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Economic Stimulus: Issues and Policies

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January 16, 2009

Abstract. This report first discusses the current state of the economy, including measures that have already been taken by the monetary authorities. The next section reviews the proposed economic stimulus package. The following section assesses the need for, magnitude of, design of and potential consequences of fiscal stimulus. The final section of the report discusses recent and proposed financial interventions.

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Summary

Recent policies have sought to contain damages spilling over from housing and financial markets to the broader economy, including monetary policy, which is the responsibility of the Federal Reserve, and fiscal policy, including a tax cut in February 2008 of \$150 billion and two extensions of unemployment compensation in June and November of 2008. Over the past few months, the government has also intervened in specific financial markets, including financial assistance to troubled firms, including legislation granting authority to the Treasury Department to purchase \$700 billion in assets.

The broad intervention into the financial markets has been passed to avoid the spread of financial instability into the broader market but there are disadvantages, including leaving the government holding large amounts of mortgage debt.

With the worsening performance of the economy, congressional leaders and President-Elect Obama have now proposed much larger stimulus packages, ranging from \$600 to \$850 billion, comprised of spending and tax cuts. The package under discussion may contain some proposals considered but not adopted during the 2008 debate, and could include infrastructure spending, revenue sharing with the States, middle class tax cuts, business tax cuts, unemployment benefits, and food stamps.

The need for additional fiscal stimulus depends on the state of the economy. The National Bureau of Economic Research (NBER), in December 2008, declared the economy in recession since December 2007. Growth rates, after two strong quarters, were negative in the fourth quarter of 2007, positive in the first and second quarters of 2008, and a negative 0.5% in the third quarter. According to one data series, employment fell in every month of 2008. The unemployment rate, which rose slightly in the last half of 2007, declined in January and February of 2008, but began rising in March and in December stood at 7.2%. Some forecasters believe that the ongoing financial turmoil will result in a recession that is deeper and longer than average.

Fiscal policy temporarily stimulates the economy through an increase in spending which also, if not offset by increases in revenue, increases the budget deficit. There is a consensus that certain proposals, ones that result in more spending, can be implemented quickly, and leave no long-term effect on the budget deficit, would increase the benefits and reduce the costs of fiscal stimulus relative to other proposals. Economists generally agree that spending proposals are somewhat more stimulative than tax cuts since part of a tax cut may be saved by the recipients. The most important determinant of the effect on the economy is the stimulus' size. The recent stimulus package increased the deficit by about 1% of GDP.

This report will be updated as warranted by legislative and economic events.

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The National Bureau of Economic Research (NBER) has declared the U.S. economy in recession since December of 2007. With the worsening performance of the economy, congressional leaders and President-Elect Obama have now proposed a major fiscal stimulus package, ranging from \$600 to \$850 billion, comprised of spending and tax cuts. The proposal under discussion may contain some proposals considered but not adopted during the 2008 legislative debate, and could include infrastructure spending, revenue sharing with the States, business and middle class tax cuts, unemployment benefits, and food stamps.

Numerous actions have already been taken to contain damages spilling over from housing and financial markets to the broader economy. These policies include traditional monetary and fiscal policy, as well as federal interventions into the financial sector. In February 2008, in response to weaker economic growth, an economic stimulus package of approximately \$150 billion was adopted. A provision that was considered (but not enacted) in the February stimulus bill was a 26-week extension of unemployment benefits; this extension was eventually enacted.¹ A second stimulus plan (H.R. 7110) passed the House on September 26, but was not passed by the Senate. It included \$36.9 billion on infrastructure (\$12.8 billion highway and bridge, \$7.5 billion water and sewer, \$5 billion Corps of Engineers); \$6.5 billion in extended unemployment compensation; \$14.5 billion in Medicaid, and \$2.7 billion in food stamp and nutrition programs. Some of these provisions are likely to be included in the new stimulus package.

A number of financial interventions have also been undertaken. Financial market conditions worsened significantly in September 2008. Although the real production of goods and services has so far showed unexpected resilience since financial turmoil began in August of 2007, the ability of private borrowers to access credit markets remained restricted throughout the year. Evidence of a credit crunch was seen in the persistence of wide spreads between the interest rates that private borrowers paid for credit and the yields on Treasury securities of comparable maturity. The Federal Reserve had already undertaken a number of interventions, and in October of 2008, legislation granting the Treasury Department authority to purchase up to \$700 billion in assets through the Troubled Assets Relief Program (TARP) was adopted.²

This report first discusses the current state of the economy, including measures that have already been taken by the monetary authorities. The next section reviews the proposed economic stimulus package. The following section assesses the need for, magnitude of, design of and potential consequences of fiscal stimulus. The final section of the report discusses recent and proposed financial interventions.

The Current State of the Economy³

The need for fiscal stimulus depends, by definition, on the state of the economy. According to the National Bureau of Economic Research (NBER), the official arbiter of the business cycle, the economy has been in recession since December 2007. It defines a recession as a “significant

¹ For a discussion of the tax, housing, and unemployment legislation adopted in the 110th Congress see CRS Report RL34349, *Economic Slowdown: Issues and Policies*, coordinated by Jane G. Gravelle et al..

² See CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte, for a discussion of Federal Reserve Policy and CRS Report RL34730, *The Emergency Economic Stabilization Act and Current Financial Turmoil: Issues and Analysis*, by Baird Webel and Edward V. Murphy.

³ This section was prepared by Marc Labonte of the Government and Finance Division.

decline in economic activity spread across the economy, lasting more than a few months” based on a number of economic indicators, with an emphasis on trends in employment and income.⁴ But because a recession is defined as a lasting decline, the NBER typically does not declare a recession until it is well under way. The current recession was declared in late November of 2008.

After two strong quarters, economic growth fell by 0.2% in the fourth quarter of 2007. It then increased by 0.9% in the first quarter of 2008 and 2.8% in the second quarter of 2008. Real GDP decreased by 0.5% in the third quarter, however. Forecasters now predict that GDP will continue to contract until the second half of 2009 and the rate of decline will accelerate.⁵ If correct, this recession would be the longest in the period since World War II.

According to one data series, employment fell in the first 11 months of 2008. The unemployment rate, which was 4.8% in February 2008, rose to 6.1% in August, remained there in September, and rose again to 6.5% in October, to 6.8% in November, and to 7.2% in December 2008.

After a long and unprecedented housing boom, the median price of existing homes fell by 1.8% in 2007—possibly the first year of falling prices since the Great Depression, according to one organization which compiles the data.⁶ And the decline continued in 2008 and appears to be worsening over time. Other housing data fell even further—existing home sales fell by 22% in the twelve months through December 2007, and residential investment (house building) fell by 18% in the four quarters ending in the fourth quarter of 2007. The decline in residential investment has acted as a drag on overall GDP growth, while the other components of GDP grew at more healthy rates until the third quarter of 2008. Many economists argued that the housing boom was not fully caused by improvements in economic fundamentals (such as rising incomes and lower mortgage rates), and instead represented a housing *bubble*—a situation where prices were being pushed up by “irrational exuberance.”⁷

Most economists believe that a housing downturn alone would not be enough to singlehandedly cause a recession.⁸ But in August 2007, the housing downturn spilled over to widespread financial turmoil.⁹ Triggered by a dramatic decline in the price of subprime mortgage-backed securities and collateralized debt obligations, large losses and a decline in liquidity spread throughout the financial system. The Federal Reserve (Fed) was forced to create unusually large amounts of liquidity to keep short-term interest rates from rising in August 2007, and has since reduced interest rates significantly. The Fed has gradually reduced the federal funds target rate from 5.25% to a range of 0 to 0.25%, as of December 16, 2008. In addition, the Fed has lent directly to financial institutions through an array of new facilities, and the amounts of loans outstanding has at times exceeded a trillion dollars.¹⁰ A reduction in lending by financial institutions in response to uncertainty or financial losses is another channel through which the economy entered a recession.

⁴ National Bureau of Economic Research, *The NBER's Recession Dating Procedure*, January 7, 2008.

⁵ Blue Chip, *Economic Indicators*, vol. 33, no. 12, December 10, 2008.

⁶ Michael Grynbaum, “Home Prices Sank in 2007, and Buyers Hid,” *New York Times*, January 25, 2008. Prices are compiled by the National Association of Realtors.

⁷ For more information, see CRS Report RL34244, *Would a Housing Crash Cause a Recession?*, by Marc Labonte.

⁸ See, for example, Frederic Mishkin, “Housing and the Monetary Transmission Mechanism,” working paper presented at the Federal Reserve Bank of Kansas City symposium, August 2007.

⁹ See CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl E. Getter et al.

¹⁰ See CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

To date, financial markets remain volatile, new losses have been announced at major financial institutions, and responses outside traditional monetary policy have been undertaken. In March, the financial firm Bear Stearns encountered liquidity problems, was provided emergency financing by JPMorgan Chase and the Federal Reserve Bank of New York, and was purchased, after a plummet in stock value, by JPMorgan Chase. Then in July, the government sponsored enterprises (GSEs) Fannie Mae and Freddie Mac experienced rapidly falling equity prices in response to concerns about the value of their mortgage backed securities assets. In July, Congress authorized Treasury to extend the GSEs an unlimited credit line (which has not been utilized to date) in the Housing and Economic Recovery Act of 2008 (P.L. 110-289) because of concern that the failure of a GSE would cause a systemic financial crisis. The federal government took control of Fannie Mae and Freddie Mac in early September. In November 2008 Treasury purchased \$2.8 billion of senior preferred stock from Freddie Mac to prevent its net worth from becoming negative.

According to news reports in the fall of 2008, government officials decided not to intervene on behalf of Lehman Brothers and Merrill Lynch;¹¹ on September 14, Bank of America took over Merrill Lynch without federal intervention, and on September 15, Lehman Brothers filed for bankruptcy. The Treasury and Federal Reserve were trying to engineer a private bailout of the nation's largest insurance company, AIG, but on September 16 seized control with an \$85 billion emergency loan.¹²

On September 18, Administration and Federal Reserve officials with the bipartisan support of the Congressional leadership, announced a massive intervention in the financial markets.¹³ The proposal asked for authority to purchase up to \$700 billion in assets over the next two years. The Treasury had also provided insurance for money market funds, where withdrawals have been significant. These proposals suggested that government economists see problems with the transmission of traditional monetary stimulus into the financial sector and ultimately into the broader economy, where a significant contraction of credit could significantly reduce aggregate demand. Although the legislation passed with some delay, the stock market fell significantly. The original proposal had discussed buying mortgage related assets, particularly mortgage-backed securities, but the Treasury indicated it will spend the initial \$250 billion on preferred stock in financial institutions. The Federal Reserve has also announced purchases of commercial paper, \$200 billion of asset backed securities, and \$600 billion of mortgage related securities; the government has also announced a plan to assist Citigroup.

At the same time the economy and financial sector had been grappling with the housing downturn, energy prices had risen significantly, from \$48 per barrel in January 2007 to \$115 dollars on April 30, 2008 and \$144 as of July 2, 2008. After that, oil prices began a downward trend, and had fallen below \$70 by October and \$60 by the end of November. The price reached \$43 per barrel on December 10. Most recessions since World War II, including the most recent, have been preceded by an increase in energy prices.¹⁴ Energy prices had gone up almost

¹¹ David Cho and Neil Irwin, "No Bailout: Feds Made New Policy Clear in One Intense Weekend," *Washington Post*, September 16, 2008, pp. A1, A6-A7.

¹² Glenn Kessler and David S. Hilzenrath, "AIG at Risk; \$700 Billion in Shareholder Value Vanishes," *Washington Post*, September 16, 2008; U.S. Seizes Control of AIG With \$85 Billion Emergency Loan, *Washington Post*, September 17, 2008, pp. A1, A8.

¹³ See CRS Report RS22957, *Proposal to Allow Treasury to Buy Mortgage-Related Assets to Address Financial Instability*, by Edward V. Murphy and Baird Webel.

¹⁴ For more information, see CRS Report RL31608, *The Effects of Oil Shocks on the Economy: A Review of the* (continued...)

continuously in the current expansion, however, without causing a recession, which may point to the relative decline in importance of energy consumption to production. Although a housing downturn, financial turmoil, or an energy shock might not be enough to cause a recession in isolation, the combination was sufficient.

A Proposed 2009 Stimulus Package¹⁵

A second stimulus proposal was discussed during 2008 and some unemployment benefits extensions were enacted, but worsening economic news has led to proposals for a much larger package in the range of \$600 to \$850 billion. If so, it would be significantly larger in size than the February 2008 proposal and the other proposals discussed during the 110th Congress.

The 2009 stimulus proposal could include extensions of temporary provisions enacted in legislation in the 110th Congress, provisions proposed during 2008 but not adopted, or alternative packages.

Temporary Provisions in the February 2008 Stimulus That Might be Extended

The centerpiece of the February 2008 tax proposal was an individual income tax rebate, which accounted for \$107 billion in the first year. This rebate was for 10% of taxable income with a ceiling and a floor, a child rebate for dependents eligible for the child credit, and refundability for low income earners and social security recipients.

The legislation also included two business provisions. The first was bonus depreciation, allowing 50% of investment with a life of less than 20 years (which applies mostly to equipment) to be deducted when purchased. The second addressed a provision that allowed small businesses to deduct all equipment investment when purchased, by increasing the ceiling on eligible equipment and phasing out the benefit more slowly. Both of these provisions expired at the end of 2008.

News reports on January 6 indicate that the package will include an extension of the two business provisions.

Other Proposals Discussed in 2008

Some of the proposals included in the stimulus package adopted in February 2008 or discussed in the course of the debate became part of a second stimulus package proposed but not adopted in 2008. A second stimulus plan (H.R. 3997) was proposed, involving \$50 to \$60 billion in additional spending on infrastructure, unemployment benefits, Medicaid and nutrition programs. The bill passed the House on September 26 (as H.R. 7110) and included spending proposals for \$36.9 billion on infrastructure (\$12.8 billion on highway and bridge, \$7.5 billion on water and sewer, \$5 billion Corps of Engineers); \$6.5 billion in extended unemployment compensation,

(...continued)

Empirical Evidence, by Marc Labonte.

¹⁵ This section was prepared by Jane Gravelle, Government and Finance Division.

\$14.5 billion in Medicaid, and \$2.7 billion in food stamp and nutrition programs. A similar bill was not passed in the Senate in the 110th Congress, and President Bush had indicated that he would veto the House bill. Other proposals debated but not ultimately included in the second stimulus bill include a second tax rebate, energy programs, disaster aid, aid for home heating oil, and health care spending.

The Senate budget resolution set aside \$35 billion for a second package, which was allocated between taxes and spending.¹⁶ The accompanying Committee Print discussed the unemployment benefit extension discussed above as part of a potential future package, along with two other spending programs: expanding food stamps and aid to the states. It also discussed spending on ready-to-go infrastructure investments discussed during the stimulus debate, additional spending on LIHEAP (Low Income Home Energy Assistance Program) and WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), and the summer jobs program.

The resolution also discussed proposals under consideration to address housing issues, included in the Foreclosure Prevention Act of 2008 (S. 2636). This proposal was passed by the Senate as H.R. 3221 on April 10, 2008. It was not a broad stimulus package, but was largely targeted at the housing sector. It included some regulatory and direct spending provisions; in the latter case, primarily a \$4 billion authorization for state and local governments to redevelop abandoned and foreclosed homes.

It also included some tax reductions. The largest of these (in terms of short run revenue cost) was a provision that would have allowed firms to elect an extended net operating loss carryback period, a temporary suspension of the alternative minimum tax limitation for bonus depreciation, and small business expensing for 2008 and 2009. The net operating loss carryback period would have been extended from two to four years. This provision was projected to cost \$25 billion from FY2008-2010, although it would have raised revenues thereafter with a total cost of \$6 billion over ten years. The bill also included liberalization of tax-exempt mortgage revenue bonds, a tax credit for buyers of homes in foreclosure, a temporary deduction for property taxes by homeowners who do not itemize (capped at \$500 for single and \$1,000 for couples), and an election to refund certain corporate credits in lieu of other business provisions. There were also some limited provisions for areas still recovering from hurricanes and from storms and tornados in Kansas. Altogether, the package would have cost \$22 billion over ten years.

New reports on January 6 indicated that the package would include a five-year carryback of net operating losses.

Housing legislation was ultimately enacted in the Housing and Economic Recovery Act of 2008 (H.R. 3221, P.L. 110-289). It included a credit for first-time homebuyers (to be repaid over 15 years) as well as the property tax deduction (but with lower caps of \$350 and \$700), along with some provisions affecting the low-income housing credits and tax exempt bonds for housing. The tax benefits were generally offset. The net operating loss provision was not included in the final bill.¹⁷

¹⁶ See *Concurrent Resolution of the Budget for 2009, Senate Report to Accompany S.Con.Res. 70*, Senate Print 110-039, March 2008, p. 6.

¹⁷ See CRS Report RL34623, *Housing and Economic Recovery Act of 2008*, by N. Eric Weiss et al.

The 2009 Proposals

Discussions now suggest a much larger package than the legislation passed by the House in September 2008 (H.R. 7110) is being considered by Congressional leaders and President Elect Obama. The 2009 package would likely build off of some of the proposals discussed for 2008 but would also include tax cuts.

On December 15, House Speaker Pelosi suggested a \$600 billion package with \$400 billion of spending and \$200 billion in tax cuts as a starting point for discussion. It is reported that the package would probably include infrastructure spending, aid to the states, unemployment compensation, and food stamps. Earlier, on December 11, Finance Committee Chairman Baucus suggested that half of an expected \$700 billion plan might be in tax cuts; he mentioned child tax credits, state and local property tax deductions, the R&D tax credit, the marriage penalty, tax exempt bonds and energy incentives. House Republican Leader Boehner proposed a tax package that included increases in the child tax credit, suspending the capital gains tax on newly acquired assets, increasing expensing, extending bonus depreciation and raising the share of costs expensed from 50% to 75%, extending net operating loss carrybacks to three years, lowering the corporate tax rate from 35% to 25%, and expanding energy subsidies.

Reports on December 29 suggested President Elect Obama would propose a package of \$670 billion to \$770 billion, but that additions in Congress might raise the total to \$850 billion. The package could include \$100 billion in aid to the States to fund Medicaid, possibly with additional grants, and at least \$350 billion for public works, alternative energy, health care and school modernization, and expanding unemployment insurance and food stamp benefits. The package would also include middle class tax cuts. While these cuts have not been specified, congressional leaders have referred to the child credit, state and local property taxes, marriage penalties, the R&D tax credit and tax exempt bonds.

Following a meeting between President Elect Obama and Congressional leaders on January 5, news reports indicated that the share of the package directed at tax cuts would increase to about 40%, perhaps \$300 billion. President Elect Obama has suggested a credit for working families of up to \$1,000 for couples and \$500 for singles. Business provisions might include extensions of the bonus depreciation and small business expensing enacted in February 2008 that expired at the end of 2008 as well as an extended net operating loss carryback provision that was discussed but not enacted in 2008. Also discussed was an expansion of the first-time homebuyers credit adopted in the 2008 housing legislation and expanding renewable energy incentives. A payroll tax holiday has also been discussed.

News reports on January 9 indicated some resistance of Congressional lawmakers to two provisions in President Elect Obama's plan: a \$3,000 tax credit for employers who hire new workers and the working families credit which provides for a credit of 6.2% of earnings up to a ceiling of \$500 for individuals and \$1,000 for married couples. Some are concerned that the employer tax credit will not benefit distressed firms and will be difficult to administer.

Fiscal stimulus is only effective when policy options cause increases in aggregate demand. Many economists view fiscal policy as less effective than monetary policy in an open economy. As mentioned earlier in this report, however, several monetary policy options have already been employed for several months.

Fiscal stimulus can involve tax cuts, spending, or a combination of both. Tax cuts may be less effective than spending because some of the tax cut may be saved, which diminishes the effectiveness of the stimulus. Tax cuts that are temporary, that appear in a lump sum rather than in withholding, or that are aimed at higher income individuals are thought more likely to be saved. For example, some evidence suggests that two thirds of the 2001 tax rebate was spent.

The challenge to spending programs is that there may be a lag time for planning and administration before the money is spent. For that reason, infrastructure spending is often discussed in the context of “ready-to-go” projects where all of the planning is in place and the only missing factor is funding. Some analysts suggest that aid to state and local governments may be more quickly spent because these governments are likely to cut back on spending in downturns due to balanced budget requirements, and the aid may forestall these cuts.¹⁸

Concerns have also been expressed that, the larger the package, the greater the risk that the spending will not be effective, especially for certain types of infrastructure. Some economists advocate a quick enactment of a smaller package followed by additional spending that can be more carefully considered.¹⁹

These delays in spending are less of a concern if the downturn appears likely to be protracted or the recovery slow.

Issues Surrounding Fiscal Stimulus²⁰

The Magnitude of a Stimulus

The most important determinant of a stimulus’ macroeconomic effect is its size. The recently adopted stimulus package (P.L. 110-185) increased the budget deficit by about 1% of gross domestic product (GDP). In a healthy year, GDP grows about 3%. In the moderate recessions that the U.S. experienced in 1990-1991 and 2001, GDP contracted in some quarters by 0.5% to 3%. (The U.S. economy has not experienced contraction in a full calendar year since 1991.) Thus, a swing from expansion to recession would result in a change in GDP growth equal to at least 3.5 percentage points. A stimulus package of 1% of GDP could be expected to increase total spending by about 1%.²¹ To the extent that spending begets new spending, there could be a multiplier effect that makes the total increase in spending larger than the increase in the deficit. Offsetting the multiplier effect, the increase in spending could be neutralized if it results in crowding out of investment spending, a larger trade deficit, or higher inflation. The extent to which the increase in spending would be offset by these three factors depends on how quickly the economy is growing at the time of the stimulus—an increase in the budget deficit would lead to less of an increase in spending if the economy were growing faster.

¹⁸ See 92-939, *Countercyclical Job Creation Programs*, by Linda Levine for a discussion of some of these issues.

¹⁹ See Lori Montgomery, “Obama Team Assembling \$850 Billion Stimulus,” *Washington Post*, December 29, 2008, p. A1, A30.

²⁰ This section was prepared by Marc Labonte, Government and Finance Division.

²¹ See, for example, “Options for Responding to Short-term Economic Weakness,” Testimony of CBO Director Peter Orszag before the Committee on Finance, January 22, 2008.

Thus, if the recession is mild, additional stimulus may not be necessary for the economy to revive. If, on the other hand, the economy has entered a deeper, prolonged recession, as some economists believe to be likely, then fiscal stimulus may not be powerful enough to avoid it. Since the current recession has already lasted longer than the historical average, it may end before further fiscal stimulus can be enacted. Economic forecasts are notoriously inaccurate due to the highly complex and changing nature of the economy, so it is difficult to accurately assess how deep the downturn will be, and how much fiscal stimulus would be an appropriate response.

While the magnitude of the proposed stimulus package is yet to be determined, current discussion of a package being considered by President Elect Obama and congressional leadership suggest a package about 5% to 6% of GDP. Some believe that circumstances warrant a large stimulus, and this is quite large by historical standards. Others have expressed reservations that, at least with respect to spending, it would be difficult to spend such large amounts without financing wasteful projects.

Bang for the Buck

In terms of first-order effects, any stimulus proposal that is deficit financed would increase total spending in the economy.²² For second-order effects, different proposals could get modestly more “bang for the buck” than others if they result in more total spending. If the goal of stimulus is to maximize the boost to total spending while minimizing the increase in the budget deficit (in order to minimize the deleterious effects of “crowding out”), then maximum bang for the buck would be desirable. The primary way to achieve the most bang for the buck is by choosing policies that result in spending, not saving.²³ Direct government spending on goods and services would therefore lead to the most bang for the buck since none of it would be saved. The largest categories of direct federal spending are national defense, health, infrastructure, public order and safety, and natural resources.²⁴

Higher government transfer payments, such as extended unemployment compensation benefits or increased food stamps, or tax cuts could theoretically be spent or saved by their recipients.²⁵ While there is no way to be certain how to target a stimulus package toward recipients who would spend it, many economists have reasoned that higher income recipients would save more than lower income recipients since U.S. saving is highly correlated with income. For example, two-thirds of families in the bottom 20% of the income distribution did not save at all in 2004, whereas only one-fifth of families in the top 10% of the income distribution did not save.²⁶ Presumably, recipients in economic distress, such as those receiving unemployment benefits, would be even more likely to spend a transfer or tax cut than a typical family.

²² There may be a few proposals that would not increase spending. For example, increasing tax incentives to save would probably not increase spending significantly. These examples are arguably exceptions that prove the rule.

²³ Policies that result in more bang for the buck also result in more crowding out of investment spending, which could reduce the long-term size of the economy (unless the policy change increases public investment or induces private investment).

²⁴ For the purpose of this discussion, government transfer payments, such as entitlement benefits, are not classified as government spending.

²⁵ Food stamps cannot be directly saved since they can only be used on qualifying purchases, but a recipient could theoretically keep their overall consumption constant by increasing their other saving.

²⁶ Brian Bucks et al., “Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances,” *Federal Reserve Bulletin*, vol. 92, February 2006, pp. A1-A38.

The effectiveness of tax cuts also depends on their nature. As discussed above, tax cuts received by lower income individuals are more likely to be spent. Some economists have also argued that temporary individual tax cuts, such as the 2001 and 2008 rebates, are more likely to be saved; however, evidence on the 2001 tax rebate suggests most was eventually spent, and debate continues on the effect of the 2008 rebate. Most evidence does not suggest that business tax cuts would provide significant short-term stimulus. Investment incentives are attractive, if they work, because increasing investment does not trade off short term stimulus benefits for a reduction in capital formation, as do provisions stimulating consumption. Nevertheless, most evidence does not suggest these provisions work very well to induce short-term spending. This lack of effectiveness may occur because of planning lags or because stimulus is generally provided during economic slowdowns when excess capacity may already exist. Of business tax provisions, investment subsidies are more effective than rate cuts, but there is little evidence to support much stimulus effect. Temporary bonus depreciation is likely to be most effective in stimulating investment, more effective than a much costlier permanent investment incentive because it encourages the speed-up of investment. Although there is some dispute, most evidence on bonus depreciation enacted in 2002 nevertheless suggests that it had little effect in stimulating investment and that even if the effects were pronounced, the benefit was too small to have an appreciable effect on the economy. The likelihood of the remaining provisions having much of an incentive effect is even smaller. Firms may, for example, benefit from the small business expensing, but it actually discourages investment in the (expanded) phase out range.²⁷ Net operating losses carrybacks do not increase incentives to spend, but do target cash to troubled businesses.

Mark Zandi of *Moody's Economy.com* has estimated multiplier effects for several different policy options, as shown in **Table 1**.²⁸ The multiplier estimates the increase in total spending in the economy that would result from a dollar spent on a given policy option. Zandi does not explain how these multipliers were estimated, other than to say that they were calculated using his firm's macroeconomic model. Therefore, it is difficult to offer a thorough analysis of the estimates. In general, many of the assumptions that would be needed to calculate these estimates are widely disputed (notably, the difference in marginal propensity to consume among different recipients and the size of multipliers in general), and no macroeconomic model has a highly successful track record predicting economic activity. Thus, the range of values that other economists would assign to these estimates is probably large. Qualitatively, most economists would likely agree with the general thrust of his estimates, however—spending provisions have higher multipliers because tax cuts are partially saved, and some types of tax cuts are more likely to be saved by their recipients than others. As discussed above, a noticeable increase in consumption spending has not yet accompanied the receipt of the rebates from the first stimulus package. (Note, however, that these effects do not account for the possibility of extensive delay in direct spending taking place.)

²⁷ For more information, see CRS Report RS21136, *Government Spending or Tax Reduction: Which Might Add More Stimulus to the Economy?*, by Marc Labonte; CRS Report RS21126, *Tax Cuts and Economic Stimulus: How Effective Are the Alternatives?*, by Jane G. Gravelle; CRS Report RL31134, *Using Business Tax Cuts to Stimulate the Economy*, by Jane G. Gravelle; and CRS Report RS22790, *Tax Cuts for Short-Run Economic Stimulus: Recent Experiences*, coordinated by Jane G. Gravelle. Also see *Fiscal Policy for the Crisis*, IMF Staff Position Note, December 29, 2008, SPN/08/01 [<http://www.imf.org/external/np/pp/eng/2008/122308.pdf>].

²⁸ Mark Zandi, "Washington Throws the Economy a Rope," *Dismal Scientist*, Moody's Economy.com, January 22, 2008.

Table 1. Zandi's Estimates of the Multiplier Effect for Various Policy Proposals

Policy Proposal	One-year change in real GDP for a given policy change per dollar
Tax Provisions	
Non-refundable rebate	1.02
Refundable rebate	1.26
Payroll tax holiday	1.29
Across the board tax cut	1.03
Accelerated depreciation	0.27
Extend alternative minimum tax patch	0.48
Make income tax cuts expiring in 2010 permanent	0.29
Make expiring dividend and capital gains tax cuts permanent	0.37
Reduce corporate tax rates	0.3
Spending Provisions	
Extend unemployment compensation benefits	1.64
Temporary increase in food stamps	1.73
Revenue transfers to state governments	1.36
Increase infrastructure spending	1.59

Source: Mark Zandi, Moody's Economy.com.

Timeliness

Timeliness is another criterion by which different stimulus proposals have been evaluated. There are lags before a policy change affects spending. As a result, stimulus could be delivered after the economy has already entered a recession or a recession has already ended. First, there is a legislative process lag that applies to all policy proposals—a stimulus package cannot take effect until bills are passed by the House and Senate, both chambers can reconcile differences between their bills, and the President signs the bill. Many bills get delayed at some step in this process. As seen in **Table 2**, many past stimulus bills have not become law until a recession was already underway or finished.

Table 2. Timing of Past Recessions and Stimulus Legislation

Beginning of Recession	End of Recession	Stimulus Legislation Enacted
Nov. 1948	Oct. 1949	Oct. 1949
Aug. 1957	Apr. 1958	Apr. 1958, July 1958
Apr. 1960	Feb. 1961	May 1961, Sep. 1962
Dec. 1969	Nov. 1970	Aug. 1971
Nov. 1973	Mar. 1975	Mar. 1975, July 1976, May 1977
July 1981	Nov. 1982	Jan. 1983, Mar. 1983
July 1990	Mar. 1991	Dec. 1991, Apr. 1993
Mar. 2001	Nov. 2001	June 2001

Source: Bruce Bartlett, "Maybe Too Little, Always Too Late," New York Times, Jan. 23, 2008.

Second, there is an administrative delay between the enactment of legislation and the implementation of the policy change. For example, although the stimulus package was signed into law in February, the first rebate checks were not sent out until the end of April, and the last rebate checks were not sent out until July. When the emergency unemployment compensation (EUC08) program began in July 2008 there was about a three week lag between enactment and the first payments of the new EUC08 benefit. Many economists have argued that new government spending on infrastructure could not be implemented quickly enough to stimulate the economy in time since infrastructure projects require significant planning. (Others have argued that this problem has been exaggerated because existing plans or routine maintenance could be implemented more quickly.) Others have argued that although federal spending cannot be implemented quickly enough, fiscal transfers to state and local governments would be spent quickly because many states currently face budgetary shortfalls, and fiscal transfers would allow them to avoid cutting spending.²⁹

Finally, there is a behavioral lag, since time elapses before the recipient of a transfer or tax cut increases their spending. For example, the initial reaction to the receipt of rebate checks was a large spike in the personal saving rate (see above). It is unclear how to target recipients that would spend most quickly, although presumably liquidity-constrained households (i.e., those with limited access to credit) would spend more quickly than others. In this regard, the advantage to direct government spending is that there is no analogous lag. Although monetary policy changes have no legislative or administrative lags, research suggests they do face longer behavioral lags than fiscal policy changes because households and business generally respond more slowly to interest rate changes than tax or transfer changes.

Long-term Effects

As discussed above, while a deficit-financed policy change can stimulate short-term spending, it can also reduce the size of the economy in the long run through the crowding out effect on private

²⁹ Transfers to state and local governments could be less stimulative than direct federal spending because state and local governments could, in theory, increase their total spending by less than the amount of the transfer. (For example, some of the money that would have been spent in the absence of the transfer could now be diverted to the state's budget reserves.) But if states are facing budgetary shortfalls, many would argue that in practice spending would increase by as much as the transfer.

investment. Stimulus proposals can minimize the crowding out effect by lasting only temporarily—an increase in the budget deficit for one year would lead to significantly less crowding out over time than a permanent increase in the deficit. Among policy options, increases in public investment spending would minimize any negative effects on long-run GDP since decreases in the private capital stock would be offset by additions to the public capital stock. Also, tax incentives to increase business investment would offset the crowding out effect since the spending increase was occurring via business investment.

Should Stimulus be Targeted?

It is clear that the slowdown has been concentrated in housing and financial markets to date. Some economists have argued that as long as problems remain in these depressed sectors, then generalized stimulus will only postpone the inevitable downturn. (As noted above, separate legislation to support housing and financial markets was recently enacted.) For example, Goldman Sachs predicted that by the fourth quarter of 2008 the effect of the rebates on GDP will have worn off, “at which point we (fore)see renewed stagnation in U.S. output.”³⁰ Other economists argue that if the current housing bust is being caused by the unwinding of a bubble, then it could be detrimental for the government to interfere with natural market adjustment which is bringing those markets back to equilibrium that, in the long run, is both necessary and unavoidable. And some would argue that the best way to help a troubled sector is by boosting overall demand.

Is Additional Fiscal Stimulus Needed?

The economy naturally experiences a boom and bust pattern called the business cycle. A recession can be characterized as a situation where total spending in the economy (*aggregate demand*) is too low to match the economy’s potential output (*aggregate supply*). As a result, some of the economy’s labor and capital resources lay idle, causing unemployment and a low capacity utilization rate, respectively. Recessions generally are short-term in nature—eventually, markets adjust and bring spending and output back in line, even in the absence of policy intervention.³¹

Policymakers may prefer to use stimulative policy to attempt to hasten that adjustment process, in order to avoid the detrimental effects of cyclical unemployment. By definition, a stimulus proposal can be judged by its effectiveness at boosting total spending in the economy. Total spending includes personal consumption, business investment in plant and equipment, residential investment, net exports (exports less imports), and government spending. Effective stimulus could boost spending in any of these categories.

Fiscal stimulus can take the form of higher government spending (direct spending or transfer payments) or tax reductions, but generally it can boost spending only through a larger budget deficit. A deficit-financed increase in government spending directly boosts spending by borrowing to finance higher government spending or transfer payments to households. A deficit-financed tax cut indirectly boosts spending if the recipient uses the tax cut to increase his spending. If an increase in spending or a tax cut is financed through a decrease in other spending

³⁰ Ibid.

³¹ For more information, see CRS Report RL34072, *Economic Growth and the Business Cycle: Characteristics, Causes, and Policy Implications*, by Marc Labonte.

or increase in other taxes, the economy would not be stimulated since the deficit-increasing and deficit-decreasing provisions would cancel each other out.

How much additional spending can stimulate economic activity depends on the state of the economy at that time. When the economy is in a recession, fiscal stimulus could mitigate the decline in GDP growth by bringing idle labor and capital resources back into use. When the economy is already robust, a boost in spending could be largely inflationary—since there would be no idle resources to bring back into production when spending is boosted, the boost would instead bid up the prices of those resources, eventually causing all prices to rise.

Because total spending can be boosted only temporarily, stimulus has no long-term benefits, and may have long-term costs. Most notably, the increase in the budget deficit “crowds out” private investment spending because both must be financed out of the same finite pool of national saving, with the greater demand for saving pushing up interest rates.³² To the extent that private investment is crowded out by a larger deficit, it would reduce the future size of the economy since the economy would operate with a smaller capital stock in the long run. In recent years, the U.S. economy has become highly dependent on foreign capital to finance business investment and budget deficits.³³ Since foreign capital can come to the United States only in the form of a trade deficit, a higher budget deficit could result in a higher trade deficit, in which case the higher trade deficit could dissipate the boost in spending as consumers purchase imported goods. Indeed, conventional economic theory predicts that fiscal policy has no stimulative effect in an economy with perfectly mobile capital flows.³⁴ Some economists argue that these costs outweigh the benefits of fiscal stimulus.

A main factor in another round of fiscal stimulus may be the size of the current budget deficit. Stimulus proposals for 2009 are relatively large, and some observers believe the deficit will already exceed \$1 trillion in 2009. Deficits of this magnitude could set a peacetime record relative to GDP. Although current government borrowing rates are extremely low (because of the financial turmoil), there is a fear that a deficit of this size could become burdensome to service when interest rates return to normal. A larger deficit could eventually crowd out private investment, act as a drag on economic growth, and increase reliance on foreign borrowing (which would result in a larger trade deficit). By doing so, the deficit places a burden on future generations, and could further complicate the task of coping with long-term budgetary pressures caused by the aging of the population.³⁵ In the highly unlikely, worst case scenario, if too much pressure is placed on the deficit through competing policy priorities, then investors could lose faith in the government’s ability to service the debt, and borrowing rates could spike. Many of these issues could be avoided if the elements of the stimulus package are temporary, although there is often later pressure to extend policies beyond their original expiration date.

In judging the need for an additional stimulus package, policymakers might also consider that stimulus is being delivered from two other sources. First, the federal budget has *automatic*

³² Crowding out is likely to be less of a concern when the economy is in recession since recessions are typically characterized by falling business investment.

³³ If foreign borrowing prevents crowding out, the future size of the economy will not decrease but capital income will accrue to foreigners instead of Americans.

³⁴ For more information, see CRS Report RS21409, *The Budget Deficit and the Trade Deficit: What Is Their Relationship?*, by Marc Labonte and Gail E. Makinen.

³⁵ See CRS Report RL32747, *The Economic Implications of the Long-Term Federal Budget Outlook*, by Marc Labonte.

stabilizers that cause the budget deficit to automatically increase (and thereby stimulate the economy) during a downturn in the absence of policy changes. When the economy slows, entitlement spending on programs such as unemployment compensation benefits automatically increases as program participation rates rise and the growth in tax revenues automatically declines as the recession causes the growth in taxable income to decline.

Second, any consideration for additional stimulus has to include the cost of that stimulus. According to the Congressional Budget Office (CBO), the total deficit in FY2008 was \$455 billion, or 3.2% of gross domestic product, sharply higher than the FY2007 deficit of \$162 billion. In January 2008, CBO had projected that under current policy the budget deficit would increase by \$56 billion in 2008 compared to 2007. When the cost of the February 2008 stimulus package and part of the cost of financial market intervention in the fall of 2008 is added, the increase in the deficit for one year rose by nearly \$300 billion.³⁶ Additional fiscal stimulus in 2009 could cause similar increases in year over year deficits from FY2008 to FY2009.

Third, the Federal Reserve has already delivered a large monetary stimulus. By the end of April 2008, the Fed had reduced overnight interest rates to 2% from 5.25% in September 2007.³⁷ On December 16, the interest rate was lowered to a targeted range of 0% to 0.25%. Typically, lower interest rates stimulate the economy by increasing the demand for interest-sensitive spending, which includes investment spending, residential housing, and consumer durables such as automobiles. Yet, the potential for stimulus caused by lower interest rates can be limited if tight credit markets constrain borrowing. In addition, lower interest rates can stimulate the economy by reducing the value of the dollar, all else equal, which would lead to higher exports and lower imports.³⁸

One might take the view that the Federal Reserve has chosen a monetary policy that it believes will best avoid a recession given the actions already taken. If it has chosen that policy correctly, an argument can be made that an additional fiscal stimulus is unnecessary since the economy is already receiving the correct boost in spending through lower interest rates and through the first stimulus package. In this light, additional fiscal policy would be useful only if monetary policy is unable to adequately boost spending—either because the Fed has chosen an incorrect policy or because the Fed cannot boost spending enough through lower interest rates to avoid a recession, and direct intervention in financial markets is not adequate.³⁹

Finally, some economists argue that if the root of the problem is concentrated in the housing and financial sectors, the economy is unlikely to return to sustainable expansion until those problems

³⁶ In March 2008, CBO projected the budget deficit for FY2008 compared to FY2007 to increase to \$193 billion, largely reflecting the stimulus package of \$153 billion, offset by some other small reductions. Note also that, in January, CBO estimated that if supplemental military spending to maintain current troop levels overseas and an alternative minimum tax patch are enacted, and expiring tax provisions are extended, the 2008 deficit could increase by \$98 billion in total compared to 2007. This projection was made in the absence of stimulus legislation and would increase the \$56 billion deficit increase by \$42 billion.

³⁷ For interest rate changes see CRS Report 98-856, *Federal Reserve Interest Rate Changes: 2001-2008*, by Marc Labonte and Gail E. Makinen.

³⁸ For more information, see CRS Report RL30354, *Monetary Policy and the Federal Reserve: Current Policy and Conditions*, by Gail E. Makinen and Marc Labonte.

³⁹ Fed Chairman Ben Bernanke may have hinted at the latter case when he testified that “fiscal action could be helpful in principle, as fiscal and monetary stimulus together may provide broader support for the economy than monetary policy actions alone.” Quoted in Ben Bernanke, “The Economic Outlook,” testimony before the House Committee on the Budget, January 17, 2008.

are solved. (These problems were addressed in major housing and financial legislation in 2008, as described above, but it remains to be seen whether they have been solved.) If so, fiscal stimulus may, at most, provide a temporary boost as long as those problems are outstanding, but cannot singlehandedly shift the economy to a sustainable path of expansion. For example, the first stimulus package, enacted in the first quarter of 2008, did not prevent the economy from deteriorating in the third quarter of 2008.

Interventions for Financial Firms and Markets

A number of direct interventions in the economy occurred in 2008 which could be seen as a type of stimulus, in part because of credit problems. One indication of restricted credit despite stimulative Federal Reserve monetary policy was the failure of mortgage rates to fall significantly. Instead, the spread between Treasuries and Government Sponsored Enterprise (GSE) bonds remained elevated over the summer. The newly created Federal Housing Finance Agency (FHFA) cited the persistence of this wide spread as a major factor in its decision to place the GSEs in conservatorship in September. During the week of September 15-19, financial markets were further disturbed by the bankruptcy of investment bank Lehman Brothers and Federal Reserve intervention on behalf of the insurer AIG. These actions eroded market confidence further, resulting in a sudden spike of the commercial paper rate spread from just under 90 basis points to 280 basis points, a spike that in times past might have been called a panic. If financial market confidence is not restored and private market spreads remain elevated, the broader economy could slow more due to difficulties in financing consumer durables, business investment, college education, and other big ticket items.

In September 2008, Administration and Federal Reserve officials with the bipartisan support of the Congressional leadership, announced a massive intervention in the financial markets, requesting authority to purchase up to \$700 billion in assets over the next two years. The Treasury had also provided insurance for money market funds, where withdrawals have been significant. Congressional leaders and other Members raised a number of issues and made some additional proposals, which included setting up an oversight mechanism, restrictions on executive compensation of firms from which assets are purchased, acquiring equity stakes in the participating firms, and allowing judges to reduce mortgage debt in bankruptcies (not included in the final Act).

Later, in October 2008, legislation (P.L. 110-343) was enacted to allow an initial \$250 billion of financing with an additional \$100 billion upon certification of need, with Congress allowed 30 days to object to the final \$350 billion. The plan has oversight by an Inspector General, audit by the Government Accountability Office, setting standards of appropriate compensation, and providing for equity positions in all participating companies. The final package also added an expansion of deposit insurance coverage. There remained, however, concerns about how to price acquired assets in a way that balances protection of taxpayers with providing adequate assistance to firms. The Treasury had indicated use of a reverse auction mechanism to purchase mortgage backed securities, where companies will bid to sell their assets. It is not clear how well such an auction would work with heterogeneous assets.⁴⁰

⁴⁰ See CRS Report RL34707, *Auction Basics: Background for Assessing Proposed Treasury Purchases of Mortgage-Backed Securities*, by D. Andrew Austin.

The Treasury subsequently announced that it would use the first \$250 billion authorized to purchase preferred stock in financial institutions and has now indicated it will use subsequent funds for capital injections, consumer credit (such as auto loans, student loans, small business loans, and credit cards) and mortgage assistance.⁴¹ Congressional leaders urged Treasury to provide \$25 billion in aid to U.S. auto manufacturers.⁴² On November 10, a restructuring of government assistance to AIG was announced which increased the amount at risk from \$143.7 billion to \$173.4 billion, extended the loan length and reduced the interest rate. The Federal Reserve also announced on October 14 that it would begin purchasing commercial paper.⁴³ News reports indicated the Federal Deposit Insurance Corporation (FDIC) had a plan, supported by many congressional Democrats, to offer financial incentives to companies that agree to reduce monthly mortgage payments, but that this plan was opposed by the Bush Administration.⁴⁴ On November 23, the government announced a plan to assist Citicorp, and on November 25 the Federal Reserve revealed plans to purchase \$200 billion in asset backed securities through the Term Asset-Backed Securities Loan Facility (TALF); these securities are based on auto, credit card, student and small business loans. The Federal Reserve also announced a plan to purchase \$600 billion of mortgage related securities owned or guaranteed by the housing GSEs.

Much of the intervention up to this point had been in the financial markets. However, the Detroit Three automakers (GM, Ford, and Chrysler) asked for \$34 billion in loans to forestall bankruptcy. After Congress did not adopt an emergency loan of \$14 billion in a special post-election session in December 2008, the Administration announced, on December 19, that it would provide \$17.4 billion from TARP: \$9.4 billion to GM and \$4 million to Chrysler. An additional \$4 billion would be made available for GM if the remaining \$350 billion in TARP funds is approved. On December 30, \$6 billion in TARP funds were provided for GMAC, the auto financing company.

Among the issues of concern with financial interventions is whether an ad hoc, case-by-case intervention is likely to be a successful strategy. A case-by-case strategy can create uncertainty and also moral hazard (causing firms to undertake too much risk if they expect to be rescued). The creation of TARP represents a shift to a more broad-based approach. The approach of a broad based intervention could take the form of the purchase of troubled assets (as originally proposed) or the injection of capital (such as the Treasury's decision to purchase preferred stock).⁴⁵

⁴¹ Testimony of Interim Assistant Secretary for Financial Stability Neel Kashkari before the House Committee on Oversight and Government Reform, Subcommittee on Domestic Policy, November 14, 2008.

⁴² David M. Herszenhiorn, "Chances Dwindle on Bailout Plan for Automakers," *New York Times*, November 14, p. A1.

⁴³ Federal Reserve Board Press Release, October 14, 2008.

⁴⁴ Buinyamin Appelbaum, FDIC Details Plan to Alter Mortgages, *Washington Post*, November 14, 2008, p. A1.

⁴⁵ These issues are discussed in more detail in CRS Report RL34730, *The Emergency Economic Stabilization Act and Current Financial Turmoil: Issues and Analysis*, by Baird Webel and Edward V. Murphy.

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