

July 9, 2010



Mitchell A. Flack
Managing Director
U.S. Fixed Income

Fixed Income Commentary

Value in the Agency Mortgage Market: *Modern Carry*

**So, so you think you can tell Heaven from Hell,
blue skies from pain. – Pink Floyd**

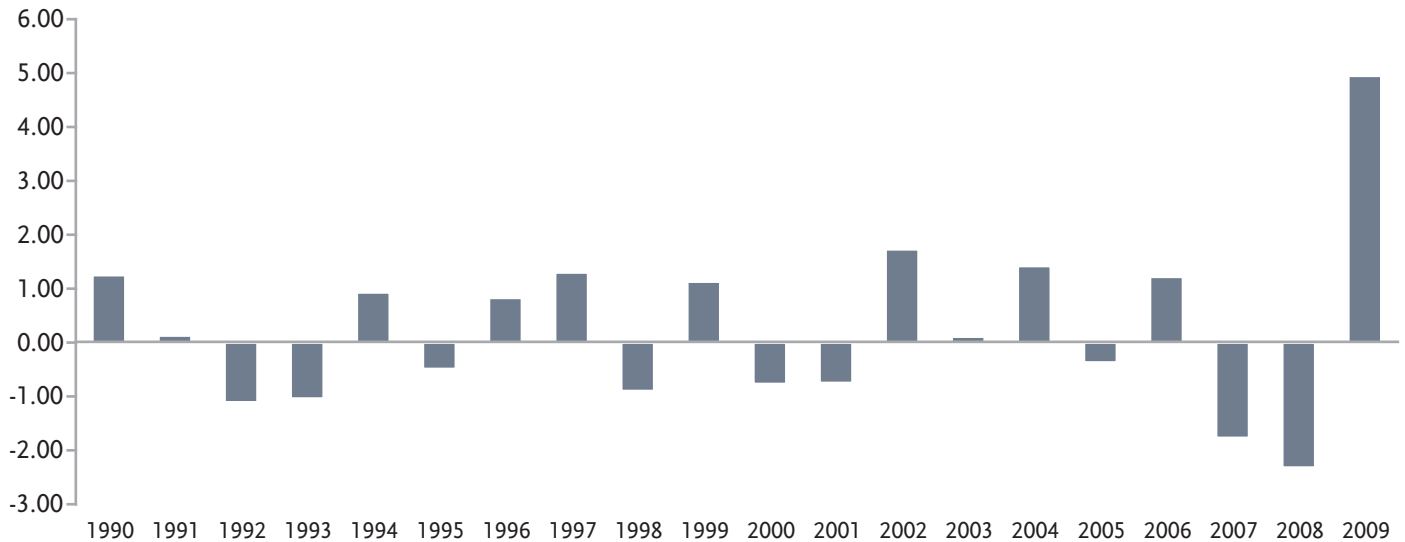
Mortgage investors often have a flair for the dramatic. It is not uncommon to hear well-known quotes and phrases twisted to provide a simple understanding of risk found in mortgage trading. Frequently, we will hear the comment, “The road to Hell is paved with carry.” A certainly over-dramatic explanation that the added yield found in agency mortgage-backed securities (MBS) is fraught with risks that, at times, can lead to underperformance. Historically, negative convexity is often the culprit. Today, however, the risks have changed.

Convexity, the concept found in fixed income investing, is commonly defined as the measure of the sensitivity of the duration of a bond to changes in interest rates. It is the second derivative of bond price as a function of interest rates, with the first derivative being that of duration. Convexity describes how the duration of a bond will move with price, and in the case of agency MBS, it is almost always negative. But we all know why that’s the case: mortgage prepayments and their proclivity to increase as rates go down and decrease as rates go up, commonly lead to poor relative returns for agency MBS in volatile interest rate markets.

One central goal of agency MBS investing is to provide a portfolio, or collection of these often esoteric and complex investments, that, when put to the test of volatile rate environments, still provides a return that is considerably better than an underlying index of MBS, or better than alternative high quality investments in the fixed income world. And as we look back through the 30+ years of agency MBS investing, we find that road, paved with carry, seldom landed in Purgatory. In fact, looking at the excess returns to a duration-matched portfolio of U.S. Treasuries, in the last 20 years less than half the time did we see an underperformance by agency MBS, and on average the outperformance was 27 basis points.

Value in the Agency Mortgage Market: *Modern Carry* (cont'd)

Barclays MBS Index Excess Return



Source: Barclays

But the years where agency MBS performance was challenged by negative convexity are etched in the minds of most MBS investors. For example, there was 1994 when the Fed hiked rates numerous times in its mission to put the brakes on the economy in an attempt to prevent runaway inflation. We saw the pain that negative convexity can inflict as agency MBS extended in expected average lives and prices dropped much faster than Treasuries with a similar duration in the latter half of that year. Then there was 2003 and the great refinance wave brought on by secular lows in interest rates, rising home prices, and a national interest in high home-ownership rates. Spectacularly fast prepayments shortened high dollar price agency mortgage average lives, returning par to investors quickly who had hoped to collect high coupons for a much longer period. Ten year U.S. Treasuries dropped to a low 3% yield while premium mortgages, such as the 30-year 6% pass-through had a tough time rising above a \$104 price. In contrast, that same 6% pass-through is now trading above a \$108 price, twice the premium.

With that backdrop, we mortgage investors find ourselves facing a most unusual agency MBS market. Mortgage prices are now at or near all-time high dollar prices. And with mortgage rates also near all-time lows, are we not at the precipice of the mother of all refinance waves? Will negative convexity hit us like a Mac truck and mortgage investors suffer poor returns? The simple answer is a resounding no. While we still are walking down that proverbial “road paved with carry,” this time we have Modern Carry to stick in our investment pockets.

As you will see, Modern Carry certainly doesn’t come without risks, but those risks are considerably different than the past. Most importantly, if the agency MBS are carefully selected, the risks of Modern Carry can be minimized. You see, Modern Carry no longer comes with the traditional negative convexity of the past. No longer is there a reliable inverse relationship between MBS prepayment rates and current market mortgage rates. And what’s more interesting, the higher the underlying borrower’s interest rate, often the less this relationship holds, if at all.

Modern Carry not only is found throughout the agency MBS market, but the amount is quite uniform among many different sectors and coupons. For example, today Modern Carry boils down to 6 to 10 ticks (6/32nds to 10/32nds) a month. The TBA 30-year agency pass-through market, that market to buy or sell forward commitments to purchase agency

Value in the Agency Mortgage Market: *Modern Carry* (cont'd)

pass-throughs, provides a monthly drop in price that is an indication of carry currently provided by agency MBS. And whether we look at the 4.5%, 5%, 5.5% or even 6% coupon, the roll (carry) all comes out around 6 to 10 ticks a month. This translates into an added 225-375 basis points per year versus comparable maturity Treasury yields. But as we will see, there are still significant risks for the mortgage portfolio manager to navigate through to insure that Modern Carry does not lead us off that precipice.

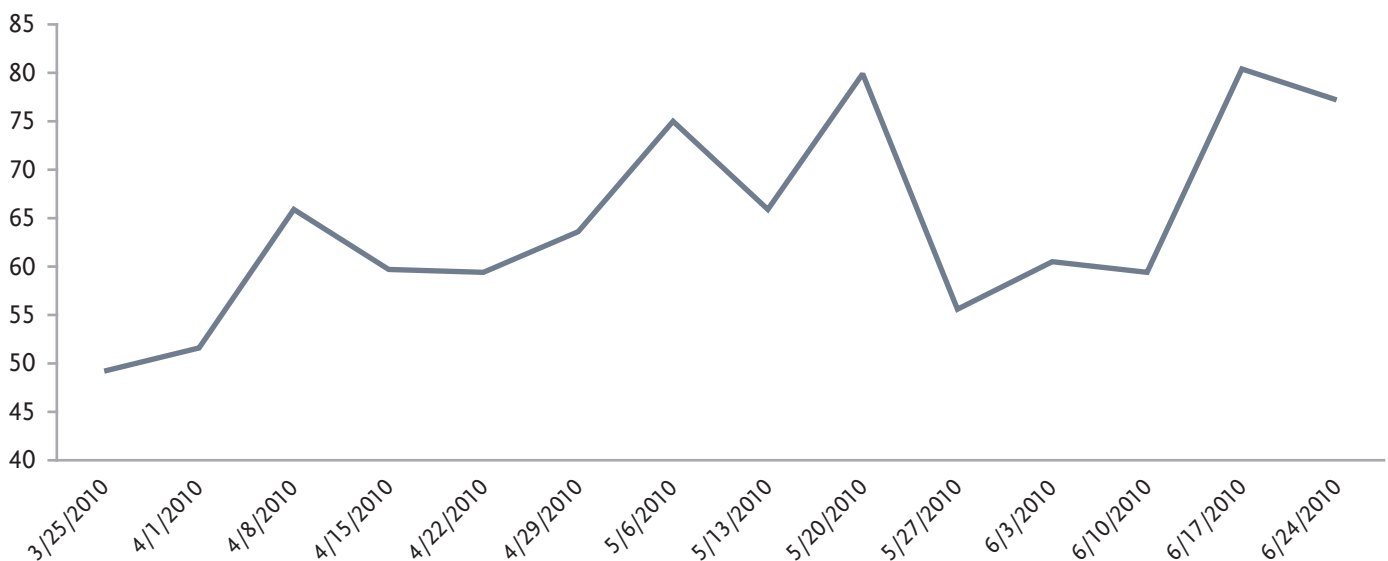
Let's take a look at the drivers of Modern Carry. It is the undeniable friction in the mortgage refinance market that makes up Modern Carry. We call it the **Triad of Borrower Pain**, or **TBP**: **1.** Lack of home equity, **2.** Tougher mortgage underwriting standards by lenders, and **3.** Mortgage originator consolidation, all make up the three pillars of TBP.

It is estimated that over one third of home borrowers have negative equity due to a secular and ongoing decline in home prices that started in 2006. For many of these borrowers, paying their currently high mortgage rate is the only alternative short of default. And while the FHA is the new subprime lender on the block, even it will not provide a new, lower rate mortgage without at least some minimal equity in the property.

For those with equity to refinance, a much tougher credit assessment and underwriting process awaits them. No longer widely available are the NINJA (no income, no job, no asset verification) loans, no cost refinance loans, low FICO loans at competitive market rates (perhaps with the FHA as an exception), interest-only loans, or teaser rate loans. Loans today must have full documentation and verification of income, assets and employment. This certainly limits many potential refi borrowers as the Great Recession becomes, at best, a very slow, painful, and perhaps jobless recovery.

With the collapse of housing beginning in 2006, we saw the massive and ongoing consolidation of mortgage lenders and brokers. Mortgage employment is half of what it was in 2004. According to Bank of America Merrill Lynch, mortgage employment dropped from 490,000 in 2004, to 252,000 today. As important, the shift in the industry has been to a focus on specialized servicing of today's troubled borrowers, and less of a focus on new mortgage origination. This consolidation and refocus by the mortgage industry has allowed for greater profits on average for individual mortgage refinancing. We see an increase in spread between the primary mortgage rates offered by lenders and the secondary agency mortgage yields required by investors.

Primary to Secondary Mortgage Spread (Bps)

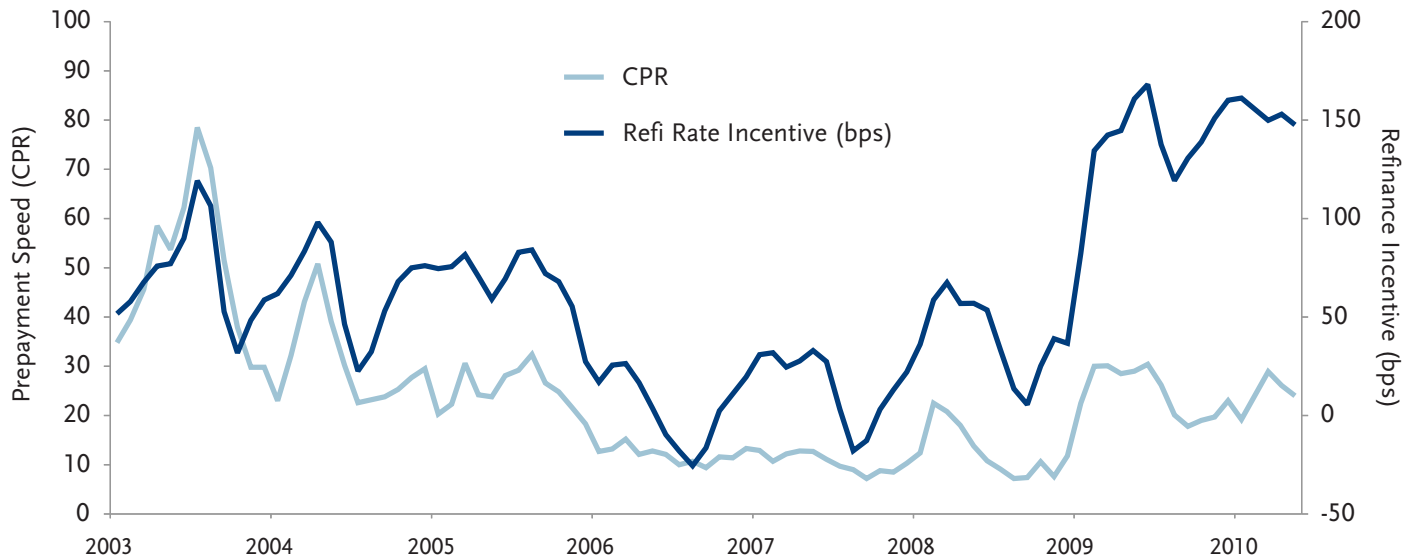


Source: Bloomberg

Value in the Agency Mortgage Market: *Modern Carry* (cont'd)

So how has TBP affected agency mortgage prepayments? Looking at the chart below, we see a dramatic drop in the traditional refinance response to lower rates. Compared to the refinance wave of 2003, prepayment speeds today for premium coupons are less than half what would be expected given the 2003 experience.

Refinance Incentive and Actual Prepayment Speeds



Source: RBS

While Modern Carry avoids much of the traditional negative convexity of the agency mortgage markets of the past, it does not come without its own set of risks. While the TBP translates directly to less voluntary prepays, it also contributes to higher delinquencies leading to involuntary prepayments (defaults) as well as modifications. Both modifications and defaults manifest themselves as prepayments in the agency MBS markets. We saw the large-scale buyouts by Fannie Mae and Freddie Mac earlier this year, and we expect more buyouts as loans transition to severe delinquency status. Finding cash flows that won't be subject to extreme defaults and modifications, or are more insulated from them, is important to maximize Modern Carry. Also, Modern Carry does not lend itself to more recently originated mortgages in 2009 and 2010. These mortgages have much more of the traditional negative convexity, and are more likely to prepay quickly should rates remain low or go lower. Interestingly, these more negatively convex mortgages are found in the lower coupons of the MBS "coupon stack", and are concentrated in the 30-year 4.5% and the newer production 5% coupons.

With the two-year Treasury yielding a paltry 65 basis points, Modern Carry, rising up from TBP found in today's agency MBS market is significant and we believe an important element of the future total return potential in intermediate bond funds. While we are certain that this "road paved with Modern Carry" will have its bumps along the way, we at TCW/MetWest are well positioned to take advantage of these opportunities and are excited about the return prospects for a properly selected portfolio of agency MBS. One person's Hell can often be another person's Heaven.

This publication is for information purposes only. While the information and statistical data contained herein are based on sources believed to be reliable, we do not represent that it is accurate and should not be relied on as such or be the basis for an investment decision. Any opinions expressed are current only as of the time made and are subject to change without notice. TCW assumes no duty to update any such statements. Copyright TCW 2010