

The Month In Review

December 2006

What's New?

Happy Holidays and warm wishes for a happy and healthy New Year!

New in CompassPoint™!

Compass is pleased to report its recent development progress in CompassPoint™, including:

- Definition Maintenance Tool (Most Recently Used, Renaming, Delete, Categories, Descriptions for Data Stratification, Query Toolkit, Extract Definitions, Filters, Plugins, Assumption Sets, CF Views)
- Optimal Distribution on Structured Cash Flow Calculations
- Improved Tranche Labeling and Senior/Mezz Definitions
- Expanded Cash Flow Detail (monthly CE and all other model values)
- Monthly, Quarterly and Annual Cash Flows Summaries Across Portfolios/Pipelines
- Expansion of Delinquency Calculation in File Import Tool

CompassPoint™ features and capabilities reflect the business needs as defined and requested by its users. For additional information on new features or to submit suggestions and requests, please contact Rob Kessel at 415-925-2812 or e-mail at rkessel@compass-analytics.com.

Market Update

The month of November saw the bond markets try to add another leg to the rally that began in June. Following a sell-off in October, bond prices pushed higher over the last month, albeit in a more choppy fashion than during the June through September period. Signs of a slowing economy helped refuel the rally and worries about inflation and a tight job market helped contain it. Volatility picked up as these competing factors fought for attention.

The hard-landing/soft-landing debate for the economy continues. Both the Chicago PMI and ISM indexes dropped slightly below the pegged, breakeven value of 50, meaning the surveys point to a halt in growth within their sectors. Factory orders for the month also showed a decline. On the other hand, industrial production improved slightly and the Philly Fed index moved back into positive territory.

Job growth in the non-farm payroll report looked a little better than expected for November and September saw a significant upward revision to the growth number. In support of bonds, the unemployment rate finally ticked higher by 1/10 to 4.5%. Also in favor of bonds, the average hourly earnings number moved up by 0.2% vs. a 0.4% increase in October.

The Fed chose to remain on the sidelines at their December meeting, and it's tough to blame them. It still seems premature to say whether the economy is going to falter significantly and year-over-year core inflation numbers remain higher than the Fed is comfortable with. Given this uncertainty, bonds have had a tough time finding a consistent direction over the last few weeks and this looks likely to continue in the near term. The yield on 10-yr treasuries is sitting about 70 basis points below the current Fed Funds target, so it appears that the market is still on the side of a Fed easing next year. *—Lindsay Hill*

Topic of the Month: Rate and Yield Range in Duration: Why Size Matters

This is the first installment of a multi-part series exploring the various methods used in calculating duration within mortgage valuation and hedging community.

Duration measurement is an integral piece of any fixed income portfolio's risk assessment. Simply put, duration is a linear measure of a fixed income instrument's price sensitivity to interest rate movement, or a rate shock, at a given point in time. There are several approaches to calculating duration which have developed as the fixed income market has evolved. The first generation calculation was derived by Frederick Macauley, who was seeking a way to measure the price risk of a bond portfolio. In the universe of callable bonds such as mortgages, which have embedded call options (prepayments), a more sophisticated measurement of duration is required due to the uncertainty of future cash flows. This gave rise to Effective Duration, which is the duration method used by Compass. One might define Effective Duration as the change in price given a yield movement based on pricing models or market price/rate observation.

With respect to mortgages, one must consider different sources of Effective Duration, as well as the actual magnitude of the rate/yield change used in the duration calculation (the denominator – think negative convexity). For example, 100 bps is a standard rate range used in calculating duration, especially among Street firms. Compass employs a 6 bps rate range which results in higher durations than what one might observe on the Street. The horizon for price risk is abbreviated in a mortgage pipeline hedging environment versus the Street's horizon which may be based on a longer term investment objective. For instance, Compass is modeling durations for a rate range assuming a 30 day lock period, while Street firms assumptions may be based on a more expansive horizon.

The Price Movement model Compass applies is defined below.

Step 1. Using prepayment assumptions (Constant Prepayment Rates – CPR's) calibrated (averaged) across several dealer/broker research departments, a lognormal interest rate path generator and 100 stochastic rate paths, Compass derives agency, coupon and delivery month option adjusted spread (OAS) values.



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Step 2. Using client/Compass-defined rate ranges (e.g. +/- 24 bps in yield by 3 bps increments), the yield curve is shifted for each point on the rate range and the OAS values derived from Step 1 are used in calculating the new MBS price at that point of the shock given projected cash flows from CPRs (considering rate range) and discounted by yield curve + OAS.

The calculation of Non-Agency durations must consider the higher probability of negative convexity. After surveying three competitive conduit rate sheet prices, Compass derives a note rate level price spread for each non-agency product relative to the same interest rate agency product. This note rate spread increases (.i.e. has increased negative price impact) the further above par an interest rate climbs. This reflects the reality that Non-Agency products are traded as WAC pools where traders prefer to buy product close to market rates, and at some point will refuse to pay additional price for excess yield. Increased negative convexity must be modeled when deriving non-agency durations and convexity. Compass accomplishes this by applying the note rate level price spreads against agencies then slides that scale as rates are shocked. For example, if a note rate 50 bps above par today is priced back 1.5% and a note rate 75 bps above par is priced 1.75% back, with a rate range showing a decrease in rates of 25 bps, the note rate 50 bps above par would “slide” to show that it will become 1.75% back from agencies.

As mentioned, Compass duration is expressed in terms of local duration, that is duration over a 6 bps range. Compass employs this range given that it is most consistent with what we observe as market move on a day over day basis. This tighter trading range results in more changes to durations than wider ranges (e.g. 1 point in yield). The tradeoff is more accurate local durations and increased duration volatility versus less accurate local durations and less duration volatility.

Consider the following example:

100 basis point range (+/- 50 bps in yield) for a coupon price at par today might yield a price move to 101.50 (down 50) and 97.0 (up 50 bps). If the duration was derived using a 100 bps rate range, the duration could be $(101.50 - 97.0) / 1.0$ or 4.5. If 4.5 was used, and the market did decrease in rate 50 bps, then actual duration would be 3 $(101.5 - 100) / .5$, not 4.5 and a hedge mismatch would occur. If smaller rate ranges are used, the hedger can calibrate durations and duration ratios more frequently and thereby mitigate the risk of such mismatches.

If Compass utilized larger rate range increments, we would in general expect lower durations given that more negative convexity would become a factor (convexity will be covered in future installments). The converse is also true – if the rate range is smaller, e.g. .01 bps or 1 bps, we would expect Compass’s durations to be higher. Street durations, which are often expressed over a 100 bps range, are often lower than Compass’s durations for this reason.

As the above example illustrates, the range of rate/yield change applied in calculating durations is a germane consideration in pipeline hedging. In the next article, we will introduce Compass functionality that allows the CompassPoint™ customer to choose rate/yield change values used in duration in order to tailor their durations to the life of their loan locks and market volatility.

–Virgil Caselli and Vimi Vasudeva

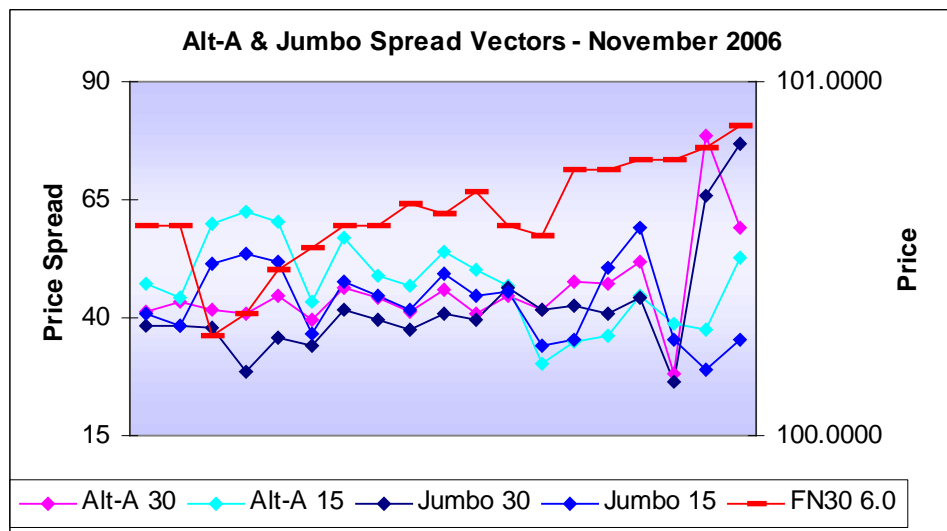


Alt A and Jumbo Spreads

Contradictory to what we observed in October, Alt-A and Jumbo spread vectors were quite stable through most of November. With the exception of the first and last four days of the month, the daily change was trivial at an average of 2 bps. The volatility in the first week is attributed to the release of the Non Farm Payroll number, which came in lower than expected. The drastic upward revision to the prior month's number caused the market to sell off, sending FN30 6.0's over 30 bps lower on the day. The 15 year spreads went in the opposite direction, widening almost 15 bps, while 30 year spreads tightened marginally. Spreads remained stable until the last week of November, at which point we observed odd behavior. Spreads tightened drastically, from the 50's range down to the 20's, although the market remained flat. This odd behavior continued the next day as Spreads widened drastically, approaching the highest levels of the month.

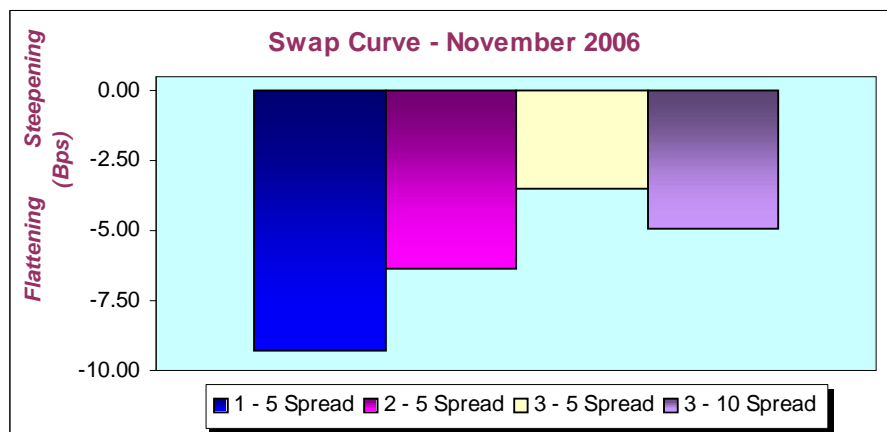
Compass's valuation of the Alt-A and Jumbo Fixed bulks in November derived prices within a 3 bp average (mode) range from the winning bids. In the last couple of months one investor was winning the majority of bulks we observed, this month, however, we saw another investor come in and take place as the majority winner. There was no notable pattern in the cover and lowest bids this month, and the spread between investor bids remained low at an average range of 83 bps.

-Vimi Vasudeva





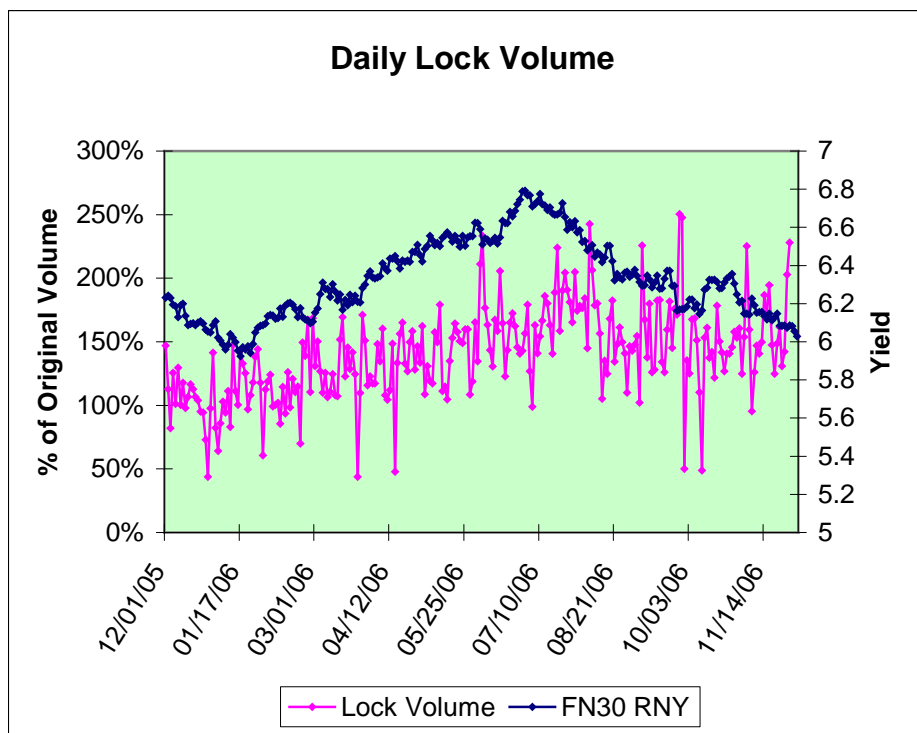
Hybrid Arm Hedge Analysis



With the exception of an early hiccup, November was characterized by steadily falling swap yields brought on by evidence of a slowing economy. The surprise upward revision to September's NFP number was the culprit behind the market's only substantial stumble, in which swap yields increased an average of 14 bps and the MBS market sold off 31 bps. Otherwise, yields fell at a fairly consistent pace and the MBS market gained about 50 bps. The 10-yr swap led yields lower, shedding about 20 bps. The 1-10 swap spread inverted an additional 10 bps, leaving the spread inverted by about 26 bps. *—Virgil Caselli*



Production Index



Production increased in November with rates continuing to trend lower. Average volume for the month was 158% of our base volume (vs. 142% in October) ranging from a low of 95% to a high of 228%. The average yield on the FN30 RNY was 6.12% (vs. 6.23% in October) ranging from a low of 6.029% to a high of 6.227%. *—Bob Gundel*