Asset Allocation Strategy

6 January 2012 | 9 pages

Asset Allocation Monthly

- Our portfolio outperformed its benchmark by 15 bp as both of our major risk positions, long the MBS basis and long HY credit spreads, returned positive.
- High yield credit is our largest risk exposure.
- Treasuries continue to price in a more negative economic outlook than risk assets and we maintain our neutral duration positioning.
- MBS valuations have been bid up on speculation of a Fed purchase program and we go into the new year with a neutral MBS basis position.

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January Asset Allocation Update

Portfolio performance review

We outperformed our benchmark by 15 bps.

In December our two major risk positions, an outright long position in high yield credit and a large overweight in high coupon MBS, returned positive, leading the portfolio to outperform its benchmark by 15bp.[1] (Figure 1)

Cash spreads tightened after lagging CDS.

Last month we noted that cash spreads had widened despite CDX IG and the S&P 500 being essentially unchanged on the month. This month cash spreads participated fully in the risk rally, spurred on by more accommodative policy from the ECB and further signs of moderate but sustained growth in the US economy. We ended the month with IG spreads 24 bp tighter and HY spreads 67 bp tighter. (Figure 2)

Policy continued to drive MBS returns.

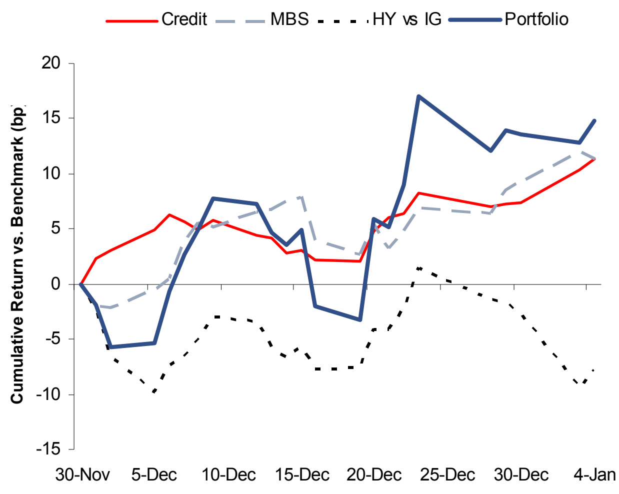
Mortgage returns continued to be driven by policy concerns. The possibility of the Fed buying mortgages to support housing markets and the broader economy pushed valuations higher across the coupon stack. High coupons outperformed treasuries as investors became more complacent about the threat of increased prepayment speeds from streamlined refinancing under the recently modified HARP program.[2] On the month, FNMA 3.5s outperformed treasuries by 15bp and FNMA 6s outperformed by 34bp.[3]

HY spreads tightened by less than our hedge ratio with IG implied.

Based on a more favorable tradeoff between expected return and risk, we chose to replace the IG credit exposure in the benchmark with high yield credit. This effectively put us long high yield credit spreads vs. short IG and we stood to make money if high yield spreads tightened by at least 3.1bp for every 1bp of tightening in IG. This position suffered a loss as HY spreads only tightened about 2.7 times as much as IG. (Figure 2)

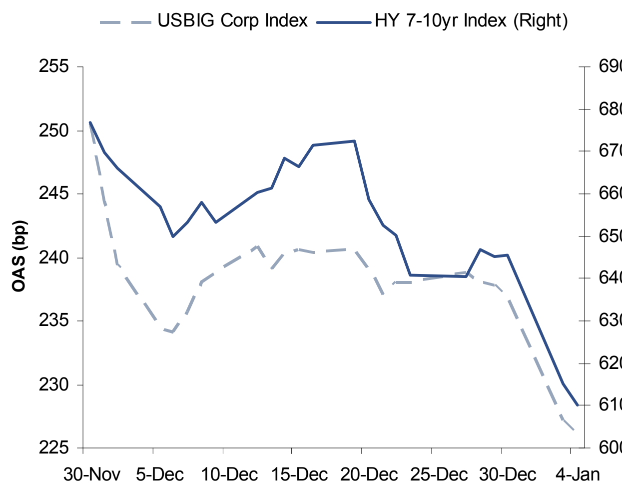
In summary, the gains from the outright credit and mortgage positions more than offset the losses from the long HY vs. IG position.

Figure 1. Outperformance on tighter credit spreads and MBS gains



Source: Citi Investment Research and Analysis, Yieldbook™

Figure 2. HY and IG spreads tightened as risk conditions improved



Source: Citi Investment Research and Analysis, Yieldbook

[1] See Asset Allocation Monthly, December 2011 for details

[2] HARP is the Home Affordable Refinance Program. For details of the changes to the program see Agency MBS Weekly: HARP 2.0 Highlights, November 16, 2011

[3] Mortgage spread return as reported by Yieldbook.

Portfolio changes

Stay neutral duration and the MBS basis. Take credit risk.

In general, we would have positive allocations to all three of the major risks embedded in our benchmark – duration, credit and convexity. It pays to be simultaneously long duration and credit as these positions both carry positive and the risks are negatively correlated. Convexity risk, taken by holding MBS, is uncorrelated with the other portfolio risks and offers diversification. However, this month we stay neutral duration and the MBS basis due to rich levels.

Treasury rates are too low relative to economic data and other asset prices.

The rationale for staying neutral duration is the same as last month: forward treasury rates remain too low given the current level of growth and inflation.[4] While we acknowledge that treasuries are rich in part due to concerns surrounding Europe's fiscal situation, other asset classes seem to be pricing in a much less dire scenario (Figure 4). Since the beginning of December, credit spreads are tighter, equities have rallied and growth has marginally improved making rates look even further out of line with economic conditions and other asset prices.

We also choose not to overweight MBS as valuations have become stretched. FNMA 3.5% coupon Treasury OAS, currently at 5.8 bp is in the 3rd percentile, and 5% coupon OAS at 19.3 bp is in the 10th percentile.[5] (Figure 5) Low coupons have mainly richened on Fed speak regarding a mortgage buying program and we think this move could easily be reversed if either the economic outlook improves or other policy interventions become more likely. The move higher in high coupon prices seems more sustainable as this has been driven by investors becoming increasingly comfortable with likely prepayment speeds under the modified HARP terms. This gives us little solace as Citi's prepayment forecasts are currently higher than those being priced in by forward drops for high coupon TBAs. (Figure 3)

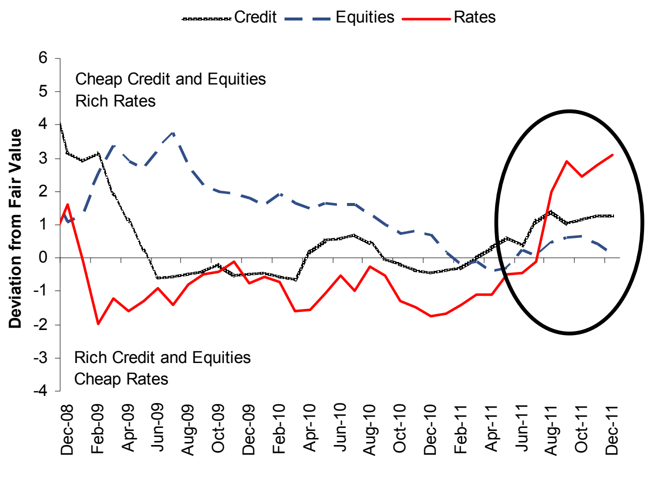
Figure 3. Forecast prepayment speeds are higher than implied speeds

	Implied Speed (CPR)	Forecast
FNMA 3.5	1.7	4.9
FNMA 4	13.1	13.2
FNMA 4.5	26.1	24.3
FNMA 5	29.4	31.1
FNMA 5.5	27.6	30.2
FNMA 6	27.5	27.3

Source: CIRA, Bloomberg

Implied speeds are speeds implied by forward drops assuming a break even financing rate of 1bp. Forecasts are for collateral of the same cohort as what was delivered into the TBA contract last month.

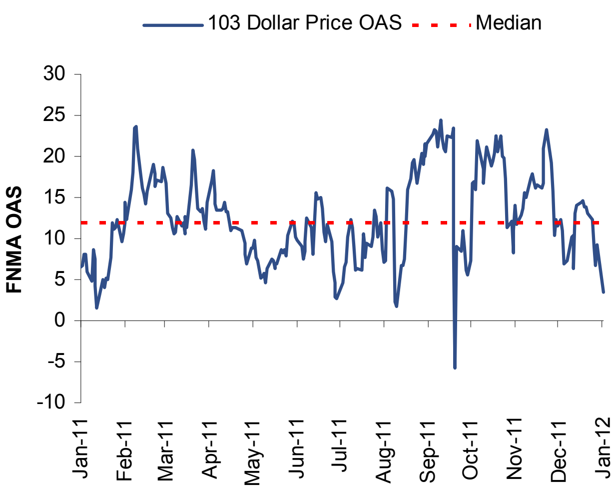
Figure 4. Rates pricing in a more dire scenario than credit and equities



Source: Citi Investment Research and Analysis

Credit fair value is USBIG Corporate spread regressed on an index of US growth and the 75th percentile issuer leverage measured by debt / book value. Equity fair value is the cyclically adjusted S&P 500 PE ratio regressed on a moving average of corporate profit drawdown and US growth. Rate fair value is the 5y5y rate regressed on US growth and core CPI.

Figure 5. Mortgages OAS are at the extremes of the historical range



Source: Citi Investment Research and Analysis, Yieldbook

Constant dollar price OAS is formed by interpolating between the coupon with the lowest dollar price greater than 103 and the coupon with the highest price less than 103. Currently FNMA 3.5s are priced at 102.94.

[4] Treasury rates are also too low given the likely path of the Fed policy rate given Citi's forecasts for unemployment and inflation. See 2012 US Rates Outlook: Going Nowhere Soon, December 15, 2011

[5] Percentiles based on a daily data series of constant dollar price OAS from Yieldbook..

Expected returns to credit remain favorable.

Since valuations push us to being neutral both duration and the MBS basis, our only risk position this month is in credit. Even with the recent spread tightening, valuations and expected returns to credit remain attractive, in particular in high yield. (Figure 6) We maintain both our long high yield vs. IG position and our outright long high yield position.

Figure 6. Expected credit spread returns remain favorable

	Expected Return (bp/yr)	Vol (bp/yr)	Sharpe	1st Pctl. 1Mth Ddown (bp/Month)	Ret/Ddown
Treasury					
2y	22	90	0.24	103	0.21
10y	160	742	0.22	618	0.26
Credit Spreads					
IG Credit	186	297	0.63	341	0.55
HY Credit	555	695	0.80	845	0.66
Agency Debt	31	83	0.37	91	0.34
CMBS	254	NA	NA	1293	0.20
Mortgage Basis					
FNMA 3.5	17	220	0.08	109	0.15
FNMA 4.5	38	167	0.23	155	0.25
FNMA 5.5	82	188	0.43	155	0.53

Source: Citi Investment Research and Analysis, Analysis Date: Jan 4, 2011

Treasury returns are historical returns scaled by percentile of carry+rolldown and implied volatility. IG and HY returns are spreads adjusted for expected losses due to downgrades and defaults. MBS returns are mortgage carry adjusted for expected losses due to prepayments and convexity. CMBS expected returns are the average return across three economic growth scenarios. Tsy vols are from implied vols. IG and HY vol are forecasts based on trailing vol and VIX and all others are 3 month trailing vols.

Portfolio construction

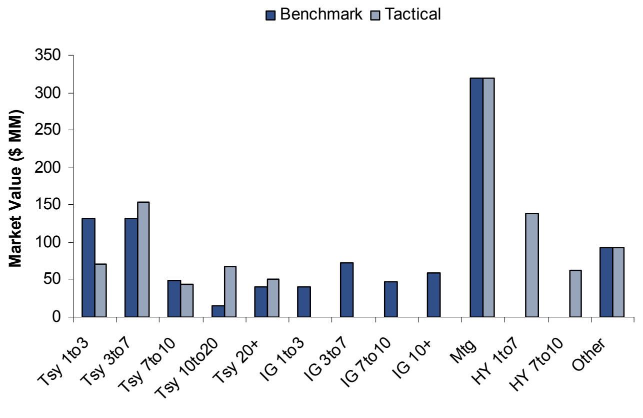
This month, we are positioned long credit spread risk and neutral duration and the MBS basis. Despite the fact that we have eliminated MBS risk, we only slightly increase our credit risk as we have no duration hedge and are not diversified across asset classes.

High yield spreads remain the most attractive sector of the credit universe on either a forward looking Sharpe ratio or an expected return to drawdown ratio basis. This leads us to take our credit overweight in high yield rather than IG. While last month leverage constraints forced us into the 7-10 year high yield bucket where spread durations are higher, this month we distribute our allocation to high yield across the 1-7 and 7-10 year buckets. (Figure 7)

We also substitute the IG credit exposure in the benchmark with high yield. Based on a regression of spread changes we estimate a hedge ratio of 2.4 units of duration of IG for each unit of high yield duration for maturities under 7 years, and a ratio of 3:1 for maturities over 7 years.

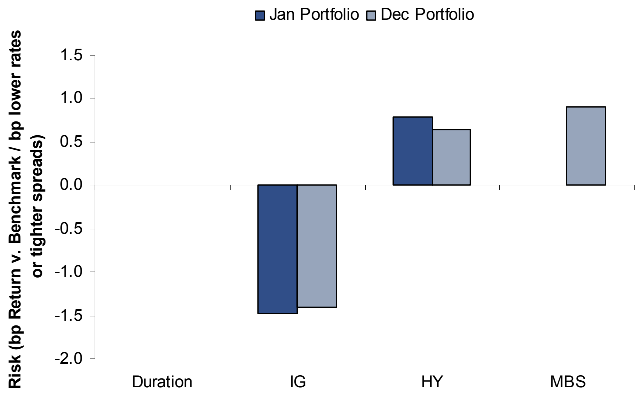
In summary, the portfolio is 1.48 years short IG spread duration and long .78 years high yield spread duration. Assuming our IG/HY hedge ratios are correct, the portfolio is .63 years long credit spread duration relative to our benchmark. (Figure 8) The risk is sized so that the portfolio draws down 100bps in a 1st percentile outcome.[6] The portfolio is expected to return 7.4 bp over the benchmark for the month of January.

Figure 7. Take all credit exposure in HY



Source: Citi Investment Research and Analysis, Yieldbook
Assumes a $1Bln portfolio.

Figure 8. Move neutral on MBS basis and maintain neutral duration



Source: Citi Investment Research and Analysis, Yieldbook

[6] Drawdown is based on historical returns since 1990 where the historical return distribution has been adjusted as described in Asset Allocation Monthly, October 2011

Appendix A-1

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