis. The Panel is further concerned because the documents posted on Treasury's website describing the terms of operation of the TALF and press reports about the content of those terms as they are to be implemented by the Federal Reserve Bank of New York are contradictory.

³⁷⁴ See Appendix VII, *infra*.

³⁷⁵ See Appendix VIII, *infra*.

³⁷⁶ See Appendix IV, *infra*.

³⁷⁷ See Appendix VI, *infra*.

To clarify the questions surrounding TALF, the Panel Chair asked Treasury for more information in her March 20, 2009, letter. Generally, the Panel is seeking information on a number of points to better understand what Treasury intends to accomplish with TALF and why the TALF structure is the most effective way to accomplish that goal. A reply was requested by March 27, 2009, and was received as part of the April 2, 2009, letter. The Panel is currently reviewing the letter.

AIG Inquiry. The Panel has also initiated an inquiry into Treasury and Federal Reserve Bank actions to provide continued capital infusions and other assistance to AIG.³⁷⁸ The Panel has raised a number of important questions. These include the basis for deciding that AIG posed systemic risk, the economic consequences of the assistance provided to AIG, the identity of the ultimate beneficiaries of this assistance, and the manner in which Treasury and the Board have monitored the recipients of taxpayer dollars. The Panel is particularly concerned that the opaque nature of the relationship among AIG, its counterparties, Treasury, and the Federal Reserve Banks, particularly the Federal Reserve Bank of New York, has substantially hampered oversight of the TARP program by Congress and, equally important, has impaired the understanding of that program by the American people.

In a letter dated March 24, 2009, the Panel Chair requested information from Treasury and the Federal Reserve Board on a number of points related to AIG, including how the assistance was requested and need was analyzed, the assessment of risk to the national and international financial system, any conditions placed on the assistance, and information about counterparties and credit default swaps. The Panel awaits the requested information from Treasury.

Capital Assistance Program Inquiry. Most recently, on March 30, 2009, Chair Elizabeth Warren sent a request to Secretary Geithner regarding the Capital Assistance Program's stress tests.³⁷⁹ Because the stress tests represent a key component of the program, the Panel has undertaken a study of the theories underlying and details of the assessment.

The Panel is hopeful that Treasury will provide a prompt, substantive response to outstanding inquiries. In addition, the Panel would find it helpful to have a single point of contact within Treasury charged with providing information requested by the Panel. Without detailed and accurate information, the Panel cannot perform its oversight function as effectively as it should. The Panel is encouraged by Secretary Geithner's recent letter, and the Panel will continue to work with Treasury in the hopes of restoring public confidence in the recovery process.

³⁷⁸ See Appendix V, *infra*.

³⁷⁹ See Appendix III, *infra*.

Section Four: TARP Updates Since Last Report

Since the last report, Treasury, the Federal Reserve Board, and the FDIC have released details on several programs that were initially announced as part of Treasury's Financial Stability Plan (FSP). Additionally, Treasury has begun discussions regarding regulatory reforms to provide a more stable economic system going forward.

Restructuring of Assistance to AIG. On March 2, 2009, the Federal Reserve Board and Treasury announced that they would be restricting AIG's government aid to speed the process of returning full ownership of the company to the private sector. The restructuring included exchanging the preferred stock the government held for stock that had characteristics closer to common equity stock as a means of improving the company's equity and financial leverage. Second, Treasury would create a new equity capital facility that would allow AIG to draw down up to \$30 billion as another means to improve the company's leverage, and to raise its capital levels. Finally, the Federal Reserve Board announced it would make certain changes to the \$60 billion revolving credit facility that had been established by the Federal Reserve Bank of New York, most significantly by reducing the size of the facility to \$25 billion.

Term Asset-Backed Securities Loan Facility (TALF). On March 3, 2009, the Federal Reserve Board and Treasury announced details of a facility, the purpose of which, according to the White Paper issued by the Federal Reserve Board, is to "improve credit market conditions by addressing the securitization markets" by stimulating demand for asset-backed securities. Under the TALF, \$200 billion in non-recourse collateralized debt will be made available through the New York Federal Reserve Bank for the purchase of new, highly-rated asset-backed securities. The smallest available TALF loans are \$10 million; there is no upper limit. The loans will be collateralized by the securities purchased.

Details for the Making Home Affordable Loan Modification Program. On March 4, 2009, detailed guidelines and instructions were provided to loan servicers to enable them to modify mortgages under the terms of the Homeowner Affordability and Stability Plan that was announced as part of FSP in February. On March 19, 2009, Treasury and the Department of Housing and Urban Affairs launched a web site, MakingHomeAffordable.gov, to provide additional guidance and information.

Public-Private Investment Program (PPIP). On March 23, 2009, Treasury and the FDIC announced details of a program intended to target the so-called "toxic assets," called "legacy assets" in program documents, that remain on many banks' and other institutions' books. The PPIP has two parts: (1) the Legacy Loan Program, intended to help banks sell troubled real estate loans by providing buyer assistance in the form of equity contributions from Treasury and financing through FDIC-guaranteed loans; and (2) the Legacy Security Program, which

designates several asset managers as “Fund Managers” and creates partnerships between Treasury and Fund Managers whose purpose is to buy up mortgage-backed securities including those issued prior to 2009.

Framework for Regulatory Reform. On March 26, 2009, through a press release and testimony by Secretary Geithner before the House Financial Services Committee, Treasury announced a proposed framework for reforming financial regulation. The proposal focused on identifying and addressing those institutions that pose a systemic risk to the U.S. economy, providing protections for consumers and investors, eliminating gaps in the regulatory structure by means such as requiring hedge funds to register, and coordinating with other nations to improve international regulation. Additional details are to be forthcoming.

Section Five: Oversight Activities

The Congressional Oversight Panel was established as part of EESA and formed on November 26, 2008. Since then the Panel has issued four oversight reports, as well as a special report on regulatory reform which came out on January 29, 2009.

Since the release of the Panel's March oversight report, the following developments pertaining to the Panel's oversight of the TARP took place:

- The Panel held a hearing in Washington, DC on March 19, entitled, "Learning from the Past: Lessons from the Banking Crises of the 20th Century." At the hearing, the Panel heard testimony from experts on the banking crises in Japan and Sweden during the early 1990s, the savings and loan collapse in the 1980s, and the Great Depression of the 1930s. The historical lessons captured in this testimony played an important role in the Panel's evaluation of Treasury's current strategy, as reflected in this report.
- Secretary Geithner sent a response letter on April 2, 2009³⁸⁰ to the Panel in response to letters from Elizabeth Warren sent on March 5³⁸¹ and 20³⁸², 2009. Treasury's letter provided the Panel with answers to questions posed in the March 5 letter and directed the Panel to examine a letter from the New York Federal Reserve for answers to its TALF questions in the March 20 letter.
- On behalf of the Panel, Elizabeth Warren sent a letter to Secretary Geithner on March 20, 2009³⁸³, requesting clarification on several aspects of the TALF. Copies of the same letter were also sent to Chairman of the Federal Reserve Board Ben Bernanke, and President of the New York Federal Reserve William Dudley, asking for their comments on the issues raised in the letter. Chairman Bernanke and Mr. Dudley responded in a joint letter on April 1, 2009.³⁸⁴ The Panel is currently reviewing the specific responses contained in the letter and expects to provide further analysis in the next report.

Upcoming Reports and Hearings

- On Tuesday, April 21, Secretary Geithner will make his first appearance before the Panel at a hearing in Washington, DC.

³⁸⁰ See Appendix I, *infra*.

³⁸¹ See Appendix VII, *infra*.

³⁸² See Appendix VI, *infra*.

³⁸³ See *id*.

³⁸⁴ See Appendix II, *infra*.

- On Wednesday, April 29, the Panel will hold a field hearing in Milwaukee, WI. The purpose of the field hearing will be to explore the impact of TARP on credit access for small businesses. The Panel will announce more details in the coming weeks.
- The Panel will release its next oversight report in May, which will examine the effects of TARP on small business and household lending. The Panel will continue to release oversight reports every 30 days.

Section Six: About the Congressional Oversight Panel

In response to the escalating crisis, on October 3, 2008, Congress provided the U.S. Department of the Treasury with the authority to spend \$700 billion to stabilize the U.S. economy, preserve home ownership, and promote economic growth. Congress created the Office of Financial Stabilization (OFS) within Treasury to implement a Troubled Asset Relief Program. At the same time, Congress created the Congressional Oversight Panel to “review the current state of financial markets and the regulatory system.” The Panel is empowered to hold hearings, review official data, and write reports on actions taken by Treasury and financial institutions and their effect on the economy. Through regular reports, the Panel must oversee Treasury’s actions, assess the impact of spending to stabilize the economy, evaluate market transparency, ensure effective foreclosure mitigation efforts, and guarantee that Treasury’s actions are in the best interests of the American people. In addition, Congress has instructed the Panel to produce a special report on regulatory reform that will analyze “the current state of the regulatory system and its effectiveness at overseeing the participants in the financial system and protecting consumers.”

On November 14, 2008, Senate Majority Leader Harry Reid and the Speaker of the House Nancy Pelosi appointed Richard H. Neiman, Superintendent of Banks for the State of New York, Damon Silvers, Associate General Counsel of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), and Elizabeth Warren, Leo Gottlieb Professor of Law at Harvard Law School to the Panel. With the appointment on November 19 of Congressman Jeb Hensarling to the Panel by House Minority Leader John Boehner, the Panel had a quorum and met for the first time on November 26, 2008, electing Professor Warren as its chair. On December 16, 2008, Senate Minority Leader Mitch McConnell named Senator John E. Sununu to the Panel, completing the Panel’s membership.

**APPENDIX I: LETTER FROM TREASURY SECRETARY MR. TIMOTHY
GEITHNER TO CONGRESSIONAL OVERSIGHT PANEL CHAIR ELIZABETH
WARREN, DATED APRIL 2, 2009**

**APPENDIX II: LETTER FROM CHAIRMAN OF THE FEDERAL RESERVE
BOARD OF GOVERNORS MR. BEN BERNANKE TO CONGRESSIONAL
OVERSIGHT PANEL CHAIR ELIZABETH WARREN, DATED APRIL 1, 2009**

**APPENDIX III: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL CHAIR
ELIZABETH WARREN TO TREASURY SECRETARY MR. TIMOTHY
GEITHNER, DATED MARCH 30, 2009**

**APPENDIX IV: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL CHAIR
ELIZABETH WARREN TO TREASURY SECRETARY MR. TIMOTHY
GEITHNER, DATED MARCH 25, 2009**

**APPENDIX V: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL CHAIR
ELIZABETH WARREN TO TREASURY SECRETARY MR. TIMOTHY
GEITHNER, DATED MARCH 24, 2009**

**APPENDIX VI: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL CHAIR
ELIZABETH WARREN TO TREASURY SECRETARY MR. TIMOTHY
GEITHNER, DATED MARCH 20, 2009**

**APPENDIX VII: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL
CHAIR ELIZABETH WARREN TO TREASURY SECRETARY MR.
TIMOTHY GEITHNER, DATED MARCH 5, 2009**

**APPENDIX VIII: LETTER FROM CONGRESSIONAL OVERSIGHT PANEL
CHAIR ELIZABETH WARREN TO TREASURY SECRETARY MR.
TIMOTHY GEITHNER, DATED JANUARY 28, 2009**