The Emergency Economic Stabilization Act and Recent Financial Turmoil: Issues and Analysis

Baird Webel
Analyst in Financial Economics

Edward V. Murphy
Specialist in Financial Economics

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Summary

The current financial instability became widely apparent in the credit markets in August 2007. Although initially thought to be limited to subprime mortgages, increasing defaults on prime mortgages caused losses that rippled through the financial system; the effects have been particularly severe because U.S. mortgage-backed securities (MBS) had previously been viewed as low risk investments. Beginning in early 2008, multiple failures in large financial institutions prompted case-by-case government interventions to address these failures. Dissatisfaction with these ad hoc responses was cited by the Treasury in proposing a broader response focusing on government purchase of troubled mortgage-related assets, hoping to stem uncertainty and fear by removing these assets from the financial system. In early October 2008, Congress passed, and the President signed, the Emergency Economic Stabilization Act of 2008 (EESA, Division A of H.R. 1424/P.L. 110-343), creating the Troubled Assets Relief Program (TARP). In the 111th Congress, the TARP Reform and Accountability Act of 2009 (H.R. 384) would enact significant changes.

EESA allows Treasury to buy up to $700 billion in troubled assets from financial institutions. The scope of the program depends in part on the definition of troubled assets. The original three-page proposal defined trouble assets as mortgage-related assets, both residential and commercial. As passed, EESA includes a second definition, which includes any asset that Treasury, in consultation with the Federal Reserve, believes would contribute to financial stability. EESA also allows Treasury to insure assets, rather than purchase them. Taxpayers are to be at least partially protected from losses through the provision of equity or debt considerations and through insurance premiums. TARP limits the executive compensation of participating institutions. TARP allows for direct aid to homeowners through provisions promoting mortgage restructuring and extending tax relief for homeowners who have mortgage debt forgiven.

Following enactment of EESA, the Treasury has purchased or committed to purchase approximately $350 billion of assets, although none of these have been through the asset purchase auctions or insurance programs. Through the voluntary Capital Purchase Program (CPP), $250 billion of the TARP funding has been committed for capital injections into financial institutions through government purchases of preferred shares. Through the Consumer Lending Facility, up to $20 billion in TARP funding will be used to absorb any losses on a $200 billion Federal Reserve credit facility intended to assist the credit markets in accommodating the credit needs of consumers and small businesses. The Treasury has also undertaken several case-by case interventions including AIG, Citigroup, General Motors/GMAC and Chrysler.

In the 111th Congress, H.R. 384 was introduced by Chairman Barney Frank on January 9, 2009, and passed the House with four amendments on January 21, 2009. This bill would amend the EESA in several ways, including stricter conditions on institutions receiving TARP funds, requirements and limitations for homeowners assistance, and specific authorization for, and conditions on, financial assistance for automobile manufacturers.

This report briefly introduces aspects of the current financial instability. Following this, it outlines the EESA legislation, the steps that Treasury has taken to implement EESA, and current legislation amending the EESA. Finally, the report concludes with a more in-depth analysis of the current financial instability, including potential causes of financial instability in general, some sources of the current instability, and how financial instability may spill over into the broader economy. It will be updated as warranted by market and legislative events.

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Introduction

The Emergency Economic Stabilization Act (EESA)[1] became law on October 3, 2008. Intended to restore stability to the U.S. financial system, the act created a Troubled Assets Relief Program (TARP).[2] TARP included two primary programs: a troubled asset purchase program and a troubled asset insurance program. This report briefly introduces characteristics of current financial instability. It also outlines the EESA legislation, the steps that Treasury has taken to implement EESA, and legislation in the 111th Congress amending EESA. Next, the report provides an in-depth analysis of financial instability, including potential causes of instability in general, and how it may spill over into the broader economy. Finally, the report assesses the causes of this period of financial instability. This report will be updated as warranted by market and legislative events.

Starting in the 1980s, non-bank lenders have originated increasing shares of U.S. mortgages. These non-bank lenders obtained their own funds through the conversion of mortgages into marketable securities (securitization), rather than by accepting consumer deposits as in the traditional banking model.[3] In most cases, once a mortgage was made, the entity that originated the loan sold it to another institution, which then pooled a large number of these loans together. From this pool of loans, the institution then issued securities whose returns were based on the payments made on the underlying mortgages in the pool. For a variety of market and regulatory reasons, these mortgage-backed securities (MBS) became widely held by most financial institutions in the United States and by many institutions worldwide. In addition to the securities directly backed by mortgages, financial institutions created numerous other complex securities and derivatives based on the initial MBS. These secondary products, such as collateralized debt obligations (CDO) and credit default swaps (CDS) were also very widely held by financial institutions, although not by retail investors.

In 2006 and 2007, the rates of default and non-payment by mortgage holders increased significantly. This, in turn, ultimately caused the securities and derivatives based on these mortgages to lose value. In some cases, securities thought to be low risk were completely wiped out. These losses have rippled through the financial system, causing problems for institutions in a number of unexpected ways as well as stress to the general financial system. The failures of large financial institutions, including Bear Stearns, IndyMac, Fannie Mae, Freddie Mac, Lehman Brothers, and AIG, were part of this turmoil.[4] Due largely to the uncertainty about what future mortgage default rates will be, what institutions are exposed to mortgage-related assets, and whether more institutions may fail unexpectedly, financial markets have nearly frozen at various points in time since August 2007.

Difficulties for individual financial institutions, and for financial systems as a whole, can often usefully be distinguished as problems of liquidity or of capital adequacy.[5] A firm suffering from

[1] Division A of H.R. 1424/P.L. 110-343. CRS Report RS22722, *Securitization and Federal Regulation of Mortgages for Safety and Soundness*, by Edward V. Murphy.

[2] CRS Report RS22963, *Financial Market Intervention*, by Edward V. Murphy and Baird Webel.

[3] CRS Report RS22722, *Securitization and Federal Regulation of Mortgages for Safety and Soundness*, by Edward V. Murphy.

[4] CRS Report RL34420, *Bear Stearns: Crisis and "Rescue" for a Major Provider of Mortgage-Related Products*, by Gary Shorter, and CRS Report RS22950, *Fannie Mae and Freddie Mac in Conservatorship*, by Mark Jickling.

[5] See CRS Report RS22966, *Financial Turmoil: Comparing the Troubled Assets Relief Program to the Federal* (continued...)

liquidity problems has assets whose values significantly outweigh liabilities, but is unable to liquidate these assets fast enough to meet short-term obligations. A firm suffering from capital adequacy problems has an inadequate buffer between its assets and its liabilities; if its asset values fall or liability values rise unexpectedly, the firm may be unable to meet its liabilities even if its assets can be liquidated quickly. Insolvency could result. The classical prescription for addressing liquidity problems is for a lender of last resort (such as the Federal Reserve) to lend freely, but at high enough interest rates so that institutions do not take too many risks. Capital adequacy problems, particularly when widespread, can be more difficult to address. In past crises, steps have included directly bolstering firms' capital[6] and sweeping insolvent, or near insolvent, firms out of the system.[7]

The Troubled Assets Relief Program

Executive and Congressional Proposals

On September 19, 2008, the Secretary of the Treasury proposed a broad program of financial intervention to stabilize markets. The Treasury plan called for government purchases of up to $700 billion in mortgage-related securities, in the hope that, by partially purging the system of these troubled assets, normal functioning of the financial markets could be restored.

The idea of broad asset purchases, as in the original Treasury plan, is only one of a number of methods that could be used to address the uncertainties regarding mortgage-related assets. Among the other concepts put forward have been

- a federal guarantee program to insure mortgage-related assets, thus eliminating much of the uncertainty surrounding these securities;
- direct capital injections by the Treasury into financial institutions, thus shoring up their capitalization; and
- direct support for homeowners, thus decreasing mortgage default rates and increasing the value of mortgage-related securities.

After various legislative proposals and drafts were circulated and negotiations between Congress and the administration were conducted, the Emergency Economic Stabilization Act of 2008 (EESA), was brought to a vote in the House as substitute amendment to H.R. 3997; this amendment failed in the House on a vote of 205-228 on September 29, 2008. Another version of EESA, which included the original EESA plus several other provisions not in the first bill,[8] was

(...continued)

Reserve's Response, by Marc Labonte, for more discussion on the question of liquidity vs. capital adequacy.

[6] One example of this was the Reconstruction Finance Corporation (RFC), a Depression-era program to stabilize the financial sector. In the Hoover administration, RFC primarily lent funds to banks but in the Roosevelt administration the RFC began purchasing preferred stock in banks.

[7] One example of this was the Resolution Trust Corporation, which was used to mitigate the savings and loan failures in the late 1980s; see CRS Report RS22959, *The Resolution Trust Corporation: Historical Analysis*, by Gary Shorter.

[8] Additional provisions included a temporary increase in the limit on FDIC-provided depository insurance, discussed later in this report, as well as the extension of temporary tax provisions, which are not addressed in this report. See CRS Report RL32367, *Certain Temporary Tax Provisions ("Extenders") Expired in 2007*, by Pamela J. Jackson and (continued...)

offered on October 1 in the Senate as an amendment (S.Amdt. 5685) to an unrelated bill, H.R. 1424, which had previously passed the House. The amendment to H.R. 1424 was approved by a Senate vote of 74-25; it was then taken up by the House and passed by a vote of 263-171 on October 3, 2008. The President signed the amended version of H.R. 1424, now P.L. 110-343, the same day as House passage.

Provisions of TARP as Enacted

Asset Purchase Program

Section 101 of EESA provides authority to the Secretary of the Treasury to purchase "troubled assets" from any financial institution established and regulated under federal or state law, but excluding any foreign governmental entity. These assets are defined by the statute as "residential or commercial mortgages," including securities "based on, or related to such mortgages." In addition to the mortgage-related assets that were the focus of the program, the Secretary is authorized to purchase "any other financial instrument" that is "necessary to promote financial market stability." Congress must be notified of the Secretary's determination to purchase non-mortgage related assets, but the Secretary does not need Congress' approval to do so. The Secretary is to take steps to prevent "unjust enrichment" of financial institutions selling assets to the government, in particular preventing the sale of troubled assets at a price higher than what the seller initially paid for the asset. Section 113 directs the Secretary to use market mechanisms, such as auctions, to purchase assets when possible.

Asset Insurance Program [9]

Section 102 of EESA provides that, if the asset purchase program is created, the Secretary must also create an insurance program providing federal guarantees for troubled assets. This insurance program is to be funded by premiums paid by financial institutions for the federal guarantee, with no specific provision for the TARP insurance fund to borrow from the U.S. Treasury. Under the statute, the guarantees may be up to 100% of the value of the asset and the premiums may be risk-based, but the Secretary is not required to implement either of these provisions.

Size of the Programs

Under Sections 115 and 102, the total size of the insurance and asset purchase program combined is not to exceed $700 billion at any given time, which does allow the program to buy and sell assets, then use the sales proceeds to purchase other assets. Authority to purchase or insure $250 billion is effective on the date of enactment, with an additional $100 billion in authority effective upon submission of a Presidential certification. The final $350 billion in authority may be exercised upon transmission of a written report by the President detailing the plan for the exercise

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Jennifer Teefy, and CRS Report RL32554, *An Overview of Tax Benefits for Higher Education Expenses*, by Pamela J. Jackson and Christian Gonzalez, for more information on some of the tax provisions in P.L. 110-343.

[9] See CRS Report RS22969, *The Emergency Economic Stabilization Act's Insurance for Troubled Assets*, by Baird Webel.

of this authority. Congress has 15 calendar days to pass a joint resolution under "fast track" rules, to deny the authority to use the final $350 billion.[10]

Private Equity and Debt Considerations

Section 113 requires that, in return for federal purchase of troubled assets, financial institutions must provide to the federal government either debt or equity considerations, such as preferred or common stock in that institution. These considerations are to provide protection for the taxpayer against losses on troubled asset sales and allow the taxpayers to benefit from future equity appreciation of institutions participating in TARP.

Oversight Provisions [11]

The EESA creates a number of oversight mechanisms. Section 104 establishes a Financial Stability Oversight Board to oversee the authorities in the act. Section 105 requires detailed monthly reports by the Secretary to Congress on the operations of the program. Section 116 gives the Comptroller General oversight and audit authority on TARP, including access to records and office space within the Treasury for employees of the Government Accountability Office (GAO) to exercise this oversight. Should GAO identify problems in the annual audit, TARP must either take action to correct the problems, or certify to Congress that no action is necessary. Section 121 creates a Special Inspector General to oversee TARP, who shall report quarterly to Congress. Section 125 creates a Congressional Oversight Panel made up of five congressional appointees.

Assistance to Homeowners

One of the specific considerations Section 103 requires be taken into account in the general operation of TARP is "to help families keep their homes." EESA also includes specific measures to that end. Section 109 directs the Secretary, as TARP acquires mortgages and mortgage-related securities, to encourage servicers to take advantage of the HOPE for Homeowners Program.[12] The Secretary is also required to consent to reasonable requests for loan modifications from homeowners whose loans are acquired by the government. Section 110 requires the Federal Housing Finance Agency, the Federal Deposit Insurance Corporation, and the Federal Reserve Board to implement a plan to "maximize assistance for homeowners," including reduction of interest rates or reduction of loan principal, for mortgages or mortgage backed securities owned or managed by these institutions.

Section 303 extends an additional exception to the tax laws, first made available by the Mortgage Forgiveness Debt Relief Act of 2007,[13] relating to the cancellation of mortgage debt. The additional exception allows for the exclusion of discharged qualified residential debt from gross income. Qualified indebtedness is defined as debt, limited to $2 million ($1 million if married

[10] See CRS Report RS20234, *Expedited or "Fast-Track" Legislative Procedures*, by Christopher M. Davis.

[11] See CRS Report RL34713, *Emergency Economic Stabilization Act: Preliminary Analysis of Oversight Provisions*, and CRS Report RL34740, *Reporting Requirements in the Emergency Economic Stabilization Act of 2008*, both by Curtis W. Copeland and CRS Report R40099, *The Special Inspector General (SIG) for the Troubled Asset Relief Program (TARP)*, by Vanessa K. Burrows.

[12] See CRS Report RL34623, *Housing and Economic Recovery Act of 2008*, by N. Eric Weiss et al.

[13] P.L. 110-142, 121 Stat. 1803.

filing separately), incurred in acquiring, constructing, or substantially improving the taxpayer's principal residence that is secured by such residence. It also includes refinancing of this debt, to the extent that the refinancing does not exceed the amount of refinanced indebtedness. The taxpayer is required to reduce the basis in the principal residence by the amount of the excluded income. The provision does not apply if the discharge was on account of services performed for the lender or any other factor not directly related to a decline in the residence's value or to the taxpayer's financial condition. The provision applies to debt discharges that are made on or after January 1, 2007, and before January 1, 2013.[14]

Executive Compensation[15]

Sections 111 and 302 put limits on executive compensation for firms participating in TARP. For institutions whose assets are bought directly, Section 111 requires that the Secretary publish standards that will (1) limit incentives for executives to take excessive risks, (2) provide for recovery of any bonus paid based on earnings statements that later prove to be inaccurate, and (3) prohibit golden parachute payments to senior executives. These standards are to be in effect for the duration of time that the government holds an equity or debt interest in the company. For those institutions whose assets are bought at auction, only new employment contracts with "golden parachutes" are prohibited.

Section 302 provides special tax rules pertaining to executive compensation for participants in TARP. In particular, Section 162(m) of the Internal Revenue Code is amended to reduce the limitation on deductible executive compensation from $1,000,000 to $500,000 and Section 280G of the Internal Revenue Code is amended to expand the definition of a parachute payment for covered employees of TARP participants.

Mark-to-Market Accounting

Sections 132 and 133 address "mark-to-market" accounting rules required under Statement 157 of the Financial Accounting Standards Board (FASB). The Securities and Exchange Commission (SEC) is specifically given the authority to waive these accounting rules. In addition, the SEC was directed to conduct an expansive study on mark-to-market accounting and what impact it may have had on the current financial turmoil. The SEC released this study on December 30, 2008 finding that "investors generally believe fair value accounting increases financial reporting transparency and facilitates better investment decision-making. The report also observes that fair value accounting did not appear to play a meaningful role in the bank failures that occurred in 2008. Rather, the report indicated that bank failures in the U.S. appeared to be the result of growing probable credit losses, concerns about asset quality, and in certain cases, eroding lender and investor confidence."[16]

[14] For more information, see CRS Report RL34212, *Analysis of the Tax Exclusion for Canceled Mortgage Debt Income*, by Mark P. Keightley and Erika Lunder.

[15] See CRS Report RS22583, *Executive Compensation: SEC Regulations and Congressional Proposals*, by Michael V. Seitzinger.

[16] From the SEC website, "Congressionally-Mandated Study Says Improve, Do Not Suspend, Fair Value Accounting Standards," available at http://www.sec.gov/news/press/2008/2008-307.htm.

Increase in Deposit Insurance

Section 135 provides for a temporary increase in the insurance on deposits in federally insured banks and credit unions.[17] From enactment until the end of 2009, this amount is increased from $100,000 to $250,000. This temporary increase may not be taken into account when setting premiums for deposit insurance.

Assistance to Financial Institutions Holding Fannie Mae/Freddie Mac Preferred Stock

Section 301 provides tax relief to financial institutions holding preferred stock in Fannie Mae or Freddie Mac, which lost significant value after the government conservatorship announced in September 2008. Capital gains or losses from the sale or exchange of preferred stock of Fannie Mae and Freddie Mac will be treated as ordinary income or loss by applicable financial institutions, which include banks, mutual savings banks, cooperative banks, and savings and loan associations, among others. The basic rationale behind this tax relief is that it will reduce the need of the bank "to obtain additional capital from the FDIC or investors. This should also prevent some community banks from becoming insolvent."[18] Normally, in the case of corporations, capital losses are allowed only to the extent of capital gains, although the losses may be carried back three years or carried forward for five years. This provision allows these financial institutions to use the losses incurred in the government takeover of Fannie Mae and Freddie Mac to reduce their tax liability this year (a year with few capital gains), rather than carry the losses to past tax years or forward to future tax years.[19]

Duration of Program

Section 120 authorizes TARP asset purchases until the end of 2009. Upon receipt of certification and supporting information from the Secretary, this termination date may be extended until October 3, 2010 (two years after the date of enactment).

Treasury Implementation of TARP

Although the original discussion of the three-page draft Treasury plan focused on removing bad assets from financial institution balance sheets, some policymakers urged, and P.L. 110-343 included, broad discretion for the use of TARP funds. The potential scope of the program can be found in Part (B) of the definition of a troubled asset, which includes

> ... any other financial instrument that the Secretary, after consultation with the Chairman of the Board of Governors of the Federal Reserve System, determines the purchase of which is

[17] For more information see CRS Report RS22987, *National Credit Union Share Insurance Fund (NCUSIF): Credit Union Deposit Insurance*, by Pauline Smale and CRS Report RS20724, *Federal Deposit and Share Insurance: Proposals for Change*, coordinated by Walter W. Eubanks

[18] U.S. Senate, Committee on Finance, "Tax Provisions in Financial Rescue Plan Protect Homeowners and Community Banks," News Release, September 28, 2008, available athttp://finance.senate.gov/press/Bpress/2008press/prb092808.pdf.

[19] For more information on these tax issues, contact CRS Specialist in Public Finance Thomas Hungerford, Government and Finance Division.

> necessary to promote financial market stability, but only upon transmittal of such determination, in writing, to the appropriate committees of Congress.

Shortly after passage, Treasury announced its plans to implement the program, which has been coordinated by Neel Kashkari, the Interim Assistant Secretary for the Office of Financial Stability. Mr. Kashkari created teams within Treasury to administer TARP, including hiring asset managers to administer asset purchases, proposing rules for asset insurance, and injecting capital into institutions through preferred stock purchases. Although Treasury has subsequently announced that it will focus on capital purchases, the following section begins with the Treasury actions relating to the troubled asset purchase and insurance programs specifically described in the EESA and then moving to the various programs implemented by Treasury under the broader definition described above.

Asset Purchase

Treasury must fulfill certain logistical and statutory conditions prior to fully implementing the troubled asset purchase program in Section 101 of the EESA. The first definition of troubled assets (Part A) eligible for the TARP program is any

> ... residential or commercial mortgages and any securities, obligations, or other instruments that are based on or related to such mortgages, that in each case was originated or issued on or before March 14, 2008, the purchase of which the Secretary determines promotes financial market stability.

To purchase these assets, Treasury must publish the mechanisms for purchasing assets, pricing and valuation models, the process of choosing asset managers, and the method of identifying troubled assets for purchase.

Some steps were completed for the purchase of complex mortgage-related securities. Treasury selected Bank of New York-Mellon as the master custodian for the program. Treasury and the Bank of New York sought to design the auction process and identify which assets to purchase. Treasury chose PricewaterhouseCoopers LLP and Ernst & Young to provide accounting assistance for the program. Treasury also began the process of hiring asset managers.

Should Treasury implement the troubled asset purchase program, institutions would have to conform to program requirements in order to participate. Participating institutions must sell, or commit to sell, to Treasury warrants for nonvoting common or preferred stock (or voting stock if Treasury agrees not to vote). In addition to providing warrants, participating institutions must agree to limits on executive compensation.

On November 12, the Secretary of the Treasury indicated that, in Treasury's assessment, purchasing troubled assets was "not the most effective way to use TARP funds."[20] The Secretary did indicate that the Treasury would be continuing to examine whether asset purchases might be useful in the future. It is unclear to what degree the infrastructure discussed above to provide for asset purchases will be retained or whether it would need to be reconstituted if a future decision were made to purchase troubled assets.

[20] U.S. Department of Treasury, "Remarks by Secretary Henry M. Paulson, Jr. on Financial Rescue Package and Economic Update," press release, November 12, 2008, available at http://ustreas.gov/press/releases/hp1265.htm.

Asset Insurance

Treasury began the notice and comment rulemaking procedure for the insurance program on October 14, 2008. Rather than providing a specific insurance plan, Treasury's notice asked questions to guide the creation of the troubled asset insurance program. Should the insurance program include both whole loans and complex securities? Should the program differ by which particular asset is troubled, and if so, how is that to be measured? How could Home Equity Lines of Credit (HELOC) and other junior liens be addressed in an insurance program? Comments on these and similar questions were due to Treasury by October 28, 2008. Given the focus on capital purchase, discussed below, it was unclear how quickly the Treasury would act to create the insurance program and how expansive the program would be. Section 102 of P.L. 110-343 clearly requires that an insurance program be created, but sets no timelines on its operation, requiring only that a report on the insurance program be filed within 90 days after enactment.

On December 31, 2008, Treasury released the congressionally mandated report on the insurance program. This report indicated that it had established an "Asset Guarantee Program" as required under the EESA and the program would provide "guarantees for assets held by systemically significant financial institutions that face a high risk of losing market confidence due in large part to a portfolio of distressed or illiquid assets." The report continues that the "program will be applied with extreme discretion in order to improve market confidence in the systemically significant institution and in financial markets broadly. It is not anticipated that the program will be made widely available."[21]

On January 16, 2009, part of the assistance to Citigroup was formally assigned to the Asset Guarantee Program. Prior to the January 16, 2009 Citigroup assistance of $5 billion, there had been no guarantees issued under the EESA insurance program. However, Treasury had indicated in November 2008 that it might use this program for a $306 billion pool of assets that Treasury guaranteed as part of its initial intervention into Citigroup (discussed further below).

Capital Purchase Program

Although many may not have anticipated the purchase of preferred shares to recapitalize the banks, some policymakers had urged this approach from the beginning. Authority to purchase the preferred shares of banks comes under Part B of the definition of troubled asset, which gives Treasury broad discretion in consultation with the Federal Reserve.

On October 14, 2008, Treasury announced its ongoing focus would be to inject capital directly into financial institutions through the purchase of preferred stock rather than purchasing the troubled assets that had previously been the focus of the program. This announcement came after European authorities announced that they were taking steps to inject capital into their banks. Treasury also announced that nine large banks were participating in the initial preferred share purchase, which amounted to $125 billion. Treasury indicated that an additional $125 billion was being reserved for preferred share purchases from smaller banks. As of January 16, 2009, a total

[21] From the U.S. Treasury website "Section 102 Congressional Report," available at http://ustreas.gov/initiatives/eesa/congressionalreports102.shtml.

of $194 billion of TARP funds has been disbursed for the capital purchase program, including funds for smaller banks such as Independence Bank of Rhode Island, which received $1 million.[22]

Banks seeking capital use a single application form but submit it to their primary regulator (Federal Reserve, the FDIC, the OCC or the OTS). Once a regulator has reviewed an application, it will send the application and its recommendation to the Office of Financial Stability at the Treasury Department. Treasury says that it will give considerable weight to the regulators' recommendations and decide whether or not to make the capital purchase. The initial applications for Treasury capital purchase were limited to publicly held corporations, which limited the ability of many smaller institutions, such as private partnerships or mutual institutions, to apply. The Treasury addressed also this concern on November 17, releasing a term sheet of additional information for privately held institutions interested in applying.

Systemically Significant Failing Institutions Program (AIG)

The Treasury announced on November 10, 2008, that financial support under TARP would be provided to AIG, which had previously received support exclusively from the Federal Reserve. Originally listed under the capital purchase program, the Treasury subsequently announced the Systemically Significant Failing Institutions Program (SSFIP) and included the AIG intervention under this program. The TARP portion of the AIG restructuring consisted of the purchase of $40 billion in preferred shares, which will pay a 10% dividend.[23]

While the SSFIP has only been used for AIG to this date, Treasury indicates that it may be used in the future on a case-by-case basis. According to the Treasury, future designation of systemically significant failing institution status is to be determined based on the following criteria:[24]

1. "The extent to which the failure of an institution could threaten the viability of its creditors and counterparties because of their direct exposures to the institution;
2. The number and size of financial institutions that are seen by investors or counterparties as similarly situated to the failing institution, or that would otherwise be likely to experience indirect contagion effects from the failure of the institution;
3. Whether the institution is sufficiently important to the nation's financial and economic system that a disorderly failure would, with a high probability, cause major disruptions to credit markets or payments and settlement systems, seriously destabilize key asset prices, significantly increase uncertainty or losses of confidence thereby materially weakening overall economic performance; or

[22] Figures taken from the Treasury's TARP Transactions Report for the period ending Jan. 16, 2009, available at http://www.treas.gov/press/releases/reports/012209cpptablets01.pdf

[23] Additional aspects of the revised AIG intervention through the Federal Reserve included a $60 billion loan from the Fed, with the term lengthened to five years and the interest rate reduced by 5.5%; $52.5 billion total in asset purchases by the Fed through two Limited Liability Corporations (LLCs) known as Maiden Lane II and Maiden Lane III; and $20.9 billion in possible lending through the Fed's commercial paper facility.

[24] From the U.S. Treasury website, "Guidelines for Systemically Significant Failing Institutions Program" at http://ustreas.gov/initiatives/eesa/program-descriptions/ssfip.shtml.

4. The extent and probability of the institution's ability to access alternative sources of capital and liquidity, whether from the private sector or other sources of government funds."

Targeted Investment Program (Citigroup and Bank of America)

On November 23, 2008, the Treasury, Federal Reserve, and FDIC announced a joint intervention in Citigroup, which had previously been a recipient of $25 billion in funding under TARP's general capital purchase program. This specific intervention consisted of an additional $20 billion purchase of preferred shares under TARP and a government guarantee for a pool of $306 billion in Citigroup assets. On January 2, 2009, the Treasury released guidelines for the "Targeted Investment Program," under which it indicated that the Citigroup preferred share purchase had occurred. On January 16, 2009, Bank of America received $20 billion through the Targeted Investment Program, in addition to the funds it received through the Capital Purchase Program. Future eligibility for this program would be determined based on the following criteria:[25]

1. "The extent to which destabilization of the institution could threaten the viability of creditors and counterparties exposed to the institution, whether directly or indirectly;
2. The extent to which an institution is at risk of a loss of confidence and the degree to which that stress is caused by a distressed or illiquid portfolio of assets;
3. The number and size of financial institutions that are similarly situated, or that would be likely to be affected by destabilization of the institution being considered for the program;
4. Whether the institution is sufficiently important to the nation's financial and economic system that a loss of confidence in the firm's financial position could potentially cause major disruptions to credit markets or payments and settlement systems, destabilize asset prices, significantly increase uncertainty, or lead to similar losses of confidence or financial market stability that could materially weaken overall economic performance; and
5. The extent to which the institution has access to alternative sources of capital and liquidity, whether from the private sector or from other sources of government funds."

In addition to the $20 billion in preferred share purchase, the Treasury, FDIC, and Federal Reserve agreed to guarantee a $306 billion pool of Citigroup assets. The guarantee is in place for 10 years for residential assets and five years for non-residential assets. Should there be losses on the pool, Citigroup will exclusively bear up to the first $29 billion. Any additional losses will be split between Citigroup and the government, with Citigroup bearing 10% of the losses and the government bearing 90%. The first $5 billion of government's losses would be borne by the Treasury using TARP funds; the next $10 billion would be borne by the FDIC; all further losses would be borne by the Fed through a non-recourse loan. Citigroup will pay the federal government a fee for the guarantee in the form of preferred stock. The assets will remain on Citigroup's balance sheet, and Citigroup will receive the income stream generated by the assets. When announced, it was unclear through which program the Treasury portion of this guarantee

[25] From the U.S. Treasury website, "Targeted Investment Program" at http://ustreas.gov/initiatives/eesa/program-descriptions/tip.shtml.

would be provided. In the January 2009 report on the TARP insurance program, Treasury indicated that it was considering using this program for the Citigroup guarantee.

On January 16, 2009, Treasury agreed to provide Bank of America $20 billion in guarantees, liquidity access and capital. In addition to Treasury's additional TARP funds, Bank of America receives from the FDIC protection against the possibility of unusually large losses on an asset pool of approximately $118 billion of loans, securities backed by residential and commercial real estate loans, and other such assets that were part of the bank's acquisition of Merrill Lynch. In return for this additional assistance, Bank of America provides Treasury with preferred stock with an 8% dividend.

Consumer Lending Facility

On November 25, the Treasury announced that TARP funds would be used to purchase securities backed by non-mortgage debts.[26] This asset-backed security (ABS) facility is designed to provide support for consumer purchases and small business spending. Treasury argued that the securitization of credit card receivables, auto loans, student loans, and similar consumer spending shut down in October. Treasury is coordinating its ABS program with the Federal Reserve's Term Asset Backed Securities Loan Facility. Treasury will provide $20 billion of credit protection to the $200 billion facility and announced that it could expand the program to include residential and commercial mortgage securities.

U.S. Automobile Manufacturers

Non-financial industries have also sought government support. Most notably, the U.S. automobile industry has argued that disruptions in financial markets have made it even more difficult for consumers to purchase cars. Initially, the Treasury did not provide TARP funds to manufacturers, arguing that the program was intending to buy assets only from financial institutions. On November 17, Senator Harry Reid introduced an amendment to EESA that would have directed Treasury to use TARP funds to aid the automobile industry (S. 3688), but such legislation did not pass prior to the adjournment of the 110th Congress.

On December 20, 2008, the Treasury announced it was providing support through TARP to General Motors and Chrysler. The package included up to $13.4 billion in a secured loan to GM and $4 billion in a secured loan to Chrysler. In addition, up to $1 billion was lent to GM for its participation in a rights offering by GMAC, GM's former financing arm which is now becoming a bank holding company. GMAC also received a $5 billion capital injection through preferred share purchases. By December 31, 2008, the Treasury reported that $10.4 billion had been disbursed to GM, $5 billion to GMAC, and $4 billion to Chrysler.[27] The secured loans to the automakers are contingent on their producing plans for long-term profitability by March 31, 2009; at which point the loans can be called if these plans are judged unsatisfactory. Chrysler received additional assistance of $1.5 billion on January 16, 2009. This assistance was through its subsidiary Chrysler Financial Services America, LLC.

[26] "Secretary Paulson Remarks on Consumer ABS Lending Facility," U.S. Department of Treasury Press Release HP-1293, November 25, 2008.

[27] Figures taken from the Treasury's TARP Transactions Report for the period ending Dec. 31, 2008, available at http://ustreas.gov/initiatives/eesa/docs/001-06-09-CPP-Report.pdf.

Homeowners' Assistance

One criticism leveled at TARP has been its focus on assisting financial institutions, providing only indirect assistance to individual homeowners facing foreclosure. Critics point to Sections 103, 109 and 110 of the EESA embodying congressional intent that homeowners be aided under TARP. The Chairman of the FDIC, in testimony before Congress, indicated that the FDIC saw "significant promise"[28] in using authority in TARP to prevent foreclosures by providing loan guarantees as an incentive to servicers to modify loans. The FDIC and the Treasury indicated they were working on this approach to provide assistance to homeowners. Press reports provided details on a possible approach,[29] but detailed information was not released by the Treasury on the subject. President Bush's press secretary indicated on October 30, 2008, that an announcement on a mortgage assistance plan was "not imminent."[30] The Secretary of the Treasury indicated in questioning before the House Financial Services Committee on November 18, 2008, that he did not expect to use TARP funding to directly prevent foreclosures.

111th Congress

TARP Reform and Accountability Act of 2009 (H.R. 384)

On January 9, 2009, House Financial Services Chairman Barney Frank introduced H.R. 384. The bill was referred to the Committees on Financial Services, Ways and Means, and the Judiciary. The Financial Services Committee reported the bill on January 15, 2009, with three amendments. The House passed the bill with four amendments on January 21, 2009, on a 260-144 vote.

H.R. 384 substantially amends the EESA to address several criticisms of the TARP since enactment. The bill includes provisions to (1) increase reporting on the use of TARP funds; (2) apply stricter executive compensation rules to institutions receiving TARP funds; (3) condition the release of the second $350 billion on usage of at least $40 billion in foreclosure mitigation; (4) confirm the authority to provide assistance to automobile manufactures and condition the assistance on long-term restructuring; (5) clarify authority to provide support to consumer loans, commercial real estate loans, and municipal securities; (6) amend the Hope for Homeowners program to expand availability; (7) create a home buyer stimulus program through the purchase of Fannie Mae and Freddie Mac issued securities, and (8) make permanent the increase in deposit insurance included in the EESA.

Participating Institutions Reporting Use of Funds

Title I of H.R. 384 directs participating institutions to report their use of TARP funds at least quarterly. The Treasury secretary is to consult with appropriate banking regulators in establishing

[28] Testimony of Honorable Sheila C. Bair before the U.S. Senate Committee on Banking, "Turmoil in the U.S. Credit Markets: Examining Recent Regulatory Responses," October 23, 2008, available at http://banking.senate.gov/public/_files/BAIRCreditMarkettestimony102308.pdf.

[29] "Treasury, FDIC Near Deal on Mortgage Aid," *Washington Post*, October 30, 2008, p. A01.

[30] White House Office of the Press Secretary, "Press Briefing by Press Secretary Dana Perino and Council of Economic Advisers Chairman Ed Lazear," October 30, 2008.

benchmarks for the use of TARP funds, along with regular full-site examinations and appropriate compliance procedures.

Mergers and Acquisitions

Section 101 limits the use of TARP funds for mergers and acquisitions. There are two conditions that must be satisfied prior to a banking regulatory agency approving a merger or acquisition involving a recipient of TARP funds. First, the Secretary and relevant banking agency must determine that the merger or acquisition would reduce risk to the taxpayer. Second, they must determine that the merger or acquisition could have been consummated without TARP funds.

Voluntary Withdrawal from TARP

The terms of agreements in Treasury's capital purchase program had limited the ability of recipients to withdraw from the program unless they had shown that they had raised replacement capital. This limitation on withdrawal may have also limited the willingness of firms to participate if there had been more stringent additional terms. Section 101 of H.R. 384 allows assisted insured depository institutions to repay previous assistance even if the depository institution has not raised replacement capital. The definition of insured depository institution is the same as in the Federal Deposit Insurance Act. The definition of assisted institution includes any institution that receives assistance or benefit from the program's obligation, expenditure, loan or investment of funds. The assistance can be either direct or indirect.

Executive Compensation

Section 102 amends executive compensation rules under TARP. The 25 most highly-compensated employees shall not receive any bonuses or incentive compensations. Senior executive officers shall not receive golden parachutes. Prior bonuses shall be recovered (clawed-back) if they were based on criteria or statements that turn out to be materially inaccurate. Senior executive officers shall not receive compensation based on incentives for "unnecessary and excessive risks." Recipients must divest themselves of private aircraft. These provisions shall be applied to prior assistance. In order to enhance enforcement, the Treasury Secretary shall delegate a representative to attend any board of director meetings of assisted institutions.

New Lending

Assisted financial institutions are to report the amount of increase in new lending, or reduction in lending, attributable to TARP. If assisted institutions have difficulty quantifying the effect of TARP funds on new lending, they are directed to report their total new lending in the period. Representative Frank introduced and the House passed H.Amdt. 9, which requires that Treasury make these reports available online. Representative Hinchey introduced and the House passed H.Amdt. 11, which requires that Treasury immediately conduct and analysis of participants' use of TARP funds.

Warrants and other Taxpayer Protections

Section 104 requires that assisted institutions provide warrants to the Treasury Secretary equal to 15% of the value of the assistance. The assistance can be in the form of nonvoting common stock

or preferred stock. The exercise price (sometimes called a strike price) on the warrant shall be the 15-day trailing average price as of 1 day prior to the date on any commitment to provide assistance under the title. For mutual associations and other non-traded institutions, the exercise price is to be the economic equivalent of the 15-day trailing average market price.

Smaller Institutions

Section 105 directs the Treasury secretary to make TARP funds available to smaller community institutions on comparable terms as larger institutions.

Oversight

Section 106 changes the oversight board. There are three additional members, including the chairperson of the FDIC and two presidential appointees. The presidential appointees require consent of the Senate and must be individuals who are not officers or employees of the U.S. government.

TARP Foreclosure Mitigation Plan

Title II commits both a minimum and maximum amount of TARP funds to a TARP foreclosure mitigation plan. Section (B) establishes a plan with funding " ... up to $100,000,000,000, but in no case less than $40,000,000,000." The Treasury Secretary must begin committing the funds no later than April 1, 2009.

The TARP Foreclosure Mitigation Plan is to have several elements. It is limited to owner-occupied residential properties. The plan must leverage private capital to prevent or mitigate foreclosures. The secretary may consider the concentration of foreclosures in establishing the plan.

Section 203 provides a number of program alternatives that may be used solely or in combination. First, the program could assist the Hope for Homeowners Program established in July 2008. In assisting Hope for Homeowners, the TARP plan could reduce fees, ensure affordable interest rates, buy-down second liens, pay mortgage servicers who modify loans, or purchase whole loans for the purpose of modification.

Section 204 establishes the systematic foreclosure prevention and loan modification plan. The chairperson of the FDIC and the Secretary of HUD are to create a loan modification program that compensates loan servicers for each loan modified and provides loss sharing or guarantees for losses if modified loans re-default. However, loss sharing excludes early payment defaults, meaning that borrowers must make a specified number of payments on the modified mortgage before the debt-holder could benefit from loss sharing.

In modifying mortgages, servicers are to apply the net present value test. The secretary is to establish standards for the net present value test that ensure consistent application. Servicers are to maximize the net present value of the loan by comparing the expected loss in income that would occur from modifying the existing loan to the expected loss that would occur through the foreclosure process. Essentially, the net present value test directs servicers to pursue a least-loss strategy. Participating lenders are to systematically review their loan portfolios to identify candidates for modification as a condition for further participation in TARP. Modifications may

include interest rate and fee reductions, extending the term of the maturity of the loan, forgiveness of loan principal, and other similar provisions.

Servicers who modify loans receive a safe harbor (Section 205) from any lawsuits resulting from an investment contract and a securitization vehicle as long as the modifications meet certain criteria, including that the loans are owner-occupied, the modification meets the net present value test, and default on the loan is reasonably foreseeable in the absence of modification. The bill was amended on the House floor to delete language that would have required investors who sue to block loan modifications, and lose, to pay the defendants' legal costs.

Auto Industry Provisions

The proposed changes to TARP include provisions for the automobile industry. The President is to designate an executive branch official with industry experience to carry out the automobile industry provisions (Section 402(a)). The amount of the bridge loans is to be consistent with the plan submitted on December 2, 2009 (Section 402(b)). The automobile industry participants must submit an agreement on a restructuring plan " ... to achieve and sustain the long-term viability, international competitiveness, and energy efficiency of an eligible automobile manufacturer, ... " (Section 405). The restructuring plan must include provisions for fuel efficiency, advanced technology, net positive net present value taking into existing and future costs, proposals to restructure existing debt including converting debt into equity, and product mix that reflects competitiveness in the marketplace. Eligible automobile manufacturers must also provide warrants to protect taxpayer financial interests up to a maximum of 20% of the issued and outstanding common stock or its economic equivalent. The exercise price of the warrants will be set as the 15-day trailing average on the date before a loan was provided. The automobile industry participants shall not pay dividends.

Clarification of Troubled Assets (Consumer Loans, Municipal Securities, Commercial Real Estate)

Title IV clarifies the status of several categories of loans under TARP. Recall that the definition of troubled asset to be purchased from a financial institution in the original TARP program includes (1) mortgage-related assets and (2) other assets determined by the Treasury secretary and the chairman of the Federal Reserve that could provide financial stability. Title IV specifies that several categories are to be included in the second definition. The designated categories include consumer loans, municipal securities, and commercial real estate loans.

Changes to Hope for Homeowners Program

Title V makes changes to the Hope for Homeowners Program established in July 2008 to try to encourage additional participation in the program. It allows for reduction or termination of the annual premiums charged for refinanced mortgages. It directs the Board to conform the documents for refinanced mortgages to those for existing programs to reduce compliance burden. It allows for payments to loan servicers for participation, similar to payments in the FDIC's existing IndyMac loan modification program. It allows for the use of TARP funds to reduce the net costs of the existing Hope for Homeowners program.

Home Buyer Stimulus and GSE Securities Program

The home buyer stimulus program in Title VI provides for the purchase of government-sponsored enterprise (GSE) securities in order to reduce mortgage interest rates. Under this provision, the GSEs, Fannie Mae and Freddie Mac, and any Federal Home Loan Bank, can issue securities in order to fund new loans at affordable interest rates (Section (d)). Geographic concentration of foreclosures may be used as one factor in consideration of the administration of the program.

FDIC Provisions

Title VII addresses several Federal Deposit Insurance Corporation (FDIC) issues. First, it makes permanent the increase in covered deposits from $100,000 to $250,000 per person per financial institution. It amends the FDIC restoration plan period from five years to eight years. It increases the FDIC's borrowing authority from the Treasury for the deposit insurance fund from $30 billion to $100 billion. It allows for an FDIC special assessment regarding assistance from the deposit insurance fund for losses for systemic risk. For the purposes of the systemic risk assessment, bank holding companies are to be treated as depository institutions.

Additional Amendments to H.R. 384

In addition to the specific provisions discussed above, there have been more general amendments to H.R. 384. Representative Matsui introduced and the House passed H.Amdt. 3, which provides a sense of Congress that future recipients of TARP funds should halt foreclosure process on residential mortgages until the systematic loan modification plan can be implemented. Representative Myrick introduced and the House passed H.Amdt. 8, which prohibits participants in TARP from outsourcing customer service jobs.

Potential Causes of Financial Instability

EESA authorized a flexible program to respond to financial instability. Treasury has announced that it will implement TARP using a combination of the activities authorized by the act. As the previous discussion has shown, TARP programs can help banks by removing bad assets or injecting capital. TARP programs can also be used to insure bad assets or to directly assist mortgage borrowers. The following section analyzes the TARP program by first discussing potential sources of financial turmoil in general and then discussing some characteristics of the recent turmoil that might be addressed by various TARP initiatives.

Financial markets serve as intermediaries between savers and borrowers. If they are running effectively, funds from investors are allocated to borrowers according to their willingness and ability to repay the loans, adjusted for risk. Over the course of a lifetime, most people will have extended periods of being a borrower and of being a saver. Financial markets help young people pay for college and buy their first home, and financial markets help when it comes time to retire. However, if financial markets are disrupted then both savers and borrowers will be frustrated. At times, market imperfections might cause financial markets to under-price risk, which might cause assets to become overpriced (bubbles).[31] At other times, market imperfections might also cause

[31] CRS Report RL33666, *Asset Bubbles: Economic Effects and Policy Options for the Federal Reserve*, by Marc (continued...)

financial markets to over-price risk, which tends to restrict economic activity and possibly trigger recessions. The difficulty for policymakers is to identify market practices that might tend to over-price or under-price risk.

Financial markets are subject to a number of imperfections, some of which are described below. In each case, private firms can attempt to address the problem through contract mechanisms, and policymakers can attempt to address the problem through regulation or other tools. Because private contract is such a flexible device, financial markets are constantly evolving. The evolution of financial instruments and markets can make it difficult for policymakers to identify, monitor, and neutralize potential weaknesses. Some important imperfections are detailed below.

Confidence and the Credit Cycle

Financial intermediaries often practice fractional reserve lending. That is, they keep some fraction of their total assets available for contingencies and use the rest for lending. Because of this fractional reserve system, financial intermediaries are often in a position in which they could not immediately respond to all partners if everyone demanded their funds or other assets at the same time. Even if the firm's assets are much greater than liabilities (the firm is solvent) the firm might not be able to exchange those assets to satisfy immediate costs (the firm is illiquid). Unfortunately, prudence and risk move in opposite directions. The smaller the amount of reserves the intermediary keeps on hand, the greater the potential for profit, but the greater the risk that the firm will be caught without adequate funds if conditions change. Leverage, thus, works in both directions.

To compensate for exposure to intermediaries with inadequate reserves, people may ask business partners to post a bond. The required bond generally declines the more confident people are. As a result, periods of investor confidence and investor pessimism can become self-fulfilling. Confidence tends to expand available credit, which tends to bid up prices, which tends to make the projects more likely to succeed, for a while. Lack of confidence tends to dry up credit, which makes it harder for people to conduct economic activities, which makes it harder for projects to succeed.

The vulnerability of the credit cycle to bouts of overconfidence or panic may be an inherent market failure. One role of a regulator is to monitor reserve assets of financial intermediaries to make sure the latter do not become overextended during times of confidence. In hindsight, it appears that many financial firms became overextended during 2002-2005. Some have called for trying to adjust reserve requirements, leverage, and similar characteristics to "lean against the wind." In this view, regulations should increase capital requirements during boom times and lower them in periods of contraction.

In the current situation, which is discussed in more detail below, banks have experienced both liquidity problems and capital adequacy (solvency) problems. The complexity of MBS has contributed to the difficulty in exchanging these assets, which makes MBS less liquid for anyone who holds them or who might buy them. In addition, default rates on mortgage loans have increased significantly; higher than expected loan losses reduce bank capital. These effects are

(...continued)

Labonte.

not mutually exclusive; undercapitalized banks find it more difficult to borrow funds, which means they are less liquid. The asset purchase and asset insurance portions of TARP more directly address liquidity issues,[32] whereas the preferred stock purchase plan more directly addresses solvency issues.

Information Asymmetries

It is often the case in financial contracts that one party has more information than another. It may be the case that there is a group of assets, only some of which are defective. If the seller can identify the defective assets but the buyer cannot, then there is said to be a "market for lemons" and the value of all of the assets will be discounted by potential buyers. Private firms can try to solve the problem through guarantees and similar contract terms. In addition, there may be a role for government inspectors or mandatory disclosures. Regulation of ratings agencies could arguably fall under this category. If a large pool of assets emerges where the assets are unrated because some unknown portion of them are thought to be defective, it may minimize total costs to have an institution with a long time horizon, such as government, acquire the assets and sort quality assets from troubled assets at a later date.

For financial institutions, asymmetric information problems can also be a factor when designing rescue plans. For example, if the originator of loans tends to keep some but sell others on the secondary market then there may be an information problem. The originators may tend to keep the good loans in their own portfolios and pass along the bad loans to others. Similarly, if policymakers offer to acquire assets, firms may try to keep the good assets and sell the bad assets.

In the current situation, the complexity of MBS may have created a lemons problem. Some policymakers are concerned that a program to buy assets from banks will allow banks to "overcharge" the government for their assets. In this view, once the government establishes a price for the assets, only firms who know that their assets are worth less than the price will participate. To prevent the lemons problems, some have suggested an auction process to ensure that assets are priced correctly.[33] If auctions correctly price assets, this program might help remove illiquid assets from bank balance sheets. However, it could be argued that correctly pricing troubled assets is not the only policy goal. Treasury may wish to use the lemons problem with the express purpose of removing the most troubled assets from the bank balance sheets; furthermore, paying more than the current assessed price might also address the policy goal of recapitalizing banks.

Another information problem is what is known as the "winner's curse." In a winner's curse some of the potential bidders have more information than others. Unsophisticated bidders try to free ride on the information provided by the more sophisticated. People watch the "smart" people bid and copy them. The problem in this is that the "smart" people will know when to stop bidding. Unfortunately, the "winners" will continue bidding for a while, unaware that the sophisticated have stopped participating. As a result, assets become overpriced and could become subject to crashes. Some believe that the process of creating MBS (securitization) was subject to a winner's

[32] The impact of the asset insurance and asset purchase programs on solvency depends greatly on the premiums charged for the insurance and the prices paid for the assets.

[33] CRS Report RL34707, *Auction Basics: Background for Assessing Proposed Treasury Purchases of Mortgage-Backed Securities*, by D. Andrew Austin.

curse. It might be a role for regulators to limit the right to bid in some circumstances to sophisticated parties or require participants to conduct a minimum of due diligence.

Moral Hazard

Moral hazard occurs when someone has the incentive to take fewer risks prior to an agreement, but the agreement itself creates an incentive for them to take more risks, against the interests of their contracting party. For example, insurance often causes moral hazard so insurance companies often insist that people pay deductibles, install smoke alarms, do not live in a flood plain, and the like. If policymakers rescue some firms then the perception of a safety net may encourage other firms to take on more risk. Similarly, if firms approach insolvency with only a low probability of survival, they might take extremely large risks.

In the current situation, some are concerned that the TARP program could cause moral hazard. Once financial institutions know that the government will spend large sums to remove bad assets or inject additional capital, they may be willing to take additional risks. EESA attempts to deal with moral hazard in part by limiting the compensation that the executives of participating financial institutions can receive. One of the limits specifically prohibits executive compensation that is linked to excessive risk taking during the period that Treasury holds a debt or equity interest in the financial institution (Section 11(B)(2)(a)).

Network Externalities

In some instances, firms can compete in one arena but be network partners in another. For example, sports teams compete on the field and for players and coaches but a sports team must have other sports teams in order to have a marketable entertainment product. Similarly, financial institutions compete in many areas but also must cooperate to clear checks, exchange securities, and manage risk. A trading exchange cannot operate without multiple parties. Furthermore, the greater the number of people that participate, the more liquid the market will be, which in turn increases the value of participating in the exchange. These network externalities can cause coordination problems when the interests of participants conflict. One role for policymakers may be to help resolve network externalities. In the present circumstances, the coordination of trading complex derivatives is arguably one concern of policymakers when considering financial market intervention. TARP may help address this problem by allowing Treasury to consider removing complex derivatives that may pose systemic risks.

Collective Action

Resolving the aforementioned vulnerabilities in financial markets may be in the interests of all financial firms. But it may not be in the interest of any single firm or group of firms to pay all the costs of resolving problems. In these instances, it may be the role of policymakers to help coordinate solutions to collective action problems. The role may be as simple as making information available or gathering parties to facilitate negotiations, or the role may be to provide investment in the infrastructure of the markets themselves. In the present circumstances, both the Federal Reserve and Treasury have been active in attempting to find acquisition partners for troubled financial institutions believed to pose systemic risks. This coordination role may have

been helpful in finding a way to unwind the assets of Bear Stearns, but was not successful in similar action for Lehman Brothers.[34]

Sources of Recent Market Turmoil

Although the prior section addressed financial market problems in general terms, this section discusses problems specific to the current episode of financial turmoil. The initial spark for the financial turmoil is generally agreed to be the increase in defaults among subprime mortgage borrowers and the loss of liquidity of securities backed by mortgage loans. Since August 2007, financial firms have suffered repeated problems in disposing of "toxic" assets, rolling over their own debt, identifying the relative financial health of potential trading partners, and recapitalizing their balance sheets.[35] The primary tools of the Federal Reserve address liquidity, but financial firms are also experiencing capital adequacy problems. For Fannie Mae and Freddie Mac, the Federal Housing Finance Agency (FHFA, formerly OFHEO) and Treasury helped with both liquidity and capital adequacy for institutions the government deems essential.[36] Some argue that the apparent inconsistency between aid for Bear Stearns, no aid for Lehman Brothers, and then the subsequent rescue of AIG increased rather than decreased uncertainty. At any rate, credit markets suffered a near collapse in the days after the Lehman Brothers and AIG episodes.

Expectations, Mortgage Defaults, and Asset Prices

If investors expect high default rates by borrowers then prices might adjust to compensate for increased losses; therefore, high default rates by themselves do not necessarily lead to financial market turmoil as long as prices reflect the elevated risk. The rapid rate of increase in defaults on subprime mortgages, however, was unexpected by many investors in global mortgage-backed securities markets.[37] During the early stages of the mortgage market turmoil, some believed that it was largely a subprime problem caused by predatory practices of unregulated lenders.[38] Others argued that there were more general problems in mortgage markets, both prime and subprime, that had encouraged the use of nontraditional mortgage products to speculate on house price appreciation.[39] If the only problem was wrong estimates of default rates then financial markets might be expected to restore stability once higher risk levels are incorporated in prices. Unfortunately, this has not as yet occurred, perhaps in part because there are characteristics of housing markets that tend to reinforce downward price pressures, which also tend to increase default rates.[40]

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[34] CRS Report RL34420, *Bear Stearns: Crisis and "Rescue" for a Major Provider of Mortgage-Related Products*, by Gary Shorter.

[35] CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl E. Getter et al.

[36] CRS Report RL34661, *Fannie Mae's and Freddie Mac's Financial Problems*, by N. Eric Weiss.

[37] John Kiff and Paul Mills, "Lessons from Subprime Turbulence," *IMF Survey Magazine: IMF Research*, August 23, 2007, available at http://www.imf.org/external/pubs/ft/survey/so/2007/RES0823A.HTM.

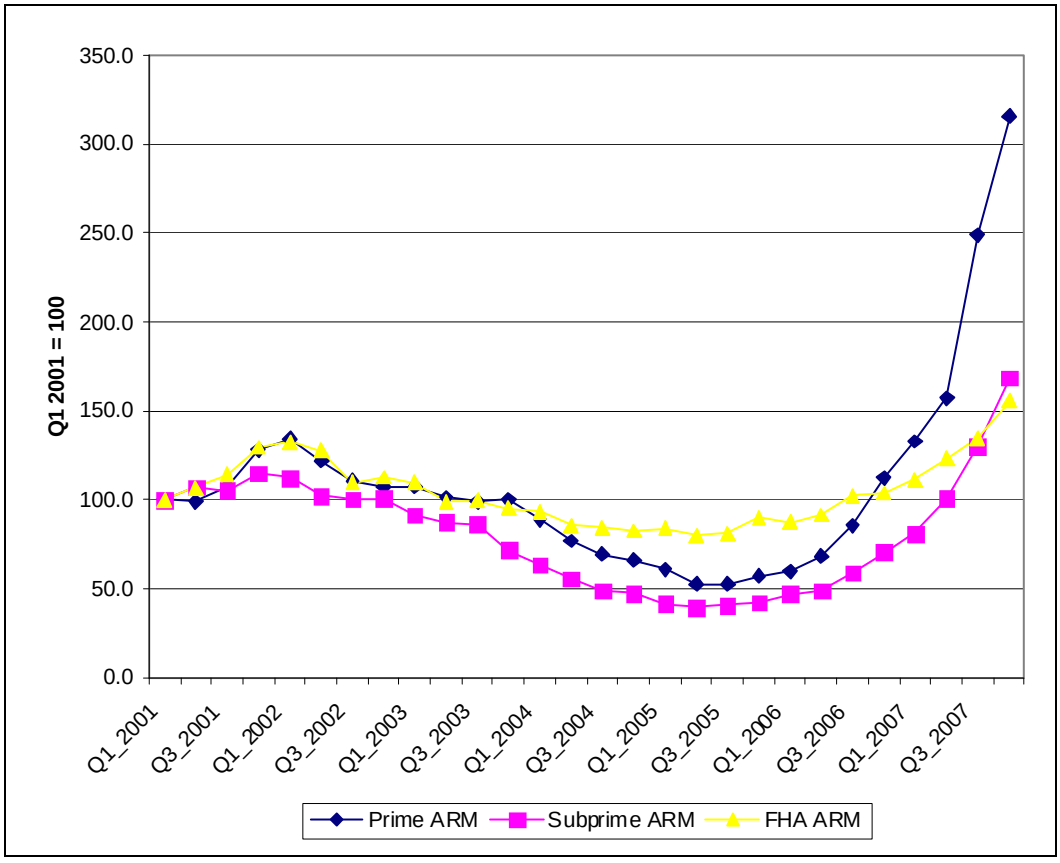
[38] "Testimony of Paul Leonard," California Office Director, Center for Responsible Lending, before the California Senate Banking Committee, March 6, 2007, available at http://www.responsiblelending.org/pdfs/FINAL-Leonard-3-26-Testimony.pdf.

[39] CRS Report RL33775, *Alternative Mortgages: Causes and Policy Implications of Troubled Mortgage Resets in the Subprime and Alt-A Markets*, by Edward V. Murphy.

[40] CRS Report RL34653, *Economic Analysis of a Mortgage Foreclosure Moratorium*, by Edward V. Murphy.

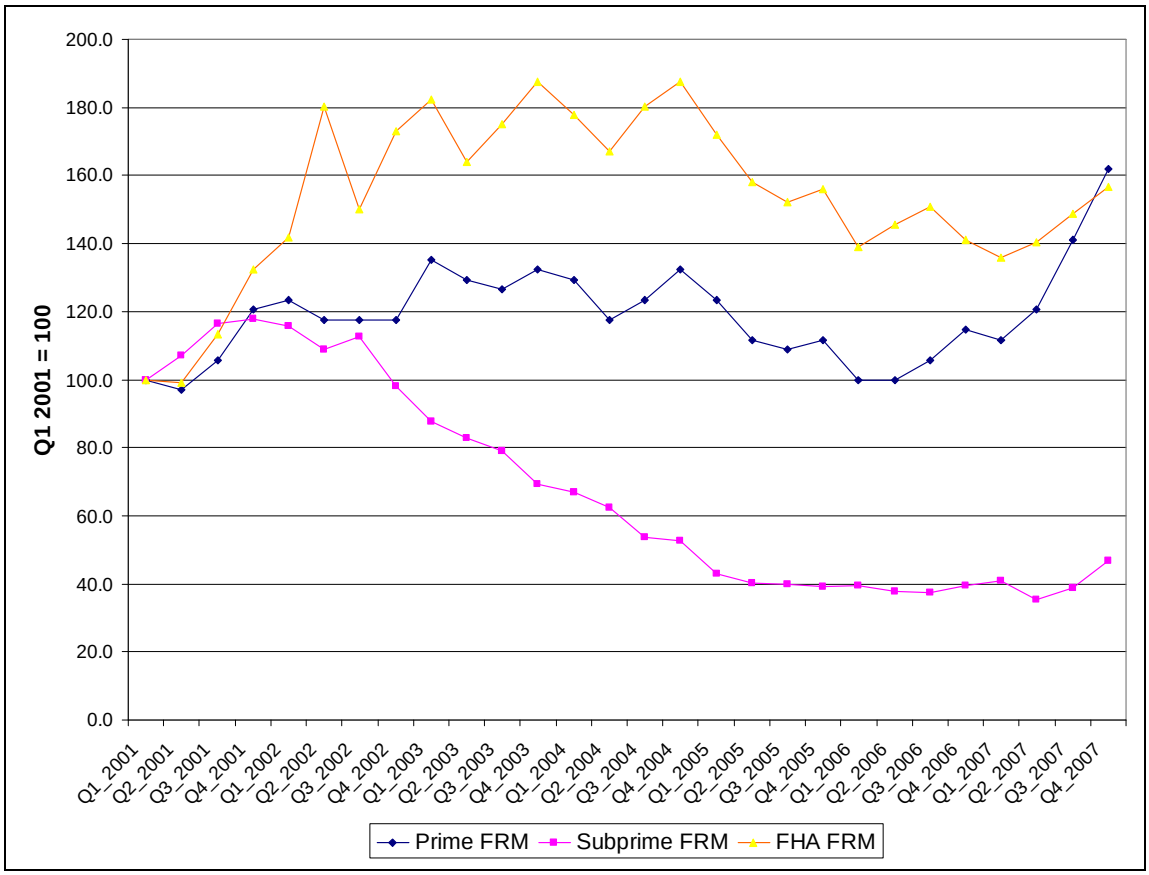
Evidence of default rates by type of mortgage is consistent with the view that unexpectedly high default rates were not confined to the subprime market. First, defaults are concentrated in formerly rapidly appreciating regions. Second, the default rate on prime adjustable-rate mortgages (ARMs) has increased more rapidly than the default rate on subprime ARMs. At the same time, subprime fixed-rate mortgages are performing better than they had before the housing boom, suggesting that there are issues related to ARMs. **Figure 1** constructs an index (base equals 2001) of the default rates on ARMs, for fixed-rate mortgages, subprime mortgages, and FHA mortgages. Market participants who might have expected default rates to continue would have missed by a greater margin on prime ARMs than on subprime ARMs. Note that the absolute level of default rates is much higher on subprime loans than on prime loans; however, because higher interest rates for riskier loans compensate partially for default risk, the relative change in a given default rate compared to its history is arguably more important to an investor than the absolute default rate. If so, then **Figure 1** and **Figure 2** show that investors in MBS did not just experience a subprime problem, they experienced an ARM problem.

Figure 1. Index of ARM Foreclosure Rates, 2001=100
Prime ARMs Have Unexpectedly High Foreclosure Rates



Source: Mortgage Bankers Association National Delinquency Survey.

Figure 2. Index of FRM Foreclosure Rates, 2001=100 Fixed-Rate Subprime Loans Have Unexpectedly Low Foreclosure Rates



Source: Mortgage Bankers Association National Delinquency Survey.

Prices for MBS have been affected by changing views of housing markets. Early in the turmoil, many observers believed that problem loans were largely a subprime phenomenon. However, falling house prices in California, Florida, and several other formerly booming states have exacerbated default rates among all categories of borrowers in those regions. One contributing factor is that mortgage debts exceed the market value of some borrowers homes; therefore, some of these borrowers are increasingly tempted to walk away from their mortgages. As a result, some investors consider a wider class of MBS tainted and these assets are harder to sell at any price. When mortgage problems were considered only a subprime problem, few thought that Fannie Mae or Freddie Mac had a great deal of exposure to problem loans.[41] Subsequently, problems in the broader market have shown that Fannie Mae and Freddie Mac had more problem loans than originally thought. Because housing markets and financial markets are linked, many have expressed skepticism that financial markets will recover before housing markets stabilize.

[41] See for example, Allen Fishbein, Director of Housing and Credit Policy, Consumer Federation of America, "Testimony Before the House Financial Services Committee," March 15, 2007, pp. 6-7, suggesting that the GSEs be encouraged to lead the market among riskier borrower groups, including lower-income, first-time home buyers, and minorities.

Liquidity and Uncertainty

Loss of liquidity has been one of several problems in financial markets since the beginning of what originally became known as the subprime crisis. Liquidity refers to the ability to sell an asset quickly without suffering a significant price reduction—cash is typically the most liquid asset. A firm is liquid if it has a significant portion of its assets in liquid form or can easily access debt markets to acquire liquid assets as needed. A firm is solvent if the value of its assets is greater than the value of its liabilities. An insolvent firm can be in trouble even if all of its assets are perfectly liquid, such as in cash. When mortgage-related securities held by investment banks and other financial firms suffered higher than expected default rates, the MBS lost their liquidity in part because potential buyers were uncertain as to which securities contained the loans that were unlikely to perform. Complex accounting rules which allowed certain assets to be held off-balance sheet made the uncertainty worse, and many mortgage-related securities became illiquid.

Policymakers attempted to restore liquidity to MBS markets over the past year. The Federal Reserve increased liquidity to markets in general by lowering interest rates. It provided liquidity to targeted financial firms by expanding the list of institutions that could directly access the discount window and by providing regular liquidity auctions.[42] The Federal Reserve also attempted to increase the liquidity of mortgage-related assets by adding them to the list of collateral that it would accept for loans. The government tried to increase the liquidity of mortgages by increasing the conforming loan limit (the maximum size loan that the GSEs may purchase). Despite these efforts, financial markets continue to experience significant turmoil.

Capital Adequacy and Leverage

Efforts to restore liquidity do not necessarily address capital adequacy or solvency problems. A relatively small drop in the market value of a firm's assets can cause significant capital reduction if the firm is highly leveraged. Leverage refers to the ratio of a firm's equity capital to its other assets. The greater this ratio the more vulnerable the firm is to falling asset prices. If a firm is leveraged 10:1 and it has $100 in assets then it has $10 in equity capital and $90 in liabilities. In this case, a 5% drop in the value of the firm's assets would reduce assets to $95 (results from a $5 loss). Because assets equal liabilities plus owners equity, and liabilities have not changed, the $5 loss comes out of equity capital. The firms equity would drop from $10 to $5, still solvent in this example. If the firm had been leveraged 25:1 instead of 10:1, then the firm would start with $100 in assets, $96 in liabilities, and $4 in owner's equity. The same 5% drop in asset values would completely wipe out owner's equity and cause the firm to be insolvent (-$1 equity). A key principle of financial markets is that highly leveraged firms can become insolvent for relatively small decreases in asset values; therefore, the damage to the financial system from nonperforming loans can be several times the increase in default rates.[43]

Policymakers have encouraged the financial sector to attempt to rebuild equity capital. Early in the financial crisis, hedge funds and sovereign wealth funds invested in some troubled U.S. financial firms. Investment banks may prove more difficult to recapitalize than commercial banks. Regulation does not specify minimum capital standards for investment banks. Their leverage ratio is largely limited by the confidence, or lack thereof, that financial markets have in

[42] CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

[43] CRS Report RL34412, *Containing Financial Crisis*, by Mark Jickling.

them. When market confidence drops for financials, these firms risk their liquidity drying up. If, at the same time that they lose liquidity, they happen to be undercapitalized or near insolvent, then they may not survive.

A number of factors contributed to the increase in leverage in recent years, and the process of reducing leverage may be difficult. One factor that contributed to the increase in leverage during 2002-2005 was low interest rates across the globe, which made it very easy to use short-term debt to finance risky activities.[44] Another factor was the increased use of structured finance (securitization), which allowed banks and other loan originators to move assets off of their balance sheets even though they were still exposed to some risk if the loans failed to perform as expected.[45] A third factor contributing to leverage was the use of complex financial derivatives, which had the potential to reduce financial risks but also had the potential to increase financial risk.

Too Complex to Fail?

Complex financial derivatives have been characterized by some observers as financial weapons of mass destruction. A financial derivative is a contract in which two (or more) parties agree to a payment if a referenced financial instrument changes price or otherwise satisfies conditions set in the contract.[46] Examples of financial derivatives include interest rate swaps and foreign exchange swaps that help firms that are exposed to interest rate risk or exchange rate risk hedge against unexpected market events. The contracts are typically tradable, which has benefits for the market as a whole as well as for the two firms entering into the contract. The ability to trade the derivatives grants the two parties a more liquid asset. The ability to trade the derivatives also provides information to the market as a whole because the observed price of the contracts is a clue to market expectations about the future movements of interest rates, exchange rates, etc. A cost to this increased liquidity is that linkages among firms through the derivative contracts can become very complex and it may become difficult for parties to assess whether their counterparties can actually honor all of their derivative contracts.[47]

The complexity of derivatives contracts has made policymakers uncertain as to the repercussions of allowing a major participant in financial derivatives markets to fail. One worry is that there would be a long period of uncertainty during the unwinding of the derivatives contracts that could potentially freeze global financial markets. In two previous episodes, policymakers chose to facilitate the unwinding of the derivatives contracts. During the Russian debt crisis, the Federal Reserve facilitated the unwinding of Long Term Capital Management (LTCM), although the Federal Reserve did not directly provide funding.[48] For Bear Stearns, the Federal Reserve helped arrange an acquisition by J.P. Morgan, and the Federal Reserve also helped provide the financing.[49] One interpretation of the current market is that policymakers treated AIG as too

[44] CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl E. Getter et al.

[45] CRS Report RS22722, *Securitization and Federal Regulation of Mortgages for Safety and Soundness*, by Edward V. Murphy.

[46] CRS Report RS22918, *Primer on Energy Derivatives and Their Regulation*, by Mark Jickling.

[47] CRS Report RL34420, *Bear Stearns: Crisis and "Rescue" for a Major Provider of Mortgage-Related Products*, by Gary Shorter.

[48] CRS Report RL33746, *Hedge Fund Failures*, by Mark Jickling.

[49] CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

complex to fail because of the potential difficulty in unwinding their derivatives.[50] AIG is a major participant in credit default swaps, which are derivatives tied to credit losses.

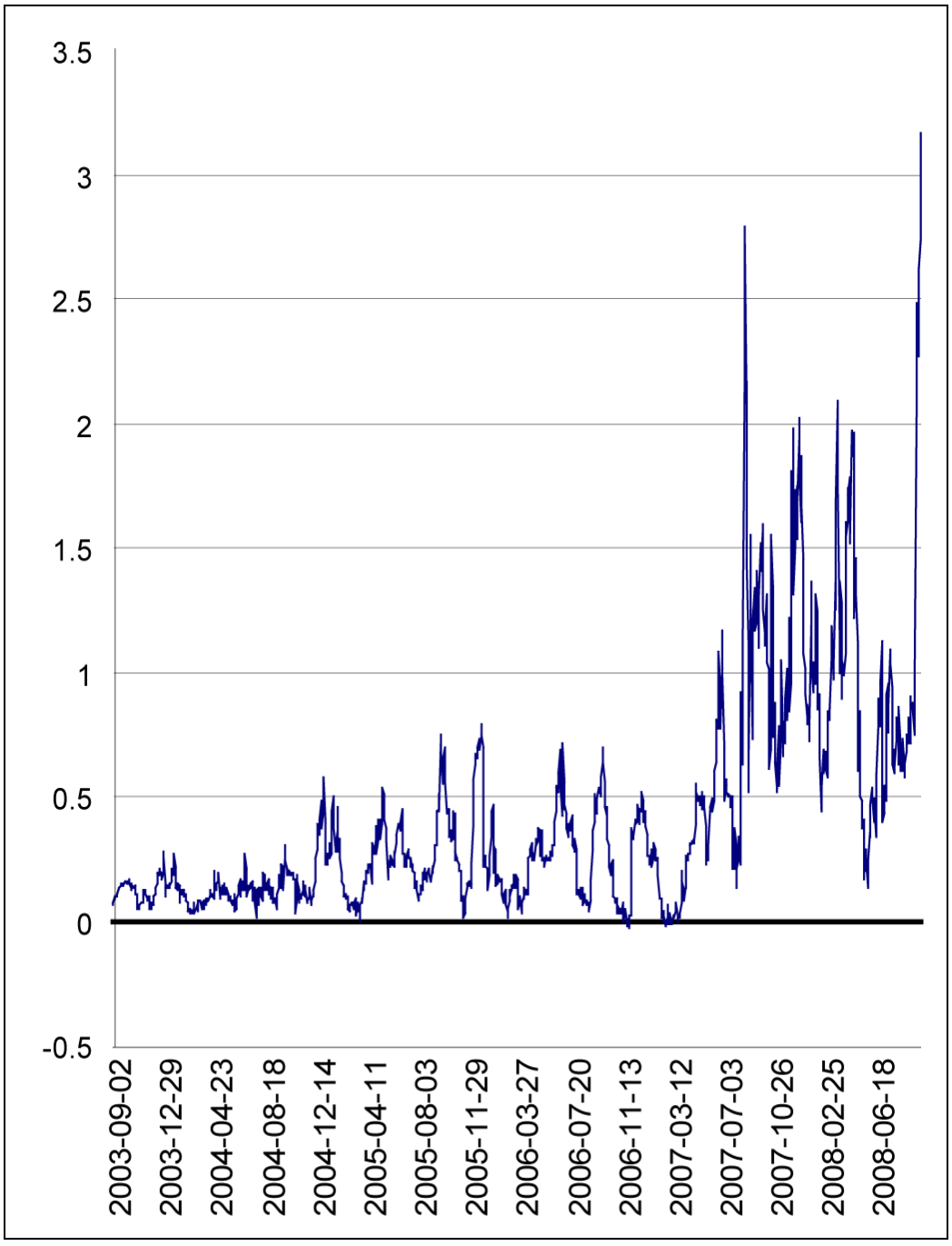
Evidence of the Real Effects of Financial Market Turmoil

Troubles in financial markets do not always spill over into other economic sectors, such as industrial production, agriculture, services, or other parts of the broader economy. Because the current turmoil has lasted more than a year while national unemployment had remained relatively low by historical standards (although rising) and economic growth remained positive (although low) for much of that time, some have questioned whether there is evidence that the current financial turmoil has had significant real effects. Third quarter 2008 growth has been preliminarily assessed by the Commerce Department as negative. Although the fall in house prices could directly reduce consumer spending by making home owners feel poorer (a so-called wealth effect), most economists consider the primary way that financial market turmoil affects the broader economy to be by making it more difficult to get loans, which restricts business investment and consumer purchases of durable goods. The evidence of such effects is thought to be largely in financial market spreads, the difference between the interest rate on less risky debt such as U.S. Treasuries, and the rates paid by banks, firms, and consumers. Interest rate spreads remained elevated after August 2007, even in the inter-bank market where banks lend to each other. Treasury's initial draft for the TARP program was developed the weekend following the large spike in interest rate spreads on September 14, 2008.

Interest rates can be an indicator of financial market spillovers. The rates at which market participants borrow is typically above the rate that the U.S. government borrows (although not all governments enjoy low borrowing costs). The difference between market rates and the U.S. government rate for a debt of similar maturity, called a spread, can be an indicator of the degree of confidence that market participants have in each other (among other factors). A wide spread can be an indicator of a lack of confidence whereas narrow spreads can be an indicator that markets do not demand a high risk premium. **Figure 3** shows the spread between commercial paper, one form of short-term private loan used mostly by large, high-quality corporations, and short-term Treasury securities. In **Figure 3**, the spread remains relatively narrow from September 2003 until August 2007, which is considered the beginning of the liquidity crunch. The spread on commercial paper spiked in August 2007, remained volatile during the next year, and then spiked again in September 2008. The financial market interventions between August 2007 and September 2008 apparently failed to restore market confidence; as a result, private borrowers continued to pay high interest rates even as interest rates on U.S. Treasury debt declined. The spike in September of 2008 occurred during the week of the interventions for Lehman Brothers and AIG.

[50] CRS Report RS22932, Credit Default Swaps: Frequently Asked Questions, by Edward V. Murphy.

Figure 3. Spread Between Commercial Paper and One-Month Treasuries



Source: The Federal Reserve.

Wealth Effect?

A wealth effect refers to the tendency of people to spend in the current period at least part of any increase in wealth that they receive. When asset prices rise, such as houses, stocks and bonds in retirement accounts, collectible art, or similar savings instruments, people may feel wealthier.

When house prices were booming, consumer spending was supplemented by mortgage equity withdrawal to access households' perceived increase in wealth. Now that house prices have stopped rising nationally, and are falling significantly in some areas, mortgage equity withdrawal has no longer been contributing much to consumer spending. In some cases, lenders have been seeking to cancel or reduce lines of credit they had extended on homes. Although falling house prices could possibly have a negative wealth effect, few people fully tapped their home equity so the reduction in the lines of credit is not widely expected to have a large effect. Furthermore, according to the Mortgage Bankers Association National Delinquency Survey, 97% of home owners are not in the foreclosure process, and aggregate consumer spending levels did not decline for the first year of financial turmoil (although consumer spending growth was below trend). Whether due to rising unemployment, a wealth effect from falling house prices, the stock market declines in the Fall of 2008, or other factors, third quarter consumer spending is estimated to have declined.

Bank Balance Sheets and Tightening Credit Markets

Rather than working directly through consumer spending, financial market turmoil is generally considered to affect the broader economy by reducing the availability of credit to firms and consumers. Rising default rates and falling asset prices reduce the value of the assets on bank balance sheets. As discussed above, banks are leveraged so that a fall in the value of their assets can significantly damage their capital. Falling house prices have the potential to cause mortgage lenders both liquidity and solvency problems. In response, banks may become hesitant to part with cash and may therefore choose to tighten their lending standards. Low risk borrowers may be able to qualify for loans, possibly even at low interest rates, but many higher risk loans might not be granted at any interest rate. It is possible to observe low interest rates in these circumstances with relatively little actual lending taking place.

The evidence in the current market is consistent with tightening lending standards and reduced credit availability. The survey of bank lending managers showed tightening lending standards since the beginning of the financial market turmoil. Reductions in the Federal Reserve's policy interest rate have not, as yet, been followed by loosening lending standards. Spreads between Treasury rates and consumer loans, such as mortgage rates, initially remained elevated so that the reduction in the Fed's rate provided little relief to borrowers facing an increase in their mortgage rate.

The TARP program can strengthen bank balance sheets in several ways. Under TARP, Treasury can directly inject capital into the bank balance sheet though the preferred share stock purchase program. This creates a larger cushion between a bank's current standing and insolvency. TARP also enables the Treasury to remove troubled assets from bank balance sheets, This increases the institution's liquidity, but does less for bank solvency. TARP can also allow financial institutions to insure their troubled assets, which would make those assets more liquid, but may also do little for bank solvency. TARP permits direct assistance to homeowners, which would presumably be aimed at reducing default rates. Reducing default rates by fully paying loans could in theory simultaneously remove the stigma of mortgage-related assets, increase their price and their liquidity, and restore some bank capital.

Reinforcing Delinquencies and Foreclosures in Housing Markets

Tight lending standards tend to reinforce delinquencies and foreclosures. Some borrowers may have taken out large mortgages when credit was easy and rates were low, with the intent of refinancing their loans before maturity. Tightening lending standards reduce their ability to refinance on favorable terms and make it less likely that they can keep their house. Not only do tight lending markets reduce the ability of current residents to pay their loans, but strict lending standards also make it less likely that a third party can be found to purchase the house. As a result, foreclosures can add to the unsold inventory of homes, which tends to drive down prices and further depress bank balance sheets. Some fear that this process can become self-reinforcing because rising delinquencies might also result in tight lending conditions.

Difficulties of Using Debt Financing to Fund Purchases

There are also other assets besides housing for which demand depends on the ability of buyers to find financing. Some municipalities had depended on the ability to roll over short term debt in the form of auction-rate securities. When financial markets froze, some auctions failed to attract enough bidders to continue rolling over the debt. As a result, the interest rates paid increased significantly. Complaints by some municipalities that the risks of these investment instruments were not fully disclosed has led several investment banks to agree to take back the securities on to their own balance sheets (which may already be under significant stress).[51] The automobile market has also suffered as automakers canceled some leasing programs. Student loans have also become harder to get, although some believe that this is be due at least in part, to a change in the federal funding formula.[52]

Conclusion

The EESA authorizes Treasury to spend up to $700 billion to restore financial stability. In general, there are at least five policy responses to a banking disruption: (1) removing bad assets from bank balance sheets, (2) injecting capital into the banking system, (3) insuring "toxic" assets, (4) directing support of delinquent borrowers to reduce default rates, and (5) allowing the free market time to liquidate troubled assets and process insolvent institutions. The breadth of the definition of a troubled asset under the TARP statute grants Treasury the discretion to implement any of these options individually or in combination. Although Treasury's original proposal focused on option 1 (removing bad assets), the majority of TARP funding to date has been more consistent with option 2 (injecting capital). Using the majority of TARP funds for capital injection matches the approach taken by several European nations in response to their banking turmoil.

[51] CRS Report RL34672, *Auction-Rate Securities*, by D. Andrew Austin.

[52] CRS Report RL34452, *The Ensuring Continued Access to Student Loans Act of 2008*, by David P. Smole, and CRS Report RL34578, *Economics of Guaranteed Student Loans*, by D. Andrew Austin.

Appendix. Glossary of Terms Related to Disruption of Financial Markets

Adverse Selection—When a party having greater information about the quality of a pool of assets offers to sell the inferior ones to the less knowledgeable party.

AIG—American International Group, Inc.

ARM—Adjustable Rate Mortgage.

Bank holding companies—Companies that own one or more banks.

Bubble—Self-reinforcing process in which the price of an asset exceeds its fundamental value for a sustained period. Often followed by a rapid price decline.

Conservatorship—When an insolvent financial institution is reorganized by a regulator with the intent to restoring it to an ongoing business.

CDO, Collateralized Debt Obligation—Securities deriving their income from other fixed income assets, including but not limited to, mortgage-related assets.

CDS, Credit Default Swap—A tradeable contract in which one party agrees to pay another if a third party experiences a credit event, such as bankruptcy or credit downgrade.

Credit Event—In a credit default swap, an event specified in the contract that triggers the payment between the parties. Is often a bankruptcy or credit downgrade.

Credit Risk—The risk that a borrower will fail to repay a loan in full.

EESA—Emergency Economic Stabilization Act, P.L. 110-343.

FASB—Financial Accounting Standards Board.

FAS 157—An accounting standard issued by FASB that covers the reporting of the fair value of financial assets. Determines if financial assets must be marked-to-market.

FDIC—Federal Deposit Insurance Corporation.

FHA—Federal Housing Administration.

FHFA—Federal Housing Finance Agency.

Financial Derivatives—Investment products that derive their payments from previously issued securities.

FRM—Fixed Rate Mortgage.

Hedge Funds—Unregulated mutual funds that buy and sell investment assets.

HELOC—Home Equity Line of Credit.

Insolvent—When a firm's liabilities are greater than assets.

LTCM—Long Term Capital Management.

Leverage Ratio—Ratio of a firm's capital to its assets.

Liquidity—The ability to trade an asset quickly without significantly reducing its price, or the ability of a person or firm to access credit markets.

Mark-to-Market—The accounting requirement to report assets held for sale at current market prices. Related to FAS 157.

MBS, Mortgage Backed Security—A security which derives its payments from a pool of mortgage obligations.

Moral Hazard—The tendency of people to take more risks once another party has agreed to provide protection.

Notional Principal—In a swap contract, the amount on which the interest is being paid (for interest rate swaps) or the protection payment is calculated (for credit default swaps).

OCC—Office of the Comptroller of the Currency.

OFHEO—Office of Federal Housing Enterprise Oversight.

OTC, Over-the-Counter Market—Unregulated market in which dealers at different locations stand ready to trade securities with anyone willing to accept the prices.

OTS—Office of Thrift Supervision.

Preferred Stock—Receives a fixed dividend and must be paid before common stock but typically does not have voting rights.

Prime Borrowers—Borrowers with high credit scores, sufficient down payments, documented income, and other indicators of low credit risk.

Protection Buyer—In a credit default swap, the party that receives payment if a credit event occurs.

Protection Seller—In a credit default swap, the party that makes payment if a credit event occurs.

Receivership—When an insolvent financial institution is taken over with the intent to liquidate its assets.

Risk-Based Capital—An amount of capital a lending institution must keep in reserve based on the riskiness of its assets.

Securitization—The process of transforming a flow of funds, typically from a debt, into a new marketable security.

SEC—Securities and Exchange Commission.

Spreads—The difference between two rates, typically bond yields or interest rates of the same maturity. Wide spreads often indicate lack of market confidence.

Subprime Borrowers—Borrowers with low credit scores and/or other indicators of higher credit risk.

TARP—Troubled Asset Relief Program, created by P.L. 110-343.

Author Contact Information

Baird Webel
Analyst in Financial Economics
bwebel@crs.loc.gov, 7-0652

Edward V. Murphy
Specialist in Financial Economics
tmurphy@crs.loc.gov, 7-6201