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The Month in Review

June 2011

Don't Miss!

Check out Part 2 of our Topic of the Month: "**ARM Price Discovery and Hedging**". In Part 2, Bob Gundel explores the key factors to consider when hedging ARM pipelines including calculating hedge ratios and choosing an appropriate hedging vehicle.

What's New?

Check out our new monthly feature "Specified Pool Commentary", written by Compass Managing Director, Jeff Casella. Since this is a new article series, we are starting this month with a primer on the basics of MBS specified pool trading. In the article below, Jeff gives a little background information on this type of trading as well as explaining how and why MBS specified pools are traded.

New in CompassPoint™!

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

- GPS Hedge Selection Tool - Alt Grouping and Cross Hedge Capability
- GPS - Pooling Tools - Single Loan ID Find and Pool Stat Solver Improvements
- WL Structure CF Improvements

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 415-462-7500 or e-mail at rkessel@compass-analytics.com.

Market Update

As markets confronted a slew of softer economic reports over the last month, the bond rally that kicked-in in April continued through the month of May. The 10-yr treasury yield has now plummeted around 60 basis points over the last eight weeks and the 3.00% yield appears to be the new, short-term pivot point.

Several national and regional economic reports that until recently had been showing some positive acceleration are now slipping once again. These include the Philly, NY and Richmond Fed reports as well as the Chicago purchasing managers' report and the monthly ISM manufacturing survey. Consumer confidence has also taken a hit recently with a drop in the May reading to 60.8 following an April post of 66.0.

Any bond bears or equity bulls that were hoping for some relief from the employment numbers were sadly disappointed in the May figures. The ADP employment report started the ball rolling - if rolling is the correct word - with a dismal payroll growth number of 38k vs. April's downwardly-revised reading of 177k. Two days later, the Bureau of Labor Statistics released their monthly non-farm numbers and unemployment survey. Again, they were significantly below consensus estimates with non-farm payroll growth of only 54k and well below April's 232k. Both the April and March payroll growth numbers were also revised lower from their previous readings. The headline unemployment rate ticked higher as well - moving up from 9.0% in April to 9.1% in May.

Chairman Bernanke has tried to lend a calming face to the ugly data and has mostly promoted the notion that this is a temporary set-back caused in large part by supply chain constraints emanating out of Japan and elsewhere. But talk of a QE3 has made the airwaves and with the housing market weak and apparently weakening further and with employment figures slipping again, consumer confidence may have a tough time rebounding. With rates already low and political opposition likely to any further quantitative easing, Bernanke may once again find few arrows in his quiver should the double-dip take hold.

-Lindsay Hill

Topic of the Month: ARM Price Discovery and Hedging (Part 2 of 2)

The following is the second part of a two part article:

It seems that many Secondary Marketing Managers ("SMMs") are starting to think about the possibility of higher adjustable rate mortgage ("ARM") production at some point in the not too distant future. Eventually, the yield curve will steepen to the point where longer rates (mortgage rates) will elevate to a level where ARMs look sufficiently attractive to borrowers and ARMs will gain a larger share of total originations. As this occurs, SMMs will pay more attention to ARM execution and best-effort to mandatory spreads, tripping the "hedge or not to hedge" deliberations. Lenders that develop a strategy and implement the proper analytics and workflow in advance of this industry shift will no doubt reap the benefits of early-adoption and wider spreads. In last month's part one of this article, we explained how SMM's can discover and develop mandatory ARM pricing using Z Spreads. This month we present part two of this article, which will explore the key factors SMM's should consider when calculating hedge ratios and choosing an appropriate hedging vehicle for their ARM pipelines.

Even with a price discovery mechanism in place, SMMs still need to figure out how much to hedge with what instrument, or in risk management language, loan pullthrough and loan and hedge instrument duration and convexity (hedge ratios). When hedging ARMs, the trickiest, most critical part is determining ARM loans durations. To that end, once Z Spreads have given us ARM loan program and

coupon prices, we can take a page from the fixed MBS playbook of determining durations. With Fixed TBA pricing supplied from market data providers (e.g. TradeWeb) we can employ prepayment, term structure (rate) and cash flow models to derive individual security, coupon and delivery month Option Adjusted Spreads (OAS). We can do the same thing with ARMs - the only difference is that we will use Z Spreads to derive passthrough prices and ARM prepayment models and settings to derive ARM specific OASs. The specific ARM coupon OAS values can then be used to derive price curves given rate shock and consequently ARM coupon duration and convexity. Because OAS is so model dependent, (meaning that different forward rate and prepayment assumptions can generate considerably different OAS values), many traders choose to calibrate duration and convexity in their models using consensus values from the street. Once this has been done, the model can generate price curves for appropriate ARM durations by loan program and consequently duration, convexity and hedge ratios. With this capability, Lenders can determine the appropriate hedge instrument and notional to hedge ARM pipelines.

Once price curves, duration, convexity and hedge ratios are being generated, our next task is selecting the appropriate hedge instruments for ARM's. Remember the hedger's objectives: find liquid instruments - in and out with limited bid/ask, deliverable instruments (so you don't need to pair out) and limited basis risk (trades move with the same speed as what they are hedging, i.e. similar duration/convexity). Since there is no liquid TBA market for ARM securities, (ARM TBA markets tend to be one sided, over-crowded with sellers), identifying the appropriate hedge instrument for ARM positions involves a calculated risk, with originators choosing the lesser of two evils; basis risk, or liquidity risk. Liquidity risk is the risk that a security cannot be bought or sold fast enough to prevent or minimize losses. Illiquid markets typically have wide Bid/Ask spreads and/or large price movements. Basis risk is the risk that the price movement of the hedge instrument and the price movement of the hedged pipeline are imperfectly correlated, which can lead to excess losses or gains. Because of the additional risk Lenders take when hedging ARM's, hedge performance tends to have bigger swings (positive and negative) relative to Fixed-Rate positions. Below are examples of typical hedge instruments used for ARM's and the risk associated with each:

Hedge Instrument	Delivery?	Basis Risk	Liquidity
<i>Forward Cash Sales</i>	YES	LOW	LOW
<i>ARM MBS Security</i>	YES	LOW	LOW
<i>IR Swap (EDF Bundle)</i>	NO	LOW-MID	HIGH
<i>15yr Fixed MBS Security</i>	NO	MED-HIGH	HIGH
<i>IR Swap (EDF Bundle) & 15yr Fixed MBS Security</i>	NO	LOW-MID	HIGH

Lenders choosing to retain servicing on ARM loans or that have a separate takeout for the servicing can choose to hedge all or a portion of their ARM pipeline with either forward cash sales, or ARM MBS Securities. However, since the forward cash and ARM TBA markets are fairly illiquid, adjusting hedge coverage (i.e. pairing out of coverage) to match changing pullthrough assumptions during the lock-period can lead to excessive hedge costs. Because of this fact, many Lenders choosing to deliver ARM Pools will only hedge a portion of the pipeline with cash forwards and ARM TBA's and will choose another hedge instrument to cover the balance of the ARM pipeline, which they swap out for ARM TBA's or short-term cash sales at the time of delivery.

Lenders that have sufficient cash readily available can also consider hedging with futures instruments. Those choosing to hedge with futures need to first establish a relationship with an Introducing Broker and then set up an account with a custodian to handle the futures portfolio. Trading futures requires not only an initial outlay of cash for the initial margin, but also may require daily wire transfers for Mark-to-Market margin as futures accounts are settled at the end of each trading day. The most common ARM hedging vehicle for larger originators is interest rate swaps. However, given the balance sheet requirements to effectively hedge with interest rate swaps, many ARM hedgers choose to use bundles of

Eurodollar Futures, (EDF) which trade on the Chicago Mercantile Exchange. EDFs closely mimic the LIBOR index, or in other words, Eurodollar future bundles exhibit tight correlation with like term interest rate swaps, and have high liquidity and open-interest. Hedgers sell consecutive EDF contracts term commonly referred to as an EDF Bundle, with the number of contracts matching the duration of the fixed period of the loan (e.g. Sell 3yr EDF Bundles to hedge ARM production with duration close to 3yr EDF bundles). Although EDF's are highly liquid, Lender's choosing to hedge with this instrument alone will accept more basis risk than cash forwards or ARM MBS. Additionally, EDF's lack convexity, which can lead to additional hedge cost in the right market environment.

Lenders that are cash sensitive, but are willing to accept more significant basis risk can choose to hedge their ARM pipeline with 15-Year Fixed MBS. Most banks do not charge initial margin for To Be Announced (TBA) MBS trading lines, though some banks have begun doing so lately. It should be noted that most Master Forward Transaction Agreements (MSFTA) contain a Mark-to-Market (MTM) provision which allows both parties to make MTM margin calls when the counterparty risk exceeds a certain threshold, so money can change hands in advance of settlement day in certain market environments. Although they are highly liquid, the correlation between 15-year TBA's and ARM's is not perfect and can lead to excessive hedge costs given greater basis risk. 15-year MBS securities do capture convexity, unlike EDF's, but they tend to have the largest basis risk of all ARM hedging vehicles. Many ARM hedgers consider using 15-year MBS in combination with other hedge instruments (ARM MBS or EDF Bundles) in order to reduce basis risk while capturing convexity.

Compass clients have observed that a mixed basket of EDF Bundles and 15-year MBS tends to be the preferred hedge for most Lenders' ARM pipelines, (excluding larger balance sheet originators who would be more inclined to us IR Swaps). This strategy provides convexity, with some basis risk. However, since EDF's and 15-year MBS are highly liquid instruments, trading in and out of them is quick and easy, and pricing is competitive (e.g. narrow Bid/Ask spreads).

When ARMs start to pick up market share, hedging ARM pipelines and delivering mandatory will become more practical. Even in a thinly traded market, price discovery and modeling on ARMs is possible with the right analytics. Once Lenders are confident in their valuations, they can continue to make decisions regarding what hedge instrument to use as well as to create the appropriate policies and procedures around risk tolerance, hedge execution and delivery. By planning for the future and taking the appropriate actions necessary to begin hedging ARMs now, Lenders will be at the front of the pack rather than scrambling to implement analytics, workflow and policies in catch-up mode.

-Bob Gundel

If you would like a copy of part one of this article please email kkramer@compass-analytics.com.

Specified Pool Commentary

Since the specified pool commentary is a newcomer to the Compass Newsletter, we thought it would be best to begin with a primer on the basics of this type of trading. Hopefully, by the end of this article you will have a better understanding of some of the fundamentals on how and why MBS specified pools are traded.

In general, specified pools are created and traded for two main reasons. The first reason is out of necessity, where the pools created do not fit the deliverable parameters of TBA pools. The second and more common reason is to take advantage of a specific attribute(s) that make certain pools more valuable than plain vanilla TBA pools.

Before we launch into the specifics, let's take a step back and start with a little background. The majority of MBS pools are traded in the "To-Be-Announced" or TBA market. The guidelines for this market are maintained by The Securities Industry and Financial Markets Association (SIFMA). Per SIFMA, "The

TBA market creates parameters under which mortgage pools can be considered fungible and thus do not need to be explicitly known at the time a trade is initiated. The TBA market is based on one fundamental assumption - homogeneity; at a high level, one MBS pool can be considered to be interchangeable with another pool"

In other words, SIFMA created guidelines to exclude certain pool types from the TBA definition because these pools could adversely affect the "homogeneity" of the TBA market. For example, Fannie Mae High Balance/Jumbo Conforming FNCK pools do not currently meet the parameters of TBA deliverability. Consequently, a lender who creates these types of pools would be required to trade them "specified" because they would not be considered "good delivery" into TBA trades. FNCK pools typically trade at a discount to similar coupon FN 30yr TBA pools. This is primarily due to the diminished liquidity resulting from the restricted access to the highly liquid TBA market. This is exemplified in the chart below which shows a negative price spread for FNCK pools.

On the other hand, lenders can also create pools with certain attributes that make them more valuable than TBA pools. Even though these pools may still be TBA deliverable, it is to the lender's advantage to sell them specified in order to receive a premium over TBA prices. The question then becomes which attributes are investors willing to pay up for over a TBA pool? The most commonly traded specified pools are prepayment protection pools or those which contain characteristics that tend to exhibit slower prepayment speeds than similar coupon generic TBA pools.

Why is prepayment protection important? If an investor buys a high coupon pool today at a price of 105 and the pool pays off tomorrow, it pays off at a price of 100 or par. Consequently, the investor has now lost the five point premium paid for the pool. This is an overly simplified example but it gets the point across. Obviously, the investor would much prefer to collect the coupon for as long a possible rather than have the pool pay-off. Therefore, investors are willing to pay an added premium or "pay-up" for a high coupon pools that contain slower prepayment characteristics.

The most commonly traded pre-payment protection pools are low loan balance pools, also known as LLBs. The pay-ups for these pools can be significant as pre-payment analysis has shown these pools perform much better than similar cohort TBA pools. This is due to the fact that a borrower who owes less on a loan has less of an economic incentive to refinance to a lower rate than a borrower who owes more. These pools are usually structured in four main classifications: loan balances of \$85k and less, \$110k and less, \$125k and less and \$150k and less. The lower loan amounts naturally have the best pay-ups. The other key component is pass-through rate. The higher the rate, the higher the pay-up because an investor is typically paying a higher premium price for the extra yield. Other types of prepayment protection pools commonly traded include high LTV, low FICO, new production, seasoned/aged, and non-owner occupied or investment property pools. Essentially, any facet of a loan that can predictably and significantly lower the likelihood of refinance is typically worthy of a pay up.

Another realm of the specified trading world that deserves mentioning surrounds the 10 year and 20 year fixed rate market. 10 year and 20 year loans are considered good delivery and can be comingled into 15 year and 30 year fixed pools, respectively. However, for most coupons, these types of loans garner pay-ups when they are segregated out and traded as specified pools. Why is an investor willing to pay up for these pools? It's the same reason that a 15 year loan prices higher than a similar coupon 30 year loan. Investors will typically require more yield for a longer duration product. Over the past year, pay-ups have fluctuated but it was not uncommon for lower coupon pools to receive pay-ups in excess of 3 points (300bps) over the respective TBA product.

The chart below shows examples of where these pools have recently traded. The pay-ups below are quoted in 32nds, i.e. the pay-up for a 5.5% \$85k pool would be 49/32nds in price. Negative values indicate a price back or less than TBA and positive values indicate prices above or at a premium to TBA. As previously mentioned specified pay-ups are dynamic and move with the market.

30yr FN	\$85k	\$110k	\$125k	\$150k	\$175k	New Prod	NOO - Inv	20 year	FNCK	FNCQ
3.5	0	0	0	0	0	0	0	85	-36	-40
4	8	5	4	3	1.5	0	0.5	60	-21	-20
4.5	20	15	11	10	4	0	6	32	-20	-3
5	33	27	21	19	12	6	15	20	-34	18
5.5	49	36	30	28	19	17	19	8	-56	18
6	54	46	33	26	20	18	24	-	-64	-
6.5	-	-	-	-	-	-	-	-	-	-

15yr FN	\$85k	\$110k	\$125k	\$150k	\$175k	New Prod	FNCJ	10 year
3.5	7	5	2+	1+	-	0	-18	64
4	21	16	12	9	5	1	-18	48
4.5	32	23	18.5	16	10	6	-34	20

*New Production (0-1WALA)
50bps spread between gross and net rate
Levels are for indicative purposes only*

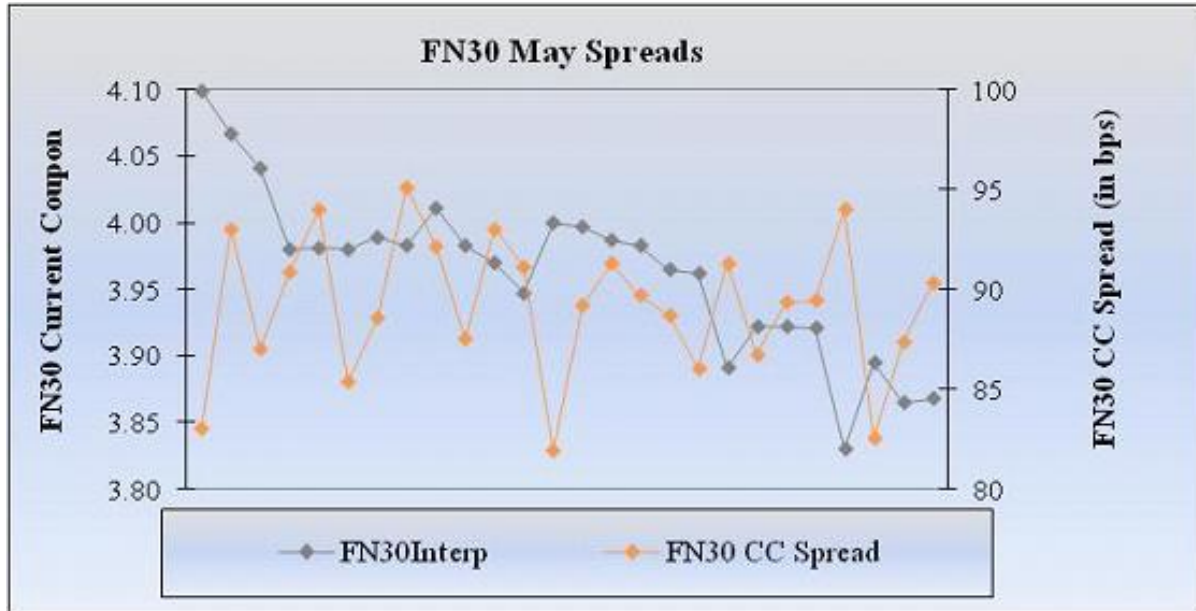
With the sustained market rally over the past month, pay-ups for prepayment pools have continued to increase over last month's levels. Call protection remains in demand as investors are expecting speeds to pick up over the next month with note rates having once again dipped in the 4.5 to 4.75 range. The good news is that many lenders still have some lingering production available in the 4.5 and 5.0 coupons and have been busy sifting through pipelines to squeeze out as many specified pools as possible for June.

These pay-ups can have a significant impact on best execution and pooling decisions. As volumes continue to dwindle and margins are squeezed, specified trading could be a way to help improve your performance. Is this execution available to any lender? The answer really depends on a number of factors including your current delivery options. Typically, AOT deliveries cannot take advantage of these pay-ups because pool information cannot be specified in the AOT transaction. Directly delivering into MBS trades, through a servicing retained or co-issue type arrangement, is currently the only method available. Pool size is another consideration. Prepayment pools are single issuer type pools that must be at least \$1million in size to be created. Therefore, a lender who only has a handful of \$85k loans available would not have enough to reach the \$1 million threshold. However, 10yr and 20yr pools can be created in smaller sizes through the use of Fannie Mae and Freddie Mac major or multi-lender pool programs.

If a servicing retained or co-issue type MBS execution is something your company is currently discussing, these pay-ups can certainly help tip the scales towards that execution. It is not uncommon for lenders to sort through their pipelines and deliver a portion through specified MBS trades and the rest through a servicing released program. Please call the desk if you have any questions or would like more information.

-Jeff Casella

Margin Tracker

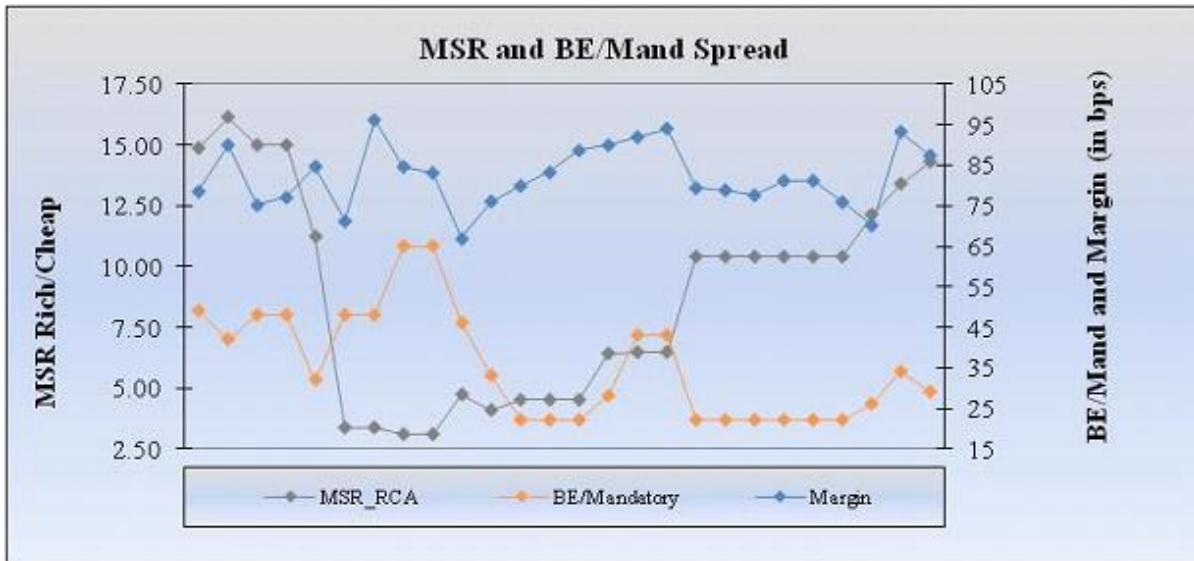


The FN30 CC Spread is the difference between the FN30 Note Rate and the FN30 Current Coupon, in basis points. During the rally that occurred over the month of May, there was a 27bp peak to trough differential. Shown in the chart above, there is a noticeable negative correlation between rates and spreads. As rates dove lower over the course of the month (from a high of 4.10% to a low of 3.83%), spreads widened, although in a choppy fashion, pretty consistently. The tightest the spread got was 82bps; the widest was 95bps; the average was 89bps. The FN30 NR is the average conventional note rate across a subset of Compass's client base normalized for volume. The FN30 CC is the Fannie 30-year Mortgage Backed Security yield at par 30 days out. The difference between these numbers gives an indication as to how much margin is priced into the secondary market. The primary factors are interest rates and warehouse line constraints. Lenders may also be slower to improve rates during a rally, and quick to drop their pricing during a sell-off.

-David Bennett

MSR Rich/Cheap and Mandatory/Best Efforts Spread

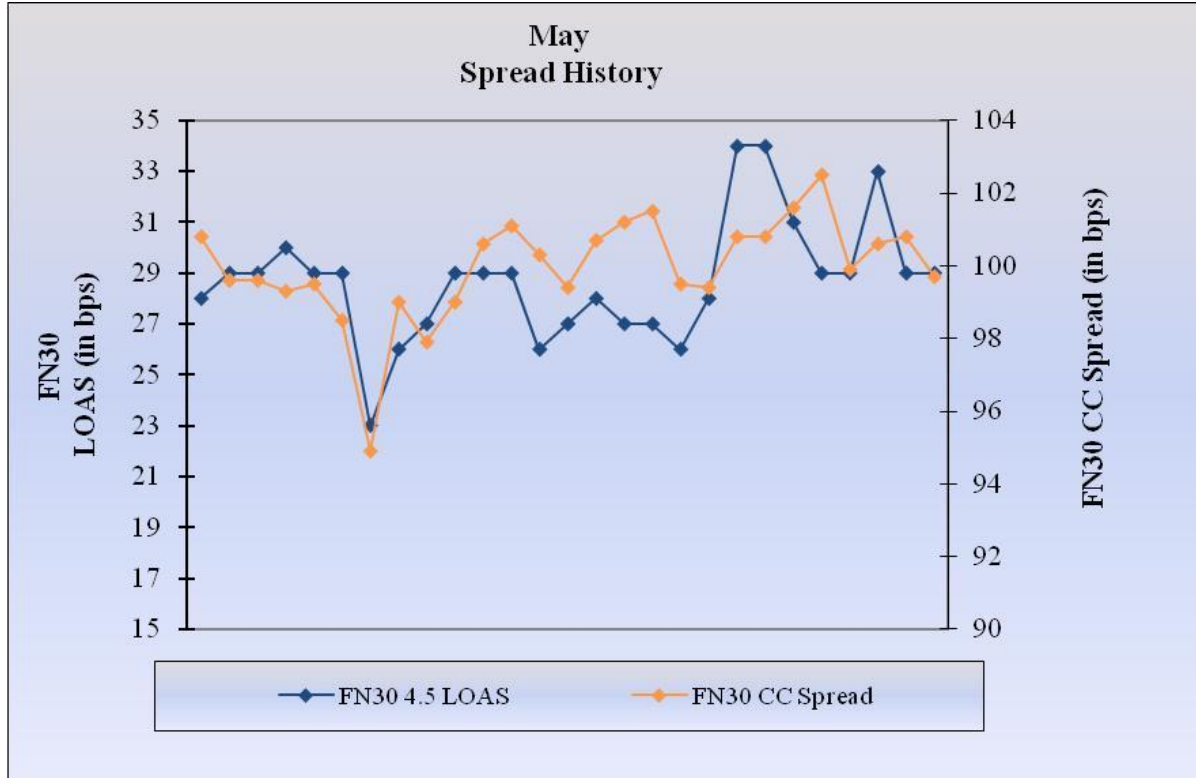
There was considerable volatility for Retain/Release Rich/Cheap IRR, Mandatory-Best Efforts Spreads and Profit Margins over the course of the month. The MSR Rich/Cheap averaged 8.8% with a peak of 16.1% and a low of 3.1%. The BE/Mandatory Spread averaged 36bps with a peak of 65bps and a trough of 22bps. With the downward push in rates, one would expect spreads, particularly the BE/Mand, to widen a shade as production starts to increase. This spread will be worth tracking as the cycle progresses. The 30-year gross profit margin averaged 82bps with a peak of 96bps and a trough of 67bps.



The MSR Rich/Cheap gives the internal rate of return for retaining servicing and provides a general measure of how aggressive aggregators are in their servicing bid. If a client is considering retaining servicing, or is deciding between retaining or selling servicing-released on any given day, this number can serve as a guide. Compass uses best execution across aggregators each day for note rates bracketing the FN30NR. The Mandatory/BE spread tracks the difference of a representative seller's basis point pick-up using mandatory delivery instead of best efforts. Compass uses several investors, for best efforts and mandatory, and compares the best execution of each of the two delivery methods for note rates flanking the FN30NR. The Conventional 30-year average gross profit margin tracks the originator's gross profit margin, i.e. the difference between what the originator pays for the loan (what is posted on a rate sheet) and what the originator could sell the loan for into the secondary market.

-David Bennett

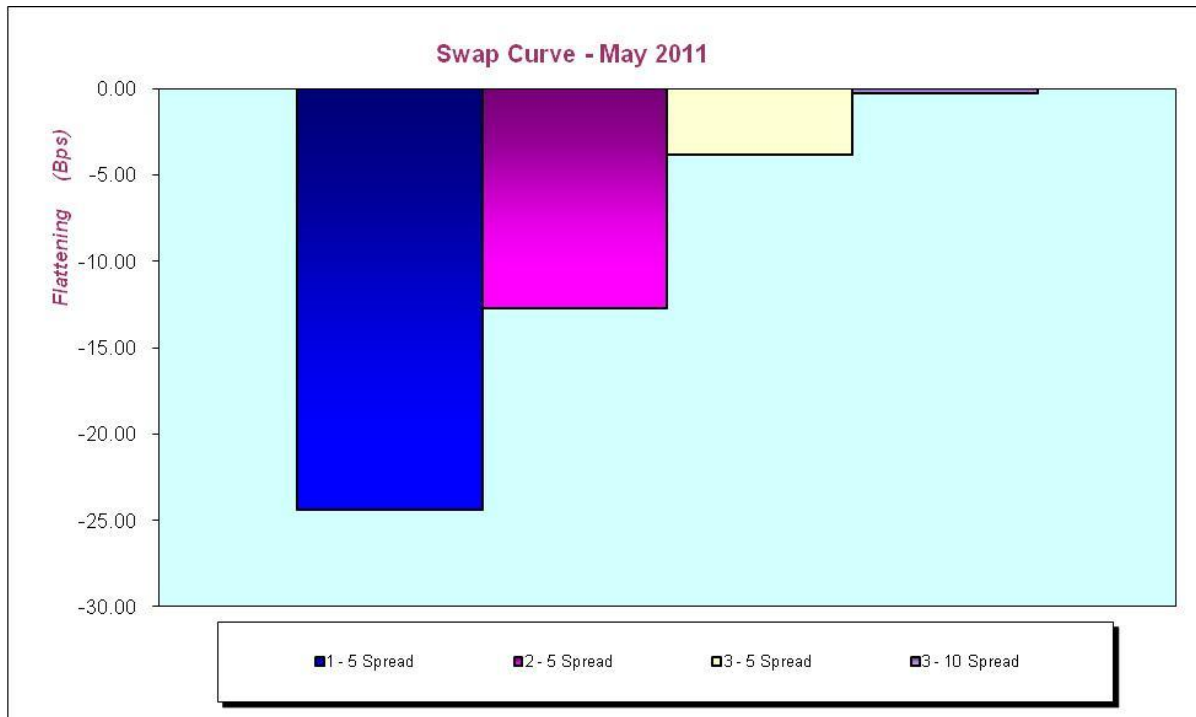
Monthly Spreads



The Treasury 2-10 spread tightened nine basis points over the past five weeks, closing June 6th at 259 bps. On a LIBOR-OAS basis, mortgage yield spiked tighter on May 10th as equities rallied, but closed the period 2 basis points wider than the May 1st level. The combination of poor home values and regulatory obstacles has minimized investors' prepayment concerns despite relatively low rates. Mortgage yield, measured as a spread over a blend of the 2 and 10 year swap curve yields, also spiked in response to May 10th's equities rally. It closed June 6th at 101 bps, unchanged for the period.

-Dylan Faerstein

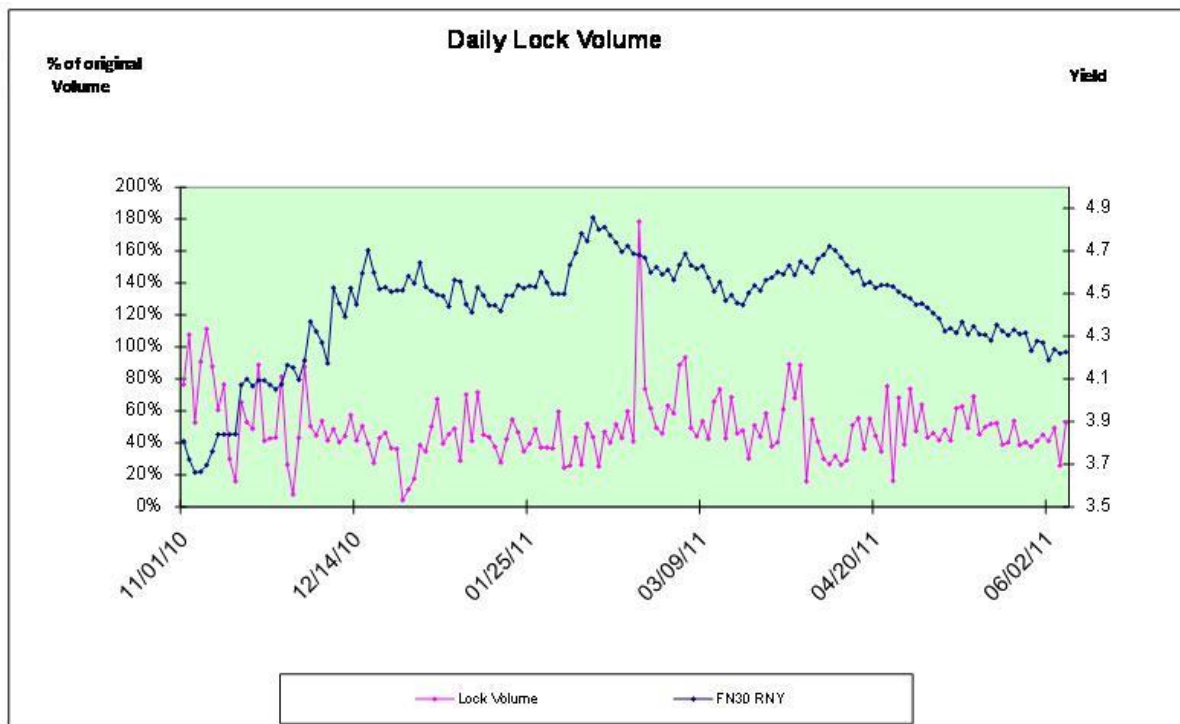
Swap Curve Analysis



12 month LIBOR continued its downward trend, falling 3 basis points over the past five weeks. Swap yields followed, with the 3, 5 and 10 year yields each falling nearly 25 basis points. On June 3rd, The 2 year swap yield closed down 15 bps from its May 1st level, causing the 2-10 spread to compress by 9 basis points. The 1-3 and 1-5 LIBOR/swap spreads tightened 20 basis points and 24 basis points, respectively. Yet again, we find ourselves with a significantly flatter yield curve. For the first time this year, the 2 year swap yield dipped below 12 month LIBOR and closed the period 10 basis points below the longer tenor rate. In the period's biggest daily move, the 3 and 5 year yields dropped 6 bps and the 10 year yield decreased 8 bps as European sovereign troubles and softer GDP forecasts pushed investor money into bonds.

-Dylan Faerstein

Production Index



Production in the 30-day period ending June 7, 2011 decreased while rates traded in a narrower range (18 bp range in this period versus 39 bp in the prior period), with the average yield decreasing month over month by 20 bps. Average volume for the last 30 days was 47% of our base volume (vs. 48% in the prior period) ranging from a low of 26% to a high of 69%. The average yield on the FN30 RNY in this period was 4.29% (vs. 4.49% in the prior period) ranging from a low of 4.19% to a high of 4.38%.

-Brandon Case