The Economic Impact of a $750 Billion Fiscal Stimulus Package

Mark Zandi
Chief Economist
Moody's Economy.com

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The global financial system has effectively collapsed, undermining investor, household and business confidence, and pushing the economy into an increasingly lengthy and severe recession. Real GDP, employment, industrial production and retail sales are falling sharply, and unemployment is rising quickly. Policymakers must quickly implement a large fiscal stimulus package to support the rapidly eroding economy. Without such a stimulus, the economy appears headed toward the worst downturn since the Great Depression.

The proximate cause of the global economic 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 others are struggling to survive. Banks are fearful about extending credit to one another, 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 be mitigated only by aggressive and consistent government action. In the United States, the public policy response to the financial crisis has been without precedent. The full faith and credit of the U.S. 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 Program 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 Fed has adopted a zero interest rate policy, and in an attempt to bring down long-term interest rates, it has made it clear that the funds rate will remain there indefinitely. The Fed is also ramping up a policy of quantitative easing in which it effectively prints money to purchase securities and to extend loans to financial institutions that use their securities as collateral. It is already purchasing commercial paper and will soon buy debt issued by Fannie Mae and Freddie Mac and the mortgage securities they insure. It will then turn to buying long-term Treasury bonds and perhaps eventually even to municipal bonds, corporate bonds, and even corporate equity, if conditions become more dire.

Policymakers have also worked directly to shore up the housing and mortgage markets and broader economy. A number of programs have been put in place to enable stressed homeowners to avoid foreclosure. These include FHA Secure, Hope Now, and Hope for Homeowners. Fiscal stimulus measures, including last summer's refundable tax rebates and investment tax incentives, have provided some economic support.

Much 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 remaining $350 billion in TARP funds need to be deployed aggressively and more broadly. The equity infusions should be extended beyond commercial banks to other institutions whose failure would threaten the financial system and broader economy. Using the funds to shore up the consumer lending market will be helpful, but failing to follow through on purchases of distressed assets via reverse auctions or other mechanisms as initially envisaged for the TARP is a mistake. In theory, the auctions are an elegant way to determine market values for these now-impossible-to-price assets. With price discovery would come clarity about which financial institutions are undercapitalized and by how much. Clarity, in turn, would 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. If so, then the cost of trying will have been small.

A much larger and more comprehensive foreclosure mitigation plan funded by the remaining TARP money is also needed. Millions of homeowners owe more than their homes are worth, and unemployment is rising quickly. Foreclosures, already at record-high levels, are sure to mount. The Hope Now and Hope for Homeowners programs face 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 people from their homes, completely undermining the financial system and economy.

The most important policy step needed soon is the implementation of a very large fiscal stimulus package. The package should both cut taxes and increase spending beginning this spring, when the economy is likely to be at its most vulnerable. The stimulus must be large, totaling approximately $750 billion, equal to close to 5% of the nation's gross domestic product. This is not as costly as the public works projects of the 1930s, but it is costlier than the 3% of GDP spent to stimulate the economy during the tough downturn in the early 1980s. The cost of the current package would thus be consistent with expectations regarding the severity of this downturn. A stimulus of 5% of GDP would also be about enough to ensure that the economy stops contracting by the end of this year and that GDP returns to its pre-recession peak by the end of 2010—reasonable goals.

The mix of tax cuts and spending increases in the stimulus package should be designed to provide both quick relief and a substantial boost to the struggling economy. The tax cuts will not pack a big economic punch, as some of the money will be saved and some used to repay debt, but they can be implemented quickly. Aid to state and local governments will not lift the economy, but it will forestall imminent cuts in programs and payrolls that many governments will be forced to make given their states' constitutional obligations to balance their budgets. Infrastructure spending will not help the economy quickly, as it will take time to get even "shovel-ready" projects going, but it would provide a significant economic boost. Given that the economy's problems are not expected to abate soon, this spending will be especially helpful this time next year.

With government making so many monumental decisions in such a short 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 financial panic and the Treasury Secretary's reversal on the use of TARP to purchase troubled assets set off the chain of events resulting in the near-failure of Citigroup. 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 of the fiscal stimulus.

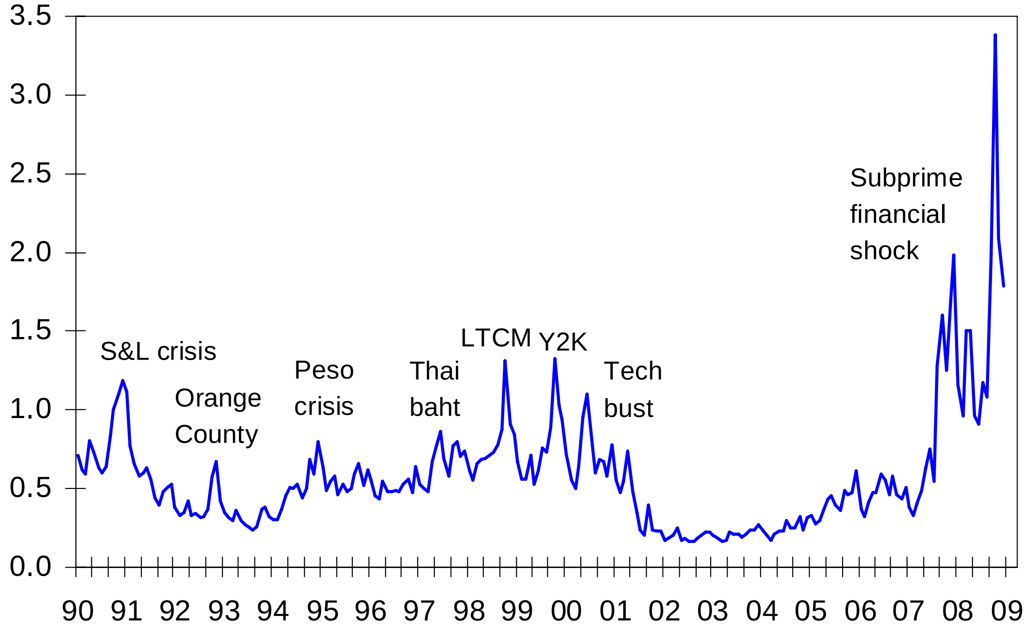
But policymakers' most serious missteps so far have come from acting too slowly, too timidly, and in a seemingly scattershot way. Early on in the crisis, there were reasonable worries about moral hazard and fairness: Bailing out those who took on, originated or invested in untenable mortgage loans would only encourage such bad behavior in the future. And a bailout would certainly be unfair to those homeowners still managing to make their mortgage payments. But as the crisis deepened and continued, those worries hindered policymakers far too long, allowing the panic to develop. With so many people 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 concerted, comprehensive and consistent government action will instill the confidence necessary to restore financial stability and restart economic growth.

The 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, substantial 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 for some time to come.

Money markets are improving—thanks to massive intervention by global central banks—but remain far from normal. The difference between three-month Libor and three-month Treasury bill rates—a good proxy for the angst in the banking system—is still an extraordinarily wide 130 basis points (see Chart 1).[i] 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.

Chart 1: The Financial System on the Precipice of Collapse
Difference between 3-month Libor and Treasury bill yields



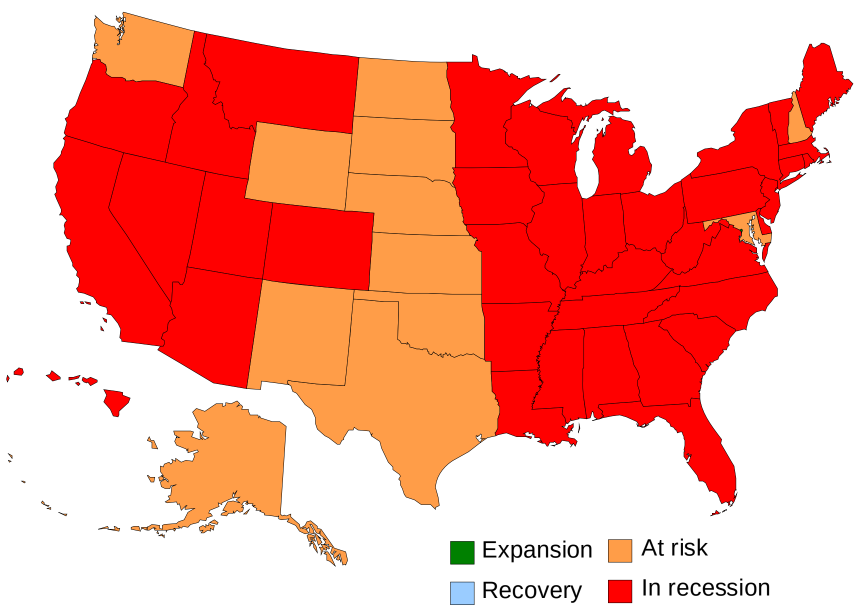
Credit markets remain badly shaken. Bond issuance has come to a standstill. No residential or commercial mortgage-backed securities have been issued in recent months, and there has been very little issuance of junk corporate bonds and emerging market debt. Asset-backed issuance of credit cards and vehicle and student loans, and issuance of municipal bonds also remain severely disrupted. Investment-grade bond issuance has held up somewhat better, but even that all but dried up in October and early November. Credit spreads—the extra yield investors require to be compensated for investing in riskier bonds—also remain strikingly wide as investors shun anything but risk-free Treasury bonds. The difference between yields on junk corporate bonds and 10-year Treasuries had ballooned to over 2,000 basis points, and the difference between emerging debt and Treasuries to over 1,200 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 U.S. cents, and the Brazilian real has fallen more than 40% against the U.S. dollar since the panic began.[ii]

Volatility in global stock markets has been unprecedented and the price declines nerve-wracking. Since the downdraft began a few months 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 declines have been so precipitous that U.S. and 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, 401(k) 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 been in recession for over a year. Real GDP fell in the last quarter of 2007 and again in the third quarter of 2008.[iii] Some 1.9 million jobs have already been lost so far on net, and the unemployment rate has risen by over 2 percentage points to 6.7%. The downturn is broad-based across industries and regions, with 33 states now in recession (see Chart 2).[iv] Data since the panic hit have been uniformly bad, suggesting that the downturn is intensifying. Retail sales, vehicle sales and industrial production have plunged, and the increase in unemployment insurance claims in December is consistent with monthly job losses of 500,000.

Chart 2: Recession From Coast to Coast



The panic's most immediate fallout is the blow to confidence. Consumer confidence crashed in October to its lowest reading since the Conference Board began its survey more than 40 years ago. This is all the more surprising given the plunge in gasoline prices during the month; cheaper motor fuel in times past has always lifted households' spirits. Small business confidence as measured by the National Federation of Independent Businesses has also plunged (see Chart 3). Current events have so soured sentiment that they are sure to have long-lasting effects on household spending and saving, 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 $12 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 (see Chart 4). Every dollar loss in household net worth reduces consumer spending by 5 cents over the next two years.[v] If sustained, the wealth lost over the past year could thus cut $300 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.

Chart 3: Confidence Has Been Shattered
Indices

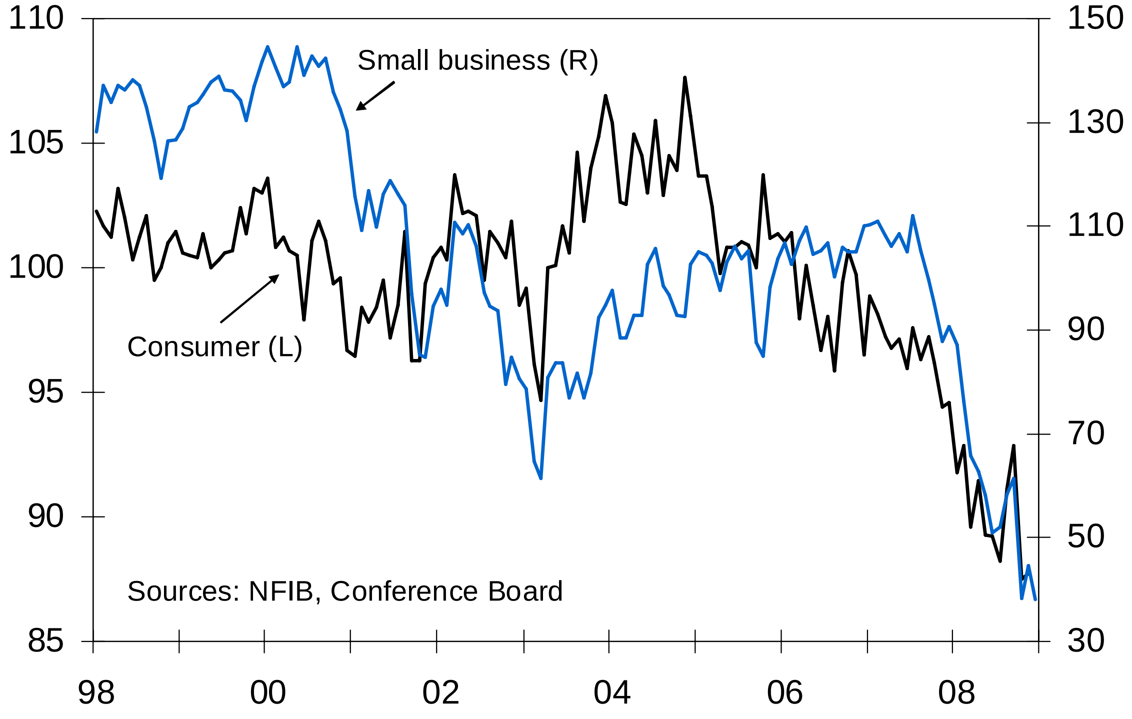
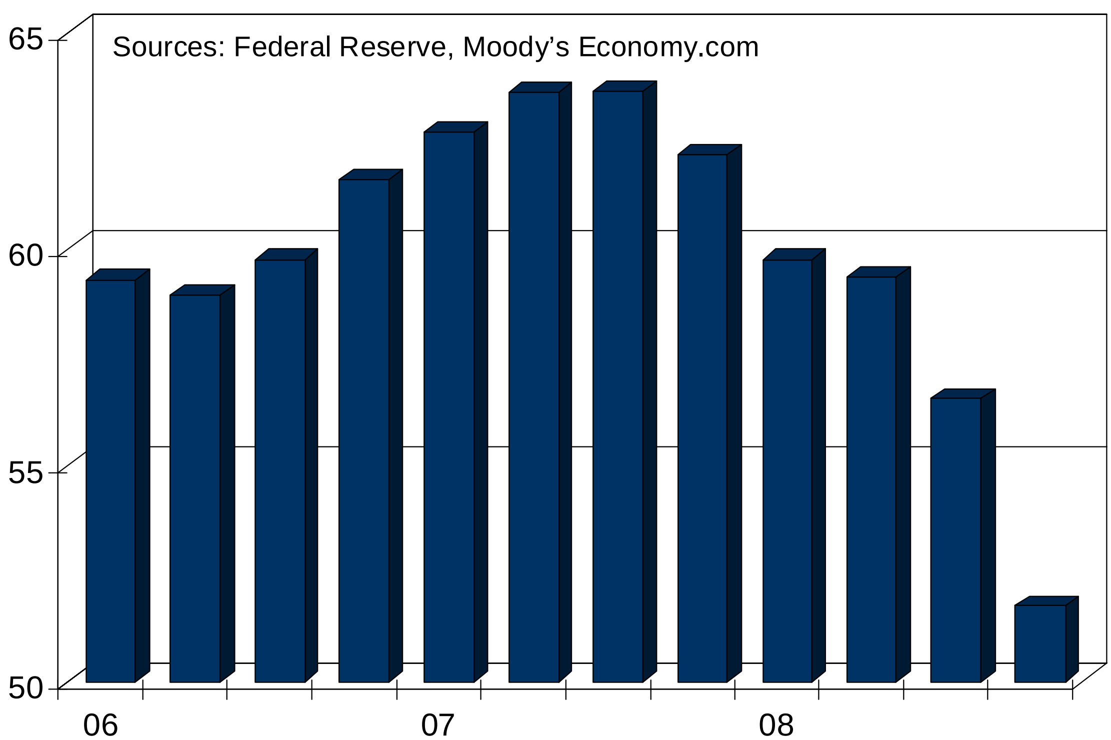
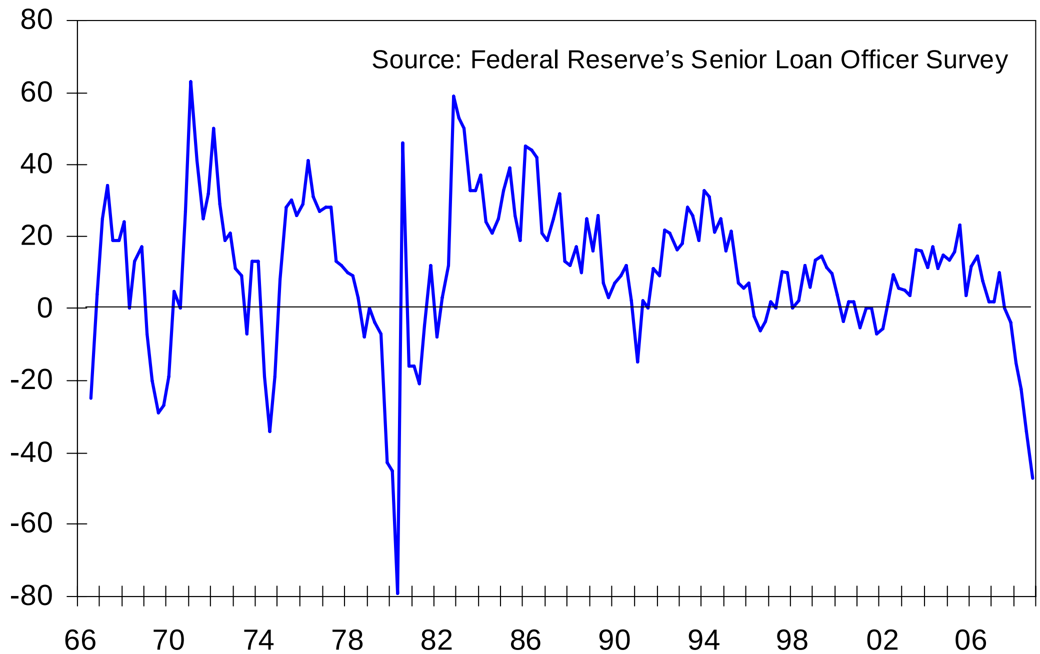


Chart 4: Household Nest Eggs Have Been Cracked
Household net worth, $ tril



The financial panic is also reducing the availability of credit and raising its cost. 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 (the most recent data available) for the first time since the savings and loan 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 standards and cutting lines, this source of credit is drying up. According to the Fed's senior loan officer survey, lenders have tightened credit 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).[vi]

Chart 5: Banks Fight to Survive, Not to Make Loans
Net % of lenders willing to make consumer loans



The pernicious impact of a credit crunch on the economy is difficult to quantify, but the economy's performances 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 1 percentage point decline in real household and nonfinancial corporate debt outstanding, real GDP declines by approximately 35 basis points. Thus, if real debt outstanding declines 12.5% from its early 2008 peak to a trough in mid-2010, which seems plausible, then this credit effect will cut almost $650 billion from GDP in 2009-2010.

One significant positive for the U.S. economy has come out of the financial panic: lower energy and commodity prices. With oil now trading near $50 per barrel, a gallon of regular unleaded gasoline should cost about $1.75. Gasoline prices peaked last summer above $4 per gallon and have averaged closer to $3 last year. Every penny-per-gallon decline in the cost of gasoline saves U.S. consumers just over $1 billion a year. Assuming gas remains below $2 per gallon through the coming year, Americans will save well more than $100 billion in 2009 compared with 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 with this year will thus approach $200 billion.

Calculating 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 $750 billion in 2009-2010, or 5% of GDP (a $300 billion wealth effect plus a $650 billion credit crunch effect minus $200 billion in savings due to lower commodity prices). This is, of course, a simplistic analysis; it does not account for all the indirect costs of the panic to the economy and the multipliers, but it gives a sense of the magnitude of the fallout.

Muted monetary stimulus

Reinforcing the need for fiscal stimulus measures is monetary policy's increasing inability to revive the economy. Stimulative monetary policy supports the economy by lowering the cost of credit and promoting the availability of credit. Even though the Federal Reserve has adopted a zero federal funds rate and is providing massive liquidity to the financial system, these efforts have yet to get credit flowing again or to measurably lower its cost. The Federal Reserve's unprecedented efforts will ultimately succeed, but given the severe disrepair of the financial system, this will occur very slowly.

Just how hard the Federal Reserve is working to restore stability in the financial system and economy is evident in its recent adoption of a policy of quantitative easing, in which it effectively prints money to buy financial securities. It is already buying commercial paper and will soon buy significant amounts of debt and mortgage securities guaranteed by Fannie Mae and Freddie Mac. Policymakers have also signaled that they will soon buy long-term Treasury bonds, thus monetizing the nation's debt.

In addition to stepping up its security purchases, the Fed is expanding its lending facilities. The first such facility—the Term Auction Facility—was established well over a year ago to allow banks to raise short-term cash. The newest facility is the Term Asset-Backed Securities Loan Facility, which beginning early next year will provide loans collateralized by newly issued securities backed by credit card debt and student, vehicle and small business loans. The Fed has made it clear this lending program could be extended to residential and commercial mortgage-backed securities.

The Fed is also willing to provide guarantees on troubled assets to backstop struggling financial institutions. Problems at Bear Stearns, AIG and Citigroup were resolved before they overwhelmed the broader financial system in part through guarantees on bad assets from the Fed.

Money markets have responded to the Fed's unprecedented actions. Libor has fallen, suggesting that the interbank lending market is performing better. Commercial paper rates have fallen, and the volume of new issuance has sharply increased. Residential mortgage rates have also declined, with 30-year fixed rates for prime conforming borrowers falling from over 6% to closer to 5%. Despite the better money market conditions, they remain far from normal, and even after financial institutions begin lending more freely to one another, they will be slow to extend credit more freely to households and businesses, given their mounting worries over the creditworthiness of all borrowers in a severe recession. Moreover, lower mortgage rates will do little to quickly revive home sales, given rising unemployment and plunging house prices.

How large a fiscal stimulus?

The goal of fiscal stimulus measures is to maximize the near-term boost to economic growth without weakening the economy’s longer-term prospects. This requires that the stimulus be implemented quickly and that its benefits go first and predominately 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 very large: Given that the direct economic costs of the financial panic are estimated at $750 billion, this would be a good benchmark. Such a stimulus plan would be four times the size of the tax rebate checks mailed this past summer and would equal more than 5% of GDP.

To provide the largest bang for the buck, a well-designed stimulus plan should include a temporary increase in government spending. Spending increases benefit the economy as soon as the money is disbursed, and the economic benefit is less likely to be diluted by increased imports. The most efficacious spending includes extending unemployment insurance benefits, expanding the food stamp program, and increasing aid to hard-pressed state and local governments. Increasing infrastructure spending would also greatly boost the economy, particularly in the current downturn, as the economy's problems are expected to last for an extended period and most of the money will be spent on hiring workers and on materials and equipment produced domestically.

Tax cuts should also be part of a well-designed fiscal stimulus plan, as they can be implemented relatively quickly. Particularly helpful would be tax cuts that benefit lower- and middle-income households, perhaps in the form of payroll tax credits. Investment and job tax benefits for businesses are less economically efficacious but are not particularly costly and could be included to more widely distribute the benefits of the stimulus package. Assuring higher-income households that their tax rates will not increase any time soon would also be helpful.

UI and food stamps

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. [vii] 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 very quickly. 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 support.[viii] Increasing food stamp benefits has the added virtue of helping people ineligible for UI such as part-time workers.

Table 1: Fiscal Stimulus Bang for the Buck
Source: Moody's Economy.com

	Bang for the Buck
Tax Cuts	
Nonrefundable 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

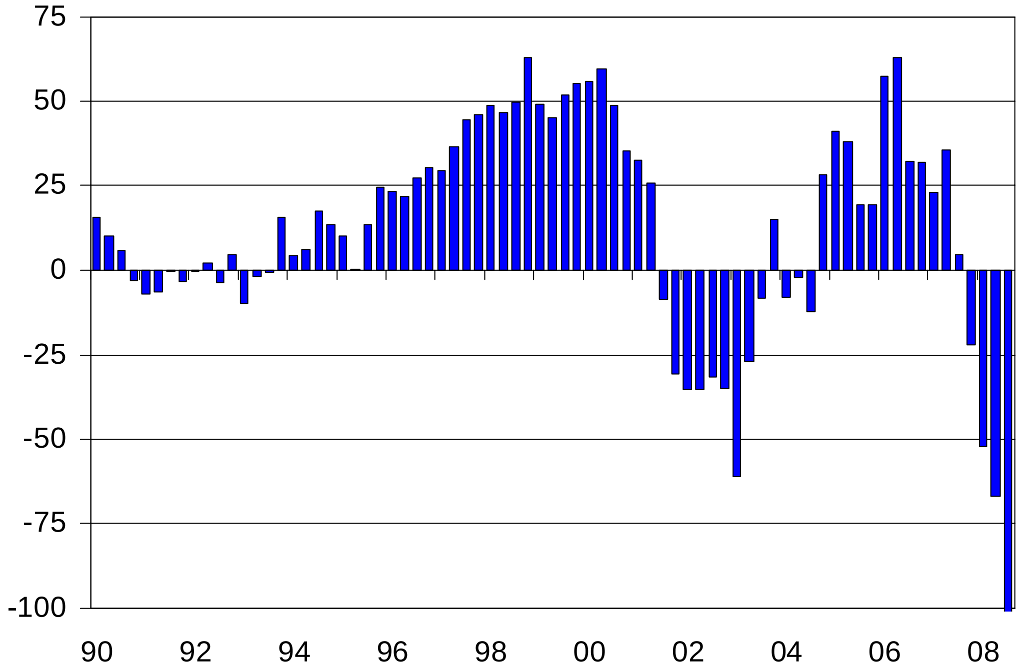
Note: The bang for the buck is estimated by the one year \$ change in GDP for a given \$ red

Aid to state and local governments

Another economically potent stimulus is to provide additional aid to financially pressed state governments. This could take the form of general aid or a temporary increase in the Medicaid matching rate to ease the costs of healthcare coverage.

Over 40 states and a rapidly increasing number of localities are already grappling with significant fiscal problems. Tax revenue growth has slowed sharply along with falling home sales, property values, retail sales and corporate profits. Personal income tax receipts have also begun to suffer as the job market slumps. Big states including California and Florida are under severe financial pressure, and smaller states including Arizona, Minnesota and Maryland are struggling significantly. The gap between state and local government revenues and expenditures ballooned to over $100 billion—a record—in the third quarter of 2008, according to the Bureau of Economic Analysis (see Chart 6).

Chart 6: State & Local Budget Shortfalls Worsen
State and local govt. expenditures less tax revenues, $ bil



Because most state constitutions require their governments to quickly eliminate deficits, most have drawn down their reserve funds and have already begun to cut programs ranging from healthcare to education. Cuts in state and local government outlays are sure to be a substantial drag on the economy in 2009 and 2010. Additional federal aid to state governments will fund existing payrolls and programs, providing a relatively quick economic boost. States that receive checks from the federal government will quickly pass the money on to workers, vendors and program beneficiaries.

Arguments that state governments should be forced to cut spending because they have grown bloated and irresponsible 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.

Infrastructure spending

Increased infrastructure spending is also a particularly effective way to stimulate the economy. The boost to GDP from every dollar spent on building 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 substantial time for funds to flow to builders and contractors and into the broader economy.[ix] Infrastructure projects can take years from planning to completion. Even if the funds are used to finance only projects that are well along in their planning, it is very difficult to know just when projects will get under way and when the money will be spent. Although this caveat is important in many cases, the economy's problems could extend well into 2010, weakening the argument against infrastructure spending in the current downturn.

Personal tax cuts

A measurable economic boost would be provided by implementing the Making Work Pay credit proposed by President-elect Barack Obama. This new refundable tax credit for wage earners and the self-employed would equal 6.2% of up to $8,100 of earnings, resulting in a maximum credit of $500 and $1,000 for spouses filing jointly. The credit would be phased out as adjusted gross income rises. To get some money into people's pockets quickly, the tax credit could be made retroactive to 2008 and rebate checks could be sent out this spring based on income earned last year.

Under current law, personal marginal tax rates and capital gains and dividend income tax rates are set to increase in 2011, when the 2001 and 2003 tax cuts start to expire. At expiration, 1) the top marginal tax rate for individuals will increase from 35% to 39.6%; 2) the maximum long-term capital gains tax rate will increase from 15% to 20%; and 3) the top tax rate on divided income will increase from 15% to 39.6%. A modest stimulus would be provided by codifying the currently lower tax rates for individuals who make less than $250,000 annually as Obama has promised. Although taxpayers earning more than $250,000 annually likely expect their tax rates to rise, it would be beneficial if they are assured that this increase will be phased in over several years.

Business tax incentives

Temporary tax incentives to support business investment and hiring do not provide a particularly large economic benefit, but they are generally not very expensive and they do distribute the benefits more widely. Accelerated depreciation by large businesses and expensing of investment by small businesses were included in last year's fiscal stimulus. These benefits have expired, however, and extending these tax benefits through 2010 would forestall a badly timed additional factor depressing business investment.

Economic impact of stimulus measures

Unless policymakers quickly implement a very large and effective fiscal stimulus plan, the economy appears headed for the worst downturn since the Great Depression. The Moody's Economy.com macroeconomic model's simulation results support this assessment. Simulating the model assuming that there is no added fiscal stimulus except for that provided by the automatic stabilizers already in place, real GDP would decline for eight straight quarters, falling by a stunning 3.7% in 2009 and another 1.6% in 2010. This would be more severe than the early 1980s recessions, which combined were the worst since the Depression. Some 7.6 million jobs would be lost from the peak in employment at the start of 2008 to the bottom in employment by late 2010, pushing the unemployment rate to over 11% by early 2011.

The implementation of a fiscal stimulus plan beginning in early 2009 would make a substantial difference in the economic outlook. This can be seen by simulating the macro model assuming that a $750 billion stimulus program is implemented in 2009 and 2010 (see Table 2). The plan includes $450 billion in increased government spending, composed of nearly $45 billion in additional spending on UI benefits and foods stamps, $125 billion in increased aid to state governments, $160 billion in greater infrastructure spending, and $120 billion on healthcare and education programs.

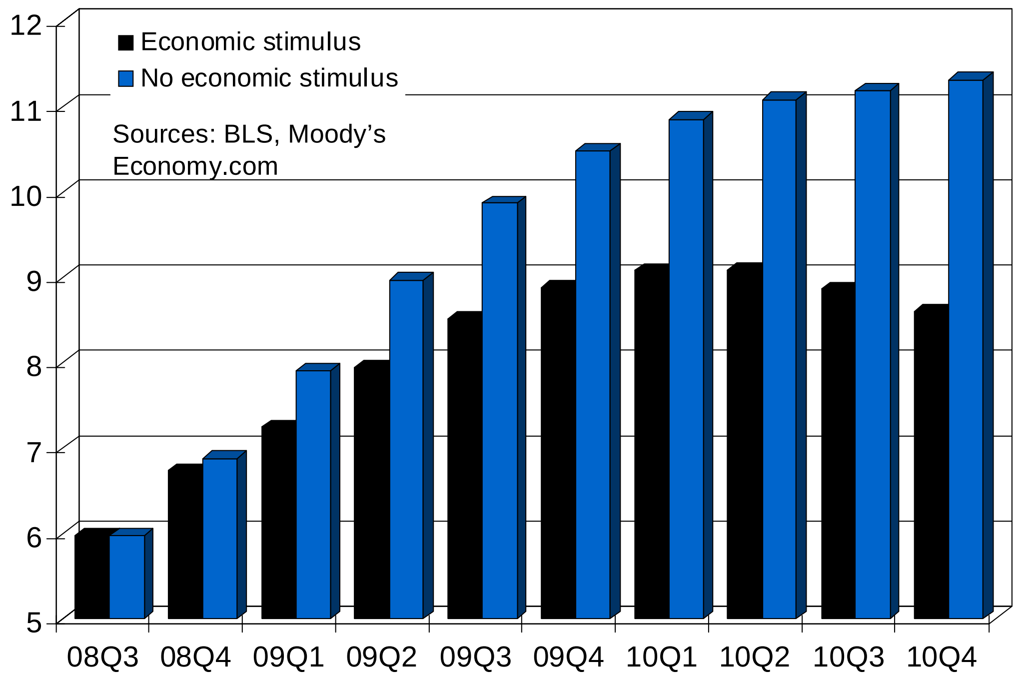
$750 Billion Economic Stimulus Package											
Sources: BLS, BEA, Moody's Economy.com											
	2009Q1	**2009Q2**	**2009Q3**	**2009Q4**	**2010Q1**	**2010Q2**	**2010Q3**	**2010Q4**	**2009**	**2010**	**2009-10**
Total Stimulus	5	143	96	128	99	105	92	82	372	378	750
Government Spending	5	23	51	62	83	88	74	64	129	322	451
Unemployment Insurance Benefits	1	2	3	4	4	5	4	3	10	16	26
Food Stamps	1	2	3	4	4	3	2	2	10	11	21
Infrastructure Spending	1	5	11	16	35	40	30	24	33	129	162
Traditional Infrastructure	1	3	7	10	20	20	15	12	21	67	88
Green Infrastructure	0	2	4	6	15	20	15	12	12	62	74
Aid to State Government	2	9	20	20	20	20	18	15	39	86	125
Health Care/Education Spending		5	14	18	20	20	20	20	37	80	117
Tax Cuts	0	120	45	66	16	17	18	18	231	69	300
Business Tax Credits	0	20	30	50	0	0	0	0	100	0	100
Payroll Tax Credit	0	100	15	16	16	17	18	18	131	69	200

The plan also includes $300 billion in tax cuts, composed of $100 billion in business tax benefits and $200 billion in tax cuts to individual. Rebate checks are assumed to be mailed in the second quarter of 2009. The stimulus also includes changes to the tax law to make permanent current marginal tax rates for taxpayers who make less than $250,000 a year and to allow for a phase in from 2011 to 2014 of higher marginal rates for taxpayers who make more. [x]

The $750 billion stimulus plan would not forestall a sizable decline in real GDP in 2009, but it would ensure that real GDP returns to its previous peak by the second half of 2010 (see Table 3). The fiscal stimulus limits the peak-to-trough decline in jobs to some 5 million, and the unemployment rate peaks at nearly 9% in early 2010. With the stimulus, the unemployment rate falls back to its full employment rate of close to 5% by late 2012. Without the stimulus, the unemployment rate rises to well over 11% by mid-2010 and ends 2012 at over 8%, still extraordinarily high (see Chart 7).

Table 3: The Economic Benefit of $750 Billion Fiscal Stimulus Package						
Sources: BEA, BLS, Moody's Economy.com						
	Real GDP, 2000$ bil			**Real GDP, % change**		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
2007	11,523.9	11,523.9	-	2.03	2.03	-
2008	11,664.2	11,664.2	-	1.22	1.22	-
2009	11,227.4	11,473.5	246.0	-3.74	-1.64	2.1
2010	11,034.7	11,702.8	668.0	-1.72	2.00	3.7
2011	11,313.4	12,263.1	949.7	2.53	4.79	2.3
2012	11,852.9	12,905.7	1,052.8	4.77	5.24	0.5
	Unemployment Rate			**Payroll Employment, mil**		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
2007	4.64	4.64	-	137.6	137.6	-
2008	5.74	5.74	-	137.2	137.2	-
2009	9.31	8.15	(1.2)	132.8	133.9	1.1
2010	11.11	8.91	(2.2)	130.6	134.3	3.8
2011	10.77	7.62	(3.2)	131.7	137.6	5.9
2012	9.07	6.10	(3.0)	135.6	141.9	6.3

Chart 7: Fiscal Stimulus Makes a Significant Difference
Unemployment rate



Despite the added federal government borrowing necessary to finance the stimulus, it would not lead to excessively higher long-term interest rates. Given all the current demands on the Treasury, total bond issuance with the stimulus would approach a record $2 trillion in fiscal 2009 and about the same in fiscal 2010, but private bond issuance would remain extraordinarily depressed during this period. The moribund issuance of corporate debt, emerging market debt, and private-label mortgage and asset-backed debt will eventually revive, but total credit market needs including the record Treasury issuance will remain modest enough that the 10-year Treasury yield would remain below 4% through 2010. It is now firmly below 3%. Other long-term rates, including corporate bond and mortgage rates, would rise by even less as credit spreads narrowed, reflecting the stronger economy and reduced credit concerns.

All regions of the country will measurably benefit from the fiscal stimulus, but some will benefit more than others. The most significant boost will be provided to states that are being hit hardest by the housing and foreclosure crisis, such as Florida and Nevada; that rely heavily on the financial services industry, such as New York and New Jersey; and that also depend on the auto industry, such as Michigan and Ohio. Without a fiscal stimulus, the job market suffers significantly, inducing more foreclosures in those parts of the country where house prices have fallen most sharply, and undermining the demand for big-ticket items such as vehicles and discretionary activities such as tourism. Layoffs on Wall Street will also intensify as financial markets and institutions are hammered by the impact of a much weaker economy on stock prices and credit markets. The economic benefits of the fiscal stimulus are less pronounced in the nation's agricultural and energy-producing regions. The economies of these areas are boosted by more infrastructure spending and the increased federal aid for their state governments, but agricultural and energy prices will remain low, because they are determined in global markets and not materially lifted by the fiscal stimulus.

Conclusions

A long history of public policy mistakes has contributed to this crisis. Although 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, this crisis has its genesis in the long-held economic policy objective of promoting homeownership. Since the 1930s, federal housing policy has been geared toward increasing homeownership by heavily subsidizing home purchases. Although homeownership is a worthy goal, fostering stable and successful communities, it was carried too far, producing a bubble when millions of people 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 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 regulator, there was a general distrust of regulation.

Despite all this, the panic that has roiled financial markets might have been avoided had policymakers 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, and 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 fiscal 2008, could easily top $1 trillion in fiscal 2009 and remain very high in 2010. Borrowing by the Treasury will top $2 trillion this year. There will also be substantial long-term costs to extricate the government from the financial system. Unintended consequences of all the actions taken in such a short period 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 end only with overwhelming government action.

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[i] The London interbank offered rate is the interest rate at which major banks lend to one another.

[ii] 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 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.

[iii] When all the GDP revisions are in, they are 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.

[iv] 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.
[v] 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.
[vi] This was part of a failed effort to rein in the double-digit inflation of the period.
[vii] The model is a large-scale econometric model of the U.S. economy. A detailed description of the model is available upon request.
[viii] The slump in consumer confidence after the recession in 1990-1991 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 and the fledgling recovery sputtered.
[ix] It should be noted that 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.
[x] The cost of these tax law changes is not included as part of the cost of the stimulus plan.