

# Market Update: Special Financial Analysis

## Department of Economic Analysis

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There have been many questions about the recent financial problems and proposed bailout plan. The following articles look at how this situation developed, how long it may take to resolve without government intervention and the potential impact on U.S. agriculture:

- The General Economy: Bob Young, Chief Economist
- Why All the Financial Bailouts?: Stephanie Gambrell, Domestic Policy Economist
- The Financial Crisis and U.S. Agriculture: Terry Francl, Senior Economist

### The General Economy

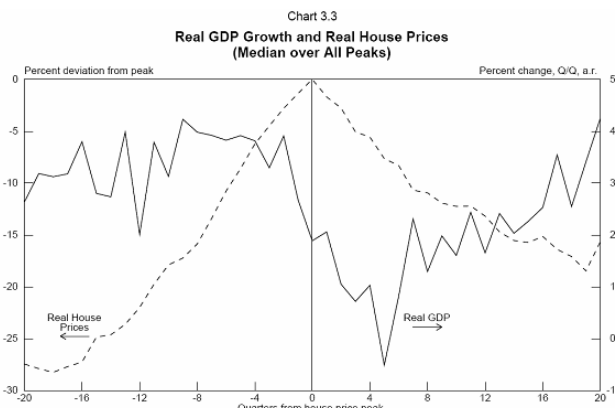
By Bob Young, Chief Economist

Regardless of how one may or may not feel about the government takeovers of Freddie Mac and Fannie Mae, or AIG, the collapse of Lehman Brothers or any of the other maelstrom of financial news of late, the fundamental cause still goes back to the housing market. If housing prices had just continued to escalate (whether or not that made any sense) literally none of this would be happening. Mortgage companies would still have the equity of the home to fall back on. Homeowners would have equity they would want to protect and thus would not be so willing to move into default and eventually foreclosure. Debt swaps would still be trading and life would be continuing in relatively normal fashion.

But the housing market has been in a substantial decline and we are seeing estimates of the number of home mortgages where the value of the loan exceeds the current house price exceeding 8 million units. The equivalent of the Dow-Jones index for the financial sector was just under 10,000 as recently as the spring of 2007 is now down in the 6,000 range. A very legitimate question at this point, is what would likely happen in the housing market if no further government action were taken.

In what now seems like a very prescient move, researchers at the Federal Reserve conducted a study in September, 2005 to look at housing price booms and busts over the previous three

decades not only here in the United States but in 17 other countries as well. The intent was to get some notion of how these markets behave on the back side of a boom situation. Recall housing prices in the United States hit their peak in the last quarter of 2005.



Source: House Prices and Monetary Policy: A Cross-Country Study  
(<http://www.federalreserve.gov/pubs/ifdp/2005/841/ifdp841.pdf>)

This report titled “House Prices and Monetary Policy: A Cross-Country Study” (available at: <http://www.federalreserve.gov/pubs/ifdp/2005/841/ifdp841.pdf>) looked at housing price changes for countries ranging from Australia to the United Kingdom, from the United States to Denmark. Countries ranged in their homeownership rates from a low of only 42% in Germany to 80% in Italy.

The researchers identified 44 housing price peaks between 1970 and 2004 in these 18 countries. The median increase during a cycle of real house prices in this sample was 28%. The median decline from the cycle's peak was 20%. The median time period from the peak to the bottom of the trough was 20 quarters.

If we apply this historical data to our current situation, one would expect the housing price decline to continue through 2010. Frankly, with the breadth and depth of our current problems, we would probably be appreciative if things cleared themselves out by 2011.

This same Fed study also looked at how the general economy or Gross Domestic Product (GDP) of these countries performed as they moved through the housing cycle. During the build-up stage of the cycle real GDP growth averaged in the 3 to 3.5% range, beginning to show a weakening in the last few quarters before the housing price peak. Through the two years after the peak however, real GDP growth slowed to an average of less than 1%.

Prices for existing homes are already down 15%. At current sales rates, there is a full year's supply of these homes on the market. As an example, Mark Zandi, the Chief Economist for Moody's Economy.com, is anticipating a further 10% decline in housing prices.

This overhang of inventory and the very real prospect of further housing price declines have nearly frozen the financial markets. Banks and investors are simply not willing to take on the risks of owning mortgage backed securities. Unfortunately, in the case of many financial institutions, these securities make up a significant portion of their reserves. Investors are now only willing to purchase these securities with very substantial discounts. For example, the Wall Street Journal reports that Merrill Lynch recently sold some of these debt products originally valued at \$30.6 billion for \$6.7 billion – essentially twenty cents on the dollar. Assuming these kinds of security write-downs, lending institutions have to either raise lots of additional capital or essentially stop writing

loans. Until the market can find some way to value these notes – such as through a government backed auction or other market – the credit system in the United States and literally around the world is going to move more and more toward simply locking up. If it does, housing price drops of 30, 40, even 50% may well be the least of our problems.

As mentioned at the outset, you may not like it, but one way or another, some major action is needed and needed soon to get some stability and liquidity back in the system.

Why All the Financial Bailouts?  
Stefhanie Gambrell, Domestic Policy  
Economist

At this point in time, much of the American public is wondering – How did we get here, and what does all this mean? Many financial institutions are on shaky ground, and the government has bailed out several of the larger entities. First it was the assistance in the sale of Bear Stearns, then the Fannie Mae and Freddie Mac rescue, a loan to American International Group, and now there is a much larger bailout package in the works. So, why did this happen?

Admittedly, there are several major factors that contribute to the current economic situation. However, everyone knows that the housing market is the main issue. The gist of the problem is that everyone in the United States became over excited about the run-up in home prices. There was an incentive to get a large number of individuals into homes and the mortgages that come with them. Consumers over extended themselves and lenders encouraged them to do so, and often times banks did not even verify borrowers' income levels, leaving home owners with a mortgage that they could not afford.

To make matters even worse, homes with new mortgages, or refinanced mortgages, were worth more on paper than they were in reality, and many homeowners could not afford to sell their homes at a loss. On the other hand, home prices

had reached a level where the buyers in the market simply could not afford the homes at the asking price, which led to an excessive number of homes in inventory. Prices had to fall. And they did.

So, where do the financial institutions come into play, and why did the government need to help them? After a bank (like Wells Fargo) extends a mortgage to a homeowner, that bank will often turn around and sell the mortgage to a financial institution (like Fannie Mae). This allows the bank to remove the debt from their books, free up more capital, and facilitate even more loans. Financial institutions play a very big role in this secondary lending market and own a large number of the mortgages in United States. In fact, Fannie Mae and Freddie Mac owned 50% of the mortgages in the country.

To add another layer of complication, these financial institutions would then bundle many of these mortgages into a type of investment package called a Residential Mortgage Backed Security (RMBS). These securities were sold to investors on the open market, similar to stocks and bonds. Due to the success of the housing market, RMBS's made their way into many investment portfolios for a variety of individuals and businesses, similar to commodities when those markets are performing well.

Now we take a look back at the homeowners who cannot afford their mortgages and stop paying their note. Their monthly payments on the mortgage do not make their way through the chain to provide a return on the RMBS investment, and the financial institutions are left with bad debt on their books. As time passes and more mortgages fail, these institutions are left with little to no liquid assets, causing a freeze in lending. At that point, the lack of capital and ability of to extend credit causes interest rates to rise, and the uneasiness about the economy causes extreme volatility in the markets.

So what does this mean for everyone? There are many individuals who made smart personal financial decisions with their mortgages and their credit. Many people deliberately chose not to get in over their heads by taking on more debt than they could handle, and some banks and financial institutions were much more cautious with their lending practices. All of this market turmoil and worry about taxpayer burden is definitely tough to swallow. Despite the fact that many did not bring this upon themselves, there is no doubt that these poor mortgages and investments touch everyone's life in some way – whether it is via retirement and investment funds, the interest rates utilized on any line of credit, or the ability to even open a line of credit.

While our current situation has been deemed the most profound financial crisis since the stock market crash in 1929, these bailouts are definitely not uncharted territory. Most people remember the Savings and Loan crisis of the 1980's and 1990's, and the agriculture sector can definitely remember the government bailout of the Farm Credit System in the 1980's. This was almost the same situation, with the exception that farm land was the main culprit. Those land values became over valued just like homes, and the Farm Credit System was left with too much bad debt to survive when the investment bubble popped.

Ultimately, the current government intervention will provide liquidity to the credit market, help housing prices and markets to stabilize, and help restore faith in the system. These are things that were taken for granted for a long time, but they are necessary to every business, especially agriculture. While the agriculture sector is fundamentally strong, including Farmer Mac and the Farm Credit System, we would hate to see a day when banks are in such bad shape that they cannot even extend operating loans to farmers.

In the end, we are left with one of the most important questions – How do we prevent this from happening again? The Administration and Congress still have much more work to do on that front.

## The Financial Crisis and U.S. Agriculture

By Terry Francl, Senior Economist

The financial melt down in the United States that started with the sub prime mortgage crisis has lead to a bailout package proposed by the Administration under the leadership of Treasury Secretary Paulson and currently under consideration by Congress. Congress is negotiating the details of the bailout proposal with the Administration and internally – basically the bi-partisan aspects of any agreement. While the amount of the proposed bailout is high, \$700 billion, it is unclear what the ultimate cost will be. To that end, a review of past government bailouts can be informative.

1933 – The Roosevelt Administration creates the Home Owners Loan Corporation and allocates \$3 billion to purchase and refinance home mortgages to stem foreclosures. The government ultimately recorded a small gain when the Corporation was disbanded in 1951.

1971 – Congress guaranteed \$250 million in bank loans to Lockheed Aircraft, then the nation's largest defense contractor, to preclude the company from slipping into bankruptcy. Made a small profit.

1974 – Congress allocated \$7 billion in operating subsidies to the Penn Central railroad. The resulting net loss was calculated to be approximately \$3 billion.

1975 & 1978 – First, a \$2.3 billion short-term loan to New York City and second \$1.65 billion in guaranteed bonds. No costs to the government other than the implicit value of the loans and guarantee.

1980 – A \$1.5 billion loan guarantee to the Chrysler Corporation. Government made a \$311 million profit from the sale of warrants.

1984 – Congress takes over Continental Illinois National Bank and Trust. The FDIC injects \$4.5 billion to purchase bad loans. \*

1987 – The Farm Credit System, at the time FLBs and PCAs, borrowed \$1.26 billion in the form of government guaranteed loans. All principal and interest was repaid ahead of schedule.

1989 – Congress establishes the Resolution Trust Corporation to deal with the Savings and Loan crisis. The ultimate cost was estimated to be \$150 billion.

1998 – The government brokered a \$3.6 billion private bailout of the Long-Term Capital Management hedge fund. No government funds were involved.

2001 – After the September 11<sup>th</sup> attack on the World Trade Towers congress authorizes \$5 billion in cash to shore up U.S. airlines and follows with \$10 billion in loan guarantees. No estimate of the final cost to government.

Starting in 2008, the following government actions have been taken:

March – The Federal Reserve guarantees \$28.8 billion of Bear Stearn assets in conjunction with the government sponsored sale to JP Morgan/Chase & Company.

July – Federal regulators seize the assets of IndyMac Bank and the FDIC injects \$8.9 billion from its insurance fund.

Sept – The Treasury provides up to \$200 billion into Fannie Mae and Freddie Mac, \$100 billion each, and sets up a temporary conservatorship.

Sept – The Federal Reserve provides insurer AIG a two-year secured loan of up to \$85 billion.

Obviously no one knows what the costs of the 2008 actions to date may ultimately total nor is there any good way to estimate the actual costs of the estimated \$700 bailout currently being

debated in Congress. As seen above, the government sometimes recoups all or a portion of the commitments, but that knowledge only comes after the fact, sometimes many years later.

### **Potential Impact on Agriculture**

The U.S. agricultural sector is currently in a good financial condition at the farm level. Certainly individual producers have their own particular financial situation, but the overall agriculture balance sheet is very strong. Currently the USDA is projecting record high farm income in 2008. Another measure is the debt-to-asset ratio, which is at a modern time low of 10%. However, the fallout from the general financial malaise is being felt worldwide, especially in countries that may be already facing slowing economies due to the high price of energy. This will most likely moderate the demand for agriculture products and ingredients, reduce the demand for U.S. agricultural exports and ultimately affect U.S. farm prices. Likewise, a slower domestic economy would also weigh on the demand for farm commodities and prices.

Within the United States the supply of credit is being impaired, which also affects the cost of credit. The gap between T-bill rates and the best commercial paper is near an all time high. This is already affecting some agri-business companies as reflected by recent developments in the fertilizer sector. Fertilizer prices have basically doubled in the past two years and continue to rise. Farmers are currently being asked to make commitments for their 2009 fertilizer needs and to pay a substantial portion to that commitment, sometime 100%, up front. What is happening is that the credit function of these transactions is being shifted from the fertilizer producers and retail dealers to the farmers. The net result is that it increases the farmers cost.

A similar type of thing is happening with respect to the commodities that farmers sell to elevators and processors. In this case the farmers are not being asked to provide more credit but are being offered a lower price generally due to the higher basis – the difference between the futures price and the local cash price. In these situations the net impact of either the higher cost or lower prices is the same – less income.

There are many factors other than just credit availability affecting the returns to U.S. agriculture, but the current financial instability simply serves to exacerbate the already volatile input/output price situation. So the sooner action can be taken to stabilize the credit market the better it will be for agriculture and the country as a whole.

### **Summary**

This is not the first time that the government has been asked to step in and help out either companies or entire industries. While in a free-market system, government should be the source of last resort only if and when it becomes apparent that the repercussions and cost of failure go far beyond the individual companies or entities involved. As cited above, that has happened on a number of occasions in the past. It is always a judgment call as to when to step in and how much support should be given. That is what the Administration and Congress is currently doing in their discussion about the implementation of a bailout plan. Whatever their conclusion, it should be done with speed and clarity for the people of the U.S. and the world.

\* For full disclosure purposes readers should know that this author was working for Continental Illinois National Bank and Trust as an agricultural economist in 1984.



**American Farm Bureau Federation**