



**Bank
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Group**

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NAUSEA, HEARTBURN, INDIGESTION, UPSET STOMACH, FANNIE, FREDDIE

On Sunday, the U.S. Treasury announced a comprehensive plan to once and for all resolve the problems surrounding Fannie Mae and Freddie Mac (our first reaction and the details of the plan can be found in our report, *Fixed Income: U.S. GSE Bailout and Implications*, here: http://www.td.com/economics/special/el0908_bailout.pdf). We have taken a day to digest the issue further. The U.S. government, on the other hand, will take some time to fully digest their takeover of Fannie Mae and Freddie Mac – with the strong possibility that indigestion in financial markets will continue for some time to come.

Make no mistake. This is a seismic shift in the structure of the U.S. mortgage market. Fannie and Freddie own or guarantee half of all U.S. mortgages. Their stocks and debt are widely held by banks and investors all over the world. The large share of their debt held by foreign central banks meant any failure risked jeopardizing foreign holdings of all U.S. assets. This removes from the table the possibility that the U.S. government could let Fannie and Freddie fail. It replaces the risk of that catastrophic event, however, with the reality of the cost of an explicit U.S. government guarantee to serve as both the lender of last resort to the mortgage market – albeit a few

HIGHLIGHTS

- **The de facto government takeover of Fannie Mae and Freddie Mac removes a large downside risk from the table.**
- **Our forecasts assumed a negligible chance the government would allow these agencies to fail and a likely chance something of this magnitude would be needed.**
- **Therefore, this does little to change our U.S. economic forecast.**
- **This was a necessary action to reconstitute the financial system.**
- **But, it does not change the recessionary dynamics underway, it does not change the need for a further 5-10% drop in home prices over the next year to work off the large inventory of homes, nor do we think the impact on mortgage rates will be enough to make potential homebuyers reenter the market and look past the expectation for ongoing home price declines.**

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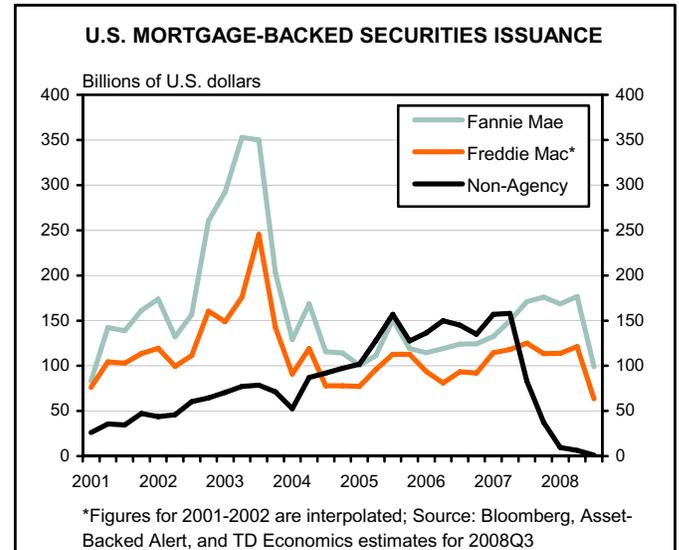
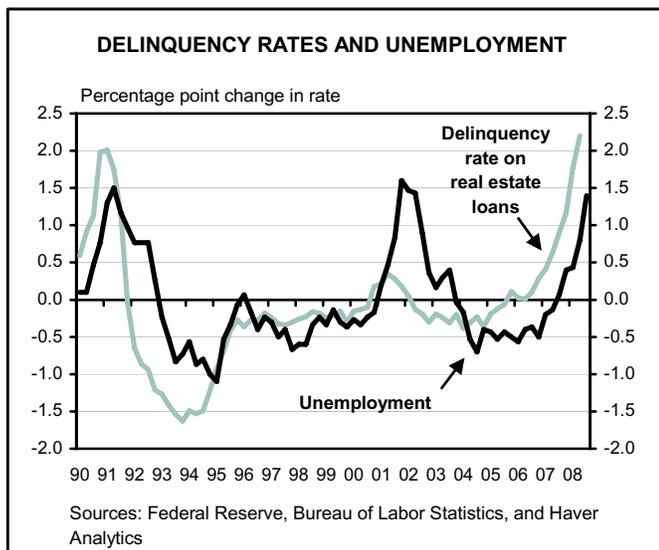
steps removed from the front lines – as well as the buyer of last resort for the securities fashioned from those mortgages. It is not far from the truth to say the U.S. Federal Government is now the U.S. mortgage market. The private sector does not have the capital to buy mortgages from banks so the U.S. government will. The private sector does not have sufficient demand to purchase the mortgage-backed securities (MBS) these mortgages become, so the U.S. government will.

However, this action has not fundamentally altered our fairly pessimistic forecast for the U.S. economy. We had

placed a very low probability on the government actually allowing these agencies to fail and a much higher probability on the likelihood for further government actions and money to be directed at this problem as we now have. The hope is this bold move will inspire confidence and jumpstart the moribund mortgage market. But even if the credit crunch abated overnight – and this will not do that – the U.S. still has the impact of the existing recession to deal with.

The Basics

For those who read our July report, released when the capital woes of Fannie and Freddie first spooked the markets, the Treasury's actions and the details of their plan were not a surprise (see *Can All the Kings Men Put the U.S. Financial System Back Together Again* here: http://www.td.com/economics/special/rk0708_credit.pdf). We estimated the costs of a government bailout could be as high as \$300bn. The Treasury has announced they will provide up to \$100bn in capital to each entity, as well as purchase \$5 billion in the GSEs' mortgage-backed securities (MBS) now and an unspecified amount in the future, plus an emergency line of credit available if needed. The upfront cost should likely be only about one-third to one-half of that \$300 billion mark, when including capital injections and Treasury purchases of MBS debt. However, all of these actions bring potential returns to the Treasury in terms of stock ownership, dividends, fees, capital gains on the agency debt, etc, so it is still possible the ultimate costs will be even less, and the Treasury could even turn a profit in the long-run. The point is that the U.S. government is



not liquidity constrained and can backstop these operations for quite some time.

Moreover, a good life lesson is if you are going to throw money down a hole, make sure it's your hole. Therefore, the two GSEs have been placed in conservatorship – meaning Federal regulators are now in charge of the day-to-day operations of Fannie and Freddie – and hold \$1 billion in senior preferred shares of each organization and warrants to own 79.9% of their common stocks, as well. In July, we argued the next two steps would be the government owning preferred shares, followed then by outright government takeover should things get worse, with the ultimate aim being to maintain the functions of Fannie and Freddie and support bondholders regardless of the implications for stockholders. The government has those preferred shares, options for more stocks, and used the conservatorship structure to stop just a hair shy of outright takeover.

Below are a number of related issues, however, that we feel are still not adequately appreciated or understood.

So what is this supposed to do?

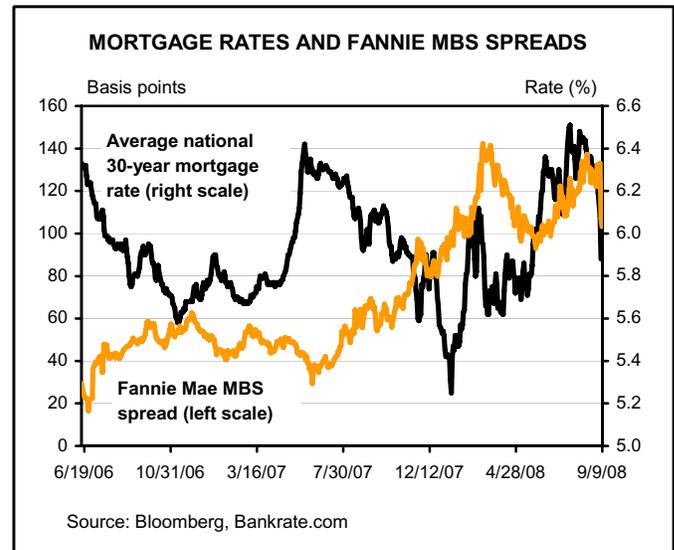
To understand this, as well as the possible limitations to the plan, we should understand the four-steps involved in mortgage securitizations. These are:

1. Family buys a home
2. Bank makes a loan
3. Bank sells the loan to a securitization firm and gets cash now it can lend back out
4. Securitization firm sells mortgages to investors in the form of MBS

Working in reverse through this food chain then, investor demand for privately-issued MBS dried up in the fall of 2007. Meanwhile, demand for MBS from Fannie and Freddie began to show signs of wobbling since mid-July, with Federal Reserve data showing foreign central banks pared their holdings by about \$20 billion. Bringing Fannie and Freddie under the official U.S. government umbrella means their debt is now explicitly just as safe as Treasuries, and this sparked a rally in Fannie and Freddie MBS as demand grew and yields fell. Fannie and Freddie will also be allowed to continue to buy mortgages and MBS through the end of 2009, so this will continue to provide some further demand for these products. And most importantly, the Treasury has also promised to buy \$5 billion in Agency MBS now and an indeterminate amount as time goes by, meaning the U.S. government is prepared to buy as much or as little agency debt as necessary to ensure ample demand. One way or another, there will be a buyer. There is no guarantee; however, this demand will come from the private sector.

In spite of the rally in Agency MBS, there was little change in the private MBS market, so the U.S. government remains the only game in town for securitizing new mortgages and filling the role in step 3 above. The Treasury will also ensure Fannie and Freddie have the capital to continue to finance their operations, even if the private sector is unwilling to lend to them. Moreover, the existing and unchanged rules for Fannie and Freddie prevent them from buying or guaranteeing most subprime or alt-A loans, so the riskiest U.S. mortgages get no direct support from this government securitization channel, and they are also precluded from involvement with jumbo loans. Through 2009, jumbo loans are all loans greater than \$417,000 for a single-family home, or in designated high-cost areas, loans worth more than \$729,750 (or 125% of the area's median home price, whichever is less). After 2009, this limit reverts to simply \$417,000.

So any U.S. bank which lends for a conventional mortgage will be able to have that loan bought or guaranteed by one of the Agencies, making banks potentially more willing or able to make the loan in step 2. However, this is not unlimited. Fannie and Freddie still have limits to the amount they can outright own so if the private MBS securitization market does not return, sizeable constraints will remain. And to reiterate, this will only be lending for those with prime credit ratings and ample down payments.



And finally, the only way this action filters all the way down to step number 1, which will be necessary to get a normal housing and financing cycle going again, will be if all of the above go as planned and mortgage rates fall and stay there. By reducing the cost to banks of financing their mortgage operations, the plan is that these savings will finally be passed along to borrowers. Lower interest rates would entice those prospective home buyers at the margin to now buy a home. This would turn the current vicious cycle of falling home prices begetting increased delinquencies and further home price declines back into a normal, virtuous housing cycle.

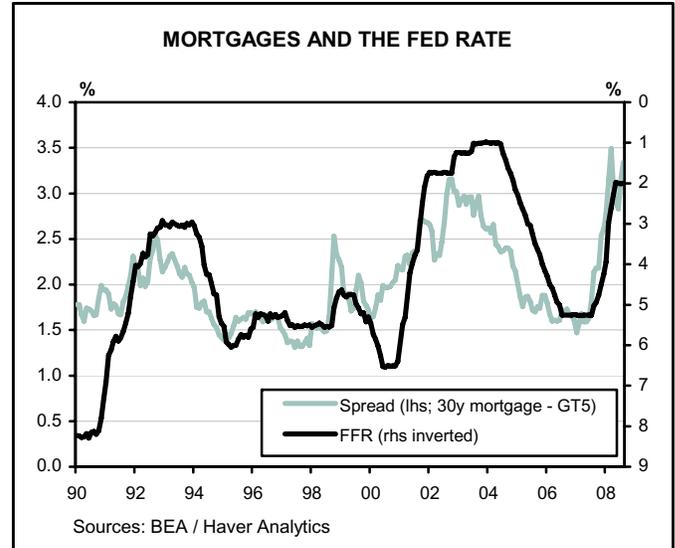
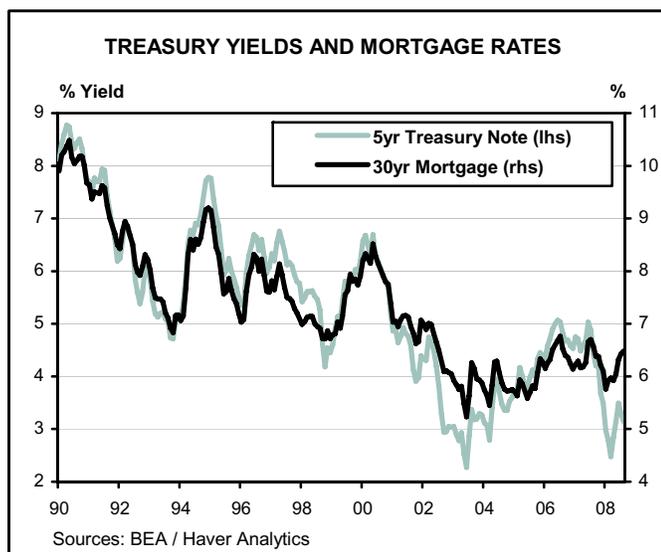
There are two issues with this. First, it is not clear the mortgage savings through lower interest rates are enough to entice a buyer not to wait and buy the home. A buyer financing a \$300,000 mortgage would save about \$375 in the first year as a result of mortgage rates falling half a percentage point from the 6.3% they sat at before this action. However, if we assume this bailout fails, that same buyer would save an additional \$100 in the first year of the mortgage if they just wait to finance that same home in a year – when its price has fallen another 10% so they only need to finance \$270,000 – even if they had to finance at the higher 6.3% interest rate. Second, the rebalancing effect – lower yields due to increased buying to reflect the explicitly lower risk associated with GSE MBS – is a one time effect. Once rebalanced, this impact on MBS yields and thus mortgage rates will dissipate unless there is an increase in purchases in MBS from private or public buyers. So like a doctor shocking a patient's heart back to life, the Treasury must ensure this shock is large enough and

long enough to return a normal beat to the market. Otherwise, we will be almost right back where we started. The bankruptcy of Fannie and Freddie won't be a risk, but that will have been replaced with rising government debt and a still lethargic mortgage market.

Are mortgage rates abnormally high right now?

As the two charts here show, there has always been a close connection between bond yields and mortgage rates. And, it is true that currently, bond yields have fallen while mortgage yields have not. However, conventional 30-year mortgage rates have always tended to be somewhat inelastic to current changes in interest rates from the Federal Reserve because these mortgages assume eventually, the Federal Reserve will return interest rates to normal. So when the central bank lowers the fed funds rate as they have now, mortgage rates don't fall nearly as much. As the second chart here shows, the spread between the conventional mortgage rate and five-year Treasuries has continued to follow reasonably closely to the level of the fed funds rate (inverted). This means the spread of mortgage rates over bond yields (a proxy for funding or risk-free rates) should have risen as they did given the Fed's aggressive cuts.

It is therefore not obvious, as many in the market have speculated recently, that mortgage rates must fall by 50-100 basis points as a result of these actions and stay there. Additionally, if history is any guide, this spread should also start to fall before the Fed begins to hike rates. The spread has not yet fallen and we continue to believe Fed interest rate hikes remain some time away. Average 30-year mort-



gage rates did fall by about 40 basis points on Monday as a result of the government's announcement, and there should be a bit more downward pressure on shorter-dated mortgage maturities in the medium term. However, yields on Treasuries should be a bit higher as a result of the current economic fundamentals and the need for a higher supply of Treasury debt to finance this involvement in the GSEs. So in spite of the positive psychological impact sustaining or stimulating investor demand, this would mean less net stimulative impact on the economy than would otherwise be the case.

Are lower mortgage rates good for business?

Moreover, even if successful, it is unclear lower mortgage rates will be unequivocally good for the U.S. banking sector. Lower mortgage rates mean lower returns per mortgage for the fragile U.S. banking system. This will need to be offset with a sufficiently higher volume of lending if bank profitability is to rise as a result of this action and ease solvency concerns. While we expect U.S. inflation fears to abate, banks' net interest margins could be even further pressured if falling mortgage rates are accompanied with rising Treasury yields and higher funding costs. Crucially then, new demand will be king. If the rally in the MBS market continues, but existing homeowners remain unable to refinance existing mortgages due to lack of equity, or potential homeowners remain unwilling to buy now with the expectation they can buy the same house for less next year, lower mortgage rates and limited increases in lending would be bad for banks. Not only must mortgage rates fall, but home buyers must be con-

vinced that home price declines are near. Otherwise, the jig is up.

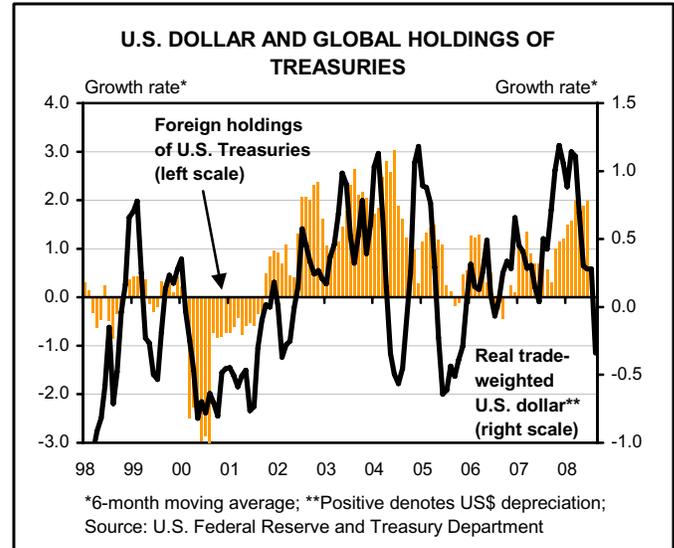
Fannie and Freddie are not long for this world

The writing is on the wall. Fannie and Freddie are not long for this world. Between now and the end of 2009, Fannie and Freddie will be allowed to buy even more mortgages and MBS up to \$850 billion each – a 12.1% and 6.5% increase of their current respective holdings. After December 2009, however, they would be required to reduce their outright ownership by 10% a year for over a decade until it amounted to just \$250 billion each. This means Fannie and Freddie could see the share of household mortgages that they own outright fall from about 15% in 2009 to about 2% by 2019. The underlying assumption here is that the private sector will have to take up the slack in securitization, and the government will exist with a role to play at the margins in normal times and a bit more in times of crisis. If the private sector does not lend, the implication is that mortgage lending is not seen as a good idea and won't be made. These details, though, won't be known for sure until the new administration takes office next year.

Limited ownership, unlimited guarantees

However, there is no limit to the amount of mortgages which Fannie and Freddie could continue to guarantee. For a fee of 0.20%, Fannie and Freddie will guarantee the mortgages underlying a MBS. Right now, this guarantee amounts to about one-third of U.S. household mortgages. At the extreme, Fannie and Freddie could end up guaranteeing nearly every mortgage in the United States. However, this is unlikely. For starters, the agencies' charters still prohibit them from owning or guaranteeing most subprime or alt-A mortgages, so the riskiest segment of the mortgage market will continue to be excluded. Agencies are also precluded from buying jumbo loans. So the largest loans will exist outside of the GSEs, as well.

Given the lack of adequate capital in Fannie and Freddie, there is a reasonable risk that the 0.20% fee for guarantees could rise in the future to improve the standing of these agencies. However, this is more likely to be part of the post-2009 transition plan, or at the very least the post-crisis phase. This guarantee remains a powerful tool of persuasion in the market. While the long-term plan is to wean the economy off of its GSE-dependence, in the interim, guarantees may be the lesser of two evils in stimu-



lating credit and mortgage markets without increasing outright ownership of assets. We don't believe the government plans to leverage this option to the moon, but it does exist should they feel the need to use it. If the cost of that underwriting is priced appropriately, it would be a profitable undertaking for the agencies. And, past statements from Treasury officials have stated their concern over the systemic risks posed by the size of the retained portfolios of Fannie and Freddie, but not their guarantee business and there has been nothing said to the contrary in recent days.

Waning foreign appetite – don't buy the hype

As with mortgage rates, it is not entirely clear the slackening foreign demand for U.S. financial assets – agency debt included – has been all that unusual given both the stage of the U.S. economic cycle and U.S. dollar cycle. As the chart here shows, a depreciation/strengthening in the trade-weighted U.S. dollar tends to be closely followed by increases/decreases in foreign holdings of U.S. Treasuries. This is because a weaker dollar means stronger foreign currencies and consequently increased purchasing power of foreigners for assets priced in U.S. dollars (whether Treasuries or commodities). Alternatively, the dollar adjusts as much as needed to ensure sufficient foreign financing to fund the U.S. trade deficit. Either way, with the U.S. dollar now showing a bias towards strengthening, the natural tendency will be for foreign holdings to be pared back. This could spook financial markets in the short-run, and given the fragile nature of the system, this could potentially have real implications. However, there is

nothing to suggest this change is abnormal.

It's the economy, stupid

At the end of the day, the economy is becoming a more important driver of new delinquencies, defaults, and credit tightening. Rising unemployment and falling employment means those that could have afforded their mortgage, no longer can once their job and source of income is gone. In turn, this puts further pressure on banks balance sheets, further limits the available funds for lending, and exacerbates the credit tightening driven by the credit crunch.

There is still a tremendous risk that a number of regional banks see insufficient demand for new mortgage to remain solvent. And, the smaller the bank, the more leveraged they are to new mortgage lending to stay in business. At this point, only about ten banks have failed but this figure could increase tenfold or more over the next several years. Moreover, this action has shown no impact on the high cost of bank funding resulting from issues such as the high LIBOR-OIS spreads and the need to account for rising default rates on all types of loans. The mountains to climb in this regard remain steep.

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