MBS in 2013: More of the same, with a slight twist

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Agency mortgage-backed securities (MBS) should continue to offer an attractive risk-adjusted return opportunity in 2013, as the technical and fundamental backdrop remains favorable, resembling 2012 in many aspects. From a technical standpoint, we expect the Federal Reserve (the Fed) to continue MBS asset purchases for much of the year, thereby extending the positive supply/demand dynamic that has been in place since the Fed announced the third round of quantitative easing (QE3) on September 13.

The primary fundamental positive for agency MBS lies in low overall refinancing risk, which is likely to remain muted versus historical standards. Three main factors lead us to believe refinancing activity will remain below the historical pace:

> The cumulative decline in home prices since the 2006 peak
> Historically tighter lending standards
> Reduced capacity among mortgage lenders

Nevertheless, with the Fed maintaining low interest rates through 2015 and home prices forecast to recover modestly in 2013, it is likely there will be a small increase in refinancing activity. At Columbia Management, we look to mitigate the potential for increased refinancing risk through rigorous, bottom-up security selection that focuses on finding securities that deliver the best risk-adjusted returns for investors.

Compensation for volatility: maximizing risk-adjusted returns

In the current environment of compressed risk premiums across all fixed-income asset classes, it is imperative that investors seek out strong risk-adjusted returns; that is, returns that compensate them for the additional level of risk incurred. Historically, MBS have generated the most attractive risk-adjusted returns within the investment-grade fixed-income universe, as measured by the Sharpe ratio (see Exhibit 1). The Sharpe ratio measures how well the return of an asset compensates the investor for the amount of risk taken. Given the strong technical and fundamental position of the sector, we expect MBS to continue to offer attractive risk-adjusted returns throughout 2013.

There are risks associated with fixed income investments, including credit risk, interest rate risk, and prepayment and extension risk. In general, bond prices rise when interest rates fall and vice versa. This effect is more pronounced for longer-term securities.
Favorable MBS supply/demand: Negative net supply with a lot of Fed buying

MBS supply will be limited in 2013, as the vast majority of qualified borrowers with sufficient economic incentive have already refinanced into lower rate mortgages. Market expectations are that the net supply (gross issuance minus pay-downs and refinancing) of MBS will be negative $25 billion.

Meanwhile, the Fed, as part of QE3 and Operation Twist, has committed to an open-ended MBS purchase program of $65 billion per month. That brings its potential 2013 MBS purchasing power to $800 billion, or 60% of gross issuance. It is also worth noting that the Fed is a noneconomic buyer of MBS, and their purchases tend to be very consistent and structured, regardless of valuation.

Home prices are improving, but borrowers are still constrained

Home prices have fallen approximately 30% from the peak of the market in 2006 (see Exhibit 2); however, after five years of declining home values, it looks as though home prices have begun to recover. Despite this, approximately 22% of all outstanding mortgages remain underwater; that is, the mortgage loan balance exceeds the property value (see Exhibit 3).

Exhibit 1: Sharpe ratios of MBS vs. other fixed-income sectors

Source: Barclays Live, as of 09/30/12

Historically, MBS have recorded higher Sharpe ratios, meaning they compensate investors better than other fixed-income classes for the amount of risk taken.

<table>
<thead>
<tr>
<th>Sharpe ratio</th>
<th>5-year</th>
<th>10-year</th>
<th>15-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. mortgage-backed securities</td>
<td>0.5</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Investment-grade: utility</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Corporate mortgage-backed securities: ERISA eligible</td>
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<td>0.1</td>
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<tr>
<td>Investment-grade: industrial</td>
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</tr>
<tr>
<td>U.S. aggregate</td>
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<td>0.0</td>
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<tr>
<td>Intermediate corporate</td>
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</tr>
<tr>
<td>Investment-grade: financial institutions</td>
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</tr>
<tr>
<td>Asset-backed securities</td>
<td>0.0</td>
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<td>0.0</td>
</tr>
</tbody>
</table>

Source: Barclays Live, as of 09/30/12

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Underwater borrowers are limited in their ability to refinance because the loan is insufficiently collateralized by the underlying property, forcing most underwater borrowers to significantly pay down their mortgages before they can refinance at a lower rate. In this lackluster economic environment, very few borrowers have the means to pay down their mortgages in an effort to meet the equity required by most lenders. This dynamic is a positive fundamental for MBS, as it will continue to keep the level of refinancing relatively low.

Exhibit 2: Home prices turn a corner

Source: Bloomberg, as of 10/31/12
An upturn in home prices over the past several months could indicate the onset of recovery. However, this doesn’t necessarily point to a sharp rise in refinancing.

Exhibit 3: National distribution of home equity

Source: Morgan Stanley, as of 10/31/12
Refinance risk remains low among MBS due partly to the fact that almost one-fourth of all outstanding mortgages are underwater. In most cases, these borrowers cannot refinance until they pay down a significant portion of their mortgages.

Lending standards remain tight; insurance premiums continue to increase

Tight lending standards and higher fees on new loans are fundamentally positive for MBS, as they also discourage refinancing activity. During the collapse of the housing market, Fannie Mae and Freddie Mac were put into conservatorship under the supervision of the Federal Housing Finance Agency (FHFA). Since 2008, the government has guaranteed nearly all newly originated mortgages through Fannie Mae, Freddie Mac or Ginnie Mae. In addition, the government has tasked FHFA to develop a long-term plan for the mortgage market that encourages private capital to have a more significant role.
To encourage private capital into the marketplace, Fannie Mae and Freddie Mac have progressively increased the guarantee fees (g-fees) charged to insure the underlying mortgage (see Exhibit 4). Despite the doubling of g-fees since 2007, we expect the g-fees to double again to match the required cost of capital for private market participants.

Exhibit 4: The increase in g-fees in 2012

![Bar chart showing the increase in g-fees from 2007 to 2012.](chart)

Sources: Freddie Mac, Fannie Mae, as of 10/31/12

Steadily rising guarantee fees are one of the forces that discourage borrowers from refinancing.

In addition to increasing g-fees, Fannie Mae and Freddie Mac have implemented risk-based pricing through loan level pricing adjustments (LLPAs). LLPAs are a set of progressive fees charged to borrowers who have increased credit risk due to low credit scores or limited equity. The persistent tightening of lending standards has created an environment where only borrowers with strong credit profiles qualify for a mortgage (see Exhibit 5). The impact of higher g-fees in conjunction with LLPAs effectively reduces the incentive for outstanding borrowers to refinance.

Exhibit 5: Steadily increasing FICO scores at origination

![Line chart showing steadily increasing FICO scores from 2004 to 2012.](chart)

Source: Barclays Live, as of 09/30/12

Lenders have required higher credit scores from borrowers in recent years. This is a positive trend for MBS.

**Minimizing refinancing risk: security selection is key**

As the available mortgage rate has declined over the past year, MBS prepayment rates have generally increased, even though credit standards remain tight. However, not all borrowers have benefited equally from the exceptionally low interest rate environment (see Exhibit 6). Underlying collateral characteristics such as average loan size and loan-to-value (LTV) play a very important role in predicting refinancing behavior.
Exhibit 6: FNMA 30-year 4% prepayment speed

Source: Barclays Live, as of 10/31/12
Low loan balance: Maximum loan size less than $85,000
High LTV: Loan-to-value greater than 105%
Borrowers with low loan balances or higher loan-to-value ratios have less incentive to prepay their mortgages.

Generic Fannie Mae 4.0% MBS pools have seen their prepayment rates steadily increase to approximately 35 CPR (conditional prepayment rate), as interest rates have declined (CPR is the annualized prepayment rate and essentially represents the percentage of borrowers who refinance each year). However, there are loans with certain collateral characteristics that have exhibited very little responsiveness to lower mortgage rates. For example, borrowers with low average loan balances (particularly those below $85,000) have a limited economic incentive to refinance. The burden of high closing costs, coupled with the relatively small decrease in monthly payment for $85,000 and below loans, has led to prepayment speeds of only about 8 CPR, significantly lower than the 35 CPR on generic MBS with the same coupon.

Similarly, reflecting the limited refinancing options available to underwater borrowers, high LTV borrowers who have already taken advantage of the Home Affordable Refinance Program (HARP) prepay even more slowly than low loan balance borrowers, with recent speeds of only 5 CPR.

Conclusion: Environment favorable, but security selection will differentiate

Given the considerable challenges in the current environment, with low rates and compressed risk premiums, we believe that MBS offer an attractive risk-adjusted return opportunity. The confluence of a negative net supply, continued support from the Fed, tight lending standards and a large decline in home prices create a favorable fundamental backdrop for MBS investors that can differentiate among investment opportunities through bottom-up security selection. We expect a broad divergence in MBS performance, as interest rates remain low and home prices gradually increase. As a result, security selection will be paramount in 2013.
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