# Non-agency MBS Weekly

# Non-agencies seem poised to rally further

# Bank of America Merrill Lynch

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Securitized Products Strategy United States

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Prepayments: Going steady (18 March 2016)

So far, mods have endured the stepups (4 March 2016)

Turning overweight on non-agencies (04 March 2016)

## Key takeaways

- Lower mortgage rates should provide further stimulus to US home prices and allow faster buildup of enhancement in CRT bonds
- Combination of Brexit, unlikely Fed hike and fading near term concerns about US economy should support risk rally further
- We turn overweight on CAS/STACR bonds, especially the M2 and M3 tranches and remain overweight on legacy non-agencies

#### Week in review

No non-agency new issue deal was priced this week. Year-to-date non-agency issuance is \$26bn. Weekly BWIC volumes in the legacy non-agency RMBS space remained fairly light at \$341mn. Primary dealer non-agency holdings in the week of 6/29/2016 reached the lowest level at \$8.5bn since 2013 (Chart 2). Spreads tightened by 10bps for fixed-rate Jumbo/Option Arm and remained relatively unchanged for Alt-A floaters and Subprime WoW. CRT weekly volumes as of Thursday totaled at least \$173mn. Spreads for STACR M3/CAS M2 bonds tightened by 25-40bps compared with an 11bps spread tightening for high yield corporates. Spreads for IG –rated CRT tranches also tightened by 20-30bps, compared with a 2bps spread tightening for IG corporates week over week As of 12pm Friday, CAS M2/STACR M3s tightened by 10bps DoD. SFR spreads remained relatively unchanged WoW.

## Non-agencies seem poised to rally further

Along with being supportive for upward trending home prices, lower mortgage rates would also shorten the WAL for the CRT bonds and help in faster buildup of credit enhancement. This in addition with the positive impact of Brexit on USD denominated risk assets, the Fed unlikely to hike and fading near-term concerns about US economy should create an environment supportive of further tightening in CRT spreads. Legacy non-agencies should also benefit in such an environment and look poised for further tightening as investors (again) reach for yield and reinvestment demand from Countrywide kicks in. We turn overweight CAS/STACR bonds, especially M2 and M3 tranches, and remain overweight on legacy non-agencies.

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Refer to important disclosures on page 12 to 13.

# Market overview

No non-agency new issue deal was priced this week. Year-to-date non-agency issuance is \$26bn, with \$7.3bn in CRT, \$2.0bn in Jumbo 2.0, \$1.3bn in SFR, \$15.3bn in NPL/RPL/seasoned securitization/S&D and \$162mn in non-prime securitizations (Table 1).

Table 1: Non-agency RMBS annual gross issuance and forecast

| Sector          | 2014 | 2015 | 2016 YTD | 2016E |
|-----------------|------|------|----------|-------|
| Jumbo           | 8.8  | 12.1 | 2.0      | 10    |
| Alt-A           | 0.0  | 0.0  | 0.0      | 0     |
| Option ARM      | 0.0  | 0.0  | 0.0      | 0     |
| Subprime/Non-QM | 0.0  | 0.5  | 0.2      | 1     |
| RPL/NPL         | 23.4 | 28.5 | 15.3     | 22    |
| SF Rental       | 6.7  | 6.6  | 1.3      | 5     |
| Risk Transfer   | 10.8 | 12.8 | 7.3      | 13    |
| Non-agency      | 49.7 | 60.4 | 26.0     | 51    |

Source: BofA Merrill Lynch Global Research, Intex

Weekly BWIC volumes in the legacy non-agency RMBS space remained fairly light at \$341mn, with \$128mn in subprime, \$124mn in Alt-A, \$38mn in Option ARM, \$50mn in jumbo. There were also \$3mn ReREMICs and \$165mn derivatives in for the bid. Primary dealer non-agency holdings in the week of 6/29/2016 reached the lowest level at \$8.5bn since 2013 (Chart 2). Spreads tightened by 10bps for fixed-rate Jumbo and Option Arm and remained relatively unchanged for Alt-A floaters and Subprime WoW (Chart 1). We remain overweight legacy RMBS and believe strong mortgage credit fundamentals and favorable technicals from negative net supply should support further spread tightening.

Chart 1: Non-agency spreads

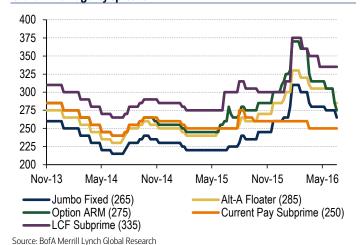


Chart 2: Primary Dealer Non-agency Holdings (\$mn)

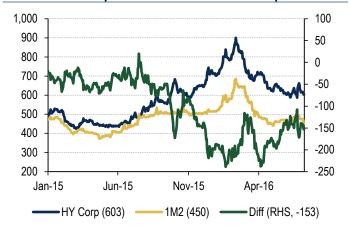


Source: NY Fed

CRT weekly volumes as of Thursday totaled at least \$173mn; 38% of the trades were on CAS and 83% on the CAS M2s/STACR M3s. Spreads for STACR M3/CAS M2 bonds tightened by 25-40bps compared with an 11bps spread tightening for high yield corporates (H0AO Index, Chart 3). Spreads for IG –rated CRT tranches also tightened by 20-30bps, compared with a 2bps spread tightening for IG corporates week over week (COAO Index, Chart 4). As of 12pm Friday, CAS M2/STACR M3s tightened by 10bps DoD.

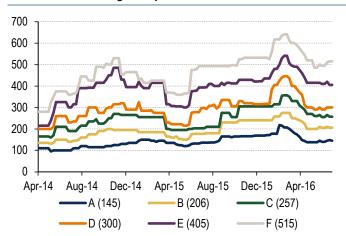
Weekly volumes in the SFR space as of Thursday totaled at least \$39mn, according to TRACE. At least \$16mn was on the AAA rated classes, \$10mn was on BBB+ rated classes, and \$14mn on the other tranches. Spreads remained relatively unchanged WoW. (Chart 5 and Chart 6).

Chart 3: On-the-run spread for low LTV CAS NR vs. HY Corp



Source: BofA Merrill Lynch Global Research Note: HY Corp spreads are as of 7/7/2016

**Chart 5: SFR 5Y Floating-rate Spreads** 



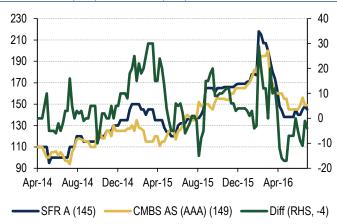
Source: BofA Merrill Lynch Global Research

Chart 4: On-the-run spread for low LTV CAS BBB vs. IG Corp



Source: BofA Merrill Lynch Global Research Note: IG Corp spreads are as of 7/7/2016

#### Chart 6: SFR A (AAA) vs. CMBS AS (AAA)



Source: BofA Merrill Lynch Global Research

# Non-agencies seem poised to rally further

The result of Brexit referendum surprised many, and the swiftness with which US risk assets, including non-agencies, have shrugged off the subsequent fears has been remarkable. The S&P 500 is now higher, and CDX HY is now tighter than the respective pre-Brexit levels. Given the complex transmission, assessing Brexit's economic repercussions for the US will take a while; however, the market implied probabilities for a Fed hike in 2016 have quickly narrowed to nearly zero. The event has undoubtedly proved to be a positive for the US dollar, and 5-year/10-year Treasury rates have sunk to all-time lows. Although the probability of higher Treasury rates has increased (relative to the probability of substantially lower rates), they are likely to persist in a band lower than the last year levels, making the "spread" that much more valuable.

The combination of low interest/mortgage rates, the Fed unlikely to hike and fading near-term concerns about the US economy creates a positive environment for legacy non-agencies as well as CAS/STACR deals. In addition, we had highlighted last week in <a href="Independence meets interdependence">Independence meets interdependence</a> that the yield pickup in US securitized products relative to global alternatives has become even more compelling in the wake of Brexit. Consequently, we turn overweight on CAS/STACR bonds and remain overweight on legacy non-agencies.

## CRT - we turn overweight; lower mortgage rates a positive

Lower mortgage rates should not only support home prices but also enhance prepayments, which would lead to a faster buildup of credit enhancement in CAS/STACR deals. We believe that the shift in interest rates should strengthen the fundamentals for CRTs at the same time as it makes the chunky spread of CRT tranches more valuable – we turn overweight on CAS/STACR, especially the M2 and M3 tranches.

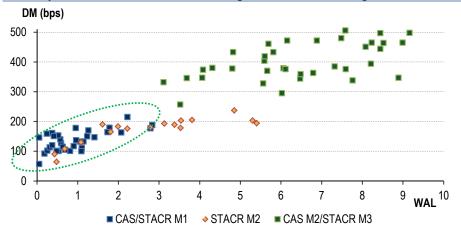
#### Shorter WAL should benefit CRTs

If mortgage rates remain low for a while, prepays would only pick up from their current levels. Unlike fixed-rate agency MBS instruments, faster prepayments should be a positive for CRT bonds on two counts:

- The WAL of CRT bonds would shorten across the capital structure, resulting in a roll-down of credit spreads
- Bonds would build enhancement at a faster pace, which should improve their credit profile

The rolldown would be especially relevant for investment grade (IG)-rated CAS M1s and STACR M1/M2s, where current spreads exhibit an upward sloping term structure (Chart 7). While the spreads for below-IG-rated CAS M2s and STACR M3s have a relatively flat term structure, that can also change over time, and in any case, faster buildup of enhancement should be a credit positive for these.

Chart 7: Spread vs WAL for CRT tranches exhibiting the term structure among IG bonds



Source: BofA Merrill Lynch Global Research

#### Rating upgrades may also happen sooner

With credit events remaining low, faster prepayments could also catalyze rating upgrades. Although rating agencies probably consider a multitude of parameters to determine if and when a bond rating gets upgraded, increase in credit enhancement (or loss coverage multiple) seems to have been a key driver of rating upgrades in the past. As we have discussed previously, CAS/STACR bonds upgraded so far all exhibited at least an 18-20% increase in their loss coverage multiples, primarily driven by buildup in enhancement (see CRT ratings upgrade for more details).

These upgrades would be especially beneficial to BB-rated bonds that are upgraded to IG tier. In April this year, Moody's upgraded STACR 2015-DN1 M3 from below-IG to IG and the spread for that bond tightened 65bps after the event. The market arguably has priced the probability of rating upgrades more proactively since then; however, the potential for such upgrades creates favorable technicals and a broader investor base, which could translates to further spread tightening as well as pockets of relative value. The BB/B rated CRT bonds with the highest collateral WAC are listed in Table 2.

Table 2: BB/B rated CRT bonds and their Collateral WAC/prepayment speed

| Bond               | Rating | Coll WAC | 3m CRR | Bond               | Rating | Coll WAC | 3m CRR |
|--------------------|--------|----------|--------|--------------------|--------|----------|--------|
| STACR 2015-DN1 M3  | Ba1    | 4.5      | 23.5   | STACR 2015-HQ1 M3  | Ba1    | 4.5      | 24.9   |
| STACR 2015-DNA1 M3 | BB+    | 3.7      | 10.1   | STACR 2015-HQ2 M3  | BB     | 3.8      | 14.9   |
| STACR 2015-DNA2 M3 | B1     | 4.4      | 21.5   | STACR 2015-HQA1 M3 | B+     | 4.4      | 21.0   |
| STACR 2015-DNA3 M3 | В      | 4.1      | 18.6   | STACR 2015-HQA2 M3 | В      | 4.2      | 18.9   |
| STACR 2016-DNA1 M3 | В      | 4.0      | 12.4   | CAS 2016-C01 2M2   | B1     | 4.2      | 17.5   |
| CAS 2016-C01 1M2   | Ba3    | 4.2      | 18.3   |                    |        |          |        |
| CAS 2016-C02 1M2   | B1     | 4.0      | 11.7   |                    |        |          |        |

Source: BofA Merrill Lynch Global Research, Bloomberg

#### Some seasoned NR/B-rated bonds would gain with pickup in prepayments

Lower dollar-priced NR/B-rated bonds could have upside in a lower mortgage rate environment. We have discussed this theme in the past, too, and reiterate that NR/B-rated bonds trading at discount to par should directly benefit from a shorter WAL. However, with much of CRT universe now trading close to par, we acknowledge that bonds that have such upside are rather few.

#### We turn overweight on CRT bonds

In addition to above, the positive impact of Brexit on USD denominated risk assets would also help the CRT sector. At the current low levels of 5/10-year Treasury yields, the spread offered by CRT bonds actually may become more valuable. In other words, we believe that the carry generated by 6% yielding CRT bonds is worth relatively more when the risk free rate is 1.0-1.5% compared to when the risk free rate is 3%.

Low interest rates should shore up fundamentals by supporting home prices. As discussed in our overview Chinese dominate foreign buying of US Residential Real Estate, foreign buying continues to be supportive of US home prices, and the post-Brexit drop in mortgage rates should only provide additional stimulus. As it is, mortgage credit fundamentals remain strong, and minimal duration of these bonds (given that CRT bonds are issued as par-floaters) naturally insulates their prices from interest rate volatility. Overall, we believe that CRT spreads remains skewed toward further tightening, and we turn overweight on CAS/STACR, especially the M2 and M3 tranches.

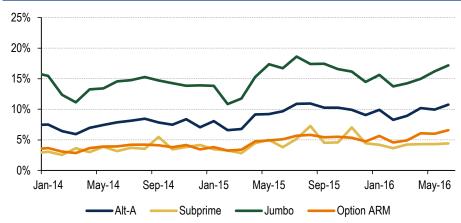
## Legacies - rates should matter little; remain overweight

We went overweight non-agencies in March this year, and since then the spreads have tightened 30-60bps across the legacy sectors. We believe that spreads may have room to tighten further and remain overweight on the sector.

#### Jump in prepayments likely to be muted

Unlike agency mortgages, legacy prepayments largely have decoupled from mortgage rates. Across sectors, most of the prepayments come from borrowers with perfect pay history who have been deep in the money for an extended period. Consequently, they would continue to refinance at "burned-out" speeds and can expected to be steady and fairly agnostic to movement in mortgage rates. Please see <a href="Prepayments Going steady">Prepayments Going steady</a> for a more detailed discussion. Chart 8 below shows the prepayment speeds for the legacy non-agency sectors.

#### **Chart 8: CPR by sector for legacy RMBS**



Source: CoreLogic, BofA Merrill Lynch Global Research

#### Remain overweight legacy non-agencies

In a spread rally characterized by reach-for-yield, legacy non-agencies should be poised for further tightening. What sets legacies apart from other spread products in securitized products is the unlevered pass-through nature of many of these bonds. This lends certain safety to the return profile of non-agencies. Investors searching for yield but unwilling to go down the capital structure may continue to find legacy non-agencies attractive.

In addition, the Countrywide technical should also be a positive for the sector<sup>1</sup>. No new issuance coupled with consistent paydowns has been a major positive for legacy nonagencies – adding the reinvestment demand from Countrywide payout on top should lend further support to the sector spreads.

Along with positive technicals, the fundamentals for the sectors remain supportive. First and foremost, our near term (1-2 years) outlook on home prices is positive and we believe that 2016 easily could be another year of above-trend growth. Collateral

<sup>&</sup>lt;sup>1</sup> See <u>The Countrywide technical for non-agencies</u>, June 3, 2016, for more details

performance, too, has been stable. Modified borrowers' performance has been improving gradually, and HAMP resets so far have been negotiated without a surge in defaults. Liquidation timelines have been on an upward trajectory, but that is priced in and so far has not led to any negative surprises in liquidation recoveries. In fact, liquidation recoveries of underwater modified borrowers have been better than expected. Overall, with support from technical, structural and fundamental factors, we believe that the rally in legacy non-agencies is likely to continue.

#### IR01 for fixed rate legacies may be lower than model estimates

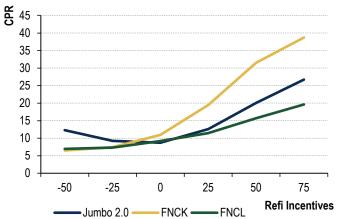
The exhibited interest rate duration for fixed-rate seniors/WAC pass-throughs may be different than expected. In other words, the pickup in dollar price for fixed coupon legacy senior might be less than the product of IRO1 and drop in interest rate. As a result, total, and especially the excess returns, of fixed-rate non-agency seniors may turn out to be lower than expected. This probably is because some of non-agency investors are fixed yield buyers whose return threshold may not vary with interest rates. However, with interest rates sinking to all-time lows, yield thresholds for some borrowers may shift lower.

On a related note, mortgage coupons are either fixed or tied to short-term benchmarks and are largely unaffected by current interest rate movement. Consequently, the coupon for senior-pass-through will remain largely unchanged despite the movement in interest rates, as will the excess spread in deals with floating rate seniors.

## Jumbo 2.0 – better convexity should help

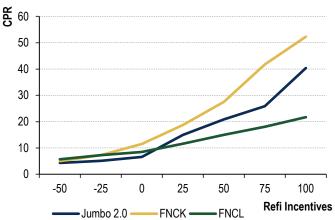
The drop in mortgage rates catalyzes the convexity risk in Jumbo 2.0 seniors, what little of it has been issued. However, we have said that convexity fears for Jumbo 2.0 loans may be overblown. The S-curves for Jumbo 2.0s have been flatter than CK loans as shown in Chart 9 and Chart 10. The better convexity of Jumbo 2.0 loans should be a positive for the seniors as well as IO tranches. See <a href="Is Jumbo 2.0 performance overlooked">Is Jumbo 2.0 performance overlooked</a>?, October 22, 2015, for more details.

Chart 9: S-curve for Jumbo 2.0, FNCK and FNCL in 2015-2016



Source: CoreLogic, BofA Merrill Lynch Global Research, Note: The s-curve is based on 2013/2014 vintage loans whose WALA >12

Chart 10: S-curve for Jumbo 2.0, FNCK and FNCL in 2013-2014



Source: CoreLogic, BofA Merrill Lynch Global Research, Note: The s-curve is based on 2011/2012/2013 vintage loans whose WALA >12

We acknowledge that the Jumbo 2.0 new issuance has been beleaguered and only five deals have issued so far this year. Nonetheless, we do see some secondary trading for Jumbo 2.0 bonds and believe that although few and far between, some investment opportunities can open up in the sector.

# Market pricing and spread

Table 3: Non-agency spreads

|                               |               | 1-We | ek ∆ | 1-Mon | th $\Delta$ | 12-mth $\Delta$ |      | 2016  | YTD  |         |         |
|-------------------------------|---------------|------|------|-------|-------------|-----------------|------|-------|------|---------|---------|
| Non-agency Spreads            | Current Level | bp   | %    | bp    | %           | bp              | %    | bp    | %    | YTD Min | YTD Max |
| Legacy Spreads                |               |      |      |       |             |                 |      |       |      |         |         |
| Jumbo Fixed                   | 265           | (10) | -4%  | (10)  | -4%         | 45              | 20%  | 5     | 2%   | 260     | 310     |
| Alt-A Floater                 | 285           | 0    | 0%   | (20)  | -7%         | 35              | 14%  | 0     | 0%   | 285     | 330     |
| Option ARM                    | 275           | (10) | -4%  | (30)  | -10%        | 15              | 6%   | (25)  | -8%  | 275     | 370     |
| Current Pay Subprime          | 250           | 0    | 0%   | 0     | 0%          | 0               | 0%   | (10)  | -4%  | 250     | 260     |
| LCF Subprime                  | 335           | 0    | 0%   | 0     | 0%          | 35              | 12%  | 35    | 12%  | 300     | 375     |
| New Issue Spreads             |               |      |      |       |             |                 |      |       |      |         |         |
| LCF Jumbo 2.0                 | 170           | 0    | 0%   | 0     | 0%          | 35              | 26%  | 20    | 13%  | 150     | 170     |
| NPL A1                        | 297           | 0    | 0%   | (23)  | -7%         | 4               | 2%   | (81)  | -21% | 297     | 378     |
| NPL A2                        | 653           | 0    | 0%   | 17    | 3%          | 259             | 66%  | 163   | 33%  | 490     | 653     |
| SFR                           |               |      |      |       |             |                 |      |       |      |         |         |
| A                             | 145           | (3)  | -2%  | 5     | 4%          | 9               | 7%   | (24)  | -14% | 138     | 218     |
| В                             | 206           | 0    | 0%   | 1     | 0%          | 29              | 16%  | (34)  | -14% | 200     | 275     |
| C                             | 257           | 0    | 0%   | 2     | 1%          | 54              | 27%  | (48)  | -16% | 255     | 357     |
| D                             | 300           | 0    | 0%   | 10    | 3%          | 2               | 1%   | (17)  | -5%  | 290     | 446     |
| E                             | 405           | 0    | 0%   | (5)   | -1%         | 12              | 3%   | (30)  | -7%  | 405     | 541     |
| F                             | 515           | 0    | 0%   | 20    | 4%          | 22              | 4%   | (17)  | -3%  | 485     | 641     |
| Credit Risk Transfer          |               |      |      |       |             |                 |      |       |      |         |         |
| STACR Low LTV Actual Loss M1  | 105           | (3)  | -3%  | (12)  | -10%        | (15)            | -13% | (26)  | -20% | 105     | 190     |
| STACR Low LTV Actual Loss M2  | 190           | (20) | -10% | (15)  | -7%         | (66)            | -26% | (100) | -34% | 190     | 315     |
| STACR Low LTV Actual Loss M3  | 485           | (25) | -5%  | (2)   | 0%          | 78              | 19%  | 0     | 0%   | 463     | 690     |
| STACR Low LTV Actual Loss B   | 1,125         | Ó    | 0%   | 80    | 8%          | 385             | 52%  | 191   | 20%  | 934     | 1,197   |
| STACR Low LTV M1              | 135           | 0    | 0%   | 0     | 0%          | 2               | 2%   | 9     | 7%   | 124     | 135     |
| STACR Low LTV M2              | 175           | (5)  | -3%  | 5     | 3%          | (56)            | -24% | (35)  | -17% | 155     | 230     |
| STACR Low LTV M3 (BB)         | 305           | (25) | -8%  | (13)  | -4%         | (91)            | -23% | (150) | -33% | 305     | 540     |
| STACR Low LTV M3 (NR)         | 375           | (38) | -9%  | (33)  | -8%         | (60)            | -14% | (95)  | -20% | 375     | 590     |
| STACR Low LTV B (NR)          | 1,017         | 0    | 0%   | 4     | 0%          | 175             | 21%  | 147   | 17%  | 870     | 1,077   |
| STACR High LTV M1             | 100           | (10) | -9%  | (10)  | -9%         | (30)            | -23% | (35)  | -26% | 100     | 155     |
| STACR High LTV M2             | 205           | (35) | -15% | (25)  | -11%        | (36)            | -15% | (50)  | -20% | 205     | 295     |
| STACR High LTV M3 (BB)        | 360           | (30) | -8%  | (28)  | -7%         | (15)            | -4%  | (70)  | -16% | 360     | 555     |
| STACR High LTV M3 (NR)        | 390           | (23) | -6%  | (20)  | -5%         | (45)            | -10% | (80)  | -17% | 390     | 585     |
| STACR High LTV B (NR)         | 805           | 0    | 0%   | (14)  | -2%         | 27              | 3%   | (6)   | -1%  | 805     | 866     |
| STACR High LTV Actual Loss M1 | 114           | 0    | 0%   | 0     | 0%          |                 |      | 2     | 2%   | 112     | 170     |
| STACR High LTV Actual Loss M2 | 195           | (33) | -14% | (23)  | -11%        |                 |      | (95)  | -33% | 195     | 320     |
| STACR High LTV Actual Loss M3 | 500           | (27) | -5%  | (14)  | -3%         |                 |      | 5     | 1%   | 500     | 690     |
| STACR High LTV Actual Loss B  | 1,145         | 0    | 0%   | 0     | 0%          |                 |      | 99    | 9%   | 1,046   | 1,275   |
| CAS Low LTV M1                | 140           | (25) | -15% | (25)  | -15%        | (1)             | -1%  | (16)  | -10% | 140     | 175     |
| CAS Low LTV M2                | 450           | (25) | -5%  | (7)   | -2%         | 5               | 1%   | (65)  | -13% | 440     | 685     |
| CAS High LTV M1               | 130           | (40) | -24% | (40)  | -24%        | (11)            | -8%  | (26)  | -17% | 130     | 170     |
| CAS High LTV M2               | 445           | (30) | -6%  | (18)  | -4%         | 3               | 1%   | (67)  | -13% | 440     | 680     |
| CAS Actual Loss Low LTV M1    | 175           | (5)  | -3%  | (5)   | -3%         |                 |      | 21    | 14%  | 154     | 215     |
| CAS Actual Loss Low LTV M2    | 465           | (30) | -6%  | (22)  | -5%         |                 |      | (80)  | -15% | 463     | 690     |
| CAS Actual Loss Low LTV B     | 1,045         | Ó    | 0%   | Ò     | 0%          |                 |      | ` '   |      | 1,043   | 1,210   |
| CAS Actual Loss High LTV M1   | 185           | (25) | -12% | (25)  | -12%        |                 |      | 20    | 12%  | 165     | 220     |
| CAS Actual Loss High LTV M2   | 495           | (25) | -5%  | (12)  | -2%         |                 |      | (40)  | -7%  | 495     | 710     |
| CAS Actual Loss High LTV B    | 1,165         | ) Ó  | 0%   | Ò     | 0%          |                 |      | . ,   |      | 1,165   | 1,275   |
| 5 0 (4.4)                     |               |      |      |       |             |                 |      |       |      |         |         |

Source: BofA Merrill Lynch Global Research Note: current spreads are as of 7/7/2016

Chart 11: Non-agency senior bond prices- 2006 vintage

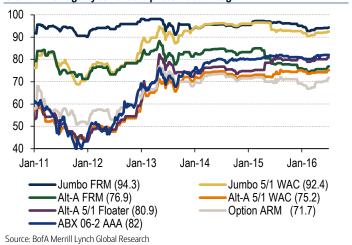
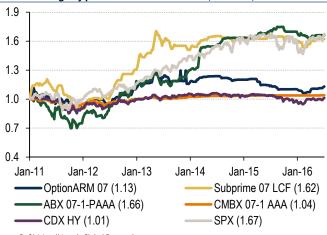


Table 4: Non-agency market pricing using sample, indicative bonds

|            |             |         | <u> </u> |           |
|------------|-------------|---------|----------|-----------|
| Sector     | Sub-sector  | Vintage | Price    | Yield (%) |
| Jumbo      | Fixed Rate  | 2005    | 100.09   | 4.20      |
|            |             | 2006    | 94.32    | 4.25      |
|            |             | 2007    | 97.70    | 4.15      |
|            | 5/1 WAC     | 2005    | 98.23    | 4.45      |
|            |             | 2006    | 92.43    | 4.75      |
|            |             | 2007    | 89.76    | 4.42      |
| Alt-A      | Fixed Rate  | 2005    | 83.04    | 5.06      |
|            |             | 2006    | 76.89    | 5.01      |
|            |             | 2007    | 74.99    | 5.26      |
|            | 5/1 WAC     | 2005    | 79.12    | 4.81      |
|            |             | 2006    | 75.16    | 4.72      |
|            |             | 2007    | 70.74    | 4.83      |
|            | 5/1 Floater | 2005    | 73.77    | 4.43      |
|            |             | 2006    | 80.92    | 4.68      |
|            |             | 2007    | 73.58    | 4.93      |
| Option ARM |             | 2005    | 82.47    | 4.47      |
|            |             | 2006    | 71.71    | 4.54      |
|            |             | 2007    | 78.56    | 4.63      |

Source: BofA Merrill Lynch Global Research

Chart 12: Non-agency prices vs. CDX HY & S&P 500 (100=1/11)



Source: BofA Merrill Lynch Global Research

Table 5: Subprime market pricing using sample, indicative bonds

| Vintage | Crossover  | Tranche     | Price    | Yield (%) |
|---------|------------|-------------|----------|-----------|
| 2005    | Sequential | FCF         | 99.54    | 1.55      |
| 2006    | Pro Rata   | Mid Pay     | 88.14    | 4.20      |
|         |            | LCF         | 62.47    | 5.84      |
| 2007    | Sequential | Front Pay   | Paid Off | Paid Off  |
|         |            | Second Pay  | 95.74    | 3.10      |
|         |            | Penultimate | 81.79    | 5.40      |
|         |            | LCF         | 74.86    | 6.09      |

Source: BofA Merrill Lynch Global Research

# Non-agency new issue summary

Table 6: RMBS monthly issuance by asset type (in \$ millions)

|         |       |       |            |          |       |       |          | Total Non |          |
|---------|-------|-------|------------|----------|-------|-------|----------|-----------|----------|
| Date    | Jumbo | Alt-A | Option ARM | Subprime | CRT   | SFR   | RPL/ NPL | Agency    | Re REMIC |
| 2016-06 | 758   |       |            | 162      | 795   |       | 2,423    | 4,138     |          |
| 2016-05 |       |       |            |          | 1,543 | 791   | 5,862    | 8,196     | 242      |
| 2016-04 |       |       |            |          | 1,464 |       | 2,566    | 4,030     | 32       |
| 2016-03 | 517   |       |            |          | 1,562 |       | 2,635    | 4,714     | 597      |
| 2016-02 | 408   |       |            |          | 945   | 483   | 1,639    | 3,475     | 63       |
| 2016-01 | 299   |       |            |          | 996   |       | 148      | 1,443     | 476      |
| 2015-12 | 231   |       |            | 207      | 590   |       | 1,822    | 2,850     | 683      |
| 2015-11 | 903   |       |            | 195      | 1,111 | 739   | 1,717    | 4,665     | 785      |
| 2015-10 | 680   |       |            |          | 1,528 | 239   | 3,122    | 5,569     | 1,021    |
| 2015-09 | 761   |       |            |          | 965   | 478   | 2,026    | 4,230     | 1,237    |
| 2015-08 | 915   |       |            | 72       | 93    |       | 520      | 1,600     | 1,136    |
| 2015-07 | 878   |       |            | 0        | 1,878 |       | 2,992    | 5,748     | 1,292    |
| 2015-06 | 1,000 |       |            |          | 1,376 | 2,306 | 3,879    | 8,561     | 1,142    |
| 2015-05 | 967   |       |            |          | 1,489 | 380   | 1,891    | 4,727     | 2,209    |
| 2015-04 | 1,138 |       |            |          | 1,010 | 1,107 | 1,890    | 5,145     | 2,727    |
| 2015-03 | 933   |       |            |          | 860   | 553   | 2,780    | 5,126     | 3,302    |
| 2015-02 | 1,726 |       |            |          | 1,469 | 559   | 3,401    | 7,154     | 2,663    |
| 2015-01 | 1,940 |       |            |          | 880   | 541   | 2,434    | 5,795     | 3,365    |
| 2014-12 | 536   |       |            |          |       | 531   | 2,755    | 3,821     | 2,952    |
| 2014-11 | 2,036 |       |            |          | 1,449 | 1,298 | 4,601    | 9,383     | 2,867    |
| 2014-10 | 1,102 |       |            |          | 1,087 |       | 2,101    | 4,290     | 1,154    |
| 2014-09 | 1,189 |       |            |          | 770   | 987   | 2,716    | 5,661     | 1,747    |
| 2014-08 | 929   |       |            |          | 1,132 | 1,375 | 1,205    | 4,641     | 658      |
| 2014-07 | 670   |       |            |          | 2,050 |       | 1,741    | 4,460     | 1,192    |

Source: BofA Merrill Lynch Global Research, Intex, Bloomberg

Table 7: RMBS annual issuance by asset type (in \$ millions)

|          |         |         |            |          |        |       |          | Total Non |          |
|----------|---------|---------|------------|----------|--------|-------|----------|-----------|----------|
| Date     | Jumbo   | Alt-A   | Option ARM | Subprime | CRT    | SFR   | RPL/ NPL | Agency    | Re REMIC |
| YTD 2016 | 1,982   |         |            | 162      | 7,305  | 1,274 | 15,273   | 25,996    | 1,410    |
| 2015     | 12,072  |         |            | 474      | 13,248 | 6,902 | 28,475   | 61,170    | 21,563   |
| 2014     | 8,792   |         |            | 10       | 10,812 | 6,737 | 23,387   | 49,739    | 16,227   |
| 2013     | 12,830  |         |            |          | 1,805  | 479   | 11,986   | 27,100    | 11,989   |
| 2012     | 3,469   |         |            |          |        |       | 4,635    | 8,104     | 14,164   |
| 2011     | 671     |         |            |          |        |       | 3,536    | 4,207     | 23,827   |
| 2010     | 273     |         |            | 162      |        |       | 4,141    | 4,576     | 60,238   |
| 2009     | 0       |         |            | 0        |        |       | 7,131    | 7,131     | 58,453   |
| 2008     | 14,941  | 9,433   | 371        | 4,421    |        |       | 397      | 29,564    | 14,656   |
| 2007     | 153,641 | 188,214 | 91,893     | 248,061  |        |       | 7,870    | 689,679   | 21,192   |
| 2006     | 145,756 | 279,290 | 157,514    | 535,020  |        |       | 12,231   | 1,129,811 | 20,203   |
| 2005     | 183,140 | 278,846 | 147,948    | 530,959  |        |       | 11,614   | 1,152,507 | 36,214   |
| 2004     | 195,602 | 164,702 | 40,187     | 430,550  |        |       | 19,035   | 850,077   | 9,684    |
| 2003     | 238,245 | 86,393  | 3,362      | 240,555  |        |       | 6,044    | 574,599   | 6,207    |
| 2002     | 178,665 | 46,584  | 4,624      | 184,006  |        |       | 1,710    | 415,588   | 7,746    |
| 2001     | 118,269 | 27,458  | 2,584      | 110,667  |        |       | 629      | 259,607   | 2,885    |
| 2000     | 46,597  | 12,336  | 7,336      | 72,944   |        |       | 493      | 139,707   | 1,669    |

Source: BofA Merrill Lynch Global Research, Intex, Bloomberg

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