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The Federal Reserve & the MBS Market – Quantitative Easing in Action

by Allen Mossien, CPA, CFA, Head of Structured Trading

SETTING THE STAGE FOR QE ACTION

By November 2008, the U.S. was deeply enmeshed in financial crisis. Since that time, the US Government, through the Fed and the Treasury, has been very active in some extraordinary ways to prevent a complete meltdown of the financial system. Among these extraordinary activities was a broad program of quantitative easing (QE), a rarely used form of governmental monetary policy execution. QE occurs when the Federal Reserve chooses to enter the financial markets as a participant to directly achieve its policy goals.

At the heart of the financial crisis was the meltdown in the housing market – banks were reluctant to lend, severely and negatively affecting the mortgage market. Although short term rates were at historically low levels, mortgage rates remained stubbornly high. In its more traditional role, the Fed had taken several steps to ease the general credit crisis, including lowering the Fed funds rate to near zero. In addition, it had created a series of QE programs for the purchase of assets (TLGP, TAF, TSLF, to name a few), designed to add liquidity to the system. By purchasing securities from member banks through the Fed's System Open Market Account (SOMA), the amount of liquidity in the system is increased.

In one effort to prop up the housing market, the Fed decided, effective January 1, 2009 to implement a QE asset purchase program in the Mortgage Backed Securities (MBS) market where it would buy up to \$750 billion of MBS (later expanded to \$1.25 trillion). By buying large amounts of MBS, the Fed's hope was that mortgage originators would be willing to lower mortgage rates to homeowners knowing there would be a steady buyer of MBS to absorb any increased supply. Further, the Fed expected the lower original mortgage rates would help jump start home sales, provide a stimulus to the economy by allowing homeowners to refinance and hopefully forestall foreclosures.

IMPLEMENTING THE MBS PROGRAM

To execute the program, the Fed initially hired four money managers (now two managers) to purchase MBS on its behalf, with all trades executed through the New York Federal Reserve via SOMA.

These managers buy MBS securities daily in the open market through a variety of Wall Street dealers. Their purchases are not made randomly – they have been targeting different MBS coupons depending on the overall level of interest rates and origination flows. However, the majority of purchases have been at or around the current coupon (the prevailing rate that results in an MBS being priced closet to par), mortgage rate in order to drive mortgage rates lower.

The Fed has also been executing dollar rolls in the MBS market, mainly to smooth out the origination flows and not create a supply imbalance. Dollar rolls are timing transactions where the Fed buys or sells MBS in the near month settlement and simultaneously sells or buys in a later month; it will either take delivery at settlement or re-roll depending on supply flows. This action has also helped to keep the financing rates very low for the dealers.

All the MBS purchases are added to the Fed balance sheet and are part of the SOMA line item as shown in Exhibit 1. Of the \$1.457 trillion in assets purchased under SOMA through Aug 20, more than half have been MBS (\$767 billion). The balance includes Treasurys and agency debentures (unsecured debt issued almost entirely by Fannie and Freddie). The Fed appears to be on track to achieve its goal of \$1.25 trillion by year end if it continues to purchase MBS at the same average rate (approximately \$23 billion/week).

Exhibit 1

\$ billions	31 Dec 07	31 Dec 08	13 Aug 09	20 Aug 09	1-wk change
SOMA	740.6	495.6	1381.9	1457.4	75.5
Loans of cash					
PDCF	0.0	37.4	0.0	0.0	0.0
Discount window	4.9	93.8	38.0	29.9	-8.1
TAF	40.0	450.2	233.6	221.1	-12.5
Loans of collateral					
TSLF	0.0	171.6	2.7	0.0	-2.7
Commercial paper and other programs					
AMLF	0.0	23.8	0.1	0.1	0.0
CP-FF	0.0	332.8	58.1	53.7	-4.3
MMIFF	--	0.0	0.0	0.0	0.0
Foreign currency swaps		553.0	75.2	69.1	-6.1
AIG loan	0.0	38.9	40.7	39.2	-1.5
TALF	0.0	0.0	29.6	36.3	6.7
Maiden Lane LLC	0.0	27.0	26.0	26.0	0.0
Maiden Lane LLC II	0.0	20.1	14.8	14.8	0.0
Maiden Lane LLC III	0.0	26.8	20.9	<u>20.9</u>	0.0
				-2 trillion	

Source: Barclays, Federal Reserve

INSIDE THE QE STRATEGY – THE TACTICS

In order to accomplish its primary goal of lowering mortgage rates, nearly all of the Fed purchases (97%) have been in 30-year maturities, which is the bulk of newly originated mortgages. The Fed also concentrated its purchases in coupons close to the current coupon at the time of purchase, which for most of this year has been in the 4.0 to 4.5% range. If we add in 15-year MBS at the current coupon, we see that, in fact, 72% of all Fed purchases have been in coupons less than or equal to 4.5%.

A further look at the Fed purchases versus new MBS origination in 2009 is very telling. Through mid-August 2009, the Fed had purchased almost 78% of all 30-year MBS originated in 2009. Within specific coupons, the Fed had absorbed over 77% of all newly originated 30-year 4.0% through 5.0% MBS. At the 5.5% coupon level, in addition to purchasing 100% of new originations, the Fed has further increased its holdings by purchasing secondary, already existing 5.5% MBS.

Clearly, the Fed has not been only trying to lower original mortgage rates; it also is providing strong support to the overall MBS market by buying across all coupons. This artificial demand has had the effect of pushing

MBS dollar prices higher and spreads (relative to Treasuries) tighter throughout the year. In Exhibit 2, we can see that the Fed’s buy program has clearly had a positive effect on MBS valuations and spreads. This graph shows MBS current coupon spreads to the 10-year Treasury over the last year.

Exhibit 2



Source: Bloomberg

In November 2008, in the midst of the crisis, MBS spreads were over 230 basis points more than the 10-year Treasury. Spreads began to tighten immediately after the Fed announced its purchase program as many investors tried to position themselves to be sellers ahead of the January 2009 program start date. At present, with the Fed having purchased more than \$750 billion MBS, the current coupon MBS spread is down to less than 100 basis points.

WHAT HAS BEEN ACHIEVED?

We believe that for the most part, the Fed buying of MBS has accomplished its primary goal of lowering mortgage rates to homeowners. By buying MBS securities and inflating their dollar prices, the Fed has lowered the net mortgage rate (the gross mortgage rate, or what the homeowner pays, minus the servicing and origination fees). If we look at the Exhibit 3 on the following page, we see that net rates fell to a low of 3.68% in January 2009, immediately after the start of the Fed buy program.

Exhibit 3



Source: Bloomberg

Some profit taking in February pushed the mortgage rate back up to 4.5%, but when the Fed stepped up its purchases in March to over \$30B per week, net rates were pushed back to below 4% in April and early May. A subsequent period of heavy Treasury issuance and an improving economy forced rates higher and brought mortgage rates with it, offsetting some of the benefit of the Fed purchases. At that point, the higher interest rates had the effect of reducing mortgage origination as refinancing activity slowed, but continued Fed buying again helped to push MBS prices higher and spreads lower to where we are today.

AS THE PROGRAM ENDS - A SOFT LANDING?

So, what will the MBS market look like at the end of the year, and who will own MBS?

Based on the pace of new mortgage originations so far in 2009, BankAmerica estimates the size of the agency (Fannie, Freddie and GNMA) MBS market by year end to be approximately \$5.3 trillion. As you can see from Exhibit 4 on the following page, if the Fed buys \$1.25 trillion in MBS as planned, it will own approximately 25% of outstanding agency MBS, up substantially from its small holdings as of December 2008. The other major holders, banks, Fannie and Freddie (shown as GSEs below) and overseas investors are projected to be largely unchanged.

Exhibit 4

	Dec '08	Dec '09
Size of the Agency MBS Market	\$4.80 T	\$5.30 T
Federal Reserve* + Treasury	\$0.06 T	\$1.50 T (1.25 T is from Fed)
Domestic Banks + Savings Inst.	\$1.02 T	\$1.10 T
GSEs (Fannie + Freddie)	\$0.82 T	\$1.02 T
Overseas Investors	\$0.75 T	\$0.70 T
Agency MBS held by others	\$2.15 T	\$0.98 T

*We assume that the Fed will buy \$1.25 trillion Agency MBS in 2009. These projections include seasoned pool issuance by Fannie Mae.

Source: Banc of America Securities – Merrill Lynch

Where we see the big change is in the “other” category, consisting mostly of insurance companies and money managers, whose holdings have dropped in half – probably because of more expensive valuations. It is expected that the Fed holdings will completely replace this reduction in holdings by these “other” investors.

When the Fed is done buying its \$1.25T MBS, we expect the MBS coupon mix will reflect the following:

- Assuming mortgage rates stay near current levels, 30-year 4.0% and 4.5% coupons are estimated to represent almost 39% of the market versus less than 3.0% at year-end 2008.
- If the Fed continues to buy the same mix of coupons as it has so far, it will own approximately \$869 billion, or 57% of the projected outstanding amount of 4.0% and 4.5% coupons.
- If very recent purchases of 30-year 5.0% and 5.5% coupons are extrapolated out to year end, the Fed will own 26% and 14% respectively of those two coupons.

By purchasing a mix of coupons, the Fed has ultimately provided stability and liquidity to the market enabling an easier creation of new MBS and therefore a more affordable original mortgage product for consumers. It also would seem to indicate that the Fed is trying to diversify its holdings to avoid holding all discount MBS if rates rise after they complete their purchase program.

IT'S 2010 – THE MBS PROGRAM IS OVER – NOW WHAT?

Although the Fed could sell its MBS holdings as a way of tightening credit, we feel this action would undo much of its accomplishment of lowering consumer mortgage rates. A more likely scenario is that it will allow its MBS holdings run off over time.

However, even if the Fed allows its MBS holdings to run off, we may still see a rise in mortgage rates particularly with the inflationary pressures of government action including the ARRA (American Recovery

and Reinvestment Act) stimulus program. With the Fed no longer a purchaser, the market may require an MBS spread to Treasuries in the 5-year average range of 130 basis points (vs. current spread of 100 bps) to entice the “other” investors back into the market.

But, the Fed may not be finished – in the September 2 release of the August 12 Fed minutes there was discussion about possibly slowing down the MBS purchases or extending the program into 2010. Although no formal decision was made, actions speak louder than words – another \$50 billion in MBS was purchased in the last two weeks, mostly in the higher 5.0% and 5.5% coupons.

A FINAL WORD

In summary, we feel the Fed will complete its MBS purchase program and buy close to \$1.25T of MBS by year-end 2009. Further, we do not expect the Fed will sell any large amounts of MBS as a way of tightening credit.

From a relative value perspective, MBS prices and spreads are fully valued at current levels; in the near term the downside is limited as we believe they will continue to be supported by Fed purchases of another \$400 billion over the next few months. However, as we approach year end, we would be cautious on MBS as spreads may widen as investors get increasingly nervous about what the Fed will do.

For holders of MBS, we recommend they continue to hold as the sector will be supported by the Fed and MBS still offer very high quality and liquidity. For buyers, we recommend a diversity of coupons with emphasis on slight premiums to guard against the possibility of rising rates and average life extension risk inherent in the lower coupons. For sellers needing to take gains or for those preferring to get out ahead of the artificial Fed market support, we would recommend selling into strength.

While there are a number of risks to this forecast, the principal one we see is that the Fed extends or expands its QE purchasing program, causing MBS prices to stay artificially high and spreads to stay tight until the end of the program.

About the author

Allen A. Mossien, CPA, CFA, is a Director and Head of Structured Trading at Conning, where his primary trading responsibilities include commercial mortgage-backed securities, residential mortgage-backed securities and government and agencies, and he acts as back-up for asset-backed securities. Prior to joining Conning in 1993, Mr. Mossien was employed at Chase Securities, Inc. working in mortgage-backed securities trading and research and was also with Drexel Burnham Lambert. Mr. Mossien is a graduate of Pace University with an undergraduate degree in Accounting and an MBA in Finance.