Policymaking Through a Panic

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Panic has gripped the global financial system, pushing the global economy into recession. The U.S., Europe, Canada and Japan are contracting, while emerging economies from Brazil to China that had been growing rapidly are now weakening.

The proximate cause of the global crisis is the collapse of the U.S. housing market, and the resulting surge in mortgage loan defaults. Hundreds of billions of dollars in losses on these mortgages have undermined the financial institutions that originated and invested in them, including some of the largest and most venerable in the world. Many have failed and most are struggling to survive. Banks are fearful about extending credit to each other, let alone to businesses and households. With the credit spigot closing, the global economy is withering. Global stock investors have dumped their holdings as they come to terms with the implications for corporate earnings. A self-reinforcing adverse cycle has begun: the eroding financial system is upending the economy, putting further pressure on the financial system as the performance of everything from credit cards to commercial mortgage loans sours.

This cycle can only be mitigated by aggressive and consistent government action. In the U.S., the public policy response to the financial crisis is without precedent. The full faith and credit of the United States government now effectively backstop the financial system; significant parts of which have been nationalized. With the takeover of Fannie Mae and Freddie Mac, the government makes nearly all the nation's residential mortgage loans. And as the $700 billion troubled asset relief fund is deployed, the government is gaining sizable ownership stakes in the nation's largest financial institutions.

In an effort to restart money and credit markets, the Federal Reserve has vastly expanded its role. The central bank can now lend to whomever and buy whatever it deems necessary, essentially without limit. The Fed has also engineered an unprecedented coordinated interest rate cut with other central banks, more than doubled the size of its balance sheet to pump liquidity into the financial system, and is buying commercial paper and other money-market instruments directly from issuers and money-market funds.

Policymakers have also worked to directly shore up the housing and mortgage markets and broader economy. A number of efforts have been put in place to enable stressed homeowners to avoid foreclosure. These include programs called FHA Secure, Hope Now, and most recently Hope for Homeowners, a plan that allows mortgage owners to convert some of their troubled loans into FHA-insured mortgages in exchange for taking write-downs on the loans. Fiscal stimulus, including this summer's tax rebates and the investment tax incentives that remain in place through the end of the year, has provided some economic support.

Yet more needs to be done to quell the financial panic and mitigate what threatens to become the worst economic setback since the Great Depression. The reverse auctions for mortgage assets initially envisaged for the TARP need to go forward quickly. In theory, the auctions are an elegant way to determine market values for these currently impossible-to-price assets. With price discovery will come clarity about which financial institutions are undercapitalized and by how much. Clarity, in turn, will attract the private capital ultimately needed to bolster the financial system. In practice, the auctions may not go as well given the complexity of the assets to be purchased, but if so then the costs involved in trying will also be small.

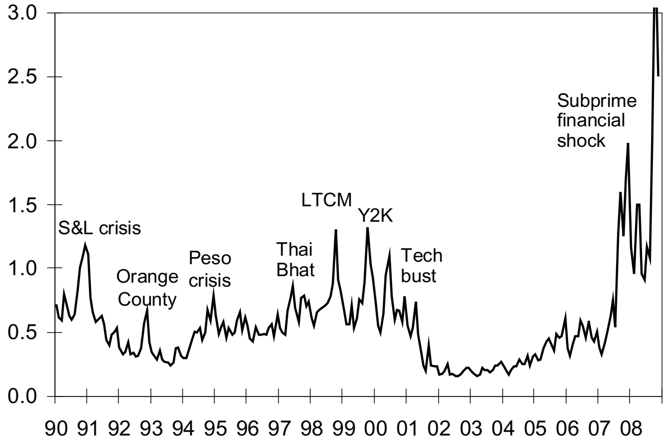
A much larger and comprehensive foreclosure mitigation plan will almost certainly be needed. Millions of homeowners owe more than their home is worth, and unemployment is rising quickly; foreclosures, already at record high levels, are sure to mount. The Hope for Homeowners program faces severe impediments, and even under the best of circumstances will likely be overwhelmed by the wave of foreclosures still coming. No plan will keep house prices from falling further, but quick action could avoid the darker scenarios in which crashing house prices force millions more households from their homes, completely undermining the financial system and economy.

Additional monetary and fiscal stimulus is also necessary. With inflation receding and deflation concerns likely to predominate soon, there are few impediments to further interest rate cuts by the Federal Reserve. The only issue is how close to zero the federal funds target rate can go before it begins to undermine money-market funds, which need some return on their investments to cover their operating costs. More importantly, with the Fed's new ability to pay interest on bank reserves, there is no limit on how much liquidity the Fed can provide to the financial system.

The government's next fiscal stimulus package should both cut taxes and increase spending beginning early next year, when the economy is likely to be at its most vulnerable. The stimulus

Chart 1: A Financial Panic

Difference between three-month Libor and Treasury bills



must be large, equal to at least 2% of GDP, as GDP seems set to decline by at least that much without it. Extending unemployment insurance benefits, food stamps, and aid to state governments would be the most effective spurs to economic growth, but even increased infrastructure spending could be desirable considering the economy's problems are likely to last for some time, giving such spending enough time to be of help.

With government making so many monumental decisions in such a short period of time, there will surely be unintended consequences. Some may already be evident: Nationalizing Fannie Mae and Freddie Mac while not rescuing Lehman Brothers from bankruptcy may very well have set off the current financial panic. And policymakers need to be wary of the costs of their actions, as global investors will eventually demand higher interest rates on the soaring volume of U.S. Treasury debt. Any measurable increase in long-term interest rates would be counterproductive; its effect on the housing market and the rest of the economy would offset the economic benefits from the fiscal stimulus.

But policymakers' most serious missteps so far have come from acting too slowly, too timidly, and in a seemingly scattershot way. Early on in the crisis there were reasonable worries about moral hazard and fairness. Bailing out those who took on, originated or invested in untenable mortgage loans would only encourage such bad behavior in the future. And it would certainly be unfair to those homeowners still managing to make their mortgage payments. But as the crisis deepened and continued on, those worries hindered policymakers far too long, allowing the current panic to develop. With so many suffering so much financial loss, moral hazard is no longer an issue; debate over whether it is fair to help stressed households stay in their homes appears quaint. Their problems are clearly everyone's problems. Only quick, overwhelming and consistent government action will instill the confidence necessary to restore financial stability and restart economic growth.

Economic backdrop. The need for more policy action is evident in the increasingly dark financial and economic backdrop. The financial panic that began in early September with the nationalization of Fannie and Freddie may have passed its apex, but the collective psyche remains frazzled. And even if the panic soon subsides, economic damage has been done. The collapse in confidence, the massive loss of wealth, and the intensifying credit crunch ensure that the U.S. economy will struggle through the remainder of the decade.

Money markets are improving, thanks to massive intervention by global central banks, but remain far from normal. The difference between 3-month Libor and 3-month Treasury bill rates—a good proxy for the angst in the banking system—is still an extraordinarily wide 275 basis points (see Chart 1).[1] This is down from the record spreads of mid-October, which topped 450 basis points, but it is still stratospheric compared with past financial crises, not to mention the average 50-basis point spread that prevails in normal times. The Fed's program to purchase commercial paper directly from issuers has pushed those short-term rates down as well, but they too are still very high.

Credit markets remain badly shaken. Bond issuance has come to a standstill with no residential and commercial-backed securities issuance in recent months and very little issuance of junk corporate bonds and emerging market debt. Asset-backed issuance of credit cards, vehicle and student loans and municipal bond issuance also remains severely disrupted. Investment-grade bond issuance has held up somewhat better, but even this all but dried up in October. Credit spreads—the extra yield investors require to be compensated for the perceived added risk of investing in riskier bonds—also remain strikingly wide, as investors shun anything but risk-free Treasury bonds. The difference between yields on junk corporate bond bonds and 10-year Treasuries has ballooned to some 1700 basis points, and between emerging debt and Treasuries to well over 1300 basis points. Historically, yield spreads for both have averaged closer to 500 basis points.

Commodity and foreign currency markets have been roiled. Oil prices have fallen more than 50% from their record peaks in early July, and prices for commodities from copper to corn have plunged. Global commodity demand is weakening rapidly as the global recession undercuts the financial demand that had sent prices surging this past summer. Economies reliant on commodity production have been hit hard and their currencies have rapidly depreciated. The Canadian dollar, which had been close to parity with the U.S. dollar as recently as this summer, has dropped below 80 cents, and the Brazilian real has fallen more than 40% against the dollar since the panic began.[2]

Volatility in global stock markets has been unprecedented, and the price declines nerve-wracking. Since the downdraft began a few weeks ago, global stock prices are off a stunning 30% in local currency terms and more than 40% from their year-ago highs. No market has been spared the collapse. The declines have been so precipitous that U.S. and

[1] The London Interbank Offered Rate is the interest rate at which major banks lend to each other.

[2] Currency swings have been wild enough to prompt discussion of coordinated government intervention. This seems unlikely, in part because the currency moves until recently have been largely welcome. A stronger U.S. dollar means global investors still view the U.S. as a safe haven, which is important as the Treasury ramps up borrowing. Nations whose currencies are falling against the dollar are hopeful that this will reduce pressures on their key export industries.

Chart 2: Recession Everywhere
Based on Moody's Economy.com coincident indicator

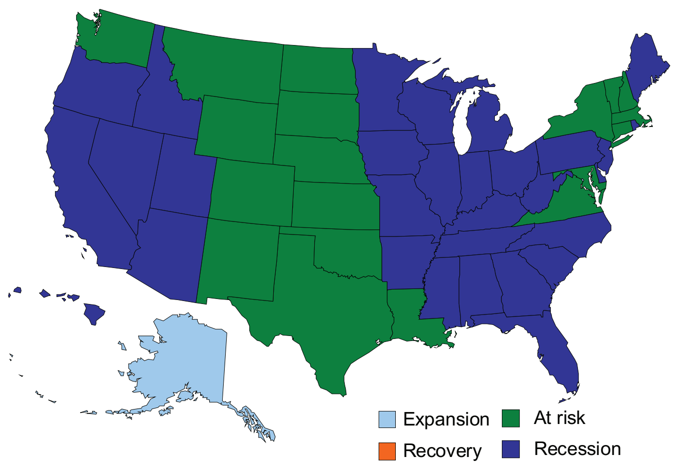
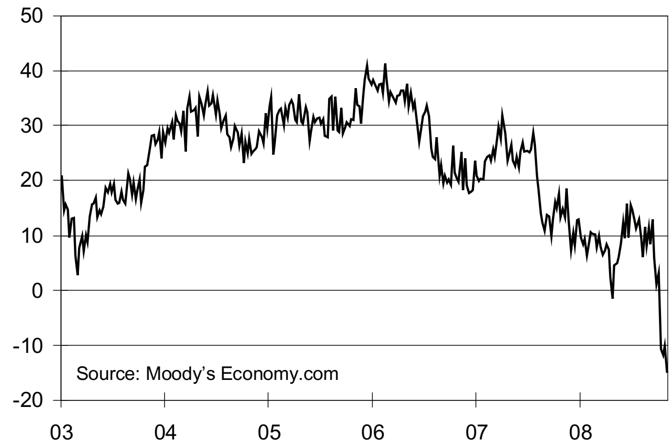


Chart 3: A Body Blow to Confidence
Net % of businesses responding positively



European bourses have tried imposing limits on short-selling, and Russia has suspended trading for days at a time. All of this has been to no avail. Mutual fund, 401k and hedge fund investors simply want out of stocks, regardless of the losses and any associated penalties.

Even if the global financial system stabilizes soon, substantial damage has already been done. The U.S. economy was struggling before the financial panic hit; it has likely been in recession for at least a year. Real GDP fell in the last quarter of 2007 and again in the third quarter of 2008.[3] Some 750,000 jobs have already been lost so far on net, and the unemployment rate has risen by 1½ percentage points to 6.1%. The downturn is broad-based across industries and regions, with 30 states now in recession (see Chart 2).[4] Data since the panic hit have been uniformly bad, suggesting that the downturn is intensifying. Retail sales, vehicle sales and industrial production fell sharply in September, and the increase in unemployment insurance claims in October is consistent with monthly job losses topping 200,000.

The panic's most immediate fallout is the blow to confidence. Consumer confidence plunged in October to its lowest reading since the Conference Board began its survey more than 40 years ago.[5] This is all the more surprising given the plunge in gasoline prices during the month; cheaper motor fuel in times past has always provided a lift to household spirits. Business confidence as measured by Moody's Economy.com's weekly survey also collapsed to a record low in October (see Chart 3). The net percentage of responses to all nine questions asked in the survey has turned sharply negative. Most disconcerting is the decline in firms' intention to hire and invest, both of which had been holding up relatively well prior to the panic.

Current events have so soured sentiment that they are sure to have long-lasting impacts on household spending and saving choices, as well as on business decisions regarding payrolls and investment. The pessimism will magnify the effect of evaporating household wealth. Net worth has fallen close to $11 trillion since peaking a year ago; of that, $4 trillion results from the 20% decline in house prices, while the rest is due to the 40% decline in stock prices. Over time, every dollar loss in household net worth reduces consumer spending by 5 cents over the next two years.[6] If sustained, the wealth lost over the past year could thus cut $275 billion from consumer spending in 2009 and a like amount in 2010.

More than in past recessions, the financial pain of this recession is being felt by all Americans, from lower-income households losing jobs to affluent households with diminished nest eggs. This is evident in the sharply weaker sales at high-end retailers such as Nordstrom, Neiman Marcus and Bergdorf Goodman. Generally the wealth effect is so small that it can only be determined econometrically; now it is potent enough to be apparent visually. Since the housing bubble began to burst, the link between retail sales and house prices has been striking (see Chart 4). Falling house prices appear to impact retailing with a lag of about six months, as homeowners do not immediately adjust their spending behavior to any change in housing wealth. The current declines in house prices suggest that this Christmas will be as tough for retailers as any since 1992. Moreover, if house prices decline substantially further as expected, then retailers' troubles will last through Christmas of 2009.

The financial panic is also affecting the availability and cost of credit. Credit growth was weakening rapidly even before recent events. The Federal Reserve's Flow of Funds shows debt owed by households and nonfinancial corporations actually fell in the second quarter of 2008 after inflation, for the first time since the S&L crisis of the early 1990s. To date, the weakening in credit growth is largely due to disruptions in the bond and money markets. Lending by banks, S&Ls and credit unions has remained sturdy. But this is probably only because nervous borrowers have pulled down available credit lines, and with banks now battening down their underwriting

[3] When all the GDP revisions are in, it is expected to show that real GDP also fell in the first quarter of 2008. Second quarter growth was supported by the tax rebate checks as part of the first fiscal stimulus package.

[4] State recessions are determined using a methodology similar to that used by the business cycle dating committee of the National Bureau of Economic Research for national recessions.

[5] The University of Michigan consumer sentiment survey fell more between September and early October than between any month since the university began monthly surveys in the late 1970s.

[6] For a more thorough discussion of the wealth effect, see "MEW Matters," Zandi and Pozsar, Regional Financial Review, April 2006. In this article, the housing wealth effect is estimated to be closer to 7 cents while the stock wealth effect is nearer to 4 cents.

Chart 4: Smaller Nest Eggs, Less Spending
% of residential mortgage debt, $

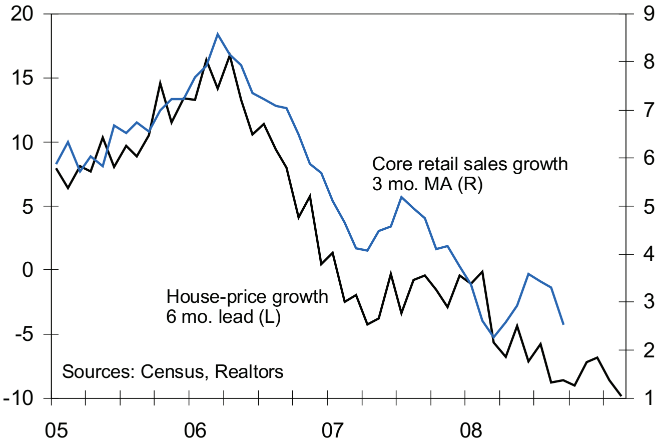
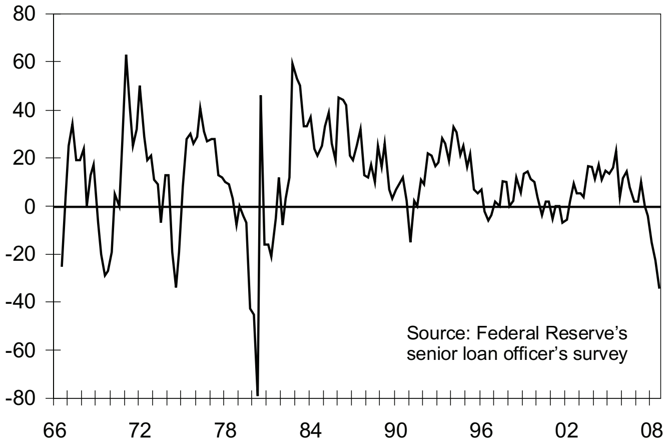


Chart 5: Banks Fight to Survive; Nervous to Make a Loan
Net % of lenders willing to make a consumer loan



standards and cutting lines this source of credit is drying up. According to the Fed's senior loan officer survey, lenders have tightened over the past year as aggressively as they ever have. The net percent of loan officers who say they are willing to make a consumer loan is the lowest ever, with the exception of 1980 when the Carter administration briefly imposed credit controls (see Chart 5).[7]

The pernicious impact of a credit crunch on the economy is difficult to quantify, but the economy's performance during the early 1980s and early 1990s suggest it can be substantial. The 1980s downturn was the most severe in the post-World War II period, and while the 1990s downturn was not as bad, the economy struggled long after the recession formally ended. Using these two periods as a guide suggests that for every one percentage point decline in real credit growth, real GDP growth weakens in the subsequent year by approximately 30 basis points. Thus if real credit shrinks 5% by the end of this year, which seems plausible, then this credit effect will cut some $225 billion from GDP in 2009.

There has been one significant positive for the U.S. economy coming out of the financial panic: lower energy and commodity prices. With oil currently trading below $70 per barrel, a gallon of regular unleaded should soon cost no more than $2. Gasoline prices peaked during the summer above $4 per gallon, and have averaged closer to $3 over the past year. Every penny-per-gallon decline in the cost of gasoline saves U.S. consumers just over $1 billion a year; thus assuming gas remains at $2 per gallon through the coming year, Americans will save more than $100 billion in 2009 compared with the fuel costs in 2008. There will also be measurable savings on home heating and food bills, as agricultural and transportation costs fall. Total savings next year compared to this will thus approach $200 billion.

Summing the costs to the economy from the wealth and credit effects, less the benefits from lower commodity prices puts the net direct cost of the financial panic at around $300 billion in 2009. (A $275 billion wealth effect plus $225 billion credit effect minus $200 billion in savings due to lower commodity prices). This is 2% of GDP. Of course this is a very simplistic analysis; it does not account for all the indirect costs of the panic on the economy and the multipliers, but it highlights the potential magnitude of the fallout.

Policy critique. While policymakers could not have forestalled the financial crisis, they made two significant mistakes responding to it. The first was a slow and halting early reaction after the crisis hit in the summer of 2007.

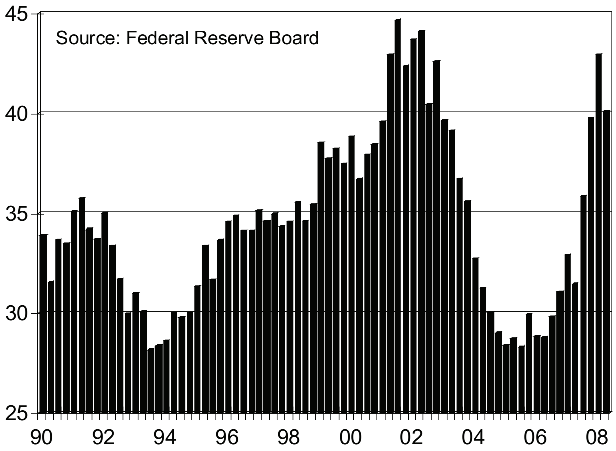
The Federal Reserve initially did not react at all, waiting until mid-September before lowering rates. The central bank cut rates twice more by year's end, but with each quarter-point move they discouraged speculation that more might follow. The Treasury Department was equally reticent in its response. FHA Secure—a program that liberalized traditional FHA lending requirements to help distressed homeowners refinance into FHA insured loans—was unveiled in August 2007. Hope Now, which standardized voluntary loan modification efforts by mortgage servicers—was established in October. While laudable, these steps were quickly overwhelmed.

Policymakers may have initially thought the crisis was somewhat therapeutic. Risk-taking in the financial system had been overdone and some reevaluation was warranted. Credit spreads had never been so thin; bond issuance and bank lending were soaring, and private equity deals were all the rage. It was only by the end of 2007, six months into the crisis, that policymakers began to realize that the pull-back in risk aversion had itself become overdone. They had misjudged the severity of events.

Moral hazard concerns—the worry that if policymakers helped hard-pressed financial institutions or homeowners they would encourage even more undesirable risk-taking in the future—further slowed the policy response. Indeed, an overly generous policy response to past financial crises may have contributed to the current one. There was also a groundswell of opposition against government help, as many thought a bailout would be unfair. Most homeowners were still making mortgage payments, though many were struggling to do so; any bailout would reward some who did

[7] This was part of a failed effort to rein in the double-digit inflation of the period.

Chart 6: Money-Market Funds Are Vital to CP Market
Share of open market paper held by MMF



Lehman' difficulties had long been known, providing ample opportunity for others to prepare for the worst.

There was unforeseen collateral damage, however. An institutional money-market fund with sizable investments in Lehman securities 'broke the buck' as it wrote down the value of those investments. In other words, the value of the fund's assets fell below what investors had put in. A psychological barrier was broken; individual investors had thought money-market funds were as safe as mattresses. Redemptions began immediately, forcing the $3.5 trillion money-market fund industry to start pulling away from the commercial paper market, its traditional investment destination (see Chart 6). The financial panic became a direct and imminent threat to the economy; commercial paper is a vital source of short-term financing for big businesses to fund everything from inventories to payrolls.

not deserve it. While moral hazard and fairness are certainly vital considerations, policymakers unfortunately clung to them too long. The financial system was suffering massive losses and had been severely chastened, while surging foreclosures undermined the finances of those homeowners still trying hard to make good on their mortgages.

The second significant policy mistake was a lack of consistency in how policymakers addressed the rash of major financial failures in early September. If there is a proximate cause for the current financial panic, it is the nationalization of Fannie Mae and Freddie Mac and the decision not to save Lehman Brothers from bankruptcy a week later.

Nationalizing Fannie and Freddie may have been necessary, as regulators concluded they were quickly headed toward insolvency, but it also told global investors that no financial institution was too big to falter. Investors immediately began to question the viability of Lehman Brothers. Unlike Bear Stearns—the investment bank that failed in March—Lehman did not have a liquidity problem. The Federal Reserve had established various credit facilities after the Bear Stearns collapse that Lehman could use to raise cash. Lehman's problem was that its counterparties–commercial banks, hedge funds, other investment banks and private investors–became nervous about its future. After failing to find a buyer for Lehman, policymakers decided to let it fail. They calculated that Lehman's collapse would not create problems for the entire financial system, reasoning that

Worried households also began shifting deposits from commercial banks rumored to be in trouble. The failures of Washington Mutual and Wachovia were precipitated in part by these silent runs. With so many venerable global financial institutions running aground so rapidly, those still standing were left questioning the viability of all their counterparties. Few want to do business with a firm that will soon be out of business. Interbank lending, in which banks with excess funds lend to those with a deficit, froze.

The turmoil in credit markets jumped to the stock market. If money and bond markets were not working properly, businesses would not be able to fund themselves, and corporate profits were sure to fall. Stock investors reacted violently when the House of Representatives initially voted down legislation to establish the Troubled Asset Relief Program at the end of September. Treasury and Federal Reserve officials had finally decided that a massive government response was needed to rescue the financial system, but the plan was viewed by many Americans as a Wall Street bailout. Moral hazard and fairness concerns had faded at the Treasury and Fed, but officials had failed to convince Main Street that it would be saving itself.

Evaporating nest eggs and the eroding job market have since helped forge a consensus favoring a major government response to the financial crisis. Some still argue that policymakers should step aside and allow the crisis to run its course, but for the time being they are difficult to hear.

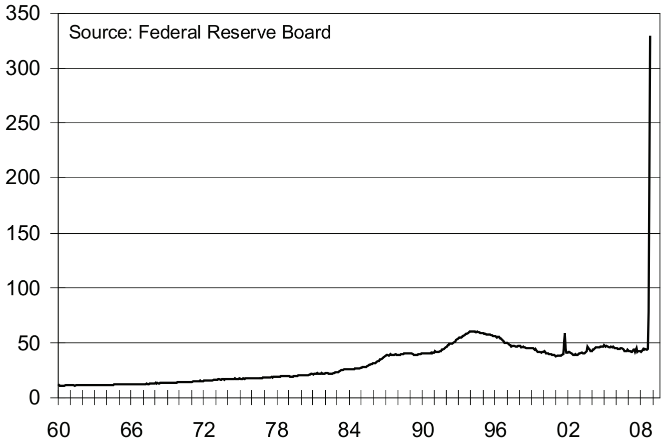
Le monetary deluge. The Federal Reserve will use all its resources to revive the financial system. This means even lower interest rates, but more importantly it means that the Fed will continue to flood markets with liquidity, lending to whomever and buying whatever is necessary.

Another interest rate cut is coming: The Federal Open Market Committee is expected to lower the federal funds rate at its December meeting to a record low 0.5%. This comes after an unprecedented 50-basis point cut in early October that was coordinated with other global central banks, and another 50-basis point cut at the scheduled FOMC meeting in late October. Lowering the rate much below this may not be feasible, as it could create problems for already-stressed money-market mutual funds. Many funds could be put in jeopardy at a lower funds rate because their operating costs would be greater than the return on their short-term investments, which are closely tied to the funds rate.

However, such limits on the funds rate no longer determine the amount of liquidity the Fed can provide, which is what matters most. The Fed now has the power to pay interest on bank reserves, a change included as part of the TARP legislation.[8] The central bank has set this deposit rate just below the funds rate target. This seemingly innocuous technical change is important: it allows the Fed to increase liquidity to the financial system without limit. As the

[8] The Federal Reserve requires depository institutions to hold 10% of their deposits in reserve to meet depositors' demand for funds. The Fed can increase or decrease the amount of reserves in the financial system by buying or selling Treasury and other securities from depositories. The federal funds rate is that rate which equates the demand for and supply of reserves.

Chart 7: Fed Will Provide Unlimited Liquidity
Bank reserves, $ bil



Fed injects reserves into the system and the funds rate declines, it will not fall below the deposit rate, because financial institutions will choose to deposit their excess reserves with the Fed rather than lend them out overnight at a lower rate. The Fed has aggressively used this new authority to pump massive amounts of reserves into the system in recent weeks (see Chart 7). As a result, Libor is falling, which suggests that the interbank lending market is coming back to life. The sooner banks begin lending to each other, the sooner they will lend more freely to households and businesses.

To further get liquidity into the financial system, the Fed is ramping up lending to a wide range of financial institutions through credit facilities it has established over the past year. (See addendum).[9] These facilities allow financial institutions to borrow from the Fed, using securities they own as collateral. The Fed has repeatedly lowered the bar on the collateral it will accept, taking on less progressively liquid securities to encourage more borrowing. To bring overseas financial institutions into the mix, the Fed has greatly expanded its swap lines with global central banks. Foreign central banks can exchange U.S. dollars for their own currencies, rather than buying up dollars in foreign exchange markets. Such swap lines have been set-up central banks of developed economies, and most recently also with central banks from emerging economies.

The Fed is also exercising its new ability to purchase commercial paper directly from issuers. This has helped bring down commercial paper rates, while raising the volume of new issuance sharply. The implications of this program go far beyond the commercial-paper market; the Fed now has a mechanism to purchase just about anything it deems necessary. A hypothetical but plausible example would be for the Fed to purchase municipal bonds if state and local fiscal conditions continue to erode, threatening a string on muni bond defaults. Such defaults would almost certainly reignite the financial panic, since most investors perceive muni bonds as super-safe.

Although the Federal Reserve is literally doing all it can, its ability to revive the economy has been severely hampered by the financial system's problems. The Fed can pump unlimited cash into the financial system, but it can not force financial institutions to make more credit available to households and businesses, which is ultimately what is needed to end the downturn. Fiscal policymakers must therefore become even more aggressive, pursuing three broad goals: 1) Recapitalizing the financial system; 2) Keeping homeowners out of foreclosure; and 3) Shoring up the economy.

Recapitalization. Policymakers have appropriately focused first on stabilizing the financial system, by working to increase its capital base. Without adequate capital, the financial system will remain in disarray, exacerbating the credit crunch and undermining all efforts to stem foreclosures and layoffs.

When first proposed by the Treasury, the $700 billion Troubled Asset Relief Program was envisaged as a way to entice new private capital into the financial system. The TARP fund would be used to purchase distressed mortgage loans and securities through a reverse auction process.[10] The auctions would establish market prices, which have not been available since trading in these assets collapsed. The Treasury would be the buyer in these auctions, taking bids from the institutions that own the assets. The lowest bids would set market prices, so that institutions, and just as importantly potential private investors, could determine how much capital the institutions need.

Financial institutions have announced write-downs on their mortgage assets to date of close to $600 billion. This equates to losses on some six million mortgage loans going through to a foreclosure sale, with the mortgage owner losing half the loan's value in the process. This would be a reasonable loss forecast assuming that house prices eventually fall about 30% peak to trough and unemployment peaks at 7.5%. Things may well turn out worse than this; it may also be that many institutions have already marked down the value of their holdings appropriately. They may still need more capital to cover the darker scenarios and the losses they are sure to suffer on their other assets, but the amount of private capital needed to sufficiently recapitalize the financial system could be readily forthcoming. But that will not be known until a price for their mortgage assets has been established.

While the TARP auctions work well in theory, they have yet to get going. The Treasury's initial vision of the TARP was overwhelmed by the financial panic. With markets unraveling, officials had no time and thus no choice but to use the TARP to make direct equity investments in financial institutions. The Treasury is using the first $250 billion of the $700 billion TARP fund to purchase preferred shares in commercial banks and thrifts. The institutions are counting this investment as part of their regulatory Tier 1 capital; a measurable addition considering that there was $1.35 trillion in such capital at the end of June, according to the FDIC.

Almost immediately a number of thorny questions have been generated by the Treasury's ownership stake. Is it appropriate for the Treasury to be picking winners and losers? Who gets the capital and who does not? Commercial banks, but not insurance companies? What about finance companies that turn themselves into banks? Should the

[9] These include the Term Auction Facility, the Primary Dealer Credit Facility, and the Term Security Lending Facility.

[10] A description of how the TARP reverse auctions could work is described in "A Troubled Asset Reverse Auction," Lawrence Ausbel and Peter Cramton, October 5, 2008. http://www.cramton.umd.edu/papers2005-2009/ausubel-cramton-troubled-asset-reverse-auction.pdf

Chart 8: Surging Mortgage Foreclosures
First mortgage loan defaults, ths, SAAR

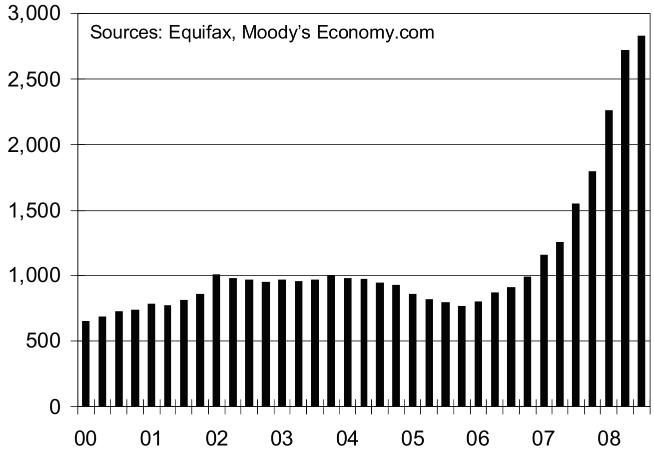
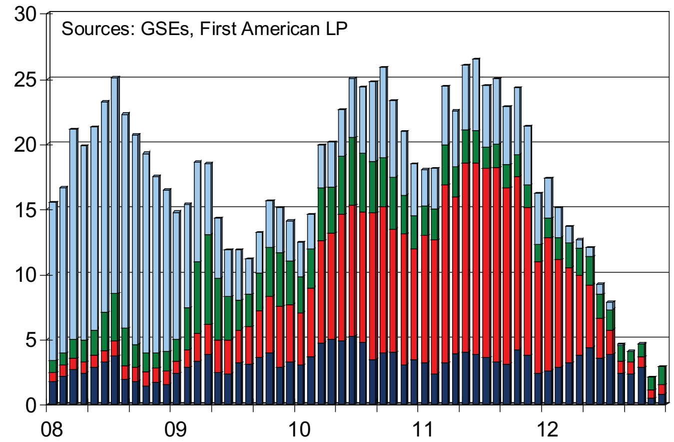


Chart 9: Foreclosures Will Remain a Long-Term Problem
Mortgage debt outstanding facing first payment reset, $ bil



capital be used for acquisitions? PNC was the beneficiary of Treasury capital, but National City was not; the latter thus had little choice but to sell itself to PNC. Can institutions receiving the Treasury's help use it to pay dividends or boost executive compensation? If the capital is to be used to support more lending, how do we know that institutions are using the funds aggressively enough for this purpose?

It seems clear that the sooner the Treasury can cease being the largest shareholder in the nation's financial system the better. This process can only begin if private money comes in to replace the public capital, but that will not happen until there is clarity regarding the value of the assets on bank balance sheets. The TARP reverse auctions are at least in theory an elegant way to obtain price discovery, and even if they do not work that well in practice it will not take long or cost taxpayers much to figure that out.

Forestalling foreclosure. With TARP underway, policymakers are appropriately refocusing their efforts on keeping homeowners out of foreclosure. Surging losses on defaulting mortgage assets are eroding the financial system's capital base, resulting in the credit crunch that is undermining the economy. Stemming these defaults is thus an important policy objective.

As mortgage defaults have mounted, the policy response has intensified. It began with FHA Secure and Hope Now in late 2007. As more banks and thrifts have been put into FDIC receivership, the FDIC has been working to modify the loans owned by these institutions. The Hope for Homeowners program, in which mortgage owners can refinance borrowers into FHA-insured loans if they reduce the mortgage amount owed by the borrower, is just getting under way. TARP could help advance the Hope for Homeowners plan if it conducts auctions for second mortgages. Second-lien holders are a significant impediment to this program, because they must subordinate their interests before a refinancing can take place. Few are willing to do this for free, but paying them off could be well worth the effort. Second-lien holders could receive a couple pennies on the dollar for their mortgages via a TARP auction on condition they do not block modifications to the loan. If the Treasury purchased whole mortgage loans through the TARP auctions, then these loans too could be modified.

These are laudable efforts, but they are being overwhelmed by the size of the foreclosure problem. According to data from credit bureau Equifax, first-mortgage loan defaults–the first step in the foreclosure process–are running at a 3 million annualized pace (see Chart 8). In a good year, annual defaults are well below 1 million. Many more are coming; there are now an estimated 12 million homeowners whose mortgage debt exceeds the value of their home. [11] While negative equity alone need not result in a default, negative equity combined with surging unemployment often does. With house prices expected to fall at least another 10%, and unemployment expected to rise to 8% during the coming year, defaults and foreclosures in 2009 threaten to dwarf anything experienced so far.

Even under the best of circumstances, mortgage defaults are expected to remain elevated well into the next decade as a large number of option ARM loans hit their first payment resets in 2010 and 2011 (see Chart 9). These loans are 5-25 loans–fixed for five years and then adjustable rate loans thereafter. Most option ARMs originated in 2005 and 2006 when house prices were at their peaks will likely be underwater when they hit their reset, and thus will be good candidates for a credit problem.

A much more substantial mortgage loan modification plan is needed. One potential plan, put forth by FDIC Chairman Sheila Bair, would have the federal government guarantee some proportion of any losses on loans that are sufficiently modified by mortgage servicers to establish a certain minimum level of affordability for stressed homeowners. The guarantees will be large enough so that it is clear to the servicer and the mortgage owner that the costs involved in modifying loans are less than the costs of not modifying and risking that the loan will go through foreclosure. The servicer would have to modify the loan by lowering its interest rate, increasing its term and/or reducing the mortgage balance in order to sufficiently lower borrowers' monthly payments. This plan provides a clear benefit to homeowners, and it could be designed to provide enough of a benefit to mortgage servicers and mortgage owners to gain their participation. The cost to the Treasury, however, could be sufficiently

[11] Estimates of the number of underwater homeowners are based on credit file data from Equifax and house price estimates using data from Census, Case-Shiller and Zillow.

Table 1: Fiscal Stimulus Bang for the Buck

	Bang for the Buck
Tax Cuts	
Non-refundable Lump-Sum Tax Rebate	1.01
Refundable Lump-Sum Tax Rebate	1.22
Temporary Tax Cuts	
Payroll Tax Holiday	1.28
Across the Board Tax Cut	1.03
Accelerated Depreciation	0.25
Permanent Tax Cuts	
Extend Alternative Minimum Tax Patch	0.49
Make Bush Income Tax Cuts Permanent	0.31
Make Dividend and Capital Gains Tax Cuts Permanent	0.38
Cut in Corporate Tax Rate	0.30
Spending Increases	
Extending Unemployment Insurance Benefits	1.63
Temporary Increase in Food Stamps	1.73
General Aid to State Governments	1.38
Increased Infrastructure Spending	1.59

Note: The bang for the buck is estimated by the one year $ change in GDP for a given $ reduction in federal tax revenue or increase in spending.
Source: Moody's Economy.com

limited so that several million loans could be guaranteed.[12]

Economic stimulus. Despite the policy efforts to date, the financial crisis has caused significant economic damage. Credit will be impaired for a long time; confidence has been shattered; and more than $11 trillion in household wealth has evaporated. Unless policymakers quickly agree on another large economic stimulus plan, the economy seems headed for the worst recession since 1980-1982, when unemployment reached double digits.

The goal of any fiscal stimulus plan is to maximize the near-term boost to economic growth without weakening the economy's longer-term prospects. This requires that the plan be implemented quickly and that its benefits go first to those hurt most by the economy's problems. The amount spent on the stimulus should be large enough to provide a measurable boost, but not so large that it harms the nation's long-term fiscal condition. The likely severity and length of the current recession means the stimulus plan should be sizable: Given that the direct costs of the financial panic are estimated at around $300 billion, this would be a good benchmark. Such a stimulus plan would double the amount provided earlier this year, and would equal about 2% of GDP.

To be most economically effective, a fiscal stimulus plan should extend unemployment insurance benefits, expand the food-stamp program, increase aid to state and local governments, and even increase spending on infrastructure, if that can be done quickly enough to help the economy next year.

Extra benefits for workers who exhaust their regular 26 weeks of unemployment insurance benefits and expanded food stamp payments have been part of the federal response to most recessions, and for good reason: They are the most efficient ways to prime the economy's pump. Simulations of the Moody's Economy.com macroeconomic model show that every dollar spent on UI benefits generates an estimated $1.63 in near term GDP. Boosting food stamp payments by $1 increases GDP by $1.73 (see Table 1). People who receive these benefits are hard-pressed, and will spend any financial aid they receive within a few weeks. Another advantage is that these programs are already operating, and can quickly deliver a benefit increase to recipients.

The virtue of extending UI benefits goes beyond simply providing financial aid for the jobless, to more broadly shoring up household confidence. Nothing is more psychologically debilitating, even to those still employed, than watching unemployed friends and relatives lose their sources of income support. The slump in consumer confidence after the 1990-1991 recession may have been due in part to the first Bush administration's initial opposition to extending UI benefits for hundreds of thousands of workers. The administration ultimately acceded and benefits were extended, but only after confidence had waned. The fledgling recovery sputtered and the political damage extended through the 1992 presidential election. Increasing food stamp benefits also has the added virtue of helping people ineligible for UI such as part-time workers. It also helps those who do not pay income tax and thus will not receive a rebate.

Another economically potent federal tool is aid to financially-pressed state governments. This could take the form of general aid or a temporary increase in the Medicaid matching rate, to help ease the costs of health coverage. Such help appears unlikely in the stimulus plan currently being discussed, but this could quickly change in coming weeks if the economy's problems grow more severe or widespread.

Fiscal problems are already developing in more than half the 50 states. Twenty-seven have already

[12] There are many good ideas to consider if the FDIC plan does not move forward, including Harvard Professor Martin Feldstein's plan for low-interest rate loans from the government to stressed homeowners; and my own Home Appreciation Mortgage plan. Temporarily changing the bankruptcy laws to allow for first-mortgage cramdowns in a Chapter 13 filing on loans originated during the housing bubble may also be helpful. The argument that such a change would substantially raise future mortgage costs feels specious.

Table 2: The Economic Benefit of Fiscal Stimulus

	Real GDP, $ bil, 2000			Real GDP, % change		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
07	11,523.9	11,523.9	-	2.03	2.03	-
08	11,686.1	11,687.5	1.5	1.41	1.42	0.0
09	11,434.3	11,648.5	214.2	-2.15	-0.33	1.8
10	11,586.9	11,970.5	383.6	1.33	2.76	1.4
11	12,204.5	12,533.9	329.5	5.33	4.71	(0.6)
12	12,846.9	12,962.7	115.8	5.26	3.42	(1.8)

	Unemployment Rate			Payroll Employment, mil		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
07	4.64	4.64	-	137.6	137.6	-
08	5.63	5.62	(0.0)	137.5	137.6	0.0
09	7.85	7.39	(0.5)	134.9	136.4	1.6
10	8.94	7.71	(1.2)	134.8	137.1	2.3
11	7.93	6.37	(1.6)	138.8	140.5	1.7
12	6.13	5.42	(0.7)	142.5	143.5	1.0

Sources: BEA, BLS, Moody's Economy.com

announced budget shortfalls totaling $26 billion for fiscal year 2009, which began this past July. Tax revenue growth has slowed sharply with flagging retail sales and corporate profits. Income tax receipts are also sure to suffer as the job market weakens. California and Florida are under the most financial pressure, but others such as Arizona, Minnesota, and Maryland are also struggling.

As most state governments are required by their constitutions to quickly eliminate their deficits, most are already planning to cut programs ranging from healthcare to education to local government grants. Local governments are having their own financial problems; most rely on property-tax revenues, which are slumping with house prices. Cuts in state and local government outlays are sure to become a substantial drag on the economy in 2009 and 2010. Additional federal aid to state governments will fund existing payrolls and programs, thus providing a relatively quick economic boost. States that receive a check from the federal government will quickly pass the money on to workers, vendors, and program beneficiaries.

Some argue that state governments should be forced to cut spending that has grown bloated and irresponsible; these arguments are strained at best. State government spending and employment are no larger today as a share of total economic activity and employment than they were three decades ago. The contention that helping states today will encourage more profligacy in the future also appears overdone. Apportioning federal aid to states based on their size, rather than on the size of their budget shortfalls, would substantially mitigate this concern.

Increased infrastructure spending is also a particularly effective way to stimulate the economy. The boost to GDP from a dollar spent on building new bridges and schools is large, an estimated $1.59, and there is little doubt that major infrastructure investment is needed. The case against including such spending as a part of a stimulus plan, however, is that it generally takes a substantial amount of time for funds to flow to builders and contractors and into the broader economy. It should be noted that our the economic bang-for-the-buck estimates measure the change in GDP one year after spending actually occurs; it says nothing about how long it may take to cut a check to a builder for a new school. Infrastructure projects can take years from planning to completion. Even if the funds are only used to finance projects that are well along in their planning, it is very difficult to know just when projects will get under way and the money spent. While this is an important caveat on the use of infrastructure spending as economic stimulus, the economy's current problems could extend well into 2010; this weakens the case against infrastructure spending in the current period.

To assess the economic consequences of fiscal stimulus, Moody's Economy.com simulated two scenarios: One with no additional fiscal stimulus, and a second with a $300 billion stimulus program beginning during the first half of 2009. The program involves in two rounds of spending; the first, launched next January, includes $170 billion in increased aid to state governments, greater infrastructure spending and an extension of various investment tax credits for businesses that are set to expire at the end of this year. Another $130 billion is spent beginning in May, including extended UI benefits, expanded food stamps and another refundable tax rebate.

The $300 billion stimulus plan adds nearly 2 percentage points to annualized real GDP growth in 2009. Even with the stimulus, real GDP is expected to fall by 0.3% next year, but without the stimulus GDP plunges a stunning 2.2% (see Table 2). This would be the most severe decline in GDP since the Great Depression, even worse than the 1.9% drop experienced in 1982. Some 4 million jobs will be lost peak to trough without government stimulus, pushing the unemployment rate above 9%. Even with the stimulus, some 1.8 million jobs will be lost, with unemployment peaking near 8%.

Conclusions. A long history of public policy mistakes have contributed to the current financial crisis. While there will surely be more missteps, only through further aggressive and consistent government action will the U.S. avoid the most severe economic downturn since the Great Depression.

In some respects, the current financial crisis has its genesis in the long-held economic policy objective of promoting homeownership. Since the 1930s, policy has been geared toward increasing homeownership by heavily subsidizing home purchases. While homeownership is a worthy goal, fostering stable and successful communities, it was carried too far, producing a bubble when millions of households became homeowners who probably should not have. These people are now losing their homes in foreclosure, undermining the viability of the financial system and precipitating the current recession.

Perhaps even more important has been the lack of effective regulatory oversight. The deregulation that began during the Reagan administration fostered financial innovation and increased the flow of credit to businesses and households. But deregulatory fervor went too far during the housing boom. Mortgage lenders established corporate structures to avoid oversight, while at the Federal Reserve, the nation's most important financial regulation, there was a general distrust of regulation.

Despite all this, the panic that has roiled financial markets might have been avoided if policymakers had responded more aggressively to the crisis early on. Officials misjudged the severity of the situation, and allowed themselves to be hung up by concerns about moral hazard and fairness. Considering the widespread loss of wealth, it is now clear they waited much too long to act, and their response to the financial failures in early September was inconsistent and ad hoc. Nationalizing Fannie Mae and Freddie Mac but letting Lehman Brothers fail confused and spooked global investors. The shocking initial failure of Congress to pass the TARP legislation caused credit markets to freeze and sent stock and commodity prices crashing.

Now, a new policy consensus has been forged out of financial collapse. It is widely held that policymakers must take aggressive and consistent action to quell the panic and mitigate the resulting economic fallout. An unfettered Federal Reserve will pump an unprecedented amount of liquidity into the financial system to unlock money and credit markets. The TARP fund will be deployed more broadly, through direct equity stakes in financial institutions and via reverse auctions to give private investors the information they need to make new investments in these institutions. Another much larger and comprehensive mortgage loan modification program is needed to blunt further increases in foreclosures. Finally, another very sizable economic stimulus plan will be needed early next year. The most economically efficient plan would include aid to state governments and infrastructure spending, in addition to another round of tax cuts. The economy's problems are likely to continue long enough to make such spending particularly helpful a year from now.

Each of these measures carries substantial costs. The federal budget deficit, which topped $450 billion in the just-ended 2008 fiscal year, could easily exceed $750 billion in fiscal 2009 and go even higher in 2010. Borrowing by the Treasury could top $2 trillion this year. There will also be substantial long-term costs to extricating the government from the financial system. Unintended consequences of all the actions taken in such a short period of time will be considerable. These are problems for another day, however. The financial system is in disarray and the economy's struggles are intensifying. Policymakers are working hard to quell the panic and shore up the economy; but given the magnitude of the crisis and the continuing risks, policymakers must be aggressive. Whether from a natural disaster, a terrorist attack, or a financial calamity, crises only end with overwhelming government action.

August 17, 2007. Spread between discount and funds rate cut to 50 bps from 100 bps. Max term extended to 30 days from daily.

August 21, 2007. Fee charged primary dealers when they borrow from the Securities Lending Program lowered.

August 24, 2007. Fed affirmed its policy to accept investment grade asset-backed commercial paper as collateral. *Wall Street Journal* reported that Fed was *"exempting [a bank] from statutory limits on how much its bank unit…can lend to its affiliated broker dealer"* – allowing clients' assets at a broker/dealer subsidiary to be used as collateral for discount window borrowing.

December 12, 2007. New Term Auction Facility (TAF) announced–offering $40 billion in term loans (28- and 35-day) through an auction process to the depository institutions eligible for discount window borrowing.

December 12, 2007. New FX swap lines with the ECB and SNB announced–$24 billion in total.

January 4, 2008. TAF expanded to $60 billion from $40 billion.

March 7, 2008. TAF expanded to $100 billion. Also, Fed began a series of 28-day repos expected to cumulate to $100 billion.

March 11, 2008. A new $200 billion Term Securities Lending Facility (TSLF) announced–lending Treasury securities to dealers, secured for a term of 28 days by a pledge of other securities, including Treasuries, Federal Agency debt, Agency MBS and non-Agency AAA-rated private label residential MBS. (Non-agency collateral must not be on review for downgrade.)

March 11, 2008. Increased swap lines with the ECB and SNB–to $36 billion in total from $24 billion.

March 14, 2008. Emergency funding for Bear Stearns provided through JP Morgan, via a non-recourse 28-day discount window loan secured by Bear Stearns collateral.

March 16, 2008. Spread between discount and funds rate cut to 25 bps from 50 bps. Maximum term on primary credit (discount window) loans extended to 90 days from 30 days.

March 16, 2008. Primary Credit Dealer Facility (PCDF) established, extending discount-window-like lending to primary dealers–providing overnight loans *"in exchange for a specified range of collateral, including all collateral eligible for tri-party repurchase agreements…, as well as all investment-grade corporate securities, municipal securities, mortgage-backed securities and asset-backed securities for which a price is available."*

May 2, 2008. TAF expanded to $150 billion from $100 billion.

May 2, 2008. Increased swap lines with the ECB and SNB–to $62 billion in total from $36 billion.

May 2, 2008. Allowed collateral for Schedule 2 TSLF auctions expanded to include AAA/Aaa-rated asset-backed securities, in addition to already eligible residential- and commercial-MBS and agency CMO. Treasury securities, agency securities, and agency mortgage-backed securities continued to be eligible as collateral in Schedule 1 TSLF auctions.

July 30, 2008. PDCF and TSLF extended through January 30, 2009.

July 30, 2008. Introduction of auctions of options on $50 billion of draws on the TSLF.

July 30, 2008. TAF adjusted to include 84-day as well as 28-day loans. Total program left at $150 billion.

July 30, 2008. ECB swap line raised to $55 billion from $50 billion of draws on the TSLF.

September 14, 2008. Collateral eligible for PDCF broadened to closely match the types of collateral in tri-party repo systems of the two major clearing banks (including equities). PDCF collateral had been limited to investment-grade debt securities.

September 14, 2008. TSLF expanded to $200 billion in total, from $175 billion. Collateral eligible for Schedule 2 auctions expanded to all investment-grade debt securities. Previously, only Treasury securities, agency securities, and AAA-rated mortgage-backed and asset-backed securities could be pledged.

September 14, 2008. Temporary (through January 30, 2009) relaxation of rules (section 23A of the Federal Reserve Act) on depository institutions (banks) providing funding for their nonbank affiliates.

September 16, 2008. Lend insurance company AIG up to $85 billion as part of an effective nationalization of the company.

September 18, 2008. Central bank swap lines increased to $247 billion from $67 billion, including new BOJ, BOE, and BOC lines.

September 19, 2008. Extension of non-recourse loans at the primary credit rate to U.S. depository institutions and bank holding companies to finance their purchases of high-quality asset-backed commercial paper from money-market mutual funds.

September 19, 2008. Expansion of outright purchases by the Fed's open market desk to include short-term agency debt.

September 21, 2008. Approval of applications of Goldman Sachs and Morgan Stanley to become bank holding companies.

September 24, 2008. Central bank swap lines increased to $277 billion from $247 billion, including new lines with the Reserve Bank of Australia, the Sveriges Riksbank, the Danmarks Nationalbank, and the Norges Bank.

September 26, 2008. Central bank swap lines expanded to $290 billion from $277 billion.

September 29, 2008. TAF expanded to $300 billion from $150 billion.

September 29, 2008. Addition of two extra TAF auctions, totaling $150 billion, to provide funding at year-end (in addition to $300 billion in regular program, implying $450 billion in total at year-end).

September 29, 2008. Central bank swap lines increased to $620 billion from $290 billion.

October 6, 2008. Using new authority voted on by Congress (as part of the EESA), the Fed announced it will begin paying interest on depository institutions' required and excess reserve balances. The interest rate paid on required reserve balances will be the average targeted federal funds rate over each reserve maintenance period less 10 bps. The rate paid on excess balances will be set initially as the lowest targeted federal funds rate over each reserve maintenance period less 75 bps. According to the Fed, the change *"will permit the Federal Reserve to expand its balance sheet as necessary to provide the liquidity necessary to support financial stability while implementing the monetary policy that is appropriate in light of the System's macroeconomic objectives of maximum employment and price stability."* Effective date: October 9, 2008.

October 6, 2008. Regular TAF expanded to $600 billion from $300 billion. In addition, the extra TAF auctions providing funds at year-end were expanded to $300 billion from $150 billion, implying $900 billion in total at year-end.

October 6, 2008. The Fed published a letter granting a request by a depository institution for an exemption from the limits on transactions with affiliates under section 23A of the Federal Reserve Act and the Board's Regulation W to allow the institution to purchase assets from affiliated money-market mutual funds under certain circumstances.

October 7, 2008. Creation of a Commercial Paper Funding Facility, providing a liquidity backstop to U.S. issuers of commercial paper through a special purpose vehicle that will purchase three-month unsecured and asset-backed commercial paper directly from eligible issuers.

October 8, 2008. Fee charged primary dealers when they borrow from the Securities Lending Program lowered again.

October 8, 2008. Lend AIG up to an additional $37.8 billion, collateralized by investment-grade, fixed income securities.

October 13, 2008. Expansion of swap lines with foreign central banks, including the BoE, the ECB, the SNB and BoJ to provide as much dollar funding as is requested at specified lending rates; instead of auctioning a fixed amount of funds, with bids determining the interest rate, foreign central banks will now provide as much funding as is bid for at a preset interest rate.

October 16, 2008. Allows bank holding companies to include in their Tier 1 capital without restriction the senior perpetual preferred stock issued to the Treasury Department under the capital purchase program announced by the Treasury on October 14.

October 21, 2008. Creation of Money Market Investor Funding Facility. The Fed announces that it will create a series of private sector special purpose vehicles that will provide a source of secondary market liquidity for money-market instruments.

October 27, 2008. Fed begins to purchase three-month unsecured and asset-backed commercial paper directly from issuers through CPFF facility.

October 29, 2008. Establishes temporary swap lines with Brazil, Mexico, South Korea and Singapore. The expansion of the swap program to emerging economies expands the Fed's role as a backstop to the global financial system.