

## Will the Rescue Plan Work? What Might it Accomplish?

Philip Abbott and Ken Foster, Department of Agricultural Economics, Purdue University

On Friday, October 3, 2008 Congress passed legislation to allow the Treasury to spend up to \$700 billion to purchase mortgage related securities, bailing out financial markets. Why this action was necessary, and what it is hoped to accomplish requires that we understand the distinction between a recession and a credit crisis. The bailout is intended to alleviate the current freezing of credit markets, and may reduce the severity or longevity of a recession but not prevent it. It is targeted at the short term problems of financial markets, stemming from illiquidity, rather than reversing through subsidies any insolvencies, and should be judged accordingly.

A recession is defined by most as a two consecutive quarters of declining GDP (negative economic growth). The U.S. economy has been weak for over a year now but statistically has avoided the distinction of being in a defined recession. The government has been cutting interest rates since August, 2007 and stimulus checks were distributed in the second quarter of this year. These two actions were undertaken to stave off an impending recession by fueling economic activity to boost GDP. By most measures they were quite successful until very recently.

Recession is actually a relative term used to describe when an economy gets particularly weak and is not really a discrete event. Recessions can be mild, like they were in 2001 and 1990-91, or they can be more severe, as they were in the 1980-82 double dip recession and the 1973-75 recession. Worries about a depression have been expressed in the media, and it is even more difficult to say whether an economy is experiencing a depression or not because economic depression is not formally defined. However, to put the current situation in context, in the Great Depression the Dow Industrial Average declined 89.2 percent from 1929 to 1933. Over that same period of time, GDP fell by a relatively smaller 26 percent. One of the problems is that people can focus too much on the performance of the stock market as the symptom of economic activity and not enough on GDP. GDP had recovered its 1929 level by 1937 but the Dow did not return to its 1929 level until 1954. What happens to GDP is probably the metric that policy makers ought to be focusing on the most in terms of how well government policy and intervention is succeeding.

Recession is a medium term problem in an economy -- the term implies sustained decline in GDP. By contrast, a credit crisis is a short term problem because its implications are felt immediately. In a credit crisis banks are not willing or able to loan to one another and credit markets are frozen. The result is that firms eventually cannot obtain operating loans and the economy comes to a halt (not just a slow down or recession). Lending that occurs in a true credit crisis likely takes place at very high interest rates to cover the perceived high probability

of default. The repercussions of such a crisis would influence economic growth through both reductions in consumer spending, and probably more importantly, reductions in investment. Solution of a credit crisis – the savings and loan crisis of the late 1980s – helped to keep the 1990-91 recession mild. The severity of the depression and the prolonged Japanese recession beginning in 1990 were in part the consequence of an unresolved credit crisis.

A symptom (indicator) of credit availability is the London Interbank Rate (LIBOR) which is the rate at which private banks loan to one another for terms of one to three months duration. It is usually close in value to the discount rate offered by the U.S. Federal Reserve Bank. The discount rate right now is at about 1.5 percent and LIBOR would usually be expected to hover around 2.0 percent. During the recent crisis the LIBOR has jumped to over 4.5 percent. What this implies is that a bank could borrow from the Federal Reserve at 1.5 percent and lend at 4.5 percent; but apparently they are not doing so because such arbitrage should quickly close the gap. The persistence of this gap can be attributed to the risk premium that the market currently places on such transactions. It reflects the uncertainty in financial markets about solvency (or liquidity) of prospective borrowers, in this case other commercial banks.

The main purpose of the recent Congressional action was to alleviate the credit crisis and not to prevent recession. One indication that the recent policy maneuvers are working will be whether the discount rate and the LIBOR rate begin to converge. Immediately following the bailout (one week later) this has not yet happened.

There are at least two explanations why banks might be reluctant to lend to each other. The text book explanation is bank runs. That is, in a time of economic crisis a large number of depositors might be motivated to demand their assets in the form of cash. The banks do not want to risk the inability to cover their obligations in such an event and therefore hoard funds rather than lend to other banks. Given the existence of the Federal Deposit Insurance Corporation that insures bank deposits (the limits of which were recently increased from 100,000 to 250,000 in the bailout legislation) it is unlikely that fear of a bank run is the current motivation for hoarding cash assets. A more likely cause is the uncertainty concerning the value of assets that other banks hold, and to what degree their balance sheet is heavily affected by holdings of exotic mortgage backed assets which are at the root of the current crisis (see the paper by Charavarty and Foster in this series for more detail). Banks may fear that they might be lending to a financial institution that is going to soon be insolvent and their funds will be tied up in lengthy and uncertain bankruptcy proceedings. To the extent that the current Congressional action makes money available for removing the bad assets from bank portfolios, it will bolster confidence in bank balance sheets by providing liquidity to the industry and consequently alleviate the credit crisis.

If the actions of Congress, the Treasury Department, and the Federal Reserve alleviate the credit crisis that does not mean a recession will be prevented. In all likelihood the economy will suffer a recession anyway. The real question is how severe and how long lasting the recession is going to be.

The problem that the Federal Reserve and the Treasury Department are trying to solve using the bailout is one of liquidity in markets. An example from a mortgage circumstance is useful to demonstrate the issue of liquidity. Suppose someone purchased real estate one year ago at

a cost of \$200,000 and being the reckless borrower they borrowed 100 percent of the value and provided no down payment. If in the intervening year the value of the real estate decreased by 15 percent, then the bank holding mortgage could only regain \$170,000 if it were forced to foreclose. What is this mortgage worth on the bank's balance sheet? Alternatively, at what price could the bank sell this mortgage to another bank? Or to the government? The answer of course is that it depends on the probability of default on the part of the borrower. If the probability of default is only 5 percent, then the mortgage is still worth \$198,000 to the bank. If this is a subprime loan and the bank knows there is a 25 percent chance of default the mortgage is still worth about \$192,500 to the bank. If default is certain the value is still \$170,000 – the value of the house used as collateral (ignoring transactions costs to implement foreclosure). If the homeowner needed to sell the house immediately, or the bank needed to sell the underlying mortgage immediately, the price could be much lower due to the reduced time value of the option to sell – that these assets cannot be immediately turned into cash (except at steep discounts) makes them illiquid.

In today's frozen credit market there are no buyers for mortgage backed securities. If banks don't trust the other banks, if the mortgage market has shut down, or if the lending bank has to sell the house because it is going in foreclosure next week and needs the proceeds immediately, then the related mortgage security is worth nothing in a balance sheet sense. Consequently, what the government is attempting to do is make the hypothetical real estate asset from above trade not at zero (or fire-sale prices), but at something closer to \$170,000-\$192,500. The hope for the government is that it can buy mortgage related securities at low prices, stimulating the market to unfreeze, and will ultimately be able to resell those securities at this medium term value and thereby create a greater time value for the option to sell.

In closing, the most positive note in the news recently and a sign that maybe the credit crisis will be solved is that Wells Fargo and CitiBank fought briefly over Wachovia's assets. There are valuable assets on that bank's balance sheets, but these may be quite illiquid. If someone has the ability to wait out the crisis, then these may be good investments. Both Wells Fargo and CitiBank wished to be holding those assets because prices they currently offered for Wachovia are well below the medium to long-term value.