# Securitization Weekly

Bank of America Merrill Lynch

10 June 2016

## Overview– Wednesday's child (is full of woe)

An unchanged Fed at Wednesday's meeting (rate, dot plot) is likely to be bad news for securitized products. We hold our neutral view on the agency MBS basis, but with the 10yr through the 1.70 level, short term widening seems likely. We stick with our neutral stance for securitized products credit; given liquidity, it's not worth moving to an underweight.

## Agency MBS – A leak wider

We stay neutral, recognizing a drag to wider spreads on low rates. G2s are expected to be at the forefront of any weakness. Liquidity benefits of MBS manifest in rising money manager holdings, up to levels of 2 years ago on three quarters of growth. FNMA's data release of modified loans offers a breakthrough enabling better modeling and valuation supporting securitization.

## Non-agency MBS - Citi settlement may pay $1bn in 2-3 quarters

More than five months have elapsed since the NY Supreme Court approved the $1.1bn Citi settlement. Going by the Countrywide experience, IRS approval could be received before the end of next month. Further delays, if any, are likely to be limited; investors might receive Citi settlement's $1bn between Dec'16 and Apr'17.

## CMBS – Stuck in the middle again

Two private label deals priced this week and conduit cash bond spreads were largely unchanged in limited secondary trading. We are neutral newly issued conduit paper and think mezzanine conduit bond spreads could widen in secondary trading. Despite improving since Feb, CMBS-originator market share is below 10%, which will obviously limit new issue production.

## ABS – The countdown before the countdown

Spreads for on-the-run ABS were unchanged, while spreads for higher yielding ABS moved to tighter levels. Credit performance for equipment ABS remains relatively strong despite weaker overall conditions in key sectors. Fitch expects new criteria for FFELP ABS in less than 60 days and rating actions over the subsequent three months.

## CLO – Slow but positive earnings growth despite credit deterioration

We maintain our broadly neutral view on US CLOs as we attempt to balance poor liquidity versus cheap valuations. YoY EBITDA growth has remained positive since the crisis and concluded 1Q16 at 7.1% for publically filing index loan issuers. We look at YTD 2016 European CLO spread performance and discuss our outlook for the rest of the year.

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Link to Common acronyms

# Overview

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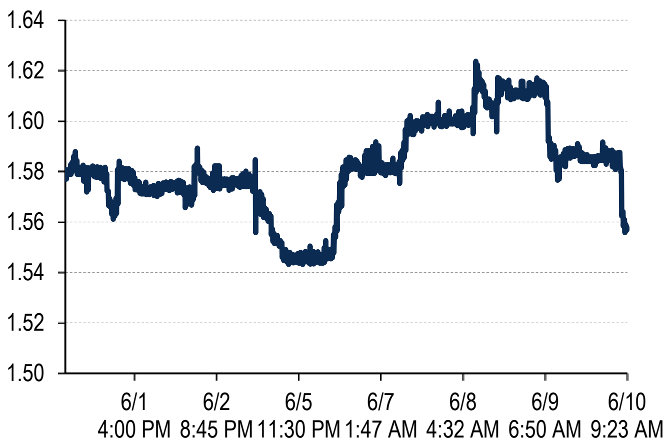
# Wednesday's child (is full of woe)

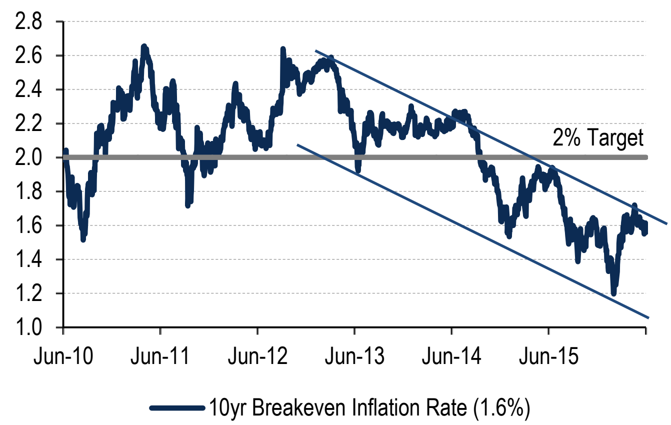
Chair Yellen had a chance on Monday this week to allay fears over excess hawkishness from the Fed going forward. Based on the round trip move on the 10yr breakeven rate (Chart 1), it appears as if she passed on that chance – at 1.56%, the rate is back to the pre-Yellen levels. Bigger picture, the 10yr breakeven remains in the downtrend that started around the taper tantrum in 2013 (Chart 2), and is nowhere near the Fed's 2% inflation target. In addition, the 2yr-10yr spread narrowed to under 89 bps as of writing (Chart 3), the flattest level since 2007. We view both of these trends as negative for securitized products: the Fed seems to be increasingly willing to accept recession in the next few years.

**Chart 1: Intraday 10yr breakeven inflation rate**



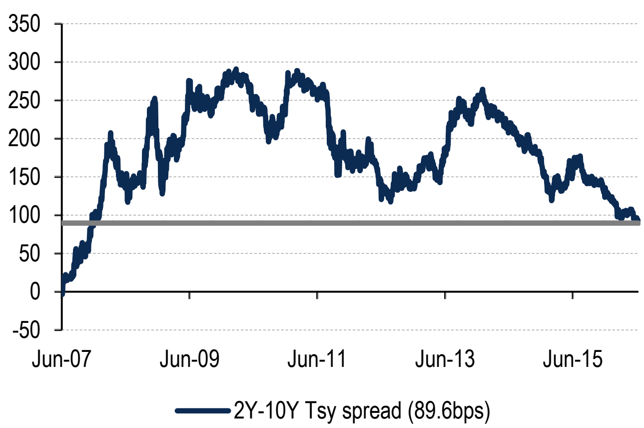

Source: Bloomberg

**Chart 2: 10yr breakeven inflation rate**




Source: Bloomberg

**Chart 3: 2yr-10yr treasury spread**



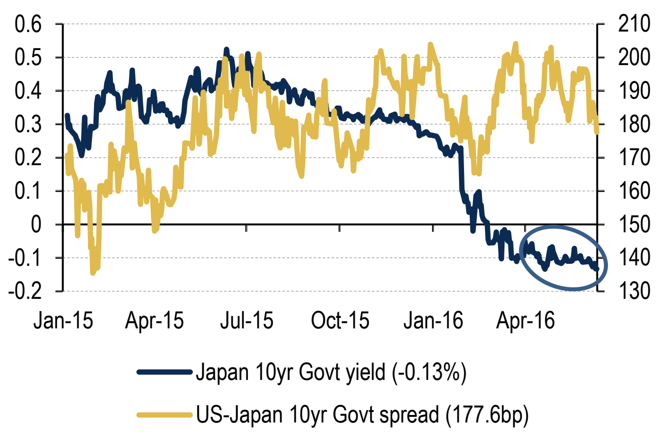

Source: Bloomberg

Next up is Wednesday's Fed decision. The BofAML Economics view is the Fed will be unchanged on rates and the dot plot, which say 2 more hikes in 2016 and 4 in 2017, and will reduce its GDP growth forecast. Chair Yellen is likely to suggest that it will become appropriate to hike this year, but will avoid giving any timeline. In short, it will be status quo – which, in our view, is hawkish.

We think markets are likely to take such an outcome badly and that we probably have already entered a risk-off phase for markets as a result. Due to its liquidity challenges, securitized products credit could be a relatively poor performer within an overall negative environment. We'll get to our breakeven inflation framework in a moment, but the up-front take away from that analysis is that corporate bonds and equities have performed much better than securitized products on an alpha basis since the lows in February: corporates are up 3%-6% relative to fair value while securitized products are down roughly 3%, or even more in the case of BB/B CLOs. The liquidity scars for securitized products from early this year appear to be deep, and not healing quickly. We have no reason to believe that will change anytime soon.

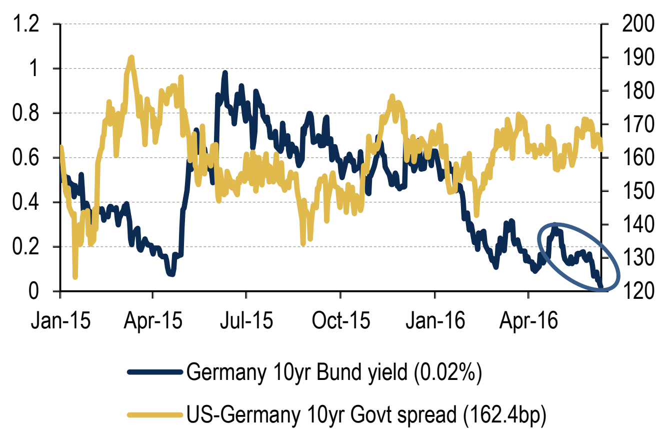
In our March 18 piece "Demography is destiny," we noted that aging populations in Japan and Europe are sustaining downward pressure on their government bond yields. As Chart 4 (Japan) and Chart 5 (Germany) show, that pressure shows no signs of abating. We also noted that as much as the Fed would like to raise interest rates, it is difficult for long term US interest rates to decouple from the global pressures: Chart 4 and Chart 5 also show the recent compression of the 10yr yield spread to Japanese and German 10yr yields, with the 10yr now at 1.65%, among the lowest levels of the past few years. Escape from the global framework appears challenged.

**Chart 4: Japan 10yr govt yield and US-Japan 10yr govt spread**




Source: Bloomberg

**Chart 5: Germany 10yr govt yield and US-Germany10yr govt spread**

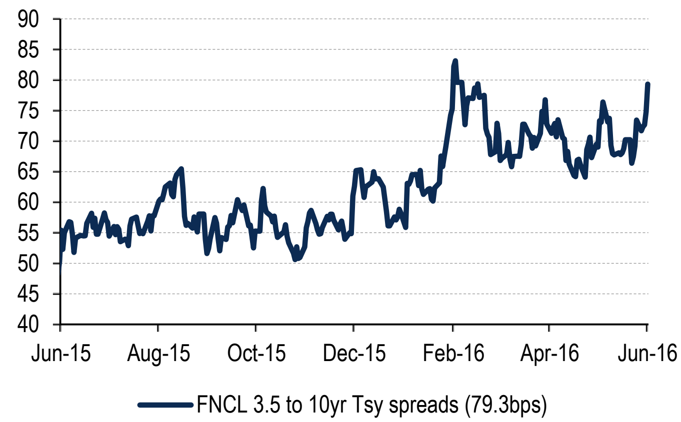



Source: Bloomberg

We anticipated spread volatility coming into the summer, but made the judgment up front that we would ride things out with our neutral allocation to securitized products and agency MBS (timing the Fed's mood swings is just too difficult for us). That anticipated spread volatility has begun.

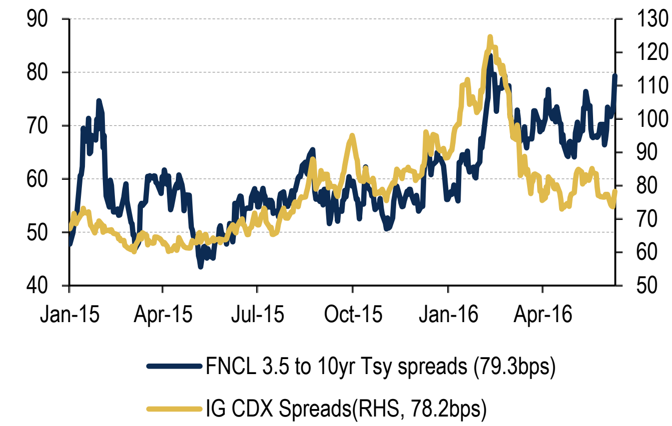
The break through 1.70% is an obvious negative for the agency MBS basis (Chart 6). Traders and tactical MBS investors should be underweight the basis given this rate development and the potential for yields to accelerate to the downside given Fed hawkishness. Our horizon is a little longer term so we retain our neutral stance – we still believe the Fed will eventually respond with another capitulation on its hawkishness and are skeptical on our ability to time the shift. Also, we note that the agency MBS basis is now at the widest level relative to high grade corporates (Chart 7), so relative value has improved. This also keeps us in the neutral camp.

**Chart 6: FNCL 3.5 to 10yr Treasury spreads**




Source: Bloomberg

**Chart 7: FNCL 3.5 to 10yr Treasury spreads and IG CDX spreads**




Source: Markit, Bloomberg

Turning to credit, Table 1 shows our regression framework for various securitized products, oil and corporate credit and equity versus the 10yr breakeven rate. When we look at how valuations have changed since the breakeven low on February 10, it is not a pretty alpha picture for securitized products versus the other sectors. The beta trade from this analysis is the rising breakeven rate. Since the breakeven has increased since February (even if it's now rolling over), all asset prices were supposed to move higher. That has happened.

**Table 1: Pricing regression vs. 10yr breakeven inflation rates (1Y lookback)**

| | | | 12/29/2015 | | | 2/10/2016 | | | 6/3/2016 | | | 6/9/2016 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10yr Breakeven Inflation Rate | | | 1.56 | | | 1.20 | | | 1.55 | | | 1.59 | | | |
| Sector (Price) | Coefficient | R-Squared | Actual | Fair Value | % vs Fair Value | Actual | Fair Value | % vs Fair Value | Actual | Fair Value | % vs Fair Value | Actual | Fair Value | % vs Fair Value | WoW Chg |
| CLO 2.0 B | 35.5 | 28% | 77.6 | 72.7 | 6.8% | 59.0 | 59.9 | -1.6% | 64.4 | 72.6 | -11.4% | 64.4 | 73.8 | -12.8% | -1.4% |
| CLO 2.0 BB | 26.1 | 33% | 85.5 | 83.3 | 2.7% | 74.2 | 73.9 | 0.5% | 77.4 | 83.2 | -7.0% | 77.4 | 84.1 | -7.9% | -1.0% |
| CMBX 7 BBB- Cash | 14.7 | 43% | 91.7 | 92.0 | -0.3% | 85.3 | 86.7 | -1.7% | 89.8 | 91.9 | -2.3% | 90.1 | 92.4 | -2.5% | -0.2% |
| Subprime 06 LCF | 8.2 | 23% | 65.8 | 63.8 | 3.1% | 59.0 | 60.9 | -3.1% | 62.5 | 63.8 | -2.1% | 62.5 | 64.1 | -2.5% | -0.4% |
| CMBX 7 BBB- Synthetic | 20.9 | 53% | 94.6 | 92.5 | 2.3% | 82.0 | 85.0 | -3.5% | 88.9 | 92.4 | -3.7% | 90.9 | 93.2 | -2.5% | 1.2% |
| CLO 2.0 BBB | 15.0 | 32% | 93.0 | 91.8 | 1.2% | 85.5 | 86.4 | -1.0% | 90.5 | 91.8 | -1.4% | 90.5 | 92.3 | -2.0% | -0.6% |
| Alt-A FRM | 4.7 | 31% | 76.0 | 76.5 | -0.6% | 74.5 | 74.7 | -0.4% | 75.6 | 76.5 | -1.1% | 75.6 | 76.6 | -1.3% | -0.2% |
| Jumbo FRM | 4.5 | 28% | 95.1 | 94.9 | 0.1% | 92.7 | 93.3 | -0.6% | 94.1 | 94.9 | -0.9% | 94.1 | 95.1 | -1.0% | -0.2% |
| CMBX 7 A Synthetic | 17.1 | 56% | 95.3 | 94.3 | 1.1% | 86.3 | 88.1 | -2.1% | 91.9 | 94.2 | -2.4% | 93.9 | 94.8 | -0.9% | 1.4% |
| CLO 2.0 AA | 4.2 | 47% | 98.3 | 98.2 | 0.2% | 96.4 | 96.7 | -0.3% | 98.2 | 98.2 | 0.1% | 98.2 | 98.3 | -0.1% | -0.2% |
| CLO 2.0 AAA | 1.4 | 51% | 99.1 | 99.3 | -0.1% | 98.9 | 98.8 | 0.1% | 99.7 | 99.3 | 0.4% | 99.7 | 99.3 | 0.3% | -0.1% |
| Option ARM | 5.0 | 21% | 69.2 | 69.8 | -1.0% | 66.9 | 68.0 | -1.7% | 70.3 | 69.8 | 0.7% | 70.3 | 70.0 | 0.4% | -0.3% |
| HY Loans | 11.1 | 60% | 91.2 | 92.9 | -1.7% | 89.8 | 88.9 | 1.1% | 93.5 | 92.8 | 0.8% | 93.6 | 93.2 | 0.5% | -0.3% |
| CLO 2.0 A | 6.3 | 54% | 97.4 | 97.3 | 0.1% | 95.1 | 95.0 | 0.0% | 98.2 | 97.3 | 0.9% | 98.2 | 97.5 | 0.7% | -0.3% |
| HY CDX | 14.6 | 77% | 101.0 | 102.1 | -1.1% | 97.0 | 96.8 | 0.2% | 102.7 | 101.9 | 0.7% | 103.3 | 102.5 | 0.8% | 0.0% |
| NASDAQ 100 Stock | 665.4 | 33% | 4,691.1 | 4,406.2 | 6.5% | 3,966.3 | 4,166.7 | -4.8% | 4,509.8 | 4,398.2 | 2.5% | 4,512.7 | 4,427.3 | 1.9% | -0.6% |
| CMBX 7 A Cash | 8.1 | 47% | 101.4 | 102.7 | -1.2% | 99.3 | 99.7 | -0.4% | 104.6 | 102.6 | 2.0% | 105.3 | 102.9 | 2.4% | 0.3% |
| US HG Corp | 4.3 | 22% | 102.0 | 104.0 | -2.0% | 102.7 | 102.5 | 0.2% | 106.9 | 104.0 | 2.8% | 107.2 | 104.2 | 2.9% | 0.1% |
| STACR 2014-DN2 M3 | 14.1 | 69% | 93.3 | 93.6 | -0.3% | 88.3 | 88.5 | -0.2% | 96.6 | 93.4 | 3.4% | 96.8 | 94.0 | 2.9% | -0.5% |
| US HY Corp | 21.4 | 69% | 88.5 | 91.7 | -3.5% | 84.6 | 84.0 | 0.8% | 94.7 | 91.5 | 3.5% | 95.7 | 92.4 | 3.5% | 0.1% |
| S&P | 372.1 | 61% | 2,078.4 | 2,018.6 | 3.0% | 1,851.9 | 1,884.6 | -1.7% | 2,099.1 | 2,013.8 | 4.2% | 2,115.5 | 2,030.4 | 4.2% | 0.0% |
| Oil Price | 41.6 | 70% | 37.9 | 41.6 | -9.0% | 27.5 | 26.6 | 3.0% | 48.6 | 41.2 | 18.0% | 50.6 | 42.9 | 17.8% | -0.2% |

Source: BofA Merrill Lynch Global Research, Bloomberg

Note: fair value estimated from regression results vs. 10yr breakeven inflation rate. CLO prices are marked at the end of each month using BofAML PriceServe data. Between month-ends, CLO prices are interpolated using generic secondary spread movements. Price data since the most recent month-end are estimated using the modified durations of a generic 2015 CLO deal.

However, the alpha part of the analysis is the change in value relative to the fair value estimate. Here, we see that the % of fair value for SPX, NDX and HY and HG bond has increased by 3%-6%. Oil has increased by 14%, going from 3% above fair value in February to 17% above fair value this week. For the most part, securitized products have vastly underperformed:

- Single-B CLOs went from -1.6% undervalued to -12.8% undervalued, dropping by over 11% relative to the fair value estimate – they are up by 5 points, but should have been up by 14 points given the recovery in breakevens. Somewhat surprisingly, even HY loans have underperformed, dropping from 1.1% overvalued in February to 0.5% overvalued today.

- CMBX 7 BBB- cash is up by 5 points since February but, given the recovery in breakevens, should have been up by 6 points; valuation has gone from 1.7% undervalued to 2.5% undervalued.

- Valuations for higher quality sectors such as option ARMs and AAA CLOs have remained roughly unchanged.

- The one bright spot for securitized products has been risk transfer. Valuation for STACR M3s has improved roughly in line with corporate credit – up by about 3%.

The question raised by these results is, what is going on? We think there is a 1-word explanation: liquidity. The broad-based selloff to start the year highlighted the reality that liquidity for securitized products has become challenged relative to other markets. We do not think this is likely to change quickly, and that securitized products are likely to experience the poorest relative liquidity in another risk-off scenario. We once again emphasize the liquidity risk associated with sectors such as BB/B CLOs, which appear relatively cheap on a fundamental basis. Our neutral view on this market has attempted to balance poor liquidity with fundamental cheapness. We recommend these for buy and hold investors with a long term investment horizon, not for total return investors looking for daily liquidity.

Table 2 shows spread performance versus breakevens. Rich sectors under this framework include AAA CMBS and prime and subprime autos. Here we see the preference for liquidity and quality within securitized products. We do not anticipate that changing any time soon, particularly if the Fed disappoints on Wednesday.

**Table 2: Spreads/yields regression vs. 10yr breakeven inflation rates (1Y lookback)**

| | | | 12/29/2015 | | | 2/10/2016 | | | 6/3/2016 | | | 6/9/2016 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10yr Breakeven Inflation Rate | | | 1.56 | | | 1.20 | | | 1.55 | | | 1.59 | | | |
| Sector (Spread/Yield) | Coefficient | R-Squared | Actual | Fair Value | vs Fair Value | Actual | Fair Value | vs Fair Value | Actual | Fair Value | vs Fair Value | Actual | Fair Value | vs Fair Value | WoW Chg |
| GNR 10-20 SE (3 MIP 5s) | -173.4 | 12% | 255.3 | 285.7 | -30.4 | 242.0 | 348.2 | -106.2 | 254.0 | 285.5 | -31.5 | 305.0 | 280.2 | 24.8 | 56.2 |
| G2SF 3.5 to 10yr Tsy | -25.2 | 24% | 40.4 | 45.4 | -5.0 | 65.1 | 54.5 | 10.6 | 53.9 | 45.4 | 8.5 | 58.2 | 44.6 | 13.6 | 5.0 |
| FNCL 3.5 to 10yr Tsy | -26.3 | 26% | 60.4 | 63.1 | -2.7 | 82.1 | 72.6 | 9.5 | 72.9 | 63.1 | 9.8 | 74.2 | 62.3 | 11.9 | 2.1 |
| Freddie K A2 | -68.2 | 73% | 85.0 | 77.6 | 7.4 | 98.0 | 102.2 | -4.2 | 74.0 | 78.0 | -4.0 | 76.0 | 75.4 | 0.6 | 4.6 |
| IG CDX | -79.1 | 79% | 89.7 | 87.1 | 2.6 | 121.5 | 115.5 | 6.0 | 77.3 | 87.9 | -10.5 | 75.8 | 84.6 | -8.8 | 1.8 |
| AAA Prime Auto | -26.0 | 26% | 57.0 | 47.1 | 9.9 | 47.0 | 56.4 | -9.4 | 37.0 | 47.3 | -10.3 | 37.0 | 46.2 | -9.2 | 1.1 |
| CMBX 7 AAA Synthetic | -64.1 | 73% | 98.6 | 100.6 | -2.0 | 132.7 | 123.7 | 9.0 | 91.9 | 101.3 | -9.4 | 88.8 | 98.6 | -9.8 | -0.4 |
| CMBX 7 AAA Cash | -99.0 | 79% | 123.6 | 114.4 | 9.2 | 147.0 | 150.1 | -3.0 | 104.2 | 115.3 | -11.0 | 100.9 | 111.3 | -10.4 | 0.7 |
| AAA Subprime Auto | -56.0 | 49% | 90.0 | 81.2 | 8.8 | 90.0 | 101.3 | -11.3 | 67.0 | 81.6 | -14.6 | 67.0 | 79.4 | -12.4 | 2.2 |
| 10yrTsy Yield | 79.5 | 31% | 230.6 | 203.3 | 27.3 | 166.9 | 174.7 | -7.8 | 170.1 | 203.6 | -33.5 | 168.8 | 205.9 | -37.1 | -3.6 |
| IOS FN30.300.12 | 175.0 | 17% | -2.6 | -43.3 | 40.7 | -160.0 | -106.3 | -53.7 | -176.3 | -41.9 | -134.4 | -177.6 | -37.8 | -139.8 | -5.4 |

Source: BofA Merrill Lynch Global Research, Bloomberg

Note: fair value estimated from regression results vs. 10yr breakeven inflation rate

## Spreads, issuance and volumes

**Table 3: Spreads for securitized credit products**

| | | 1-Week Δ | | 1-Month Δ | | 12-mth Δ | | 2016 YTD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Non-agency Spreads** | **Current Level** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **YTD Min** | **YTD Max** |
| **Legacy Spreads** | | | | | | | | | | | |
| Jumbo Fixed | 275 | 0 | 0% | (5) | -2% | 55 | 25% | 15 | 6% | 260 | 310 |
| Alt-A Floater | 305 | 0 | 0% | 0 | 0% | 55 | 22% | 20 | 7% | 285 | 330 |
| Option ARM | 305 | 0 | 0% | (10) | -3% | 60 | 24% | 5 | 2% | 300 | 370 |
| Current Pay Subprime | 225 | 0 | 0% | 0 | 0% | (25) | -10% | (35) | -13% | 225 | 260 |
| LCF Subprime | 335 | 0 | 0% | 0 | 0% | 60 | 22% | 35 | 12% | 300 | 375 |
| **New Issue Spreads** | | | | | | | | | | | |
| LCF Jumbo 2.0 | 170 | 0 | 0% | 0 | 0% | 33 | 24% | 20 | 13% | 150 | 170 |
| NPL A1 | 320 | 0 | 0% | (30) | -8% | 2 | 1% | (58) | -15% | 320 | 378 |
| NPL A2 | 636 | 0 | 0% | 11 | 2% | 243 | 62% | 146 | 30% | 490 | 636 |
| **SFR** | | | | | | | | | | | |
| A | 140 | (5) | -3% | 2 | 1% | 10 | 8% | (29) | -17% | 138 | 218 |
| B | 205 | (5) | -2% | 5 | 3% | 30 | 17% | (35) | -15% | 200 | 275 |
| C | 255 | (10) | -4% | (15) | -6% | 55 | 28% | (50) | -16% | 255 | 357 |
| D | 290 | (10) | -3% | (10) | -3% | 15 | 5% | (27) | -9% | 290 | 446 |
| E | 410 | (5) | -1% | (5) | -1% | 35 | 9% | (25) | -6% | 410 | 541 |
| F | 495 | (5) | -1% | (25) | -5% | 20 | 4% | (37) | -7% | 485 | 641 |
| **Credit Risk Transfer** | | | | | | | | | | | |
| STACR Low LTV M1 | 135 | 0 | 0% | 0 | 0% | 5 | 4% | 9 | 7% | 124 | 135 |
| STACR Low LTV M2 | 170 | 0 | 0% | 0 | 0% | (34) | -17% | (40) | -19% | 155 | 230 |
| STACR Low LTV M3 (NR) | 408 | (2) | 0% | 3 | 1% | 8 | 2% | (62) | -13% | 395 | 590 |
| STACR Low LTV B (NR) | 1,013 | 0 | 0% | (4) | 0% | 192 | 23% | 143 | 16% | 870 | 1,077 |
| STACR High LTV M1 | 110 | 0 | 0% | 0 | 0% | (8) | -7% | (25) | -19% | 110 | 155 |
| STACR High LTV M2 | 230 | 0 | 0% | (20) | -8% | 24 | 12% | (25) | -10% | 230 | 295 |
| STACR High LTV M3 (NR) | 410 | (2) | 0% | (33) | -7% | 12 | 3% | (60) | -13% | 410 | 585 |
| CAS Low LTV M1 | 165 | 0 | 0% | 0 | 0% | 42 | 34% | 9 | 6% | 156 | 175 |
| CAS Low LTV M2 | 465 | 5 | 1% | 5 | 1% | 50 | 12% | (50) | -10% | 440 | 685 |
| CAS High LTV M1 | 170 | 0 | 0% | 0 | 0% | 43 | 34% | 14 | 9% | 156 | 170 |
| CAS High LTV M2 | 463 | (3) | -1% | 8 | 2% | 47 | 11% | (49) | -10% | 440 | 680 |
| CAS Actual Loss Low LTV M1 | 180 | 0 | 0% | 0 | 0% | | | 26 | 17% | 154 | 215 |
| CAS Actual Loss Low LTV M2 | 487 | (3) | -1% | 12 | 3% | | | (58) | -11% | 463 | 690 |
| CAS Actual Loss High LTV M1 | 210 | 0 | 0% | 0 | 0% | | | 45 | 27% | 165 | 220 |
| CAS Actual Loss High LTV M2 | 509 | (1) | 0% | 4 | 1% | | | (26) | -5% | 495 | 710 |

| | | 1-Week Δ | | 1-Month Δ | | 12-mth Δ | | 2016 YTD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMBS Spreads** | **Current Level** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **YTD Min** | **YTD Max** |
| **Legacy Spreads** | | | | | | | | | | | |
| 2006/2007 A4s | 170 | 0 | 0% | 0 | 0% | 80 | 89% | 66 | 63% | 104 | 104 |
| 2006/2007 AMs | 250 | 0 | 0% | 0 | 0% | 117 | 88% | 50 | 25% | 200 | 350 |
| **Indicative 2015 MSBAM Conduit Spreads** | | | | | | | | | | | |
| 3yr AAA | 65 | 0 | 0% | 0 | 0% | 27 | 71% | (10) | -13% | 65 | 80 |
| 5yr AAA | 80 | 0 | 0% | 0 | 0% | 30 | 60% | (15) | -16% | 80 | 98 |
| A-SB | 100 | (5) | -5% | (5) | -5% | 25 | 33% | (30) | -23% | 100 | 149 |
| 10yr AAA | 115 | 0 | 0% | 0 | 0% | 25 | 28% | (20) | -15% | 115 | 165 |
| A-S | 145 | 0 | 0% | 0 | 0% | 20 | 16% | (20) | -12% | 145 | 200 |
| AA | 205 | 0 | 0% | (10) | -5% | 55 | 37% | (3) | -1% | 205 | 320 |
| A | 310 | 0 | 0% | (5) | -2% | 100 | 48% | 2 | 1% | 308 | 445 |
| BBB- | 625 | 0 | 0% | (25) | -4% | 240 | 62% | 110 | 21% | 515 | 800 |

| **CLO** | **Current Level** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **YTD Min** | **YTD Max** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.0** | | | | | | | | | | | |
| AAA | 165 | 0 | 0% | (10) | -6% | 40 | 32% | 15 | 10% | 150 | 175 |
| AA | 240 | 0 | 0% | (10) | -4% | 90 | 60% | 40 | 20% | 200 | 250 |
| A | 325 | 0 | 0% | 0 | 0% | 125 | 63% | 50 | 18% | 275 | 325 |
| BBB | 425 | 0 | 0% | 0 | 0% | 125 | 42% | 75 | 21% | 350 | 425 |
| BB | 650 | 0 | 0% | 0 | 0% | 165 | 34% | 165 | 34% | 485 | 650 |
| **2.0** | | | | | | | | | | | |
| AAA | 155 | 0 | 0% | 0 | 0% | 10 | 7% | (10) | -6% | 155 | 185 |
| AA | 220 | 0 | 0% | 5 | 2% | 30 | 16% | (15) | -6% | 215 | 275 |
| A | 315 | 0 | 0% | 0 | 0% | 30 | 11% | (20) | -6% | 315 | 400 |
| BBB | 550 | 0 | 0% | 25 | 5% | 155 | 39% | 50 | 10% | 500 | 650 |
| BB | 975 | 0 | 0% | 50 | 5% | 350 | 56% | 150 | 18% | 825 | 1,200 |
| B | 1,450 | 0 | 0% | 50 | 4% | 650 | 81% | 400 | 38% | 1,050 | 1,550 |

Source: BofA Merrill Lynch Global Research

**Table 4: Sectors ranking by the spread per unit of the spread volatility - 1Y View**

| Rank | Asset Class | Current Spread | Spread Per Unit Vol | Spread (Nov 20, 2015) | Spread Per Unit Vol (Nov 20, 2015) |
|---|---|---|---|---|---|
| 1 | Current Pay Subprime | 225 | 18.3 | 260 | 36.6 |
| 2 | CAS Low LTV M1 | 165 | 14.7 | 155 | 6.4 |
| 3 | CLO 2.0 AAA | 155 | 14.6 | 168 | 24.3 |
| 4 | CAS High LTV M1 | 170 | 14.1 | 155 | 6.7 |
| 5 | Prime Auto-Fixed BBB 5Y | 160 | 13.7 | 175 | 10.4 |
| 6 | LCF Subprime | 335 | 12.0 | 300 | 23.2 |
| 7 | Alt-A Floater | 305 | 11.5 | 270 | 28.9 |
| 8 | CLO 2.0 A | 315 | 11.0 | 335 | 15.4 |
| 9 | CLO 2.0 AA | 220 | 10.8 | 235 | 12.0 |
| 10 | STACR High LTV M3 (NR) | 410 | 10.5 | 454 | 13.1 |
| 11 | SFR F | 495 | 10.5 | 532 | 10.0 |
| 12 | Credit Card FL 5Y BBB | 110 | 10.3 | 105 | 8.9 |
| 13 | SFR E | 410 | 10.1 | 429 | 9.9 |
| 14 | STACR High LTV M2 | 230 | 10.0 | 240 | 9.0 |
| 15 | USD Lev Loans | 522 | 9.9 | 576 | 22.3 |
| 16 | Jumbo Fixed | 275 | 9.8 | 245 | 30.3 |
| 17 | STACR Low LTV M2 | 170 | 9.4 | 200 | 8.5 |
| 18 | STACR High LTV M1 | 110 | 9.3 | 135 | 7.6 |
| 19 | FNCL 4.0 | 69 | 9.2 | 91 | 8.1 |
| 20 | Option ARM | 305 | 9.0 | 285 | 20.7 |
| 21 | CAS High LTV M2 | 463 | 8.9 | 493 | 12.4 |
| 22 | STACR Low LTV M3 (NR) | 408 | 8.9 | 453 | 13.5 |
| 23 | CAS Low LTV M2 | 465 | 8.7 | 501 | 11.5 |
| 24 | CLO 2.0 BBB | 550 | 8.5 | 500 | 15.7 |
| 25 | UK RMBS (AAA) | 43 | 8.2 | 40 | 6.6 |
| 26 | Credit Card FL 5Y AAA | 58 | 7.8 | 65 | 7.5 |
| 27 | Private SL Class BBB | 330 | 7.2 | 350 | 11.6 |
| 28 | CMBS 3.0 5yr (AAA) | 80 | 7.0 | 81 | 8.0 |
| 29 | IG Corp Index | 165 | 7.0 | 181 | 9.5 |
| 30 | SFR B | 205 | 6.8 | 240 | 9.1 |
| 31 | CLO 2.0 BB | 975 | 6.5 | 825 | 14.2 |
| 32 | Freddie K A2 | 76 | 6.3 | 80 | 6.5 |
| 33 | SFR A | 140 | 6.3 | 166 | 11.7 |
| 34 | FNCL 3.0 | 97 | 6.2 | 77 | 8.7 |
| 35 | FNCL 3.5 | 95 | 6.1 | 92 | 9.6 |

Source: BofA Merrill Lynch Global Research

Note: Nov 20, 2015 is the date we published 2016 securitized products outlook.

Note: current spread as of 6/9/2016

**Table 5: US Fixed Income and Securitized Products Gross Issuance ($bn)**

| | Agency MBS | FN | FH | GN | Agency CMO | Non-agency MBS | CRT | SFR | Jumbo | NPL/RPL | ABS | Auto | Cards | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Jan-15** | 85 | 35 | 23 | 27 | 9 | 5 | 1 | 1 | 1 | 2 | 20 | 12 | 0 | 8 |
| **Feb-15** | 87 | 34 | 30 | 23 | 13 | 8 | 1 | 1 | 2 | 3 | 21 | 12 | 3 | 6 |
| **Mar-15** | 99 | 42 | 26 | 30 | 16 | 5 | 1 | 1 | 1 | 3 | 21 | 8 | 9 | 4 |
| **Apr-15** | 120 | 47 | 34 | 40 | 15 | 6 | 1 | 1 | 1 | 2 | 21 | 9 | 7 | 6 |
| **May-15** | 112 | 41 | 33 | 38 | 18 | 5 | 1 | 1 | 1 | 2 | 23 | 12 | 3 | 7 |
| **Jun-15** | 117 | 43 | 34 | 39 | 15 | 8 | 1 | 2 | 1 | 4 | 14 | 9 | 1 | 4 |
| **Jul-15** | 128 | 44 | 39 | 45 | 16 | 5 | 2 | 0 | 1 | 3 | 18 | 9 | 5 | 4 |
| **Aug-15** | 109 | 38 | 28 | 43 | 15 | 1 | 0 | 0 | 0 | 1 | 13 | 9 | 2 | 2 |
| **Sep-15** | 113 | 44 | 30 | 39 | 12 | 4 | 1 | 0 | 1 | 2 | 11 | 6 | 2 | 3 |
| **Oct-15** | 107 | 40 | 28 | 38 | 12 | 6 | 2 | 0 | 1 | 3 | 23 | 14 | 3 | 6 |
| **Nov-15** | 85 | 28 | 23 | 34 | 11 | 5 | 1 | 0 | 1 | 2 | 8 | 3 | 2 | 3 |
| **Dec-15** | 89 | 37 | 23 | 29 | 12 | 3 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 2 |
| **Jan-16** | 88 | 34 | 22 | 32 | 11 | 1 | 1 | 0 | 0 | 0 | 10 | 7 | 2 | 1 |
| **Feb-16** | 80 | 29 | 21 | 30 | 11 | 3 | 1 | 0 | 0 | 2 | 19 | 13 | 0 | 6 |
| **Mar-16** | 99 | 39 | 27 | 32 | 12 | 5 | 2 | 0 | 1 | 3 | 13 | 8 | 1 | 4 |
| **Apr-16** | 108 | 43 | 26 | 39 | 22 | 4 | 1 | 0 | 0 | 3 | 14 | 9 | 3 | 3 |
| **May-16** | 114 | 43 | 30 | 41 | NA | 9 | 2 | 1 | 1 | 6 | 24 | 12 | 5 | 7 |
| **Jun-16** | 49 | 15 | 17 | 17 | NA | 1 | 1 | 0 | 0 | 0 | 8 | 2 | 3 | 2 |
| **2016 YTD** | 537 | 203 | 144 | 191 | 56 | 24 | 7 | 1 | 2 | 13 | 88 | 51 | 14 | 23 |
| **2016 Forecast** | 1,276 | 499 | 376 | 401 | 180 | 52 | 13 | 5 | 10 | 22 | 200 | 115 | 37 | 48 |
| **2015 Total** | 1,250 | 472 | 352 | 426 | 165 | 60 | 13 | 7 | 12 | 29 | 195 | 103 | 37 | 55 |

| | CMBS | Agency | Conduit | SA/SB | US CLO | Total SP | USD HG Corps | US HY Corps | US Lev Loans | Treasury | Agency Debt | Total FI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Jan-15** | 12 | 7 | 4 | 1 | 5 | 126 | 91 | 14 | 14 | 178 | 48 | 471 |
| **Feb-15** | 21 | 9 | 5 | 7 | 9 | 145 | 114 | 25 | 12 | 176 | 48 | 521 |
| **Mar-15** | 18 | 8 | 4 | 6 | 16 | 159 | 143 | 37 | 16 | 174 | 40 | 568 |
| **Apr-15** | 19 | 11 | 4 | 4 | 10 | 177 | 104 | 24 | 27 | 181 | 47 | 561 |
| **May-15** | 18 | 11 | 6 | 1 | 6 | 163 | 153 | 29 | 25 | 181 | 47 | 598 |
| **Jun-15** | 20 | 10 | 7 | 2 | 13 | 172 | 94 | 21 | 22 | 168 | 48 | 525 |
| **Jul-15** | 16 | 8 | 7 | 1 | 8 | 175 | 129 | 7 | 35 | 178 | 34 | 558 |
| **Aug-15** | 15 | 7 | 5 | 2 | 6 | 143 | 47 | 10 | 8 | 184 | 41 | 433 |
| **Sep-15** | 15 | 8 | 4 | 3 | 6 | 149 | 102 | 15 | 18 | 174 | 46 | 503 |
| **Oct-15** | 20 | 11 | 6 | 3 | 7 | 162 | 104 | 7 | 18 | 170 | 72 | 534 |
| **Nov-15** | 12 | 4 | 6 | 2 | 5 | 115 | 100 | 22 | 12 | 180 | 39 | 469 |
| **Dec-15** | 11 | 6 | 3 | 2 | 7 | 112 | 54 | 5 | 6 | 177 | 25 | 379 |
| **Jan-16** | 15 | 12 | 3 | 0 | 1 | 116 | 126 | 5 | 16 | 180 | 44 | 487 |
| **Feb-16** | 17 | 9 | 6 | 2 | 3 | 121 | 105 | 9 | 9 | 170 | 72 | 487 |
| **Mar-16** | 17 | 10 | 3 | 3 | 4 | 137 | 126 | 20 | 17 | 168 | 65 | 534 |
| **Apr-16** | 13 | 11 | 2 | 1 | 5 | 144 | 87 | 20 | 15 | 175 | 55 | 496 |
| **May-16** | 15 | 10 | 6 | 0 | 5 | 167 | 176 | 26 | 32 | 164 | 66 | 630 |
| **Jun-16** | 4 | 4 | 0 | 0 | 2 | 64 | 45 | 14 | 24 | 56 | 15 | 216 |
| **2016 YTD** | 80 | 55 | 19 | 7 | 20 | 750 | 665 | 94 | 111 | 913 | 318 | 2,850 |
| **2016 Forecast** | 170 | 115 | 35 | 20 | 45 | 1,743 | 1,200 | 196 | 210 | 2,029 | 490 | 5,868 |
| **2015 Total** | 196 | 101 | 61 | 33 | 98 | 1,799 | 1,235 | 216 | 214 | 2,123 | 534 | 6,121 |

Source: BofA Merrill Lynch Global Research, SIFMA, Intex, Bloomberg, Fannie Mae, Freddie Mac, FHLB, S&P LCD

*Treasuries numbers exclude bills / Agency debt numbers exclude short-term and discount notes / Non-Agency MBS numbers exclude ReREMICs / US CLOs include broadly syndicated and middle-market deals / CMBS single borrower includes multi-borrower floaters/ CMBS Total does not include CRE CLOs, NPLs, etc./ Agency MBS does not include Agency CMO; Agency MBS forecast assumes 2% 10yr yield; US Lev Loan May issuance is an estimate

**Table 6: Trading volumes across securitized products ($mn)**

| | Non-agency | | CMBS | | ABS | | CDO/CLO | | Agency CMO | | | Agency Specified | | | TBA, STIP, $ ROLLS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IG | Non IG | IG | Non IG | IG | Non IG | IG | Non IG | FNMA | FHLMC | GNMA | FNMA | FHLMC | GNMA | FNMA | FHLMC | GNMA |
| Jan-14 | 2,161 | 45,774 | 16,997 | 17,672 | 17,380 | 2,952 | 2,954 | 3,120 | 20,764 | 25,087 | 17,724 | 89,161 | 39,781 | 47,354 | 2,540,583 | 303,150 | 147,472 |
| Feb-14 | 3,198 | 31,995 | 22,562 | 19,521 | 19,114 | 5,014 | 3,162 | 2,631 | 17,917 | 17,564 | 14,515 | 87,075 | 44,222 | 43,773 | 2,280,723 | 261,349 | 134,786 |
| Mar-14 | 2,805 | 37,464 | 22,604 | 20,655 | 20,812 | 4,010 | 5,516 | 3,790 | 17,727 | 20,340 | 16,251 | 109,464 | 45,313 | 33,491 | 2,589,398 | 299,984 | 137,527 |
| Apr-14 | 2,172 | 34,232 | 22,165 | 23,240 | 18,441 | 6,595 | 2,401 | 1,694 | 17,778 | 23,258 | 17,170 | 94,282 | 42,045 | 34,445 | 2,666,138 | 284,259 | 124,042 |
| May-14 | 1,891 | 35,510 | 22,023 | 23,205 | 18,965 | 3,969 | 2,869 | 2,882 | 16,432 | 16,862 | 11,207 | 78,813 | 39,773 | 40,859 | 2,850,041 | 299,925 | 125,510 |
| Jun-14 | 2,554 | 36,195 | 17,515 | 16,271 | 19,364 | 2,561 | 2,890 | 3,194 | 14,656 | 20,547 | 8,833 | 71,152 | 34,949 | 42,453 | 2,404,992 | 251,125 | 125,555 |
| Jul-14 | 2,466 | 43,284 | 26,497 | 19,262 | 27,725 | 3,487 | 11,642 | 2,014 | 14,303 | 20,761 | 7,584 | 85,322 | 43,152 | 52,868 | 2,757,693 | 287,323 | 599,722 |
| Aug-14 | 1,592 | 35,805 | 12,449 | 14,039 | 17,142 | 2,737 | 2,971 | 3,801 | 10,180 | 11,567 | 7,234 | 71,175 | 47,189 | 57,956 | 2,482,869 | 269,643 | 576,664 |
| Sep-14 | 1,446 | 32,658 | 20,784 | 20,027 | 32,222 | 2,611 | 4,397 | 2,028 | 15,324 | 19,396 | 9,715 | 97,614 | 56,925 | 59,261 | 2,987,957 | 293,230 | 594,692 |
| Oct-14 | 1,828 | 41,039 | 21,764 | 17,954 | 23,278 | 5,645 | 3,885 | 1,848 | 14,765 | 19,163 | 10,229 | 105,100 | 52,009 | 65,373 | 3,143,869 | 289,218 | 611,719 |
| Nov-14 | 2,095 | 36,146 | 20,034 | 19,663 | 18,322 | 3,137 | 2,720 | 3,607 | 13,286 | 11,762 | 6,934 | 75,705 | 35,178 | 43,230 | 2,734,149 | 279,582 | 511,424 |
| Dec-14 | 1,466 | 23,407 | 15,312 | 17,084 | 21,916 | 1,959 | 2,075 | 1,751 | 15,023 | 12,654 | 7,764 | 88,595 | 42,352 | 47,699 | 2,677,669 | 268,315 | 561,998 |
| Jan-15 | 1,545 | 34,125 | 18,843 | 14,966 | 20,383 | 3,262 | 4,203 | 2,589 | 13,061 | 14,050 | 14,054 | 99,039 | 62,134 | 60,464 | 3,513,814 | 375,626 | 751,862 |
| Feb-15 | 2,810 | 33,623 | 18,227 | 26,832 | 18,493 | 4,986 | 3,737 | 2,014 | 14,292 | 13,301 | 8,543 | 98,943 | 47,697 | 45,204 | 2,923,192 | 325,339 | 598,023 |
| Mar-15 | 4,053 | 34,638 | 28,519 | 28,807 | 23,314 | 3,271 | 4,114 | 5,137 | 14,846 | 17,426 | 10,013 | 94,217 | 50,531 | 78,340 | 2,970,336 | 348,313 | 743,292 |
| Apr-15 | 1,894 | 31,067 | 26,784 | 20,203 | 22,119 | 3,697 | 4,332 | 1,960 | 14,956 | 15,619 | 8,881 | 91,671 | 71,687 | 82,503 | 2,570,137 | 357,854 | 717,978 |
| May-15 | 1,895 | 30,810 | 23,832 | 16,211 | 21,068 | 3,061 | 4,793 | 3,645 | 11,495 | 13,107 | 9,124 | 88,038 | 63,240 | 78,448 | 2,710,137 | 347,743 | 732,695 |
| Jun-15 | 2,433 | 25,101 | 19,866 | 17,173 | 27,263 | 4,046 | 5,919 | 3,463 | 10,465 | 10,005 | 9,394 | 95,943 | 70,928 | 77,787 | 2,763,261 | 325,235 | 667,866 |
| Jul-15 | 1,865 | 23,675 | 13,098 | 12,825 | 17,697 | 3,521 | 3,375 | 4,326 | 11,337 | 11,159 | 8,383 | 90,802 | 64,932 | 93,964 | 2,858,260 | 379,482 | 813,115 |
| Aug-15 | 1,110 | 21,175 | 15,264 | 15,301 | 13,443 | 3,600 | 2,233 | 1,652 | 10,392 | 8,489 | 6,751 | 88,496 | 53,867 | 102,292 | 2,569,220 | 318,117 | 771,792 |
| Sep-15 | 1,643 | 19,583 | 17,621 | 12,644 | 16,383 | 3,143 | 4,898 | 1,857 | 12,511 | 12,115 | 7,378 | 106,119 | 64,598 | 96,965 | 2,564,034 | 339,139 | 768,367 |
| Oct-15 | 1,929 | 26,118 | 20,612 | 19,612 | 20,928 | 3,337 | 6,409 | 2,850 | 13,658 | 12,466 | 9,309 | 107,452 | 65,717 | 101,657 | 2,695,256 | 309,933 | 811,393 |
| Nov-15 | 2,151 | 16,188 | 16,319 | 12,228 | 14,978 | 3,123 | 5,180 | 2,111 | 12,325 | 11,144 | 6,894 | 80,862 | 52,804 | 78,234 | 2,267,957 | 280,015 | 805,081 |
| Dec-15 | 1,964 | 15,405 | 11,635 | 9,622 | 12,783 | 2,782 | 3,180 | 7,534 | 9,560 | 7,826 | 8,388 | 81,530 | 50,558 | 76,139 | 2,150,165 | 245,242 | 642,704 |
| Jan-16 | 3,647 | 20,108 | 18,896 | 11,037 | 14,086 | 3,653 | 4,209 | 1,643 | 10,986 | 9,464 | 7,927 | 99,905 | 47,424 | 88,874 | 2,434,185 | 315,606 | 679,909 |
| Feb-16 | 2,118 | 28,207 | 23,014 | 13,241 | 23,433 | 2,679 | 4,584 | 2,269 | 16,216 | 11,619 | 9,219 | 106,081 | 61,122 | 107,456 | 2,581,426 | 339,881 | 786,196 |
| Mar-16 | 2,915 | 22,408 | 20,758 | 15,590 | 17,007 | 3,427 | 4,316 | 2,847 | 15,128 | 13,790 | 11,645 | 104,709 | 76,469 | 99,392 | 2,609,586 | 378,636 | 847,388 |
| Apr-16 | 2,755 | 30,574 | 20,524 | 19,543 | 16,503 | 3,195 | 4,364 | 3,291 | 19,103 | 13,468 | 10,742 | 111,488 | 93,934 | 114,961 | 2,640,347 | 372,566 | 980,986 |
| May-16 | 3,462 | 19,122 | 17,079 | 17,427 | 14,545 | 2,042 | 7,517 | 3,520 | 17,311 | 14,507 | 10,376 | 103,251 | 68,924 | 88,006 | 2,819,404 | 365,986 | 811,484 |
| Jun-16 | 1,025 | 6,555 | 7,180 | 6,034 | 6,618 | 1,282 | 1,062 | 1,853 | 4,477 | 5,184 | 2,669 | 35,350 | 26,429 | 35,752 | 1,323,935 | 221,438 | 245,249 |
| 1Q16 | 8,679 | 70,723 | 62,669 | 39,867 | 54,527 | 9,759 | 13,109 | 6,758 | 42,330 | 34,873 | 28,791 | 310,695 | 185,016 | 295,722 | 7,625,198 | 1,034,123 | 2,313,493 |
| 1Q15 | 8,408 | 102,387 | 65,590 | 70,606 | 62,191 | 11,519 | 12,054 | 9,740 | 42,199 | 44,777 | 32,610 | 292,199 | 160,363 | 184,008 | 9,407,342 | 1,049,278 | 2,093,178 |
| % Change | 3.2% | -31% | -4% | -44% | -12% | -15% | 9% | -31% | 0% | -22% | -12% | 6% | 15% | 61% | -19% | -1% | 11% |
| YTD 2016 | 15,921 | 126,974 | 107,452 | 82,871 | 92,193 | 16,279 | 26,052 | 15,423 | 83,221 | 68,033 | 52,578 | 560,784 | 374,302 | 534,441 | 14,408,883 | 1,994,113 | 4,351,213 |
| 1/15 - 6/15 | 14,630 | 189,365 | 136,072 | 124,193 | 132,641 | 22,323 | 27,098 | 18,809 | 79,115 | 83,507 | 60,008 | 567,851 | 366,218 | 422,746 | 17,450,877 | 2,080,110 | 4,211,717 |
| % Change | 9% | -33% | -21% | -33% | -30% | -27% | -4% | -18% | 5% | -19% | -12% | -1% | 2% | 26% | -17% | -4% | 3% |

Source: TRACE

Note: the volumes include derivatives. Volumes as of 6/9/2016

## Markets

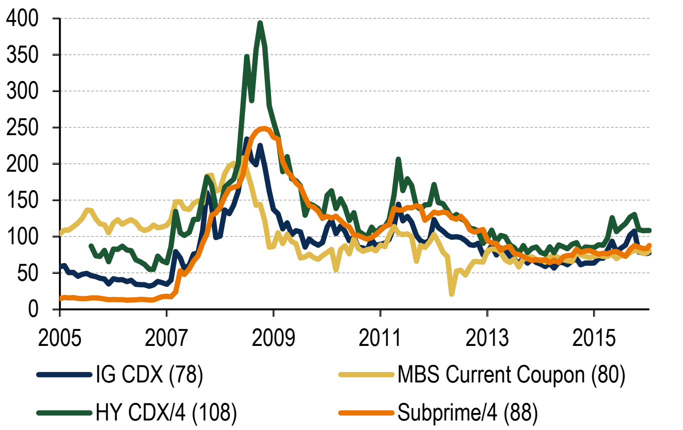
Market performance across key sectors is shown in Chart 8 though Chart 15 and Table 7 and Table 8.

**Table 7: Tick performance across 30Y and 15Yconventionals and GNMAs (Versus 10Y UST)**

| FNCL | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
|---|---|---|---|---|---|---|
| WoW | -2 | -2 | 0 | 1 | -2 | -3 |
| February 29, 2016 - June 9, 2016 | 14 | 9 | 13 | 18 | 15 | 5 |
| | | | | | | |
| **G2SF/GNSF (5, 5.5)** | **3.0** | **3.5** | **4.0** | **4.5** | **5.0** | **5.5** |
| WoW | -5 | -7 | -5 | -4 | -2 | -3 |
| February 29, 2016 - June 9, 2016 | 11 | 6 | -5 | -4 | 12 | -30 |
| | | | | | | |
| **FNCI** | **2.5** | **3.0** | **3.5** | **4.0** | **4.5** | **5.0** |
| WoW | 0 | 1 | 5 | -3 | -1 | 0 |
| February 29, 2016 - June 9, 2016 | 18 | 11 | 11 | -20 | -15 | -5 |

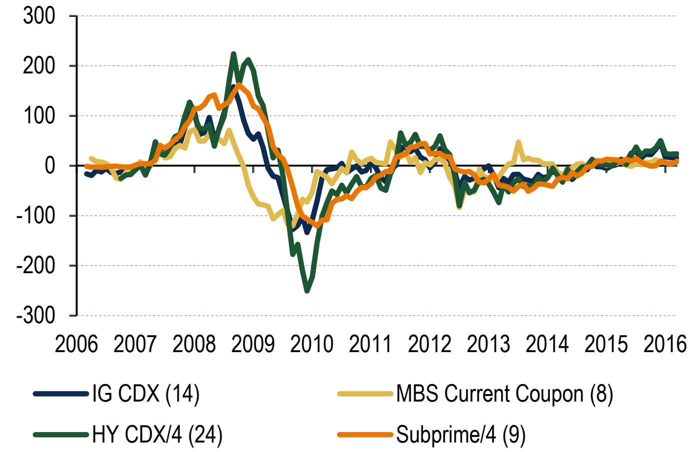
Source: BofA Merrill Lynch Global Research

**Chart 8: Fixed income spreads (HY and subprime spread divided by 4 to normalize)**



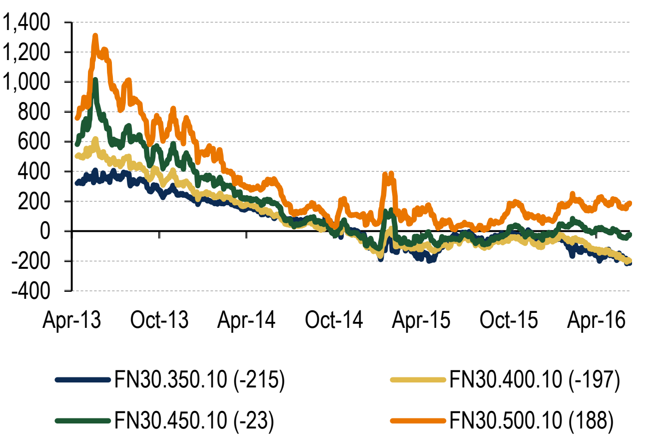

Source: BofA Merrill Lynch Global Research, Bloomberg

**Chart 9: Fixed income YoY spread change (HY and subprime YoY change divided by 4 to normalize)**



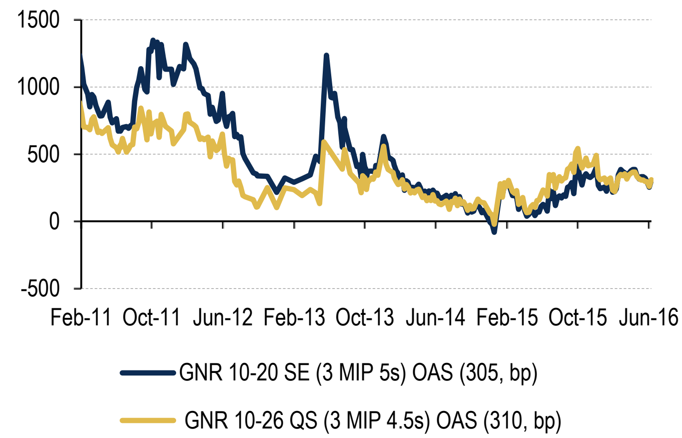

Source: BofA Merrill Lynch Global Research, Bloomberg

**Chart 10: IOS OAS**



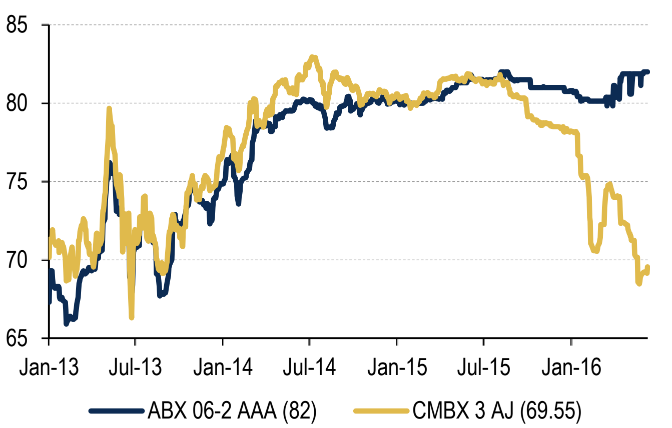

Source: BofA Merrill Lynch Global Research

**Chart 11: Inverse IOS OAS**



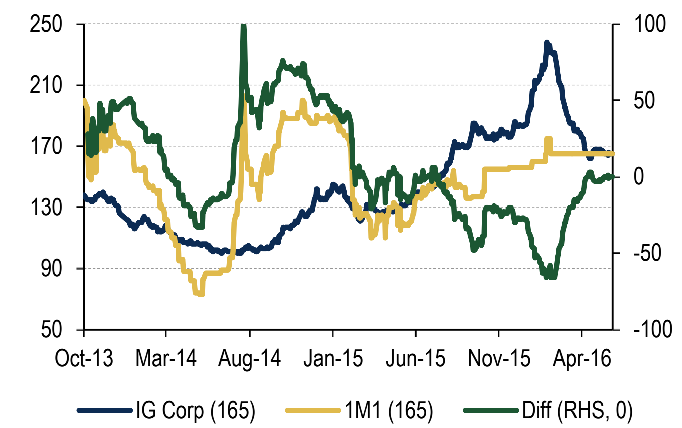

Source: BofA Merrill Lynch Global Research

**Chart 12: ABX 06-2 AAA and CMBX 3 AJ Prices**



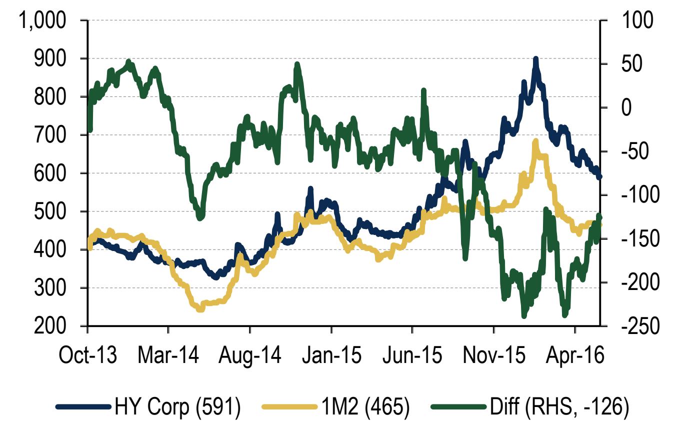

Source: Markit

**Chart 13: On-the-run spread for low LTV CAS BBB vs. IG Corp**



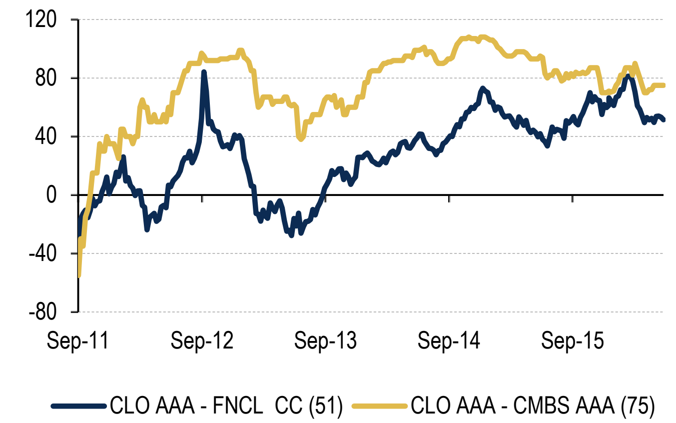

Source: BofA Merrill Lynch Global Research
Note: spreads are as of 6/9/2016

**Chart 14: On-the-run spread for low LTV CAS NR vs. HY Corp**




Source: BofA Merrill Lynch Global Research
Note: spreads are as of 6/9/2016

**Chart 15: CLO AAA spread to CMBS AAA and FNCL Current Coupon**




Source: BofA Merrill Lynch Global Research

**Table 8: Prices and spreads across sectors**

| | Benchmark | 6/9/16 | 6/2/16 | 1/8/15 | 1/2/14 | Change 6/2/16 | Change 1/8/15 | Change 1/2/14 |
|---|---|---|---|---|---|---|---|---|
| **Agency MBS** | | | | | | | | |
| FNCL 3 OAS | LIBOR | 20 | 19 | -6 | 34 | 1 | 26 | -13 |
| FNCL 3 ZVOAS | LIBOR | 97 | 91 | 53 | 42 | 7 | 44 | 55 |
| FNCL 3.5 OAS | LIBOR | 18 | 16 | -1 | 21 | 2 | 19 | -3 |
| FNCL 3.5 ZVOAS | LIBOR | 95 | 94 | 68 | 38 | 1 | 27 | 57 |
| FNCL 4 OAS | LIBOR | 26 | 23 | -29 | 15 | 3 | 55 | 11 |
| FNCL 4 ZVOAS | LIBOR | 69 | 70 | 47 | 46 | -1 | 23 | 23 |
| FNCL 4.5 OAS | LIBOR | 20 | 14 | -21 | 14 | 6 | 41 | 7 |
| FNCL 4.5 ZVOAS | LIBOR | 45 | 40 | 23 | 55 | 6 | 22 | -10 |
| **Non-Agency MBS** | | | | | | | | |
| Prime Jumbo (CCC) | Swaps | 275 | 275 | 230 | 260 | 0 | 45 | 15 |
| Alt-A Floater (non-IG CCC) | LIBOR | 305 | 305 | 250 | 275 | 0 | 55 | 30 |
| Option ARM (super senior) | LIBOR | 305 | 305 | 255 | 285 | 0 | 50 | 20 |
| LCF Subprime | LIBOR | 335 | 335 | 285 | 310 | 0 | 50 | 25 |
| CAS BBB | LIBOR | 165 | 165 | 188 | 172 | 0 | -23 | -7 |
| CAS NR | LIBOR | 465 | 460 | 474 | 437 | 5 | -9 | 28 |
| **ABS** | | | | | | | | |
| Autos (3Y) | Swaps | 37 | 37 | 33 | 28 | 0 | 4 | 9 |
| Cards (5Y) | LIBOR | 58 | 58 | 45 | 40 | 0 | 13 | 18 |
| FFELP (5Y) | LIBOR | 130 | 130 | 56 | 55 | 0 | 74 | 75 |
| **CMBS** | | | | | | | | |
| A4 | Swaps | 170 | 170 | 90 | 91 | 0 | 80 | 79 |
| AM | Swaps | 250 | 250 | 141 | 160 | 0 | 109 | 90 |
| 2.0 AAA (10Y) | Swaps | 145 | 145 | 83 | 89 | 0 | 62 | 56 |
| 2.0 AA (10Y) | Swaps | 230 | 230 | 150 | 155 | 0 | 80 | 75 |
| CMBX 3 AAA | | 70 | 77 | 47 | 65 | -6 | 23 | 6 |
| CMBX 3 AM | | 399 | 393 | 168 | 252 | 6 | 231 | 147 |
| CMBX 3 AJ | | 4,588 | 4,542 | 1,093 | 1,010 | 47 | 3,496 | 3,578 |
| **CLOs** | | | | | | | | |
| AAA 1.0 | LIBOR | 165 | 165 | 70 | 110 | 0 | 95 | 55 |
| AAA 2.0 | LIBOR | 155 | 155 | 163 | 150 | 0 | -8 | 5 |
| **Corporates** | | | | | | | | |
| CDX IG | | 76 | 77 | 69 | 63 | -1 | 7 | 13 |
| CDX HY | | 423 | 439 | 366 | 313 | -16 | 57 | 110 |

| | 6/9/16 | 6/2/16 | 1/8/15 | 1/2/14 | Change 6/2/16 | Change 1/8/15 | Change 1/2/14 |
|---|---|---|---|---|---|---|---|
| **Equities** | | | | | | | |
| S&P 500 | 2,115 | 2,105 | 2,062 | 1,832 | 10 | 53 | 284 |
| KBW Bank Index | 69 | 71 | 72 | 69 | -2 | -2 | 0 |
| **Swaps** | | | | | | | |
| 5 Year | -4 | -3 | 15 | 5 | -1 | -18 | -9 |
| 10 Year | -13 | -13 | 12 | 7 | 0 | -25 | -20 |
| **Commodities** | | | | | | | |
| Gold | 1,270 | 1,211 | 1,209 | 1,224 | 59 | 61 | 45 |
| Crude Oil | 51 | 49 | 49 | 95 | 1 | 2 | -45 |
| **Sovereign CDS** | | | | | | | |
| UK | 32 | 32 | 20 | 27 | 1 | 12 | 5 |
| Germany | 18 | 18 | 18 | 25 | 0 | 0 | -6 |
| France | 41 | 37 | 49 | 52 | 3 | -8 | -12 |
| Spain | 98 | 96 | 99 | 143 | 1 | -2 | -46 |
| Italy | 132 | 129 | 141 | 156 | 3 | -9 | -24 |
| **Rates** | | | | | | | |
| 3M10Y Swap Spread | 89 | 100 | 188 | 281 | -11 | -99 | -192 |
| GT10 Yield | 1.68 | 1.81 | 2.01 | 2.98 | -13 | -34 | -130 |
| 3M10Y BP Vol | 74 | 75 | 83 | 81 | 0 | -9 | -7 |
| 3Y10Y BP Vol | 85 | 85 | 88 | 100 | 0 | -2 | -15 |
| **Risk** | | | | | | | |
| VIX | 15 | 14 | 17 | 14 | 1 | -2 | 0 |
| FRA-OIS | 26 | 24 | 14 | 16 | 1 | 12 | 9 |
| Euribor-OIS | 9 | 8 | 11 | 13 | 0 | -2 | -4 |
| EUR Basis Swap 3M | -29 | -34 | -14 | -3 | 5 | -15 | -26 |
| MBS Index OAS | 27 | 24 | 16 | 36 | 3 | 11 | -9 |
| OAS / Gov Yield | 21 | 17 | 11 | 22 | 4 | 9 | -2 |

Source: BofA Merrill Lynch Global Research, Markit, S&P, Keefe Bruyette & Woods, Chicago Board Options Exchange, Bloomberg

# Agency MBS

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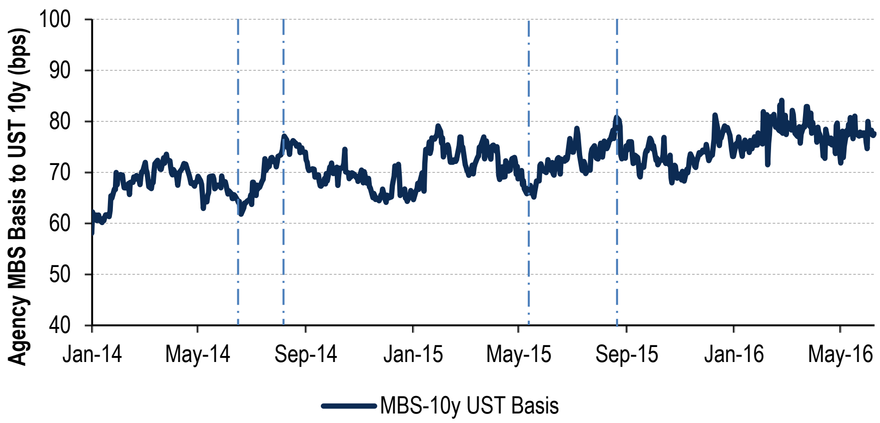
# Market update

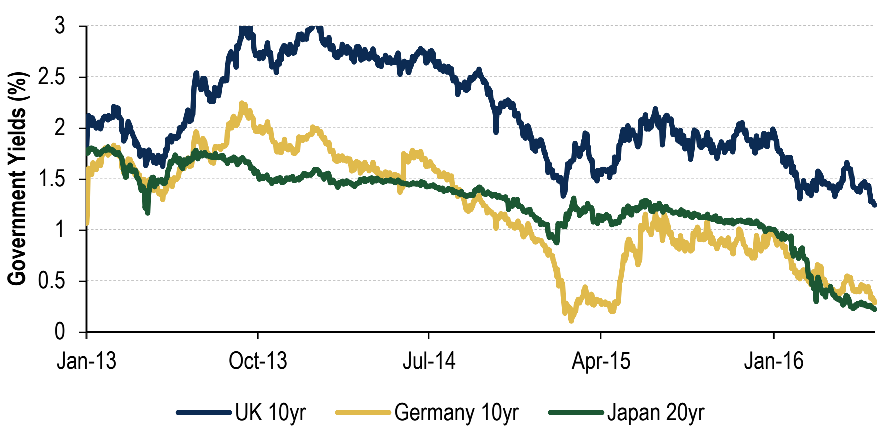
We stay neutral on the mortgage basis while acknowledging the potential for widening over the next few weeks. The global drag into lower yields, mortgage rates close to three-year lows, potential for higher volatility due to Brexit, and the risk of a hawkish Fed all set the stage for some degree of give-back from recently stable performance. Technical support could hit a soft patch, with G2s likely to be at the forefront of any underperformance. Overseas investors are likely to favor USTs over G2s, given G2 carry profiles that have declined substantially since early April versus both USTs and JGBs as profiled in the next section. This is expected to weaken G2/FN swaps, especially for 3.5s, which we profiled last week (Seasonals in perspective).

**Chart 16: Basis has exhibited summer seasonal widening observed over the past two years**




Source: BofA Merrill Lynch Global Research

**Chart 17: Declining yields overseas force buyers into US spread assets**

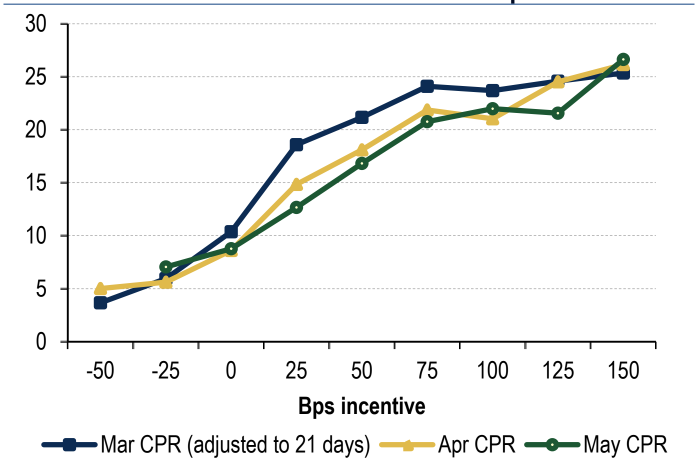



Source: BofA Merrill Lynch Global Research

Overall supply and demand could get back in balance from being skewed in favor of demand. The Fed's Z1 data for Q1 shows $65bn in net growth across money managers, overseas investors, insurance companies and the Fed, which absorbed $26bn in net issuance. Money managers have recorded three straight quarters of net growth, since 2H:15, speaking to the liquidity benefits of agency MBS at a time while liquidity was being repriced, reflected in both negative swap spreads and widening credit spreads. We detail additional takeaways from the Z1 report in the following section.

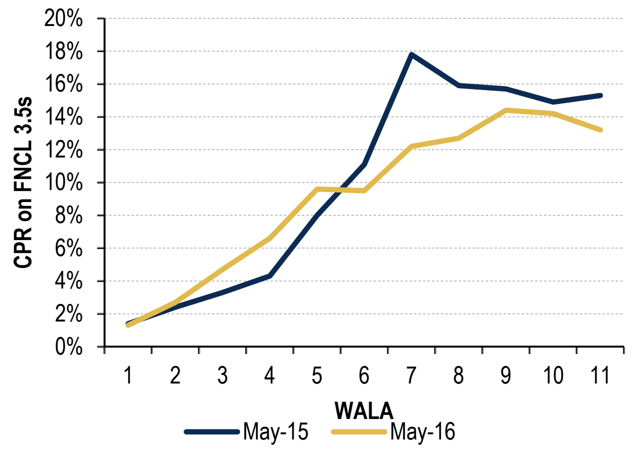
MBS are unlikely to be spared from a broad risk-off, especially triggered by a hawkish Fed, a surprise Brexit "leave" vote, or a correction in equity prices and a further bond rally, delivering new lows in rates. Supply should rise from what has been a muted seasonal pickup, and prepays likely will rise as S curves steepen from stable profiles thus far (Chart 18). Harsh seasoning ramps already highlight potential pitfalls in typically safe new-production pools (Chart 19). However, any of these risk-off events would also raise the value of liquidity. To that effect, agency MBS remain wide relative to high grade, while 84% of the sector remains in the hands of buy and hold or quasi buy and hold hands. This leaves us neutral the sector from a core allocation standpoint.

**Chart 18: S-curves have flattened since the March response to low rates**




Source: BofA Merrill Lynch Global Research

**Chart 19: 0-6 WALA seasoning ramp substantially steeper this year**




Source: BofA Merrill Lynch Global Research

## Welcome to the house of liquidity

The Fed's Z1 data release on Thursday provided an updated snapshot of investor holdings as of Q1 2016, largely underscoring the continued liquidity benefits of the sector as private investor sponsorship demonstrates continued breadth.

During this period, various investor groups grew net agency MBS holdings, led by money managers, overseas investors and modest growth by insurance companies and the Fed (Table 9). Total agency MBS holdings in money manager hands have finally crept back up to levels two years ago, at $621bn currently, with the Q1 net growth of $28bn (Table 10). Money managers have now had three straight quarters of net growth, totaling $132bn since 2H:15, coinciding with the broad widening in spread and investment grade markets.

**Table 9: Aggregate agency MBS holdings, by investor type**

| Quarter | Total | Bank | Fed | GSE | Insurance | MM | Overseas | REIT | Street |
|---|---|---|---|---|---|---|---|---|---|
| 2013Q4 | **5477** | 1689 | 1490 | 324 | 258 | 696 | 663 | 269 | 88 |
| 2014Q1 | **5480** | 1700 | 1603 | 297 | 252 | 627 | 654 | 260 | 86 |
| 2014Q2 | **5490** | 1702 | 1664 | 293 | 248 | 566 | 669 | 271 | 77 |
| 2014Q3 | **5525** | 1713 | 1696 | 293 | 244 | 543 | 690 | 266 | 79 |
| 2014Q4 | **5561** | 1710 | 1737 | 278 | 236 | 515 | 707 | 278 | 100 |
| 2015Q1 | **5579** | 1769 | 1732 | 286 | 227 | 491 | 710 | 269 | 95 |
| 2015Q2 | **5612** | 1805 | 1732 | 269 | 216 | 489 | 746 | 248 | 106 |
| 2015Q3 | **5681** | 1827 | 1741 | 261 | 202 | 549 | 749 | 241 | 110 |
| 2015Q4 | **5722** | 1899 | 1747 | 235 | 194 | 593 | 729 | 228 | 98 |
| 2016Q1 | **5767** | 1893 | 1753 | 231 | 201 | 621 | 753 | 227 | 87 |
| Percentage | **100%** | 33% | 30% | 4% | 3% | 11% | 13% | 4% | 2% |

Source: Fed Z1, BofA Merrill Lynch Global Research

**Table 10: Net change in agency MBS holdings, by investor type**

| Quarter | Total | Bank | Fed | GSE | Insurance | MM | Overseas | REIT | Street |
|---|---|---|---|---|---|---|---|---|---|
| 2014Q1 | **4** | 11 | 113 | (27) | (5) | (68) | (8) | (9) | (2) |
| 2014Q2 | **10** | 2 | 61 | (4) | (4) | (62) | 15 | 11 | (9) |
| 2014Q3 | **35** | 11 | 33 | 0 | (4) | (22) | 21 | (5) | 2 |
| 2014Q4 | **35** | (3) | 40 | (15) | (8) | (28) | 17 | 12 | 21 |
| 2015Q1 | **19** | 58 | (5) | 8 | (9) | (24) | 3 | (8) | (5) |
| 2015Q2 | **32** | 37 | 0 | (17) | (11) | (2) | 36 | (21) | 11 |
| 2015Q3 | **69** | 22 | 9 | (8) | (14) | 60 | 3 | (7) | 4 |
| 2015Q4 | **42** | 71 | 6 | (26) | (9) | 44 | (20) | (13) | (11) |
| 2016Q1 | **44** | (5) | 6 | (4) | 7 | 28 | 24 | (0) | (11) |

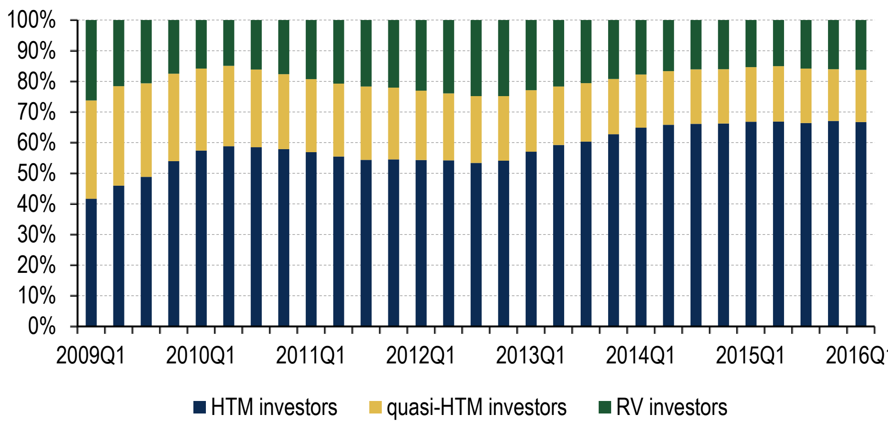
Source: Fed Z1, BofA Merrill Lynch Global Research

Money managers and overseas investors net growth has more than offset bank portfolio run off during Q1. In particular, as banks shed $6bn, money manager and overseas investor added $52bn. This is double the $26bn net issuance in Q1 (note the difference between net issuance and change in outstanding – Q1 outstanding accounts for March issuance, but not March paydowns).

The Fed is running a bit ahead of schedule, adding $6bn of a net $16bn to account for maturing agency debt slated to be reinvested into MBS this year. Nearly cancelling this is the GSE wind-down schedule, which requires the GSEs to shed $15bn this year to meet 2016's portfolio cap of $340bn. The agencies have sold $4bn in Q1.

Q1 changes in holdings continue to display the remarkable breadth of sponsorship for the agency MBS sector by private investors. Lending further support for the sector is the holdings stability imparted by dominance of held to maturity investors, particularly banks and the Fed. Even with the growth in money manager holdings, we estimate just 16% of outstanding MBS in active relative value hands, spanning money managers, REITs and dealers (Chart 20).

**Chart 20: Even with money manager growth this quarter, RV holdings amount to only 16% of MBS**



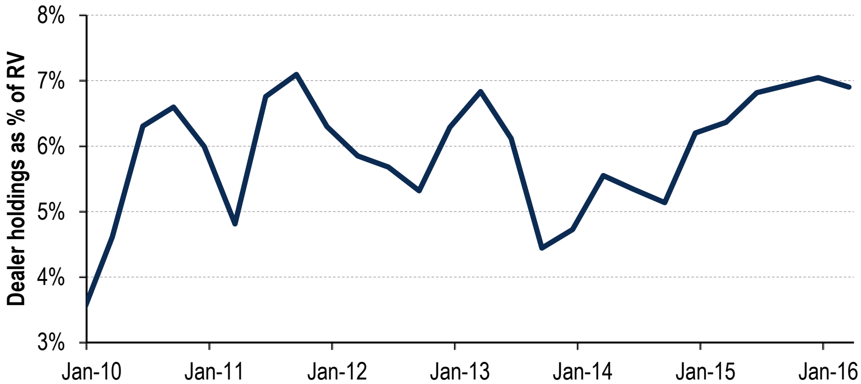

Source: Fed Z1, BofA Merrill Lynch Global Research

The liquidity profile of agency MBS remains a standout, even relative to USTs and high grade corporates. Based on our preferred liquidity measure of holdings in relative value hands as a share of dealer balance sheets, we see stable to improving liquidity for agency MBS (Chart 21).



Bank of America Merrill Lynch

**Chart 21: Dealer balance sheets for agency MBS hold steady near 7% of RV holdings**

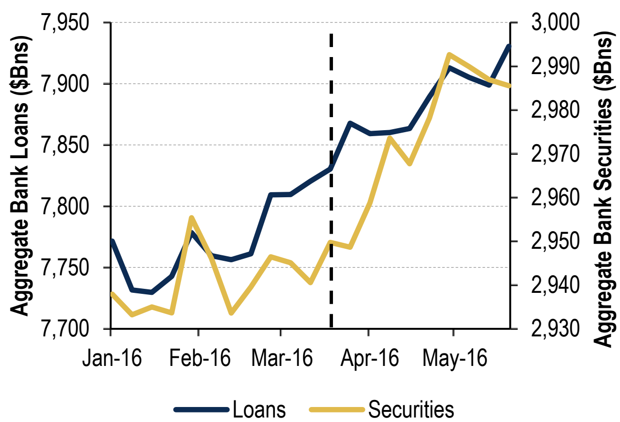



Source: Fed Z1, BofA Merrill Lynch Global Research

## Bank portfolios grow in Q2 after freezing up during Q1 rally

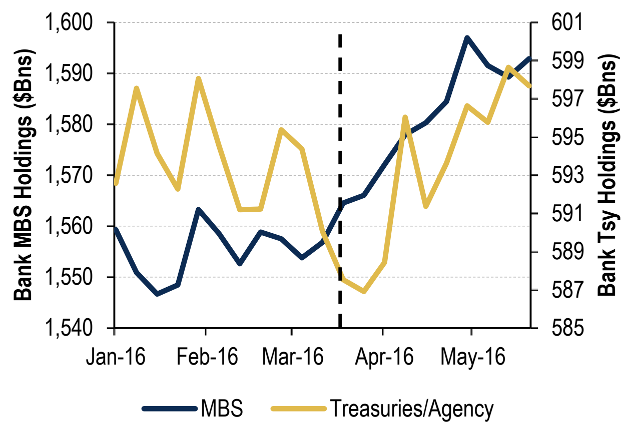
Bank portfolios froze up amid a tumultuous first quarter, with yields rallying nearly 65bps in the first month and a half of the New Year. Securities holdings flatlined while loan books grew at a record pace, likely driven by corporates drawing down existing C&I credit lines (The loan game, Chart 22). Fed H8 data provide a more updated view into Q2 trends. As expected, the relative stability of the second quarter has allowed bank securities portfolios to catch up, so far adding about $40bn of securities, with about $30bn in agency MBS and another $10bn in USTs (Chart 23).

**Chart 22: Bank securities portfolios have caught up in Q2…**




Source: Fed H8, BofA Merrill Lynch Global Research

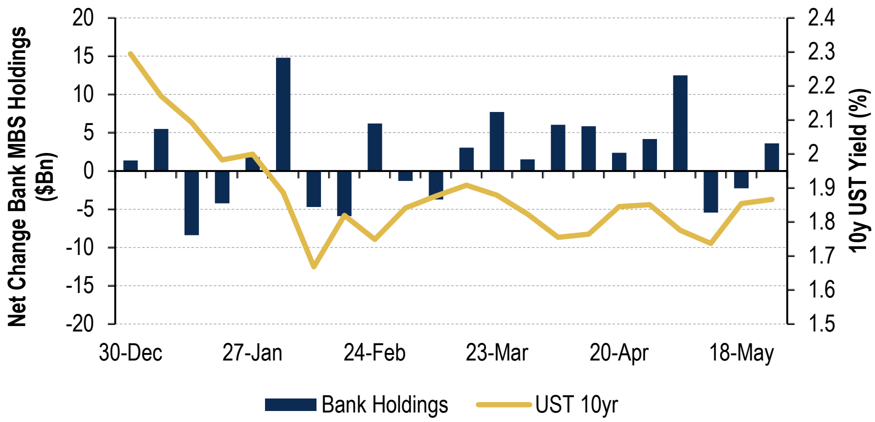
**Chart 23: … with $40bn from agency MBS and USTs**




Source: Fed H8, BofA Merrill Lynch Global Research

In our view, banks have likely reset yield bogeys to the 1.80-1.90% range on the UST 10yr, given recent activity recorded in that rate range (Chart 24). Given the push to lower yields since the poor May payrolls, we might see bank portfolios sidelined once again, exposing MBS to gapping out demand.

**Chart 24: Banks have likely reset yield bogeys to the 1.80 % range, unlikely to add at 1.60% 10yr UST**

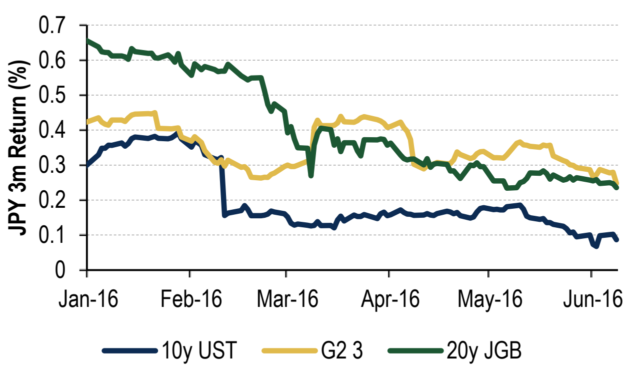



Source: Fed H8, BofA Merrill Lynch Global Research

### Overseas support may stall with deteriorating carry, favoring USTs

Fed Z1 showed strong overseas demand, adding $24bn in its second biggest quarter since the taper. This follows on a strong $15bn net addition in the March TIC report, dominated by almost $10bn from Japan in the wake of its negative rate policy announced in February. Carry in Ginnies has deteriorated significantly relative to JGB benchmarks in April and continued to leak into May (Chart 25, Table 11), reflecting steep S-curves and shaky fundamentals in the sector (Seasonals in perspective). With less of a carry pick, Japanese investors may also step back from the sector leading into Q3.

**Chart 25: GNMA carry weakened in April and May as speeds picked up**




Source: BofA Merrill Lynch Global Research

**Table 11: GNMA carry vs JGB benchmarks has deteriorated since April**

| | Annualized 3m Carry % vs | | | |
|---|---|---|---|---|
| | JGB10 | JGB20 | JGB10 | JGB20 |
| USD Asset | Today | | 4/8/2016 | |
| 3m T-bill | -1.5 | -1.9 | -1.3 | -2.2 |
| 5yr | -0.1 | -0.5 | 0 | -0.8 |
| 10yr | -0.1 | -0.6 | 0.2 | -0.6 |
| G2 3 | 0.5 | 0.0 | 1.2 | 0.3 |
| G2 3.5 | 0.0 | -0.5 | 0.9 | 0.1 |

Source: BofA Merrill Lynch Global Research

## FNMA's modified loan dataset a notable breakthrough

This week Fannie Mae confirmed its plans to release historical loan level data in July on a portion of the company's loans modified due to delinquency. This is a follow-up on the company's announcement in late April declaring its intentions to release this data in the second half of the year. The data will cover performance on 700k loans that were modified between 1 January 2010 to 31 December 2015. This sets up Fannie Mae to securitize a portion of these loans later in the year as was announced earlier.

As we have noted, the decision to securitize is less due to funding needs and constraints (Real money rains). Since conducting buyouts of delinquent loans, both GSEs have been able to retain these on balance sheet while working out each loan towards reperformer status, either through borrower insolvency curing or loan modification.

The data release will be on loans that have been brought to a current status, performing for at least six months, through a modification. Loan modifications have been offered to help resolve borrower's permanent hardship. Modifications typically involve changes to original terms including product type, interest rate, amortization term, maturity date and/or interest-bearing unpaid principal balance.

Modification plans include HAMP, expiring 31 December 2016, as well as standard and streamlined modification. HAMP lowers the monthly payment to a cap of 31% of gross monthly income. Standard mods capitalize arrears, reduce rates, extend terms and offer forbearance. Streamlined modification was introduced in July 2013 to extend outreach and borrower response. This entails non document modification extended to borrowers at least 90 days delinquent.

No data will be released on loans reperforming due to a borrower's own situation curing. The data release will also exclude loans performing for less than six months, interest-only loans, ARMs, balloon loans, loans with trial modifications, step rate loans that have not reached the final step up coupon, forbearance loans, and loans under repayment plans.

Pooling is intended to parallel Freddie Mac's, with the R/U/I pool types mirroring Freddie Mac's R/M/H. R pools are those reperforming without a modification.  U and M avail of standard or streamline mods with a level payment; coupons and amortization terms are set to target DTI limits. I and H pooled loans also avail of standard or streamlined mods, but bear step-up coupon features as the borrowers' ability-to-pay has been severely compromised.

Fannie Mae's intent to provide granular performance data on this subset of loans and through the entire performance history enables robust modeling and valuations. Complete attribution of cash flows from voluntary and involuntary factors over the life of the loans is critical to enable the creation of securitization channels. This data release marks a much needed turn in the development of these sales programs.

Developing this segment of the market is key in our view for the GSEs to eventually meet their transition from a portfolio-focused to a guaranty-focused business. As the GSE's agency MBS holdings – $69bn for Fannie and $160bn for Freddie – continue to pay down, portfolio reduction targets can only be met through sales channels either via securitization or loan sales.  Fannie Mae's holdings alone are $187bn as of 31 December 2015; $137 of restructured, accrual; loans and $47bn in nonaccrual loans.

While Freddie Mac has led in securitizing its holdings, its actual tradable volumes remain low. Our estimates show Freddie Mac's total securitization volumes at $19bn out of total estimated holdings of almost $75bn.  Below we list the agency CMOs and collateral type securitized by Freddie Mac to date.

**Table 12: Freddie Mac modified/reperforming CMO deals**

| Deal | Pool Type | Balance ($mm) | Issue Date | WALA | WAC | FICO | LTV | 1m CPR | 3m CPR | 6m CPR | 12m CPR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FHL 4263 | R | 286 | 2013 | 125 | 6.27 | 622 | 76 | 21 | 19 | 19 | 20 |
| FHL 4265 | R | 190 | 2013 | 126 | 5.58 | 624 | 74 | 17 | 21 | 20 | 21 |
| FHL 4272 | R | 122 | 2013 | 159 | 7.02 | 628 | 80 | 17 | 18 | 19 | 19 |
| FHL 4273 | R | 281 | 2013 | 128 | 6.01 | 619 | 75 | 15 | 21 | 21 | 22 |
| FHL 4281 | M | 104 | 2013 | 63 | 3.45 | 665 | N/A | 9 | 5 | 5 | 5 |
| FHL 4291 | M | 400 | 2014 | 63 | 4.63 | 649 | N/A | 13 | 15 | 14 | 14 |
| FHL 4298 | M | 162 | 2014 | 64 | 4.91 | 652 | N/A | 23 | 19 | 16 | 15 |
| FHL 4303 | M | 64 | 2014 | 65 | 4.42 | 652 | N/A | 27 | 20 | 16 | 13 |
| FHL 4305 | M | 82 | 2014 | 64 | 3.95 | 670 | N/A | 0 | 5 | 5 | 6 |
| FHL 4326 | M | 157 | 2014 | 70 | 3.95 | 680 | N/A | 13 | 10 | 7 | 8 |
| FHL 4336 | M | 277 | 2014 | 74 | 5.37 | 644 | N/A | 29 | 21 | 22 | 22 |
| FHL 4337 | M | 725 | 2014 | 70 | 3.98 | 659 | N/A | 8 | 9 | 9 | 9 |
| FHL 4338 | R | 244 | 2014 | 131 | 6.23 | 633 | 78 | 14 | 18 | 18 | 19 |
| FHL 4339 | M | 406 | 2014 | 69 | 4.41 | 650 | N/A | 14 | 13 | 12 | 11 |
| FHL 4341 | M | 167 | 2014 | 67 | 3.95 | 670 | N/A | 13 | 10 | 8 | 8 |
| FHL 4347 | M | 611 | 2014 | 66 | 4.78 | 649 | N/A | 20 | 17 | 15 | 15 |
| FHL 4354 | M | 71 | 2014 | 71 | 5.91 | 638 | N/A | 22 | 22 | 23 | 25 |
| FHL 4363 | H | 159 | 2014 | 68 | 3.00 | 674 | 65 | 16 | 13 | 10 | 9 |
| FHL 4365 | H | 98 | 2014 | 65 | 3.65 | 659 | 62 | 18 | 20 | 18 | 16 |
| FHL 4368 | H | 163 | 2014 | 56 | 2.49 | 652 | 61 | 7 | 13 | 10 | 8 |
| FHL 4374 | H | 150 | 2014 | 62 | 3.00 | 676 | 65 | 20 | 17 | 15 | 10 |
| FHL 4377 | R,H | 214 | 2014 | 88 | 3.91 | 642 | 70 | 10 | 17 | 16 | 13 |
| FHL 4379 | R | 122 | 2014 | 116 | 5.43 | 628 | 75 | 32 | 22 | 21 | 23 |
| FHL 4380 | M | 163 | 2014 | 69 | 3.04 | 673 | N/A | 9 | 6 | 7 | 6 |
| FHL 4385 | M | 131 | 2014 | 75 | 5.43 | 643 | N/A | 29 | 21 | 23 | 23 |
| FHL 4390 | M | 293 | 2014 | 46 | 3.98 | 641 | N/A | 11 | 10 | 8 | 8 |
| FHL 4391 | M | 317 | 2014 | 48 | 4.39 | 639 | N/A | 12 | 11 | 12 | 11 |
| FHL 4395 | H | 123 | 2014 | 43 | 2.00 | 652 | 68 | 5 | 9 | 6 | 6 |
| FHL 4398 | M | 42 | 2014 | 48 | 4.39 | 639 | N/A | 12 | 11 | 12 | 11 |
| FHL 4409 | M | 49 | 2014 | 63 | 5.43 | 633 | N/A | 15 | 22 | 22 | 22 |
| FHL 4419 | M | 359 | 2014 | 50 | 4.99 | 636 | N/A | 17 | 18 | 17 | 15 |
| FHL 4446 | M | 97 | 2015 | 38 | 4.00 | 635 | N/A | 3 | 7 | 6 | 7 |
| FHL 4464 | R | 32 | 2015 | 140 | 6.52 | 620 | 77 | 21 | 19 | 19 | 19 |
| FHL 4465 | R,M | 121 | 2015 | 68 | 4.41 | 649 | 72 | 23 | 16 | 13 | 15 |
| FHL 4469 | H | 142 | 2015 | 59 | 2.15 | 670 | 63 | 19 | 13 | 10 | 8 |
| FHL 4471 | M | 26 | 2015 | 63 | 3.45 | 665 | N/A | 9 | 5 | 5 | 5 |
| FHL 4472 | R,M | 140 | 2015 | 84 | 5.39 | 647 | 77 | 20 | 25 | 22 | 21 |
| FHL 4479 | H | 336 | 2015 | 54 | 2.16 | 667 | 63 | 6 | 9 | 8 | 7 |
| FHL 4501 | R | 127 | 2015 | 118 | 5.56 | 640 | 74 | 17 | 20 | 20 | N/A |
| FHL 4503 | M | 60 | 2015 | 65 | 5.41 | 648 | N/A | 16 | 22 | 22 | 22 |
| FHL 4508 | R | 213 | 2015 | 127 | 6.01 | 634 | 74 | 19 | 19 | 20 | N/A |
| FHL 4524 | M | 59 | 2015 | 71 | 3.45 | 657 | N/A | 9 | 6 | 7 | 8 |
| FHL 4528 | M | 31 | 2015 | 50 | 4.99 | 636 | N/A | 17 | 18 | 17 | 15 |
| FHL 4529 | H | 101 | 2015 | 67 | 4.80 | 674 | 64 | 31 | 35 | 31 | N/A |
| FHL 4536 | H | 171 | 2015 | 59 | 2.27 | 675 | 67 | 8 | 9 | 6 | N/A |
| FHL 4555 | M | 78 | 2016 | 68 | 4.41 | 650 | N/A | 15 | 14 | 12 | 12 |
| FHL 4559 | M | 1,897 | 2016 | 39 | 4.28 | 641 | N/A | 12 | 10 | 9 | 17 |
| FHL 4568 | R | 123 | 2016 | 87 | 4.89 | 649 | 73 | 15 | 15 | 15 | 16 |
| FHL 4576 | H | 3,056 | 2016 | 58 | 3.17 | 668 | 63 | 21 | N/A | N/A | N/A |
| FHL 4577 | H | 2,871 | 2016 | 60 | 2.91 | 673 | 66 | 14 | N/A | N/A | N/A |
| FHL 4578 | M | 2,470 | 2016 | 34 | 4.68 | 640 | N/A | 7 | 6 | N/A | N/A |
| FHL 4582 | H | 413 | 2016 | 53 | 2.00 | N/A | 77 | 4 | N/A | N/A | N/A |

Source: BofA Merrill Lynch Global Research

**Table 13: MBS performance snapshot**

| | | Performance snapshot (ticks) | | | | |
|---|---|---|---|---|---|---|
| | | 1-day | 1-week | 1-month | 3-month | HR |
| FNCL | Price | | | | | |
| 2.5 | 100-00+ | -2 | -3 | -3 | -5 | 0.64 |
| 3 | 102-25+ | -1 | -2 | -1 | 5 | 0.51 |
| 3.5 | 104-28+ | -1 | -2 | -3 | -1 | 0.37 |
| 4 | 106-31 | 0 | 0 | 1 | 2 | 0.25 |
| 4.5 | 109-01+ | -1 | 1 | 2 | 9 | 0.14 |
| 5 | 110-28 | 0 | -2 | -3 | 10 | 0.07 |
| 5.5 | 111-31+ | 0 | -3 | -3 | 2 | 0.04 |
| FNCI | | | | | | |
| 2 | 100-27 | -1 | 0 | -10 | -7 | 0.51 |
| 2.5 | 102-26+ | 0 | 0 | -4 | 9 | 0.37 |
| 3 | 104-14 | 0 | 1 | -4 | 4 | 0.27 |
| 3.5 | 105-23 | 1 | 5 | -2 | 11 | 0.15 |
| 4 | 103-26+ | 0 | -3 | -8 | -13 | 0.18 |
| 4.5 | 102-19 | 0 | -1 | -2 | -16 | 0.05 |
| 5 | 102-25 | 0 | 0 | 8 | -5 | 0.01 |
| G2SF | | | | | | |
| 2.5 | 100-26+ | -2 | 0 | 0 | 2 | 0.64 |
| 3 | 103-22 | -2 | -5 | -4 | -4 | 0.51 |
| 3.5 | 105-18 | -2 | -7 | -8 | -9 | 0.37 |
| 4 | 106-23+ | -2 | -5 | -6 | -16 | 0.25 |
| 4.5 | 107-16+ | -1 | -4 | -3 | -14 | 0.14 |
| GNSF | | | | | | |
| 5 | 110-26+ | 0 | -2 | -5 | 8 | 0.07 |
| 5.5 | 111-13 | 0 | -3 | -3 | -33 | 0.04 |
| IOS Performance | | | | | | |
| FN30 3.00 13 | 17-29 | 0 | 0 | 12 | 27 | 0.98 |
| FN30 3.00 12 | 17-27+ | 0 | 0+ | 12+ | 25+ | 0.97 |
| FN30 3.50 14 | 16-01+ | 0 | 1 | 10 | 19 | 1.47 |
| FN30 3.50 13 | 18-09 | -0+ | 0+ | 9+ | 24 | 1.20 |
| FN30 3.50 12 | 18-05 | -0+ | 0 | 7 | 19 | 1.14 |
| FN30 3.50 10 | 16-24+ | -0+ | 0+ | 8 | 20 | 1.16 |
| FN30 4.00 14 | 17-09+ | -0+ | 1+ | 11+ | 28+ | 1.37 |
| FN30 4.00 13 | 17-18+ | 0 | 1+ | 13+ | 35 | 1.25 |
| FN30 4.00 11 | 18-26+ | -0+ | 0+ | 10+ | 32+ | 1.17 |
| FN30 4.00 10 | 18-15 | -0+ | 0+ | 11 | 36 | 1.12 |
| FN30 4.00 09 | 17-17+ | 0 | 1 | 11 | 28+ | 1.09 |
| FN30 4.50 11 | 20-00 | -0+ | 1 | 10+ | 29 | 1.03 |
| FN30 4.50 10 | 18-28 | -0+ | 0+ | 10 | 28 | 1.03 |
| FN30 4.50 09 | 17-31+ | -0+ | 0+ | 12 | 27 | 1.03 |
| FN30 5.00 10 | 19-29 | 0 | 0+ | 8+ | 15 | 0.87 |
| FN30 5.00 09 | 19-00 | 0 | 2 | 12+ | 21+ | 0.87 |
| FN30 5.00 08 | 19-00+ | 0+ | 2 | 16 | -14+ | 0.71 |
| FN30 5.00 05 | 21-05+ | 0+ | 2+ | 17 | 34 | 0.60 |
| FN30 5.00 03 | 21-19+ | 0 | 1+ | 17+ | 37 | 0.51 |
| FN30 5.50 08 | 22-00 | 0+ | 2 | 16 | -14+ | 0.57 |
| FN30 5.50 05 | 24-15 | 0+ | 2+ | 17 | 34 | 0.49 |
| FN30 5.50 03 | 23-21+ | 0 | 1+ | 17+ | 37 | 0.46 |
| GII30 5.00 10 | 19-22 | 0+ | 2+ | 19+ | 40 | 0.76 |
| GII30 4.50 10 | 18-01 | 0 | 2 | 19 | 37+ | 0.93 |
| GII30 4.00 10 | 16-30 | 0 | 2+ | 20 | 37+ | 1.01 |

Note: Pass-through performance is versus 10yr Treasury. IOS performance is versus FNCL 3.0s
Source: BofA Merrill Lynch Global Research

**Table 14: Select analytical and prepayment reports (PDF, XLS format where noted)**

Pass-through Package
Hybrid ARM Package
Agency MBS Supply, Issuance, Prepayment History (XLS)
30-year Mortgage Rate Survey (XLS)

| | Fixed | | | | ARMs | | |
|---|---|---|---|---|---|---|---|
| | Fannie Mae | Freddie Mac | GNMA II | GNMA I | Fannie Mae | Freddie Mac | Ginnie Mae |
| Coupon / Vintage | Jun | Jun | Jun | Jun | Jun | Jun | Jun |
| Specified Pools | Jun | Jun | Jun | Jun | | | |
| Servicer speeds | Jun | Jun | Jun | Jun | Jun | Jun | |
| GEO speeds | May | Jun | Jun | Jun | | | |
| S curve by story | Jun | Jun | Jun | Jun | | | |

**Scheduled updates:**

| | | |
|---|---|---|
| 4th business day | 6th business day | 8th business day |

Source: BofA Merrill Lynch Global Research

# Market news

**Table 15: MBS gross and net supply by agency, amount $Bn**

| | Fannie | | | Freddie | | | Ginnie | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gross | Paydown | Net | Gross | Paydown | Net | Gross | Paydown | Net | **Gross** | **Paydown** | **Net** |
| 2000 | 196 | 109 | 87 | 139 | 84 | 55 | 100 | 73 | 27 | **435** | **266** | **169** |
| 2001 | 497 | 312 | 185 | 381 | 213 | 168 | 169 | 192 | -23 | **1047** | **717** | **330** |
| 2002 | 691 | 491 | 201 | 541 | 421 | 119 | 166 | 224 | -57 | **1399** | **1136** | **263** |
| 2003 | 1132 | 809 | 323 | 755 | 680 | 74 | 210 | 277 | -68 | **2096** | **1766** | **330** |
| 2004 | 504 | 468 | 36 | 389 | 340 | 49 | 117 | 154 | -37 | **1011** | **962** | **49** |
| 2005 | 478 | 408 | 70 | 400 | 279 | 121 | 79 | 117 | -38 | **956** | **803** | **153** |
| 2006 | 467 | 303 | 164 | 344 | 191 | 153 | 76 | 72 | 3 | **887** | **566** | **321** |
| 2007 | 597 | 304 | 292 | 412 | 199 | 213 | 93 | 62 | 32 | **1102** | **565** | **537** |
| 2008 | 539 | 326 | 213 | 349 | 247 | 101 | 264 | 74 | 190 | **1152** | **647** | **505** |
| 2009 | 790 | 612 | 178 | 463 | 437 | 26 | 439 | 206 | 233 | **1692** | **1255** | **437** |
| 2010 | 600 | 776 | -176 | 376 | 538 | -162 | 375 | 185 | 190 | **1352** | **1499** | **-148** |
| 2011 | 555 | 583 | -28 | 300 | 392 | -92 | 304 | 165 | 139 | **1159** | **1140** | **19** |
| 2012 | 828 | 816 | 13 | 441 | 522 | -81 | 394 | 294 | 101 | **1663** | **1631** | **33** |
| 2013 | 734 | 636 | 98 | 427 | 389 | 38 | 383 | 288 | 96 | **1544** | **1312** | **232** |
| 2014 | 376 | 385 | -9 | 258 | 231 | 27 | 289 | 242 | 48 | **923** | **857** | **67** |
| 2015 | 473 | 468 | 5 | 352 | 286 | 66 | 426 | 330 | 97 | **1251** | **1084** | **167** |
| | | | | | | | | | | | | |
| Jan-15 | 35 | 33 | 2 | 23 | 20 | 3 | 27 | 23 | 4 | **84** | **75** | **9** |
| Feb-15 | 34 | 41 | -7 | 30 | 25 | 5 | 23 | 30 | -6 | **87** | **95** | **-9** |
| Mar-15 | 42 | 49 | -7 | 26 | 30 | -4 | 30 | 36 | -6 | **99** | **115** | **-16** |
| Apr-15 | 47 | 44 | 3 | 34 | 27 | 7 | 40 | 33 | 7 | **120** | **103** | **17** |
| May-15 | 41 | 43 | -2 | 33 | 26 | 7 | 39 | 31 | 8 | **113** | **100** | **13** |
| Jun-15 | 43 | 44 | -1 | 34 | 27 | 8 | 40 | 32 | 8 | **117** | **103** | **15** |
| Jul-15 | 44 | 40 | 4 | 39 | 25 | 15 | 45 | 28 | 17 | **128** | **93** | **35** |
| Aug-15 | 38 | 36 | 2 | 28 | 23 | 5 | 43 | 27 | 15 | **109** | **86** | **22** |
| Sep-15 | 44 | 36 | 8 | 30 | 22 | 9 | 39 | 26 | 12 | **113** | **84** | **29** |
| Oct-15 | 40 | 36 | 4 | 28 | 22 | 6 | 38 | 27 | 11 | **107** | **85** | **22** |
| Nov-15 | 28 | 32 | -4 | 23 | 20 | 4 | 35 | 22 | 13 | **85** | **73** | **12** |
| Dec-15 | 37 | 35 | 2 | 23 | 21 | 1 | 30 | 15 | 14 | **90** | **72** | **18** |
| | | | | | | | | | | | | |
| Jan-16 | 34 | 29 | 5 | 23 | 19 | 4 | 32 | 22 | 10 | **89** | **69** | **19** |
| Feb-16 | 29 | 31 | -2 | 21 | 19 | 2 | 30 | 23 | 7 | **80** | **73** | **7** |
| Mar-16 | 39 | 42 | -3 | 27 | 26 | 1 | 32 | 30 | 2 | **98** | **98** | **0** |
| Apr-16 | 43 | 41 | 2 | 26 | 25 | 1 | 39 | 29 | 10 | **108** | **95** | **13** |
| May-16 | 43 | 43 | 0 | 30 | 27 | 3 | 41 | 32 | 9 | **114** | **102** | **12** |
| **YTD-May** | | | | | | | | | | | | |
| **2015** | **199** | **208** | **-10** | **146** | **127** | **18** | **158** | **153** | **6** | **503** | **488** | **14** |
| **2016** | **188** | **186** | **2** | **127** | **116** | **11** | **174** | **136** | **37** | **489** | **438** | **51** |
| **Annualized 2016** | | | | | | | | | | | | |
| | **451** | **447** | **5** | **305** | **277** | **27** | **417** | **327** | **90** | **1173** | **1051** | **122** |

Source: BofA Merrill Lynch Global Research

- Net Fed purchases for the week were $8.1bn, up $1.6bn WoW (Table 16). The Fed's share of GNMA purchases rose to 32% from 21% last week (Table 17). The Fed's share of 15s purchases rose to 13% from 8% last week.

- The Fed shifted slightly up-in-coupon, with $4.5bn (56% of overall purchase) in 3s versus $3.9bn (60% of overall purchase) last week.

**Table 16: Fed purchases, net of roll, WoW ($ million)**

| Week of 6/2/16 | Coupon | FHLMC | FNMA | GNMA | GNMA2 | Total, by coupon | Week of 5/26/2016 | Coupon | FHLMC | FNMA | GNMA | GNMA2 | Total, by coupon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 | 1,203 | 1,773 | 0 | 1,563 | **4,539** | | 3 | 1,234 | 1,864 | 0 | 801 | **3,899** |
| | 3.5 | 577 | 895 | 0 | 1,076 | **2,548** | | 3.5 | 604 | 918 | 0 | 551 | **2,073** |
| | 4 | 0 | 0 | 0 | 0 | **0** | | 4 | 0 | 0 | 0 | 0 | **0** |
| 30yr Totals | | 1,780 | 2,668 | 0 | 2,639 | **7,087** | 30yr Totals | | 1,838 | 2,782 | 0 | 1,352 | **5,972** |
| 15yr | 2.5 | 308 | 444 | 0 | 0 | **752** | 15yr | 2.5 | 158 | 228 | 0 | 0 | **386** |
| | 3 | 129 | 172 | 0 | 0 | **301** | | 3 | 70 | 88 | 0 | 0 | **158** |
| | 3.5 | 0 | 0 | 0 | 0 | **0** | | 3.5 | 0 | 0 | 0 | 0 | **0** |
| 15yr Totals | | 437 | 616 | 0 | 0 | **1,053** | 15yr Totals | | 228 | 316 | 0 | 0 | **544** |
| **Total, by sector** | | **2,217** | **3,284** | **0** | **2,639** | **8,140** | **Total, by sector** | | **2,066** | **3,098** | **0** | **1,352** | **6,516** |

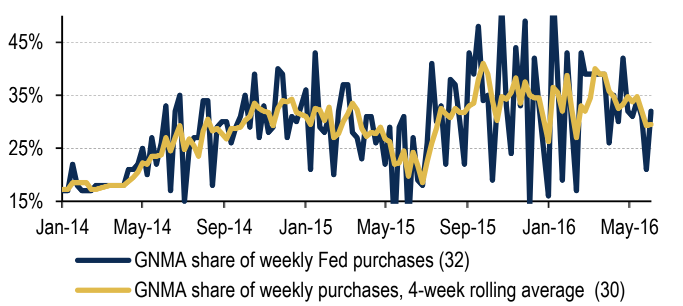
Source: NY Fed

**Table 17: Fed purchases as a % of total purchases, net of roll**

| Week of 6/2/16 | Coupon | FHLMC | FNMA | GNMA | GNMA2 | Total, by coupon | Week of 5/26/2016 | Coupon | FHLMC | FNMA | GNMA | GNMA2 | Total, by coupon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30yr | 3 | 15% | 22% | 0% | 19% | **56%** | 30yr | 3 | 19% | 29% | 0% | 12% | **60%** |
| | 3.5 | 7% | 11% | 0% | 13% | **31%** | | 3.5 | 9% | 14% | 0% | 8% | **32%** |
| | 4 | 0% | 0% | 0% | 0% | **0%** | | 4 | 0% | 0% | 0% | 0% | **0%** |
| 30yr Totals | | 22% | 33% | 0% | 32% | **87%** | 30yr Totals | | 28% | 43% | 0% | 21% | **92%** |
| 15yr | 2.5 | 4% | 5% | 0% | 0% | **9%** | 15yr | 2.5 | 2% | 3% | 0% | 0% | **6%** |
| | 3 | 2% | 2% | 0% | 0% | **4%** | | 3 | 1% | 1% | 0% | 0% | **2%** |
| | 3.5 | 0% | 0% | 0% | 0% | **0%** | | 3.5 | 0% | 0% | 0% | 0% | **0%** |
| 15yr Totals | | 5% | 8% | 0% | 0% | **13%** | 15yr Totals | | 3% | 5% | 0% | 0% | **8%** |
| **Total, by sector** | | **27%** | **40%** | **0%** | **32%** | **100%** | **Total, by sector** | | **32%** | **48%** | **0%** | **21%** | **100%** |

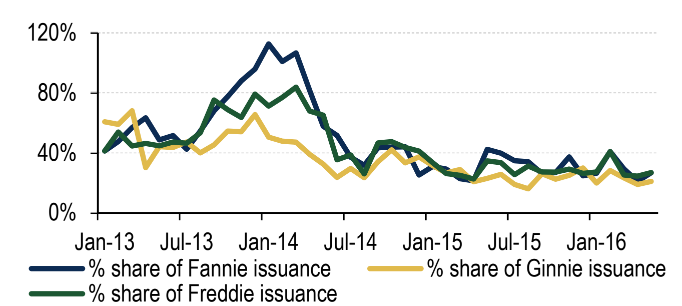
Source: NY Fed

**Chart 26: GNMA share of Fed's weekly purchases**




Source: NY Fed, BofA Merrill Lynch Global Research

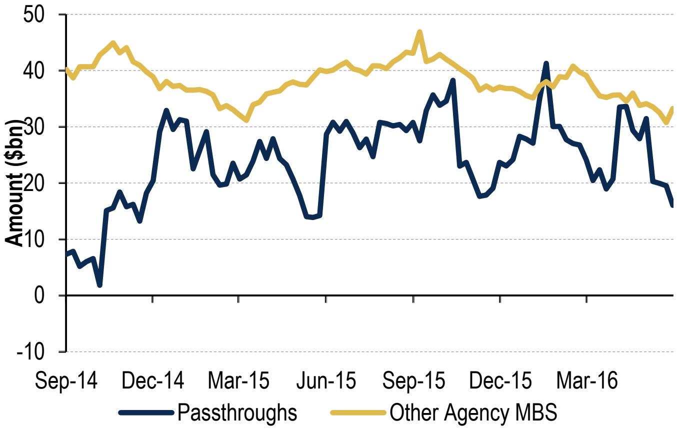
**Chart 27: Fed MBS Purchases, as a percent of gross issuance**




Source: NY Fed, BofA Merrill Lynch Global Research

- Primary dealer holdings of agency MBS pass-throughs were down $3.5bn WoW to $16.0bn, while holdings of other agency MBS were up $2.5bn WoW to $33.3bn (Chart 28, Table 18).

**Chart 28: Primary dealer net positions**




Source: NY Fed, BofA Merrill Lynch Global Research

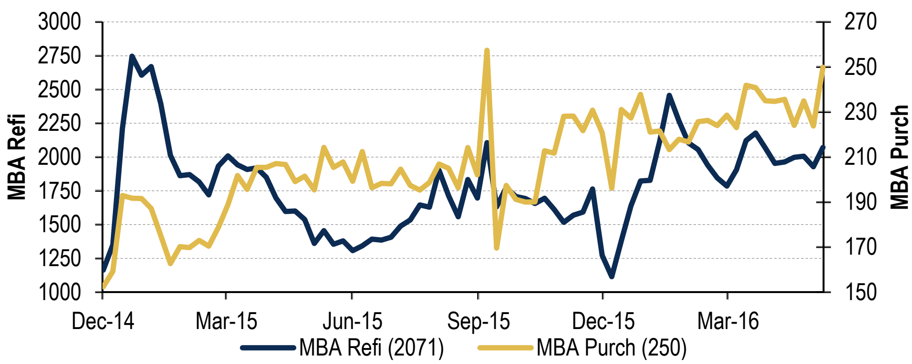
**Table 18: Primary dealer net positions, as of 6/1/2016**

| Category | Current | WoW | Previous week |
|---|---|---|---|
| Federal Agency and GSE RMBS, Passthrough | 16,026 | (3,494) | 19,520 |
| Federal Agency and GSE RMBS, Other | 33,264 | 2,527 | 30,737 |
| Federal Agency and GSE CMBS | 5,079 | 653 | 4,426 |
| Non-Agency RMBS | 8,973 | 3 | 8,970 |
| Other CMBS | 6,185 | (329) | 6,514 |

Source: NY Fed, BofA Merrill Lynch Global Research

- For the week ending June 3, the MBA refi index rose 7.4 %, while the purchase index jumped 11.7 % (Chart 29). The MBA government refi index was up 3.3% WoW and the government purchase index rose 14.7%. The MBA conventional refi index rose 8.6% WoW and conventional purchase index was up 10.5%.

**Chart 29: MBA refi and purchase indices**




Source: MBA

- Freddie Mac's 30-year survey rate was down 6bps to 3.60% this week.

**Table 19: 30-year Conventional Fed purchases detailed summary ($mn), by sector/coupon adjusted for specified issuance**

| Settle Month | Fed purchases ($mm) | | | | Share of monthly purchases | | | | Coupon issuance ($mm) | | | | Fed purchases as % of issuance | | | | Coupon, non-spec issuance( $mn) | | | | Fed purchases, % non-spec issuance | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 |
| **FNCL** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 8,000 | 18,600 | 450 | 0% | 14% | 34% | 1% | 36 | 2,915 | 11,749 | 2,700 | 0% | 274% | 158% | 17% | 32 | 2,734 | 9,764 | 1,541 | 0% | 293% | 190% | 29% |
| **Feb-14** | 0 | 3,900 | 15,200 | 2,350 | 0% | 8% | 30% | 5% | 42 | 2,306 | 11,834 | 3,318 | 0% | 169% | 128% | 71% | 42 | 2,207 | 9,961 | 1,887 | 0% | 177% | 153% | 125% |
| **Mar-14** | 0 | 5,250 | 16,000 | 200 | 0% | 12% | 36% | 0% | 15 | 1,103 | 10,632 | 3,334 | 0% | 476% | 150% | 6% | 12 | 1,072 | 8,782 | 2,011 | 0% | 490% | 182% | 10% |
| **Apr-14** | 0 | 5,950 | 13,600 | 0 | 0% | 14% | 32% | 0% | 9 | 2,496 | 11,908 | 3,510 | 0% | 238% | 114% | 0% | 9 | 2,449 | 10,116 | 2,107 | 0% | 243% | 134% | 0% |
| **May-14** | 0 | 3,211 | 11,251 | 0 | 0% | 9% | 32% | 0% | 10 | 2,029 | 12,960 | 2,931 | 0% | 158% | 87% | 0% | 10 | 1,953 | 10,619 | 1,615 | 0% | 164% | 106% | 0% |
| **Jun-14** | 0 | 3,378 | 9,222 | 0 | 0% | 12% | 32% | 0% | 13 | 4,170 | 14,551 | 2,369 | 0% | 81% | 63% | 0% | 11 | 3,907 | 11,849 | 1,160 | 0% | 86% | 78% | 0% |
| **Jul-14** | 0 | 5,310 | 6,002 | 0 | 0% | 18% | 20% | 0% | 12 | 6,827 | 15,323 | 2,254 | 0% | 78% | 39% | 0% | 12 | 6,176 | 12,200 | 1,139 | 0% | 86% | 49% | 0% |
| **Aug-14** | 0 | 3,438 | 5,054 | 0 | 0% | 14% | 20% | 0% | 23 | 8,332 | 13,378 | 1,681 | 0% | 41% | 38% | 0% | 20 | 7,541 | 10,636 | 641 | 0% | 46% | 48% | 0% |
| **Sep-14** | 0 | 6,012 | 8,745 | 0 | 0% | 16% | 23% | 0% | 58 | 11,349 | 13,561 | 2,270 | 0% | 53% | 64% | 0% | 58 | 10,162 | 10,242 | 1,292 | 0% | 59% | 85% | 0% |
| **Oct-14** | 0 | 6,665 | 6,584 | 0 | 0% | 16% | 16% | 0% | 138 | 13,167 | 12,619 | 1,416 | 0% | 51% | 52% | 0% | 137 | 11,457 | 7,794 | 273 | 0% | 58% | 84% | 0% |
| **Nov-14** | 0 | 6,220 | 5,510 | 0 | 0% | 19% | 17% | 0% | 219 | 9,949 | 8,742 | 1,929 | 0% | 63% | 63% | 0% | 217 | 9,009 | 5,265 | 803 | 0% | 69% | 105% | 0% |
| **Dec-14** | 625 | 5,339 | 2,716 | 0 | 2% | 18% | 9% | 0% | 1,341 | 16,147 | 11,889 | 959 | 47% | 33% | 23% | 0% | 1,293 | 14,679 | 6,798 | 178 | 48% | 36% | 40% | 0% |
| **Jan-15** | 787 | 5,435 | 2,968 | 0 | 3% | 20% | 11% | 0% | 4,019 | 15,122 | 5,925 | 443 | 20% | 36% | 50% | 0% | 3,947 | 12,996 | 2,348 | 75 | 20% | 42% | 126% | 0% |
| **Feb-15** | 3,018 | 5,227 | 885 | 0 | 13% | 22% | 4% | 0% | 5,214 | 14,512 | 4,206 | 513 | 58% | 36% | 21% | 0% | 5,205 | 13,854 | 3,859 | 476 | 58% | 38% | 23% | 0% |
| **Mar-15** | 4,149 | 3,219 | 0 | 0 | 17% | 13% | 0% | 0% | 11,011 | 16,644 | 3,001 | 243 | 38% | 19% | 0% | 0% | 11,005 | 16,178 | 2,573 | 217 | 38% | 20% | 0% | 0% |
| **Apr-15** | 1,742 | 5,313 | 1,148 | 0 | 7% | 20% | 4% | 0% | 14,343 | 15,160 | 2,905 | 272 | 12% | 35% | 40% | 0% | 13,774 | 10,607 | 943 | 34 | 13% | 50% | 122% | 0% |
| **May-15** | 8,740 | 6,278 | 0 | 0 | 23% | 17% | 0% | 0% | 7,533 | 18,471 | 4,115 | 256 | 116% | 34% | 0% | 0% | 7,224 | 14,640 | 2,023 | 80 | 121% | 43% | 0% | 0% |
| **Jun-15** | 6,105 | 7,589 | 788 | 0 | 16% | 20% | 2% | 0% | 5,827 | 19,226 | 5,080 | 286 | 105% | 39% | 16% | 0% | 5,400 | 13,799 | 2,240 | 40 | 113% | 55% | 35% | 0% |
| **Jul-15** | 2,297 | 8,934 | 2,027 | 0 | 7% | 26% | 6% | 0% | 5,634 | 21,050 | 6,133 | 528 | 41% | 42% | 33% | 0% | 5,261 | 16,563 | 2,312 | 80 | 44% | 54% | 88% | 0% |
| **Aug-15** | 1,182 | 6,830 | 2,875 | 0 | 4% | 24% | 10% | 0% | 2,426 | 17,463 | 7,487 | 621 | 49% | 39% | 38% | 0% | 2,316 | 13,094 | 3,324 | 91 | 51% | 52% | 86% | 0% |
| **Sep-15** | 734 | 6,286 | 2,207 | 0 | 2% | 21% | 7% | 0% | 2,411 | 21,433 | 9,023 | 525 | 30% | 29% | 24% | 0% | 2,366 | 17,981 | 4,467 | 144 | 31% | 35% | 49% | 0% |
| **Oct-15** | 1,497 | 6,191 | 1,364 | 0 | 6% | 23% | 5% | 0% | 2,589 | 20,783 | 6,528 | 576 | 58% | 30% | 21% | 0% | 2,527 | 15,927 | 2,731 | 153 | 59% | 39% | 50% | 0% |
| **Nov-15** | 1,233 | 5,733 | 1,653 | 0 | 5% | 22% | 6% | 0% | 992 | 13,001 | 5,039 | 285 | 124% | 44% | 33% | 0% | 966 | 11,227 | 2,777 | 101 | 128% | 51% | 60% | 0% |
| **Dec-15** | 1,208 | 4,742 | 1,549 | 0 | 5% | 20% | 6% | 0% | 2,596 | 18,912 | 6,007 | 636 | 47% | 25% | 26% | 0% | 2,547 | 16,580 | 3,442 | 134 | 47% | 29% | 45% | 0% |
| **Jan-16** | 736 | 5,504 | 1,710 | 0 | 3% | 26% | 8% | 0% | 3,308 | 17,239 | 4,861 | 531 | 22% | 32% | 35% | 0% | 3,279 | 14,284 | 2,055 | 104 | 22% | 39% | 83% | 0% |
| **Feb-16** | 1,320 | 7,363 | 1,862 | 0 | 5% | 25% | 6% | 0% | 3,793 | 11,732 | 4,153 | 693 | 35% | 63% | 45% | 0% | 3,674 | 9,352 | 1,749 | 98 | 36% | 79% | 106% | 0% |
| **Mar-16** | 2,180 | 4,122 | 734 | 0 | 10% | 18% | 3% | 0% | 8,027 | 15,010 | 5,018 | 1,010 | 27% | 27% | 15% | 0% | 7,726 | 12,011 | 1,847 | 196 | 28% | 34% | 40% | 0% |
| **Apr-16** | 3,741 | 3,730 | 0 | 0 | 16% | 16% | 0% | 0% | 16,219 | 10,141 | 3,932 | 703 | 23% | 37% | 0% | 0% | 15,549 | 6,458 | 1,677 | 141 | 24% | 58% | 0% | 0% |
| **May-16** | 6,051 | 3,428 | 0 | 0 | 21% | 12% | 0% | 0% | 16,919 | 10,340 | 3,363 | 800 | 36% | 33% | 0% | 0% | 16,317 | 6,267 | 1,440 | 262 | 37% | 55% | 0% | 0% |
| **Jun-16** | 6,693 | 3,912 | 0 | 0 | 20% | 12% | 0% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 2,705 | 1,354 | 0 | 0 | 26% | 13% | 0% | 0% | | | | | | | | | | | | | | | | |
| **FGLMC** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 4,700 | 7,850 | 0 | 0% | 8% | 14% | 0% | 13 | 2,728 | 8,871 | 1,533 | 0% | 172% | 88% | 0% | 13 | 2,536 | 7,550 | 621 | 0% | 185% | 104% | 0% |
| **Feb-14** | 0 | 2,250 | 7,950 | 800 | 0% | 4% | 16% | 2% | 22 | 1,733 | 9,164 | 1,307 | 0% | 130% | 87% | 61% | 22 | 1,613 | 7,320 | 578 | 0% | 139% | 109% | 139% |
| **Mar-14** | 0 | 3,400 | 7,050 | 0 | 0% | 8% | 16% | 0% | 20 | 648 | 7,402 | 1,315 | 0% | 525% | 95% | 0% | 20 | 599 | 5,963 | 492 | 0% | 568% | 118% | 0% |
| **Apr-14** | 0 | 3,800 | 8,050 | 0 | 0% | 9% | 19% | 0% | 2 | 2,186 | 8,342 | 1,319 | 0% | 174% | 97% | 0% | 2 | 2,078 | 6,556 | 458 | 0% | 183% | 123% | 0% |
| **May-14** | 0 | 3,409 | 7,639 | 0 | 0% | 10% | 22% | 0% | 3 | 2,460 | 8,865 | 1,171 | 0% | 139% | 86% | 0% | 3 | 2,262 | 6,637 | 350 | 0% | 151% | 115% | 0% |
| **Jun-14** | 0 | 1,858 | 3,764 | 0 | 0% | 6% | 13% | 0% | 0 | 3,397 | 10,109 | 1,129 | 0% | 55% | 37% | 0% | 0 | 3,080 | 7,780 | 359 | 0% | 60% | 48% | 0% |
| **Jul-14** | 0 | 3,719 | 4,433 | 0 | 0% | 12% | 15% | 0% | 8 | 5,566 | 8,709 | 912 | 0% | 67% | 51% | 0% | 8 | 5,135 | 6,446 | 205 | 0% | 72% | 69% | 0% |
| **Aug-14** | 0 | 2,614 | 3,398 | 0 | 0% | 11% | 14% | 0% | 198 | 10,033 | 9,732 | 823 | 0% | 26% | 35% | 0% | 150 | 8,708 | 7,240 | 149 | 0% | 30% | 47% | 0% |
| **Sep-14** | 0 | 4,803 | 6,018 | 0 | 0% | 13% | 16% | 0% | 130 | 9,005 | 8,510 | 638 | 0% | 53% | 71% | 0% | 128 | 7,931 | 5,901 | 182 | 0% | 61% | 102% | 0% |
| **Oct-14** | 0 | 5,003 | 4,942 | 0 | 0% | 12% | 12% | 0% | 172 | 9,419 | 8,327 | 502 | 0% | 53% | 59% | 0% | 172 | 8,067 | 5,925 | 108 | 0% | 62% | 83% | 0% |
| **Nov-14** | 0 | 5,046 | 4,178 | 0 | 0% | 16% | 13% | 0% | 285 | 10,036 | 6,291 | 455 | 0% | 50% | 66% | 0% | 283 | 8,562 | 3,687 | 94 | 0% | 59% | 113% | 0% |
| **Dec-14** | 315 | 5,035 | 2,065 | 0 | 1% | 17% | 7% | 0% | 975 | 9,246 | 4,703 | 291 | 32% | 54% | 44% | 0% | 962 | 8,244 | 2,955 | 80 | 33% | 61% | 70% | 0% |
| **Jan-15** | 420 | 4,538 | 1,486 | 0 | 2% | 17% | 6% | 0% | 1,481 | 10,668 | 3,485 | 204 | 28% | 43% | 43% | 0% | 1,437 | 9,035 | 2,313 | 84 | 29% | 50% | 64% | 0% |
| **Feb-15** | 2,251 | 3,744 | 990 | 0 | 9% | 16% | 4% | 0% | 4,836 | 11,937 | 4,315 | 681 | 47% | 31% | 23% | 0% | 4,579 | 9,822 | 2,790 | 410 | 49% | 38% | 35% | 0% |
| **Mar-15** | 2,865 | 2,564 | 0 | 0 | 12% | 10% | 0% | 0% | 6,538 | 8,224 | 1,771 | 401 | 44% | 31% | 0% | 0% | 6,352 | 6,623 | 918 | 259 | 45% | 39% | 0% | 0% |
| **Apr-15** | 1,504 | 4,376 | 678 | 0 | 6% | 17% | 3% | 0% | 10,621 | 11,031 | 1,314 | 81 | 14% | 40% | 52% | 0% | 9,794 | 8,662 | 733 | 18 | 15% | 51% | 93% | 0% |
| **May-15** | 5,312 | 4,708 | 0 | 0 | 14% | 12% | 0% | 0% | 7,333 | 13,524 | 1,673 | 103 | 72% | 35% | 0% | 0% | 6,995 | 10,593 | 648 | 26 | 76% | 44% | 0% | 0% |
| **Jun-15** | 3,996 | 5,214 | 472 | 0 | 10% | 13% | 1% | 0% | 6,363 | 16,035 | 2,534 | 138 | 63% | 33% | 19% | 0% | 6,042 | 13,233 | 1,348 | 21 | 66% | 39% | 35% | 0% |
| **Jul-15** | 1,462 | 5,880 | 1,184 | 0 | 4% | 17% | 4% | 0% | 6,142 | 13,823 | 3,647 | 309 | 24% | 43% | 32% | 0% | 5,435 | 11,253 | 2,350 | 141 | 27% | 52% | 50% | 0% |
| **Aug-15** | 859 | 4,593 | 1,665 | 0 | 3% | 16% | 6% | 0% | 3,483 | 12,168 | 3,593 | 262 | 25% | 38% | 46% | 0% | 3,233 | 9,841 | 1,964 | 63 | 27% | 47% | 85% | 0% |
| **Sep-15** | 978 | 4,412 | 1,295 | 0 | 3% | 15% | 4% | 0% | 1,668 | 14,149 | 5,195 | 395 | 59% | 31% | 25% | 0% | 1,573 | 11,853 | 2,749 | 79 | 62% | 37% | 47% | 0% |
| **Oct-15** | 1,158 | 4,421 | 840 | 0 | 4% | 16% | 3% | 0% | 2,249 | 12,714 | 4,920 | 321 | 51% | 35% | 17% | 0% | 2,159 | 10,650 | 2,155 | 45 | 54% | 42% | 39% | 0% |
| **Nov-15** | 972 | 3,701 | 840 | 0 | 4% | 14% | 3% | 0% | 1,874 | 10,636 | 4,146 | 439 | 52% | 35% | 20% | 0% | 1,792 | 8,139 | 2,353 | 185 | 54% | 45% | 36% | 0% |
| **Dec-15** | 962 | 3,184 | 841 | 0 | 4% | 13% | 3% | 0% | 3,391 | 10,091 | 3,038 | 246 | 28% | 32% | 28% | 0% | 3,102 | 8,421 | 1,364 | 42 | 31% | 38% | 62% | 0% |
| **Jan-16** | 683 | 3,650 | 960 | 0 | 3% | 17% | 4% | 0% | 3,088 | 9,871 | 3,306 | 264 | 22% | 37% | 29% | 0% | 2,936 | 8,135 | 1,574 | 43 | 23% | 45% | 61% | 0% |
| **Feb-16** | 1,447 | 4,917 | 1,049 | 0 | 5% | 17% | 4% | 0% | 1,589 | 9,869 | 3,820 | 291 | 91% | 50% | 27% | 0% | 1,524 | 8,208 | 2,249 | 102 | 95% | 60% | 47% | 0% |
| **Mar-16** | 2,006 | 3,097 | 474 | 0 | 9% | 14% | 2% | 0% | 5,381 | 8,980 | 3,535 | 358 | 37% | 34% | 13% | 0% | 5,266 | 7,229 | 1,800 | 97 | 38% | 43% | 26% | 0% |
| **Apr-16** | 2,846 | 2,804 | 0 | 0 | 12% | 12% | 0% | 0% | 8,644 | 8,089 | 2,546 | 328 | 33% | 35% | 0% | 0% | 8,193 | 6,103 | 1,302 | 122 | 35% | 46% | 0% | 0% |
| **May-16** | 4,254 | 2,309 | 0 | 0 | 15% | 8% | 0% | 0% | 12,799 | 7,328 | 2,150 | 359 | 33% | 32% | 0% | 0% | 11,986 | 5,176 | 1,238 | 148 | 35% | 45% | 0% | 0% |
| **Jun-16** | 4,889 | 2,555 | 0 | 0 | 15% | 8% | 0% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 1,820 | 879 | 0 | 0 | 17% | 8% | 0% | 0% | | | | | | | | | | | | | | | | |

Source: NY Fed, BofA Merrill Lynch Global Research

**Table 20: 30-year Ginnie Fed purchases detailed summary ($mn), by sector/coupon adjusted for specified issuance**

| Settle Month | Fed purchases ($mm) | | | | Share of monthly purchases | | | | Coupon issuance ($mm) | | | | Fed purchases as % of issuance | | | | Coupon, non-spec issuance( $mn) | | | | Fed purchases, % non-spec issuance | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 | 3 | 3.5 | 4 | 4.5 |
| **GNSF** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 8 | 84 | 153 | 31 | 0% | 0% | 0% | 0% | 1 | 56 | 55 | 6 | 0% | 0% | 0% | 0% |
| **Feb-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 16 | 70 | 317 | 27 | 0% | 0% | 0% | 0% | 0 | 45 | 139 | 7 | 0% | 0% | 0% | 0% |
| **Mar-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 11 | 65 | 542 | 11 | 0% | 0% | 0% | 0% | 7 | 47 | 380 | 5 | 0% | 0% | 0% | 0% |
| **Apr-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 6 | 102 | 267 | 24 | 0% | 0% | 0% | 0% | 1 | 80 | 127 | 0 | 0% | 0% | 0% | 0% |
| **May-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 7 | 73 | 340 | 20 | 0% | 0% | 0% | 0% | 3 | 65 | 117 | 1 | 0% | 0% | 0% | 0% |
| **Jun-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 11 | 87 | 137 | 15 | 0% | 0% | 0% | 0% | 3 | 66 | 67 | 5 | 0% | 0% | 0% | 0% |
| **Jul-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 21 | 114 | 172 | 5 | 0% | 0% | 0% | 0% | 12 | 94 | 99 | 0 | 0% | 0% | 0% | 0% |
| **Aug-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 24 | 318 | 420 | 3 | 0% | 0% | 0% | 0% | 15 | 289 | 285 | 2 | 0% | 0% | 0% | 0% |
| **Sep-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 25 | 288 | 465 | 4 | 0% | 0% | 0% | 0% | 14 | 226 | 292 | 0 | 0% | 0% | 0% | 0% |
| **Oct-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 41 | 139 | 178 | 3 | 0% | 0% | 0% | 0% | 30 | 93 | 82 | 2 | 0% | 0% | 0% | 0% |
| **Nov-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 74 | 142 | 226 | 3 | 0% | 0% | 0% | 0% | 66 | 120 | 74 | 3 | 0% | 0% | 0% | 0% |
| **Dec-14** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 66 | 53 | 169 | 5 | 0% | 0% | 0% | 0% | 58 | 26 | 122 | 4 | 0% | 0% | 0% | 0% |
| **Jan-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 237 | 604 | 285 | 6 | 0% | 0% | 0% | 0% | 213 | 467 | 190 | 6 | 0% | 0% | 0% | 0% |
| **Feb-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 179 | 712 | 232 | 8 | 0% | 0% | 0% | 0% | 131 | 582 | 156 | 6 | 0% | 0% | 0% | 0% |
| **Mar-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 982 | 666 | 420 | 11 | 0% | 0% | 0% | 0% | 934 | 545 | 330 | 7 | 0% | 0% | 0% | 0% |
| **Apr-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 246 | 686 | 687 | 38 | 0% | 0% | 0% | 0% | 193 | 559 | 560 | 19 | 0% | 0% | 0% | 0% |
| **May-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 149 | 154 | 914 | 76 | 0% | 0% | 0% | 0% | 149 | 154 | 914 | 76 | 0% | 0% | 0% | 0% |
| **Jun-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 177 | 87 | 612 | 45 | 0% | 0% | 0% | 0% | 177 | 87 | 612 | 45 | 0% | 0% | 0% | 0% |
| **Jul-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 522 | 291 | 783 | 56 | 0% | 0% | 0% | 0% | 522 | 291 | 783 | 56 | 0% | 0% | 0% | 0% |
| **Aug-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 300 | 139 | 813 | 97 | 0% | 0% | 0% | 0% | 300 | 139 | 813 | 97 | 0% | 0% | 0% | 0% |
| **Sep-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 68 | 119 | 569 | 136 | 0% | 0% | 0% | 0% | 68 | 119 | 569 | 136 | 0% | 0% | 0% | 0% |
| **Oct-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 42 | 96 | 195 | 152 | 0% | 0% | 0% | 0% | 42 | 96 | 195 | 152 | 0% | 0% | 0% | 0% |
| **Nov-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 31 | 106 | 265 | 132 | 0% | 0% | 0% | 0% | 31 | 106 | 265 | 132 | 0% | 0% | 0% | 0% |
| **Dec-15** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 39 | 35 | 252 | 117 | 0% | 0% | 0% | 0% | 39 | 35 | 252 | 117 | 0% | 0% | 0% | 0% |
| **Jan-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 27 | 62 | 99 | 82 | 0% | 0% | 0% | 0% | 27 | 62 | 99 | 82 | 0% | 0% | 0% | 0% |
| **Feb-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 28 | 33 | 104 | 109 | 0% | 0% | 0% | 0% | 28 | 33 | 104 | 109 | 0% | 0% | 0% | 0% |
| **Mar-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 21 | 22 | 234 | 98 | 0% | 0% | 0% | 0% | 21 | 22 | 234 | 98 | 0% | 0% | 0% | 0% |
| **Apr-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 37 | 66 | 244 | 108 | 0% | 0% | 0% | 0% | 37 | 66 | 244 | 108 | 0% | 0% | 0% | 0% |
| **May-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 52 | 41 | 131 | 76 | 0% | 0% | 0% | 0% | 52 | 41 | 131 | 76 | 0% | 0% | 0% | 0% |
| **Jun-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | | | | | | | | | | | | | | | | |
| **G2SF** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 3,050 | 7,450 | 0 | 0% | 6% | 13% | 0% | 351 | 7,167 | 9,269 | 1,873 | 0% | 43% | 80% | 0% | 349 | 7,153 | 9,116 | 1,756 | 0% | 43% | 82% | 0% |
| **Feb-14** | 0 | 2,150 | 6,050 | 1,150 | 0% | 4% | 12% | 2% | 224 | 4,526 | 9,889 | 2,656 | 0% | 48% | 61% | 43% | 224 | 4,515 | 9,631 | 2,491 | 0% | 48% | 63% | 46% |
| **Mar-14** | 0 | 2,700 | 4,750 | 150 | 0% | 6% | 11% | 0% | 88 | 2,987 | 8,529 | 2,282 | 0% | 90% | 56% | 7% | 86 | 2,983 | 8,102 | 1,994 | 0% | 91% | 59% | 8% |
| **Apr-14** | 0 | 3,550 | 4,750 | 0 | 0% | 8% | 11% | 0% | 148 | 5,509 | 10,492 | 2,221 | 0% | 64% | 45% | 0% | 146 | 5,493 | 10,355 | 2,053 | 0% | 65% | 46% | 0% |
| **May-14** | 0 | 3,205 | 4,357 | 0 | 0% | 9% | 13% | 0% | 216 | 5,956 | 11,674 | 2,554 | 0% | 54% | 37% | 0% | 216 | 5,935 | 10,981 | 2,245 | 0% | 54% | 40% | 0% |
| **Jun-14** | 0 | 2,941 | 2,849 | 0 | 0% | 10% | 10% | 0% | 214 | 6,722 | 12,349 | 2,827 | 0% | 44% | 23% | 0% | 212 | 6,706 | 11,924 | 2,429 | 0% | 44% | 24% | 0% |
| **Jul-14** | 0 | 4,304 | 3,676 | 0 | 0% | 14% | 12% | 0% | 272 | 9,921 | 11,191 | 2,089 | 0% | 43% | 33% | 0% | 270 | 9,886 | 10,700 | 1,827 | 0% | 44% | 34% | 0% |
| **Aug-14** | 0 | 3,677 | 3,202 | 0 | 0% | 15% | 13% | 0% | 806 | 12,594 | 10,583 | 1,842 | 0% | 29% | 30% | 0% | 801 | 12,529 | 9,732 | 1,627 | 0% | 29% | 33% | 0% |
| **Sep-14** | 0 | 4,747 | 4,293 | 0 | 0% | 13% | 11% | 0% | 617 | 11,908 | 9,507 | 1,476 | 0% | 40% | 45% | 0% | 612 | 11,808 | 8,671 | 1,313 | 0% | 40% | 50% | 0% |
| **Oct-14** | 0 | 6,986 | 5,281 | 0 | 0% | 17% | 13% | 0% | 2,033 | 12,508 | 9,890 | 1,562 | 0% | 56% | 53% | 0% | 2,031 | 11,976 | 8,702 | 1,366 | 0% | 58% | 61% | 0% |
| **Nov-14** | 0 | 5,365 | 3,246 | 0 | 0% | 17% | 10% | 0% | 1,310 | 11,389 | 8,338 | 1,529 | 0% | 47% | 39% | 0% | 1,308 | 10,889 | 7,338 | 1,340 | 0% | 49% | 44% | 0% |
| **Dec-14** | 862 | 6,485 | 2,373 | 0 | 3% | 22% | 8% | 0% | 3,120 | 12,042 | 6,946 | 1,070 | 28% | 54% | 34% | 0% | 3,114 | 11,669 | 5,913 | 932 | 28% | 56% | 40% | 0% |
| **Jan-15** | 963 | 5,595 | 1,948 | 0 | 4% | 21% | 7% | 0% | 3,985 | 12,083 | 5,538 | 961 | 24% | 46% | 35% | 0% | 3,949 | 11,619 | 4,894 | 816 | 24% | 48% | 40% | 0% |
| **Feb-15** | 1,964 | 3,976 | 210 | 0 | 8% | 17% | 1% | 0% | 5,046 | 9,668 | 4,101 | 681 | 39% | 41% | 5% | 0% | 5,028 | 8,851 | 3,459 | 577 | 39% | 45% | 6% | 0% |
| **Mar-15** | 4,356 | 4,216 | 95 | 0 | 17% | 17% | 0% | 0% | 9,183 | 11,758 | 3,469 | 745 | 47% | 36% | 3% | 0% | 9,177 | 11,140 | 3,063 | 622 | 47% | 38% | 3% | 0% |
| **Apr-15** | 3,226 | 4,306 | 736 | 0 | 12% | 17% | 3% | 0% | 12,072 | 17,311 | 3,577 | 975 | 27% | 25% | 21% | 0% | 12,040 | 16,063 | 3,191 | 808 | 27% | 27% | 23% | 0% |
| **May-15** | 3,759 | 5,092 | 0 | 0 | 10% | 14% | 0% | 0% | 10,315 | 18,844 | 3,629 | 847 | 36% | 27% | 0% | 0% | 10,315 | 18,844 | 3,629 | 847 | 36% | 27% | 0% | 0% |
| **Jun-15** | 5,290 | 4,444 | 420 | 0 | 14% | 11% | 1% | 0% | 12,259 | 18,233 | 3,638 | 761 | 43% | 24% | 12% | 0% | 10,266 | 17,820 | 3,638 | 761 | 52% | 25% | 12% | 0% |
| **Jul-15** | 1,867 | 5,058 | 1,534 | 0 | 6% | 15% | 5% | 0% | 11,398 | 21,561 | 5,091 | 878 | 16% | 23% | 30% | 0% | 11,398 | 21,561 | 5,091 | 878 | 16% | 23% | 30% | 0% |
| **Aug-15** | 850 | 4,224 | 1,800 | 0 | 3% | 15% | 6% | 0% | 5,897 | 21,884 | 8,441 | 1,235 | 14% | 19% | 21% | 0% | 5,897 | 21,884 | 8,441 | 1,235 | 14% | 19% | 21% | 0% |
| **Sep-15** | 1,560 | 6,700 | 1,784 | 0 | 5% | 22% | 6% | 0% | 3,115 | 20,510 | 9,406 | 1,323 | 50% | 33% | 19% | 0% | 3,115 | 20,510 | 9,406 | 1,323 | 50% | 33% | 19% | 0% |
| **Oct-15** | 1,357 | 4,805 | 2,459 | 0 | 5% | 18% | 9% | 0% | 3,271 | 21,373 | 8,302 | 1,118 | 41% | 22% | 30% | 0% | 3,271 | 21,373 | 8,302 | 1,118 | 41% | 22% | 30% | 0% |
| **Nov-15** | 2,083 | 5,602 | 938 | 0 | 8% | 22% | 4% | 0% | 4,003 | 19,150 | 6,789 | 901 | 52% | 29% | 14% | 0% | 4,003 | 19,150 | 6,789 | 901 | 52% | 29% | 14% | 0% |
| **Dec-15** | 1,633 | 5,167 | 2,077 | 0 | 7% | 21% | 9% | 0% | 4,728 | 15,828 | 5,042 | 626 | 35% | 33% | 41% | 0% | 4,728 | 15,828 | 5,042 | 626 | 35% | 33% | 41% | 0% |
| **Jan-16** | 1,026 | 4,337 | 912 | 0 | 5% | 20% | 4% | 0% | 4,630 | 17,417 | 5,584 | 694 | 22% | 25% | 16% | 0% | 4,630 | 17,417 | 5,584 | 694 | 22% | 25% | 16% | 0% |
| **Feb-16** | 1,338 | 5,049 | 2,090 | 0 | 5% | 17% | 7% | 0% | 4,164 | 16,715 | 5,201 | 713 | 32% | 30% | 40% | 0% | 4,164 | 16,715 | 5,201 | 713 | 32% | 30% | 40% | 0% |
| **Mar-16** | 2,358 | 4,051 | 1,065 | 0 | 10% | 18% | 5% | 0% | 6,309 | 17,066 | 4,742 | 786 | 37% | 24% | 22% | 0% | 6,309 | 17,066 | 4,742 | 786 | 37% | 24% | 22% | 0% |
| **Apr-16** | 3,939 | 3,466 | 0 | 0 | 17% | 15% | 0% | 0% | 13,829 | 16,494 | 3,890 | 586 | 28% | 21% | 0% | 0% | 13,829 | 16,494 | 3,890 | 586 | 28% | 21% | 0% | 0% |
| **May-16** | 4,700 | 3,910 | 0 | 0 | 17% | 14% | 0% | 0% | 16,174 | 16,181 | 3,576 | 573 | 29% | 24% | 0% | 0% | 16,174 | 16,181 | 3,576 | 573 | 29% | 24% | 0% | 0% |
| **Jun-16** | 6,795 | 4,755 | 0 | 0 | 21% | 14% | 0% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 1,563 | 1,076 | 0 | 0 | 15% | 10% | 0% | 0% | | | | | | | | | | | | | | | | |

Source: NY Fed, BofA Merrill Lynch Global Research

**Table 21: 15-year Fed purchases detailed summary ($mn), by sector/coupon adjusted for specified issuance**

| Settle Month | Fed purchases ($mm) | | | | Share of monthly purchases | | | | Coupon issuance ($mm) | | | | Fed purchases as % of issuance | | | | Coupon, non-spec issuance( $mn) | | | | Fed purchases, % non-spec issuance | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 2.5 | 3 | 3.5 | 2 | 2.5 | 3 | 3.5 | 2 | 2.5 | 3 | 3.5 | 2 | 2.5 | 3 | 3.5 | 2 | 2.5 | 3 | 3.5 | 2 | 2.5 | 3 | 3.5 |
| **FNCI** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 550 | 3,000 | 0 | 0% | 1% | 5% | 0% | 3 | 202 | 2,914 | 1,506 | 0% | 272% | 103% | 0% | 1 | 180 | 2,212 | 889 | 0% | 305% | 136% | 0% |
| **Feb-14** | 0 | 500 | 2,600 | 2,650 | 0% | 1% | 5% | 5% | 8 | 147 | 2,469 | 1,726 | 0% | 341% | 105% | 154% | 7 | 140 | 1,910 | 1,022 | 0% | 356% | 136% | 259% |
| **Mar-14** | 0 | 250 | 1,750 | 1,100 | 0% | 1% | 4% | 2% | 1 | 36 | 2,533 | 1,409 | 0% | 686% | 69% | 78% | 1 | 35 | 1,989 | 746 | 0% | 720% | 88% | 147% |
| **Apr-14** | 0 | 100 | 1,450 | 750 | 0% | 0% | 3% | 2% | 4 | 101 | 3,369 | 1,261 | 0% | 99% | 43% | 59% | 4 | 92 | 2,631 | 614 | 0% | 108% | 55% | 122% |
| **May-14** | 0 | 200 | 300 | 450 | 0% | 1% | 1% | 1% | 9 | 91 | 3,339 | 950 | 0% | 220% | 9% | 47% | 9 | 87 | 2,613 | 468 | 0% | 229% | 11% | 96% |
| **Jun-14** | 0 | 0 | 2,120 | 1,221 | 0% | 0% | 7% | 4% | 4 | 311 | 3,352 | 1,218 | 0% | 0% | 63% | 100% | 4 | 297 | 2,781 | 568 | 0% | 0% | 76% | 215% |
| **Jul-14** | 0 | 0 | 1,217 | 364 | 0% | 0% | 4% | 1% | 3 | 682 | 3,127 | 1,096 | 0% | 0% | 39% | 33% | 3 | 650 | 2,444 | 539 | 0% | 0% | 50% | 68% |
| **Aug-14** | 0 | 313 | 1,275 | 312 | 0% | 1% | 5% | 1% | 3 | 801 | 2,765 | 987 | 0% | 39% | 46% | 32% | 2 | 744 | 2,126 | 443 | 0% | 42% | 60% | 70% |
| **Sep-14** | 0 | 310 | 1,341 | 207 | 0% | 1% | 4% | 1% | 24 | 755 | 3,502 | 1,362 | 0% | 41% | 38% | 15% | 24 | 678 | 2,620 | 746 | 0% | 46% | 51% | 28% |
| **Oct-14** | 0 | 462 | 2,273 | 462 | 0% | 1% | 6% | 1% | 2 | 1,010 | 2,985 | 726 | 0% | 46% | 76% | 64% | 0 | 887 | 1,960 | 341 | 0% | 52% | 116% | 135% |
| **Nov-14** | 0 | 153 | 1,123 | 417 | 0% | 0% | 3% | 1% | 0 | 649 | 2,367 | 1,489 | 0% | 24% | 47% | 28% | 0 | 619 | 1,717 | 788 | 0% | 25% | 65% | 53% |
| **Dec-14** | 0 | 620 | 1,017 | 102 | 0% | 2% | 4% | 0% | 58 | 1,448 | 2,723 | 1,273 | 0% | 43% | 37% | 8% | 56 | 1,348 | 1,825 | 680 | 0% | 46% | 56% | 15% |
| **Jan-15** | 0 | 422 | 972 | 210 | 0% | 2% | 4% | 1% | 65 | 1,969 | 2,373 | 379 | 0% | 21% | 41% | 55% | 65 | 1,966 | 2,361 | 370 | 0% | 21% | 41% | 57% |
| **Feb-15** | 0 | 702 | 14 | 0 | 0% | 3% | 0% | 0% | 7 | 1,789 | 2,630 | 233 | 0% | 39% | 1% | 0% | 7 | 1,487 | 1,490 | 73 | 0% | 47% | 1% | 0% |
| **Mar-15** | 0 | 1,299 | 1,037 | 0 | 0% | 5% | 4% | 0% | 197 | 3,341 | 2,639 | 426 | 0% | 39% | 39% | 0% | 197 | 2,778 | 1,730 | 158 | 0% | 47% | 60% | 0% |
| **Apr-15** | 0 | 924 | 891 | 0 | 0% | 4% | 3% | 0% | 141 | 5,351 | 2,648 | 238 | 0% | 17% | 34% | 0% | 141 | 5,347 | 2,643 | 235 | 0% | 17% | 34% | 0% |
| **May-15** | 0 | 1,600 | 720 | 0 | 0% | 4% | 2% | 0% | 212 | 3,195 | 2,224 | 381 | 0% | 50% | 32% | 0% | 212 | 2,472 | 1,415 | 106 | 0% | 65% | 51% | 0% |
| **Jun-15** | 0 | 1,632 | 1,109 | 0 | 0% | 4% | 3% | 0% | 156 | 3,534 | 2,873 | 476 | 0% | 46% | 39% | 0% | 156 | 2,959 | 1,871 | 159 | 0% | 55% | 59% | 0% |
| **Jul-15** | 0 | 707 | 1,368 | 0 | 0% | 2% | 4% | 0% | 41 | 2,810 | 2,918 | 336 | 0% | 25% | 47% | 0% | 41 | 2,810 | 2,918 | 336 | 0% | 25% | 47% | 0% |
| **Aug-15** | 0 | 853 | 1,362 | 0 | 0% | 3% | 5% | 0% | 19 | 1,450 | 3,723 | 703 | 0% | 59% | 37% | 0% | 19 | 1,252 | 2,450 | 271 | 0% | 68% | 56% | 0% |
| **Sep-15** | 0 | 767 | 1,481 | 0 | 0% | 3% | 5% | 0% | 108 | 1,542 | 3,849 | 532 | 0% | 50% | 38% | 0% | 94 | 1,391 | 2,646 | 141 | 0% | 55% | 56% | 0% |
| **Oct-15** | 0 | 579 | 1,070 | 0 | 0% | 2% | 4% | 0% | 23 | 1,526 | 3,121 | 433 | 0% | 38% | 34% | 0% | 23 | 1,321 | 1,975 | 95 | 0% | 44% | 54% | 0% |
| **Nov-15** | 0 | 858 | 840 | 0 | 0% | 3% | 3% | 0% | 3 | 1,313 | 2,849 | 520 | 0% | 65% | 29% | 0% | 3 | 1,199 | 2,092 | 205 | 0% | 72% | 40% | 0% |
| **Dec-15** | 0 | 737 | 944 | 0 | 0% | 3% | 4% | 0% | 49 | 1,936 | 2,611 | 453 | 0% | 38% | 36% | 0% | 49 | 1,681 | 1,751 | 127 | 0% | 44% | 54% | 0% |
| **Jan-16** | 0 | 172 | 882 | 0 | 0% | 1% | 4% | 0% | 66 | 1,654 | 2,497 | 317 | 0% | 10% | 35% | 0% | 66 | 1,422 | 1,705 | 96 | 0% | 12% | 52% | 0% |
| **Feb-16** | 0 | 331 | 962 | 0 | 0% | 1% | 3% | 0% | 47 | 1,840 | 2,933 | 417 | 0% | 18% | 33% | 0% | 47 | 1,618 | 1,732 | 105 | 0% | 20% | 56% | 0% |
| **Mar-16** | 0 | 763 | 709 | 0 | 0% | 3% | 3% | 0% | 166 | 2,346 | 2,364 | 611 | 0% | 33% | 30% | 0% | 164 | 2,024 | 1,445 | 156 | 0% | 38% | 49% | 0% |
| **Apr-16** | 0 | 499 | 1,093 | 0 | 0% | 2% | 5% | 0% | 182 | 3,942 | 2,230 | 258 | 0% | 13% | 49% | 0% | 182 | 3,550 | 1,300 | 56 | 0% | 14% | 84% | 0% |
| **May-16** | 0 | 1,362 | 647 | 0 | 0% | 5% | 2% | 0% | 309 | 4,944 | 1,289 | 368 | 0% | 28% | 50% | 0% | 309 | 4,238 | 622 | 73 | 0% | 32% | 104% | 0% |
| **Jun-16** | 0 | 1,603 | 540 | 0 | 0% | 5% | 2% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 0 | 444 | 172 | 0 | 0% | 4% | 2% | 0% | | | | | | | | | | | | | | | | |
| **FGCI** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Jan-14** | 0 | 0 | 1,700 | 0 | 0% | 0% | 3% | 0% | 1 | 177 | 2,273 | 823 | 0% | 0% | 75% | 0% | 1 | 163 | 1,894 | 424 | 0% | 0% | 90% | 0% |
| **Feb-14** | 0 | 0 | 1,700 | 1,050 | 0% | 0% | 3% | 2% | 5 | 58 | 2,000 | 782 | 0% | 0% | 85% | 134% | 5 | 58 | 1,675 | 402 | 0% | 0% | 102% | 261% |
| **Mar-14** | 0 | 0 | 1,350 | 500 | 0% | 0% | 3% | 1% | 3 | 28 | 1,354 | 582 | 0% | 0% | 100% | 86% | 3 | 24 | 1,117 | 226 | 0% | 0% | 121% | 222% |
| **Apr-14** | 0 | 0 | 500 | 350 | 0% | 0% | 1% | 1% | 0 | 63 | 1,693 | 470 | 0% | 0% | 30% | 74% | 0 | 63 | 1,503 | 214 | 0% | 0% | 33% | 163% |
| **May-14** | 0 | 0 | 600 | 150 | 0% | 0% | 2% | 0% | 0 | 226 | 1,805 | 487 | 0% | 0% | 33% | 31% | 0 | 157 | 1,376 | 223 | 0% | 0% | 44% | 67% |
| **Jun-14** | 0 | 0 | 1,118 | 608 | 0% | 0% | 4% | 2% | 0 | 319 | 2,143 | 530 | 0% | 0% | 52% | 115% | 0 | 310 | 1,707 | 225 | 0% | 0% | 65% | 270% |
| **Jul-14** | 0 | 0 | 751 | 52 | 0% | 0% | 3% | 0% | 2 | 575 | 1,748 | 445 | 0% | 0% | 43% | 12% | 2 | 545 | 1,384 | 194 | 0% | 0% | 54% | 27% |
| **Aug-14** | 0 | 51 | 1,224 | 103 | 0% | 0% | 5% | 0% | 3 | 667 | 1,936 | 473 | 0% | 8% | 63% | 22% | 3 | 630 | 1,526 | 235 | 0% | 8% | 80% | 44% |
| **Sep-14** | 0 | 0 | 1,085 | 153 | 0% | 0% | 3% | 0% | 13 | 1,040 | 2,688 | 501 | 0% | 0% | 40% | 31% | 13 | 1,009 | 1,999 | 245 | 0% | 0% | 54% | 62% |
| **Oct-14** | 0 | 411 | 1,520 | 364 | 0% | 1% | 4% | 1% | 6 | 991 | 2,005 | 466 | 0% | 41% | 76% | 78% | 6 | 930 | 1,421 | 141 | 0% | 44% | 107% | 259% |
| **Nov-14** | 0 | 104 | 683 | 110 | 0% | 0% | 2% | 0% | 14 | 612 | 1,784 | 390 | 0% | 17% | 38% | 28% | 14 | 567 | 1,282 | 149 | 0% | 18% | 53% | 74% |
| **Dec-14** | 0 | 472 | 655 | 325 | 0% | 2% | 2% | 1% | 36 | 1,153 | 1,660 | 311 | 0% | 41% | 39% | 105% | 36 | 1,078 | 1,158 | 116 | 0% | 44% | 57% | 281% |
| **Jan-15** | 0 | 369 | 814 | 52 | 0% | 1% | 3% | 0% | 25 | 1,753 | 1,468 | 166 | 0% | 21% | 55% | 31% | 25 | 1,615 | 860 | 47 | 0% | 23% | 95% | 110% |
| **Feb-15** | 0 | 477 | 368 | 0 | 0% | 2% | 2% | 0% | 15 | 2,285 | 1,851 | 143 | 0% | 21% | 20% | 0% | 15 | 2,080 | 1,010 | 40 | 0% | 23% | 36% | 0% |
| **Mar-15** | 0 | 990 | 102 | 0 | 0% | 4% | 0% | 0% | 312 | 2,297 | 1,377 | 144 | 0% | 43% | 7% | 0% | 312 | 2,157 | 901 | 47 | 0% | 46% | 11% | 0% |
| **Apr-15** | 0 | 587 | 497 | 0 | 0% | 2% | 2% | 0% | 59 | 3,379 | 2,009 | 119 | 0% | 17% | 25% | 0% | 59 | 2,868 | 1,145 | 29 | 0% | 20% | 43% | 0% |
| **May-15** | 0 | 985 | 505 | 0 | 0% | 3% | 1% | 0% | 41 | 3,241 | 1,741 | 146 | 0% | 30% | 29% | 0% | 41 | 2,727 | 1,060 | 31 | 0% | 36% | 48% | 0% |
| **Jun-15** | 0 | 1,143 | 699 | 0 | 0% | 3% | 2% | 0% | 61 | 2,366 | 1,676 | 634 | 0% | 48% | 42% | 0% | 61 | 2,120 | 1,177 | 240 | 0% | 54% | 59% | 0% |
| **Jul-15** | 0 | 567 | 865 | 0 | 0% | 2% | 3% | 0% | 51 | 4,180 | 3,203 | 225 | 0% | 14% | 27% | 0% | 51 | 4,180 | 3,203 | 225 | 0% | 14% | 27% | 0% |
| **Aug-15** | 0 | 647 | 863 | 0 | 0% | 2% | 3% | 0% | 13 | 1,816 | 2,359 | 303 | 0% | 36% | 37% | 0% | 13 | 1,576 | 1,640 | 114 | 0% | 41% | 53% | 0% |
| **Sep-15** | 0 | 615 | 1,001 | 0 | 0% | 2% | 3% | 0% | 9 | 1,283 | 2,680 | 256 | 0% | 48% | 37% | 0% | 9 | 1,148 | 1,863 | 78 | 0% | 54% | 54% | 0% |
| **Oct-15** | 0 | 508 | 795 | 0 | 0% | 2% | 3% | 0% | 6 | 1,743 | 2,559 | 233 | 0% | 29% | 31% | 0% | 6 | 1,546 | 1,693 | 80 | 0% | 33% | 47% | 0% |
| **Nov-15** | 0 | 577 | 719 | 0 | 0% | 2% | 3% | 0% | 10 | 1,162 | 2,442 | 320 | 0% | 50% | 29% | 0% | 10 | 978 | 1,678 | 115 | 0% | 59% | 43% | 0% |
| **Dec-15** | 0 | 328 | 690 | 0 | 0% | 1% | 3% | 0% | 8 | 1,538 | 1,998 | 141 | 0% | 21% | 35% | 0% | 8 | 1,382 | 1,437 | 55 | 0% | 24% | 48% | 0% |
| **Jan-16** | 0 | 172 | 672 | 0 | 0% | 1% | 3% | 0% | 73 | 1,845 | 1,629 | 167 | 0% | 9% | 41% | 0% | 73 | 1,660 | 1,117 | 82 | 0% | 10% | 60% | 0% |
| **Feb-16** | 0 | 331 | 842 | 0 | 0% | 1% | 3% | 0% | 25 | 895 | 1,687 | 194 | 0% | 37% | 50% | 0% | 25 | 780 | 1,077 | 62 | 0% | 42% | 78% | 0% |
| **Mar-16** | 0 | 603 | 631 | 0 | 0% | 3% | 3% | 0% | 52 | 1,815 | 2,299 | 267 | 0% | 33% | 27% | 0% | 52 | 1,657 | 1,414 | 88 | 0% | 36% | 45% | 0% |
| **Apr-16** | 0 | 393 | 315 | 0 | 0% | 2% | 1% | 0% | 81 | 1,861 | 1,620 | 177 | 0% | 21% | 19% | 0% | 81 | 1,602 | 897 | 49 | 0% | 25% | 35% | 0% |
| **May-16** | 0 | 1,034 | 455 | 0 | 0% | 4% | 2% | 0% | 73 | 2,857 | 1,219 | 144 | 0% | 36% | 37% | 0% | 73 | 2,351 | 679 | 41 | 0% | 44% | 67% | 0% |
| **Jun-16** | 0 | 1,008 | 382 | 0 | 0% | 3% | 1% | 0% | | | | | | | | | | | | | | | | |
| **Jul-16** | 0 | 308 | 129 | 0 | 0% | 3% | 1% | 0% | | | | | | | | | | | | | | | | |

Source: NY Fed, BofA Merrill Lynch Global Research

# Non-agency MBS

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# Market overview

The third STACR DNA deal of the year was priced this week, with M1 at 110DM, M2 at 200 DM, M3 at 500 DM and the first loss piece at 1125DM. Two prime jumbo deals are also in the market and a rated non-QM deal has been announced by Lonestar. Year-to-date non-agency issuance was $23bn, with $7.3bn in CRT, $1.6bn in Jumbo 2.0, $1.3bn in SFR, and $12.9bn in NPL/RPL/seasoned securitization/S&D (Table 22).

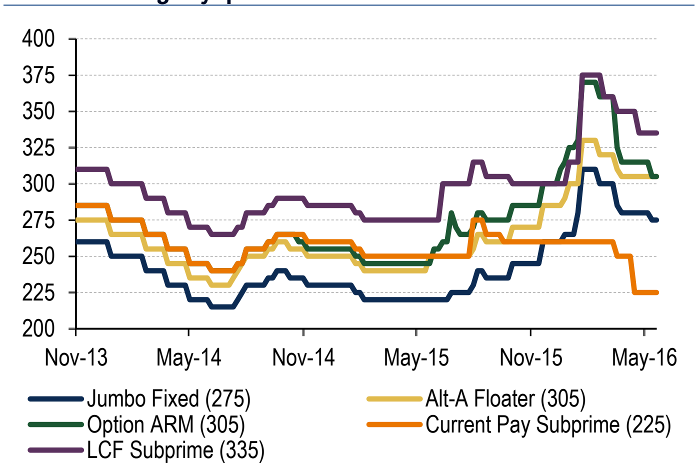
**Table 22: Non-agency RMBS annual gross issuance and forecast**

| Sector | 2014 | 2015 | 2016 YTD | 2016E |
|---|---|---|---|---|
| Jumbo | 8.8 | 12.1 | 1.6 | 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 | 0.0 | 1 |
| RPL/NPL | 23.4 | 28.5 | 12.9 | 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** | **23.0** | **51** |

Source: BofA Merrill Lynch Global Research, Intex

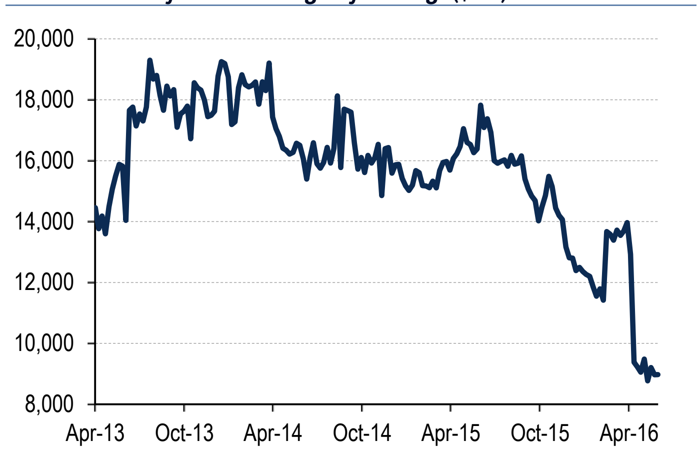
Weekly BWIC volumes in the legacy non-agency RMBS space rose by 82% to $678mn, with $395mn in subprime, $213mn in Alt-A, $52mn in Option ARM and $19mn in jumbo. There were also $22mn ReREMICs and $280mn derivatives in for the bid. Primary dealer non-agency holdings in the week of 6/1/2016 remained flat to $9bn (Chart 31) and the spreads remained relatively unchanged WoW (Chart 30). We remain overweight legacy RMBS and believe strong mortgage credit fundamentals and favorable technicals from the negative net supply should support further spread tightening.

**Chart 30: Non-agency spreads**




Source: BofA Merrill Lynch Global Research

**Chart 31: Primary Dealer Non-agency Holdings ($mn)**

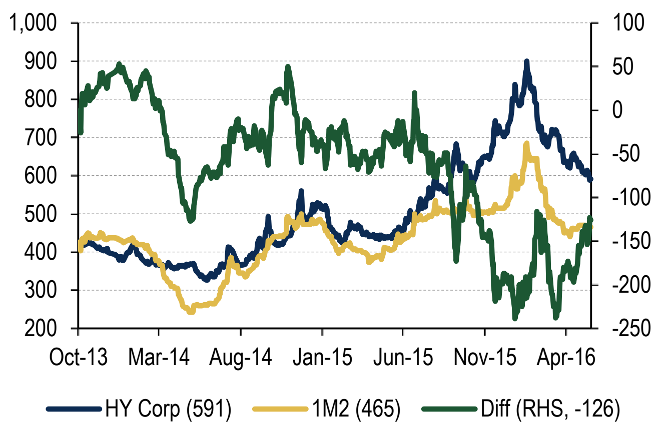



Source: NY Fed

CRT weekly volumes as of Thursday totaled at least $580mn; 20% of the trades were on CAS and 49% on the CAS M2/STACR M3s, respectively. CAS M2/STACR M3 continued to underperform high yield corporates. As of Thursday, CAS M2 bonds tightened by 1-3bps and STACR M3s widened by 2-3bps, compared with a 23bps spread tightening for high yield corporates (H0A0 Index, Chart 32). Spreads for IG –rated CRT tranches remained relatively unchanged while IG corporates spreads tightened by 1bp WoW (C0A0 Index, Chart 33).

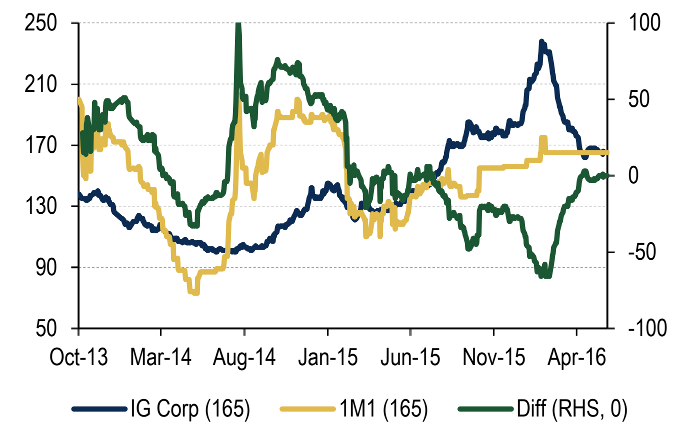
Weekly volumes in the SFR space as of Thursday totaled at least $149mn, according to TRACE. At least $56mn was on the AAA rated classes, $45mn was on BBB+ rated classes, and $58mn on the other tranches. Spreads tightened by 5-10bps across the board (Chart 34). In the same period, CMBS 5yr AAA remained relatively unchanged at 80bps (Chart 35).

**Chart 32: On-the-run spread for low LTV CAS NR vs. HY Corp**



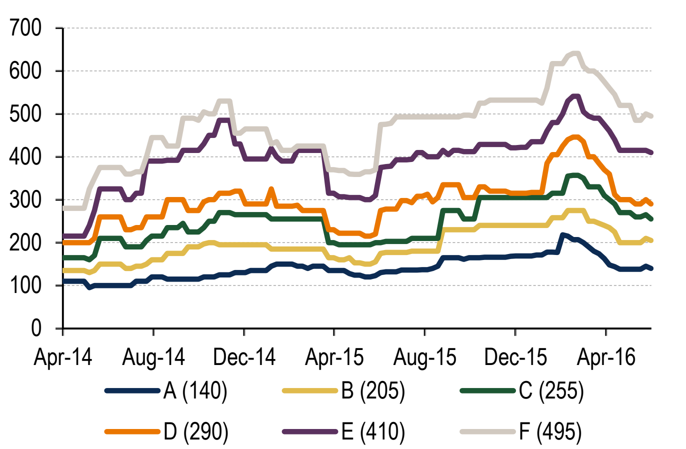

Source: BofA Merrill Lynch Global Research
Note: HY Corp spreads are as of 6/9/2016

**Chart 33: On-the-run spread for low LTV CAS BBB vs. IG Corp**



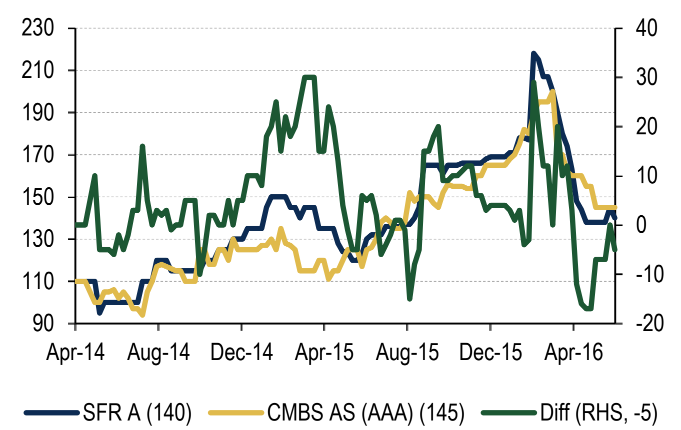

Source: BofA Merrill Lynch Global Research
Note: IG Corp spreads are as of 6/9/2016

**Chart 34: SFR 5Y Floating-rate Spreads**




Source: BofA Merrill Lynch Global Research

**Chart 35: SFR A vs. CMBS AS (AAA) spreads**




Source: BofA Merrill Lynch Global Research

# Citi settlement may pay $1b in 2-3 quarters

Last week, we discussed that non-agency investors would be receiving $7.9bn from the Countrywide settlement payout later this month and how that may have a net positive impact on the market (see The Countrywide technical for non-agencies for more details). Although the largest in size, the Countrywide settlement is not the only large rep-and-warranty settlement, and among the others, we believe there is a good chance that payouts related to the Citigroup settlement also could come through by the end of this year or early next year. The total allocation for the accepted trusts is likely to be about $1bn.

## Recap: Court approved the Citi settlement in December

On December 24, 2015, the NY Supreme Court entered the order approving the RMBS trustees' motion to accept the proposed settlement for the 68 trusts. In the ruling, the court held that the "trustees exercised their discretionary power reasonably and in good faith in accepting the RMBS Trust Settlement Agreement," and consequently barred the certificate holders from asserting any claims against the trustees with respect to the trustee's evaluation and acceptance of the settlement. Earlier, in December 2014, the trustees had initiated an Article 77 proceeding seeking judicial approval of their decision to accept the settlement, to which no objectors came forward.

## IRS approval likely remains pending

After the court's entry, the "effective date" for the settlement remained primarily contingent upon when the trustees would receive a private letter ruling(s) (or similar guidance) from the Internal Revenue Service (IRS). The ruling(s) should establish that the settlement agreement will not cause (1) failure of any settlement trust to qualify as REMIC or (2) imposition of any taxes on the trusts.

We would expect the trustees to publish an informational notice following IRS approval. The trustee in the Countrywide settlement did this, and, given the importance of the IRS approval date in defining the timing for subsequent cash flows (more on this below), we think it is reasonable to expect the trustee to provide public notice. So far none of the trustees has provided any such notice, which makes us believe that IRS approval is pending.

## Prior experience suggests IRS approval may come soon

According to the settlement agreement, trustees were to request such IRS ruling(s) within 30 days of the acceptance date (December 19, 2014). However, the agreement also stated that if the IRS is not amenable to such requests within the 30-day period, then the trustees should make such requests "as promptly as practicable thereafter."

We would expect that the trustees should have submitted their request to the IRS soon after the court judgment became final and non-appealable. The period to appeal the judgment should expire in 30 days from the judgment entry date, which means that the trustees may have made their request to the IRS toward the end of January 2016. Note that the trustee in the Countrywide settlement made its request 34 days after the appellate court's favorable ruling.

IRS approval was granted about six months from the date of the request in the Countrywide settlement (request: April 8, 2015; approval: October 13, 2015). A similar lag for Citi would suggest that the IRS approval could be granted by the end of July.

## Citi would likely be paying the trustees in Q4 this year

Once the IRS approval is received, the expert retained by the trustees will have 90 days to calculate the amount of net losses for each trust and thereby, the allocable share of each trust (denoted as final expert calculation). Within 30 days of the final expert calculation, Citigroup will have to make the settlement payment to the trustees. Citigroup will be making the settlement payment to a single escrow account designated by the accepting trustees.

In all, we estimate that the trustees could receive the settlement cash within 120 days of the IRS approval. On this basis, if the IRS approval is granted by the end of next month, Citi would be making the payment to the trustees by the end of November.

## Payment to trusts unlikely to be delayed much after that

Once the trustees receive the payment from Citi, they "shall use their reasonable best efforts to distribute the Settlement Payment to the Settlement Trusts as promptly as possible." Given that the allocation share of each trust would have been established by the final expert calculation, any further delays before the payment is distributed to the bondholders are likely to be procedural delays or delays related to determining the applicable distribution waterfall for the trusts (as was the case with Countrywide).

While we cannot rule out such delays, we believe they are less likely to occur in the Citi settlement. The reason for the delays for Countrywide was that the distribution methodology described in the settlement agreement ("paying first, and writing-up second") created inconsistencies with governing agreements of certain OC trusts, which may or may not be the case for Citi's deals. Nonetheless, it is possible that the trustees either give some time to investors who may want to raise an objection to distributing as per the settlement agreement's payment waterfall, or initiate a judicial instruction proceeding, as done by the trustee in the Countrywide settlement.

If the trustees are comfortable making the payment to the trusts without seeking further investor opinion or judicial instruction, then we estimate that bondholders could, at the earliest, receive the $1bn cash in December this year. If the trustees opt to seek further instruction before they distribute the payment, the Countrywide experience would suggest that the delay should be 3-4 months, at least for the trusts where the payment waterfall described in settlement agreement does not raise inconsistencies with the governing documents.

## Timing of eventual payout could be within Dec'16 to Apr'17

Altogether, the exact timing of the payout would primarily be governed by:

1. *The timing of IRS approval*, which we believe could come by the end of next month based on the Countrywide timing

2. *Delays related to determining the appropriate payment waterfall*, if any, should be limited to 3-4 months for the majority of the trusts in our opinion

Overall, we think that the investors in Citi settlement trusts could receive the $1bn in December this year, and if there are any delays, we do not expect the payout to be on hold further than April next year.

# Appendix

**Table 23: List of accepting trusts and expected allocation**

| Deal | Group | Allocable share | Expected Allocation ($ '000) | Deal | Group | Allocable share | Expected Allocation ($ '000) |
|---|---|---|---|---|---|---|---|
| CMLTI 2005-1 | Group I | 0.00% | - | | Group III | 0.33% | 3,657 |
| | Group II-1 | 0.05% | 556 | CMLTI 2005-HE3 | Group I | 0.77% | 8,710 |
| | Group II-2 | 0.03% | 300 | | Group II | 1.30% | 14,659 |
| | Group III | 0.00% | 13 | CMLTI 2005-HE4 | Group I | 0.66% | 7,383 |
| CMLTI 2005-2 | Group I-1 | 0.02% | 268 | | Group II | 0.73% | 8,257 |
| | Group I-2 | 0.10% | 1,148 | CMLTI 2005-OPT1 | Total Pool | 0.42% | 4,710 |
| | Group I-3 | 0.07% | 734 | CMLTI 2005-OPT3 | Total Pool | 0.71% | 7,944 |
| | Group I-4 | 0.07% | 738 | CMLTI 2005-OPT4 | Group I | 0.35% | 3,937 |
| | Group I-5 | 0.04% | 409 | | Group II | 0.54% | 6,083 |
| | Group II-1 | 0.02% | 259 | CMLTI 2005-SHL1 | Total Pool | 0.15% | 1,673 |
| | Group II-2 | 0.00% | 5 | CMLTI 2005-WF1 | Total Pool | 0.16% | 1,760 |
| CMLTI 2005-3 | Group I | 0.02% | 190 | CMLTI 2005-WF2 | Group I | 0.50% | 5,581 |
| | Group II-1 | 0.01% | 120 | | Group II | 0.13% | 1,476 |
| | Group II-2 | 0.15% | 1,726 | CMLTI 2006-4 | Group II | 0.01% | 106 |
| | Group II-3 | 0.05% | 508 | | Group I | 0.22% | 2,495 |
| | Group II-4 | 0.12% | 1,336 | CMLTI 2006-AMC1 | Group I | 2.03% | 22,891 |
| | Group III | 0.00% | - | | Group II | 1.43% | 16,087 |
| CMLTI 2005-4 | Total Pool | 0.13% | 1,431 | CMLTI 2006-AR1 | Group I | 0.29% | 3,236 |
| CMLTI 2005-5 | Group I-1 | 0.01% | 84 | | Group II | 0.09% | 1,025 |
| | Group I-2 | 0.08% | 943 | | Group III | 0.62% | 6,926 |
| | Group I-3 | 0.02% | 251 | CMLTI 2006-AR2 | Group I-1 | 0.20% | 2,249 |
| | Group I-4 | 0.07% | 783 | | Group I-2 | 0.19% | 2,191 |
| | Group I-5 | 0.01% | 137 | | Group II | 0.00% | 27 |
| | Group II-1 | 0.15% | 1,713 | CMLTI 2006-AR3 | Group 1-1 | 0.39% | 4,369 |
| | Group II-2 | 0.01% | 135 | | Group 1-2 | 0.55% | 6,149 |
| | Group II-3 | 0.01% | 62 | | Group 2-1 | 0.19% | 2,092 |
| | Group III-1 | 0.20% | 2,291 | | Group 2-2 | 0.10% | 1,160 |
| | Group III-2 | 0.10% | 1,071 | | Group 2-3 | 0.60% | 6,741 |
| | Group III-3 | 0.09% | 1,049 | | Group 2-4 | 0.19% | 2,140 |
| | Group III-4 | 0.03% | 323 | CMLTI 2006-AR5 | Group 1-1 | 0.08% | 948 |
| | Group III-5 | 0.03% | 385 | | Group 1-2 | 0.04% | 468 |
| CMLTI 2005-6 | Group I | 0.02% | 275 | | Group 1-3 | 0.08% | 925 |
| | Group II | 0.11% | 1,287 | | Group 1-4 | 0.01% | 156 |
| | Group III | 0.01% | 57 | | Group 1-5 | 0.25% | 2,811 |
| CMLTI 2005-7 | Group 1-1 | 0.06% | 639 | | Group 1-6 | 0.02% | 212 |
| | Group 1-2 | 0.20% | 2,260 | | Group 1-7 | 0.02% | 198 |
| | Group 1-3 | 0.14% | 1,620 | | Group 2-1 | 0.08% | 871 |
| | Group 1-4 | 0.09% | 992 | | Group 2-2 | 0.20% | 2,208 |
| | Group II-1 | 0.00% | 52 | | Group 2-3 | 0.08% | 879 |
| | Group II-2 | 0.06% | 712 | | Group 2-4 | 0.05% | 606 |
| | Group II-3 | 0.10% | 1,128 | | Group 2-5 | 0.04% | 470 |
| | Group II-4 | 0.02% | 221 | | Group 2-6 | 0.06% | 712 |
| | Group II-5 | 0.12% | 1,313 | | Group 2-7 | 0.03% | 353 |
| CMLTI 2005-8 | Group I-1 | 0.07% | 823 | CMLTI 2006-AR6 | Group 1 | 0.50% | 5,671 |
| | Group I-2 | 0.04% | 427 | | Group 2 | 1.38% | 15,469 |
| | Group I-3 | 0.07% | 820 | CMLTI 2006-AR7 | Group 1-1 | 0.00% | - |
| | Group I-4 | 0.21% | 2,334 | | Group 1-2 | 0.03% | 358 |
| | Group II | 0.22% | 2,425 | | Group 1-3 | 0.25% | 2,764 |
| | Group III | 0.04% | 506 | | Group 1-4 | 0.12% | 1,354 |
| CMLTI 2005-9 | Group I | 0.12% | 1,375 | | Group 2-1 | 0.07% | 756 |
| | Group II-1 | 0.16% | 1,789 | | Group 2-2 | 0.42% | 4,766 |
| | Group II-2 | 0.01% | 82 | | Group 2-3 | 0.22% | 2,467 |
| | Group II-3 | 0.01% | 156 | | Group 2-4 | 0.11% | 1,198 |
| CMLTI 2005-10 | Group I-1 | 0.19% | 2,092 | CMLTI 2006-AR9 | Group 1 | 0.48% | 5,399 |
| | Group I-2 | 0.09% | 1,004 | | Group 2 | 0.18% | 2,065 |
| | Group I-3 | 0.27% | 2,990 | CMLTI 2006-FX1 | Total Pool | 0.77% | 8,620 |
| | Group I-4 | 0.10% | 1,118 | CMLTI 2006-HE1 | Total Pool | 1.18% | 13,280 |
| | Group I-5 | 0.12% | 1,304 | CMLTI 2006-HE2 | Group I | 0.80% | 8,976 |
| | Group II | 0.00% | 23 | | Group II | 0.76% | 8,531 |
| CMLTI 2005-11 | Group I | 0.01% | 163 | CMLTI 2006-HE3 | Group I | 0.84% | 9,433 |
| | Group II | 0.14% | 1,589 | | Group II | 1.52% | 17,127 |
| | Group III | 0.04% | 440 | CMLTI 2006-NC1 | Group I | 0.79% | 8,879 |
| CMLTI 2005-HE1 | Group I | 0.22% | 2,488 | | Group II | 1.83% | 20,603 |
| | Group II | 0.16% | 1,837 | CMLTI 2006-NC2 | Group I | 0.60% | 6,745 |

**Table 23: List of accepting trusts and expected allocation**

| Deal | Group | Allocable share | Expected Allocation ($ '000) |
|---|---|---|---|
| | Group II | 2.34% | 26,339 |
| CMLTI 2006-SHL1 | Total Pool | 0.52% | 5,836 |
| CMLTI 2006-WF1 | Group I | 0.60% | 6,736 |
| | Group II | 0.49% | 5,487 |
| CMLTI 2006-WF2 | Group I | 0.74% | 8,330 |
| | Group II | 0.93% | 10,416 |
| CMLTI 2006-WFH1 | Total Pool | 0.54% | 6,041 |
| CMLTI 2006-WFH2 | Total Pool | 2.06% | 23,159 |
| CMLTI 2006-WFH3 | Total Pool | 3.64% | 40,904 |
| CMLTI 2006-WFH4 | Total Pool | 1.93% | 21,761 |
| CMLTI 2006-WMC1 | Group I | 0.64% | 7,162 |
| | Group II | 1.41% | 15,858 |
| CMLTI 2007-2 | Group 1 | 0.38% | 4,246 |
| | Group 2 | 0.00% | 18 |
| CMLTI 2007-6 | Group 1-1 | 0.16% | 1,848 |
| | Group 1-2 | 0.86% | 9,653 |
| | Group 1-3 | 0.78% | 8,739 |
| | Group 1-4 | 0.17% | 1,880 |
| | Group 2 | 0.66% | 7,439 |
| CMLTI 2007-10 | Group 1 | 0.04% | 433 |
| | Group 2-1 | 0.02% | 187 |
| | Group 2-2 | 0.76% | 8,582 |
| | Group 2-3 | 0.05% | 507 |
| | Group 2-4 | 0.05% | 593 |
| | Group 2-5 | 0.01% | 57 |
| | Group 3-1 | 0.61% | 6,875 |
| | Group 3-2 | 0.02% | 182 |
| | Group 3-3 | 0.04% | 429 |
| CMLTI 2007-AHL1 | Group I | 1.28% | 14,349 |
| | Group II | 1.22% | 13,747 |
| CMLTI 2007-AHL2 | Group II | 0.77% | 8,661 |
| CMLTI 2007-AHL3 | Group I | 0.55% | 6,147 |
| | Group II | 0.55% | 6,160 |
| | Group III | 1.99% | 22,345 |
| CMLTI 2007-AMC1 | Group I | 2.97% | 33,446 |
| | Group II | 2.71% | 30,541 |
| CMLTI 2007-AMC2 | Group II | 0.63% | 7,132 |
| | Group III | 4.10% | 46,074 |
| CMLTI 2007-AMC3 | Group I | 1.52% | 17,083 |
| CMLTI 2007-AMC4 | Group I | 2.18% | 24,524 |
| | Group II | 1.70% | 19,132 |
| CMLTI 2007-AR1 | Total Pool | 1.57% | 17,693 |
| CMLTI 2007-AR4 | Group 1 | 0.48% | 5,376 |
| | Group 2-1 | 0.02% | 185 |
| | Group 2-2 | 0.19% | 2,094 |
| | Group 2-3 | 0.08% | 919 |
| CMLTI 2007-AR5 | Group 1-1 | 0.68% | 7,697 |
| | Group 1-2 | 0.44% | 4,909 |
| | Group 1-3 | 0.07% | 788 |
| | Group 2-1 | 0.10% | 1,177 |
| | Group 2-2 | 0.08% | 902 |
| CMLTI 2007-AR7 | Group 1 | 0.39% | 4,383 |
| | Group 5 | 0.14% | 1,571 |
| CMLTI 2007-AR8 | Group 1-1 | 0.32% | 3,604 |
| | Group 1-2 | 0.07% | 732 |
| | Group 1-3 | 0.04% | 494 |
| | Group 2 | 0.51% | 5,786 |
| CMLTI 2007-FS1 | Group I | 0.56% | 6,342 |
| | Group II | 0.34% | 3,815 |
| CMLTI 2007-OPX1 | Total Pool | 1.39% | 15,591 |
| CMLTI 2007-SHL1 | Total Pool | 1.80% | 20,226 |
| CMLTI 2007-WFH1 | Total Pool | 1.15% | 12,980 |
| CMLTI 2007-WFH2 | Total Pool | 2.65% | 29,839 |
| CMLTI 2007-WFH3 | Total Pool | 1.43% | 16,048 |
| CMLTI 2007-WFH4 | Group I | 0.47% | 5,314 |
| | Group II | 0.39% | 4,407 |
| CMLTI 2005-HE2 | Total Pool | 0.18% | 1,988 |
| CMLTI 2006-NCB1 | Group I | 0.19% | 2,110 |
| | Group II | 0.78% | 8,789 |
| CMLTI 2008-2 | Group I | 0.00% | - |
| | Group II | 0.00% | - |

Source: Court documents

**Table 24: List of rejected trusts**

| Deal | Group | Allocable share | Expected Allocation ($ '000) |
|---|---|---|---|
| CMLTI 2007-AHL2 | Group I | 0.72% | 8,074 |
| CMLTI 2007-AHL2 | Group III | 1.60% | 18,052 |
| CMLTI 2007-AMC2 | Group I | 2.69% | 30,225 |
| CMLTI 2007-AMC3 | Group II | 1.69% | 19,000 |
| CMLTI 2007-AR7 | Group 2 | 0.48% | 5,346 |
| CMLTI 2007-AR7 | Group 3 | 0.83% | 9,330 |
| CMLTI 2007-AR7 | Group 4 | 0.26% | 2,878 |

Source: Court documents

# Market pricing and spread

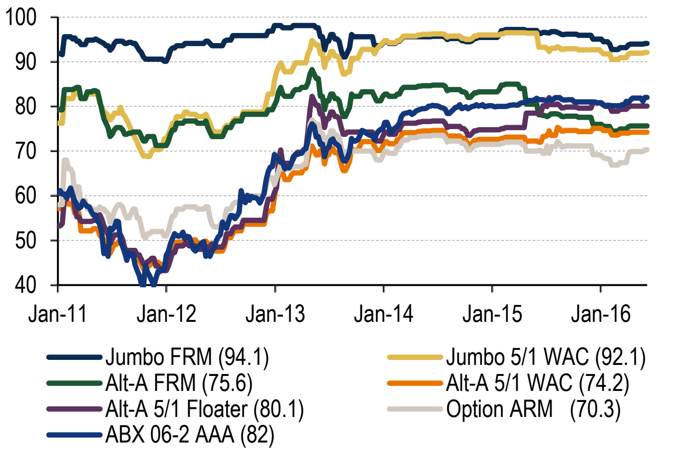
**Table 25: Non-agency spreads**

| | | 1-Week Δ | | 1-Month Δ | | 12-mth Δ | | 2016 YTD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Non-agency Spreads** | **Current Level** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **YTD Min** | **YTD Max** |
| **Legacy Spreads** | | | | | | | | | | | |
| Jumbo Fixed | 275 | 0 | 0% | (5) | -2% | 55 | 25% | 15 | 6% | 260 | 310 |
| Alt-A Floater | 305 | 0 | 0% | 0 | 0% | 55 | 22% | 20 | 7% | 285 | 330 |
| Option ARM | 305 | 0 | 0% | (10) | -3% | 60 | 24% | 5 | 2% | 300 | 370 |
| Current Pay Subprime | 225 | 0 | 0% | 0 | 0% | (25) | -10% | (35) | -13% | 225 | 260 |
| LCF Subprime | 335 | 0 | 0% | 0 | 0% | 60 | 22% | 35 | 12% | 300 | 375 |
| **New Issue Spreads** | | | | | | | | | | | |
| LCF Jumbo 2.0 | 170 | 0 | 0% | 0 | 0% | | | 20 | 13% | 150 | 170 |
| NPL A1 | 320 | 0 | 0% | (30) | -8% | 2 | 1% | (58) | -15% | 320 | 378 |
| NPL A2 | 636 | 0 | 0% | 11 | 2% | 243 | 62% | 146 | 30% | 490 | 636 |
| **SFR** | | | | | | | | | | | |
| A | 140 | (5) | -3% | 2 | 1% | 10 | 8% | (29) | -17% | 138 | 218 |
| B | 205 | (5) | -2% | 5 | 3% | 30 | 17% | (35) | -15% | 200 | 275 |
| C | 255 | (10) | -4% | (15) | -6% | 55 | 28% | (50) | -16% | 255 | 357 |
| D | 290 | (10) | -3% | (10) | -3% | 15 | 5% | (27) | -9% | 290 | 446 |
| E | 410 | (5) | -1% | (5) | -1% | 35 | 9% | (25) | -6% | 410 | 541 |
| F | 495 | (5) | -1% | (25) | -5% | 20 | 4% | (37) | -7% | 485 | 641 |
| **Credit Risk Transfer** | | | | | | | | | | | |
| STACR Low LTV Actual Loss M1 | 108 | (9) | -8% | (9) | -8% | (2) | -2% | (23) | -18% | 108 | 190 |
| STACR Low LTV Actual Loss M2 | 199 | (6) | -3% | (6) | -3% | 6 | 3% | (91) | -31% | 199 | 315 |
| STACR Low LTV Actual Loss M3 | 501 | 11 | 2% | 31 | 7% | 171 | 52% | 16 | 3% | 463 | 690 |
| STACR Low LTV Actual Loss B | 1,125 | 80 | 8% | 85 | 8% | 407 | 57% | 191 | 20% | 934 | 1,197 |
| STACR Low LTV M1 | 135 | 0 | 0% | 0 | 0% | 5 | 4% | 9 | 7% | 124 | 135 |
| STACR Low LTV M2 | 170 | 0 | 0% | 0 | 0% | (34) | -17% | (40) | -19% | 155 | 230 |
| STACR Low LTV M3 (BB) | 318 | (2) | -1% | (2) | -1% | (52) | -14% | (137) | -30% | 310 | 540 |
| STACR Low LTV M3 (NR) | 408 | (2) | 0% | 3 | 1% | 8 | 2% | (62) | -13% | 395 | 590 |
| STACR Low LTV B (NR) | 1,013 | 0 | 0% | (4) | 0% | 192 | 23% | 143 | 16% | 870 | 1,077 |
| STACR High LTV M1 | 110 | 0 | 0% | 0 | 0% | (8) | -7% | (25) | -19% | 110 | 155 |
| STACR High LTV M2 | 230 | 0 | 0% | (20) | -8% | 24 | 12% | (25) | -10% | 230 | 295 |
| STACR High LTV M3 (BB) | 388 | (2) | -1% | 8 | 2% | 50 | 15% | (42) | -10% | 380 | 555 |
| STACR High LTV M3 (NR) | 410 | (2) | 0% | (33) | -7% | 12 | 3% | (60) | -13% | 410 | 585 |
| STACR High LTV B (NR) | 819 | 0 | 0% | 0 | 0% | 34 | 4% | 8 | 1% | 811 | 866 |
| STACR High LTV Actual Loss M1 | 114 | 0 | 0% | (46) | -29% | | | 2 | 2% | 112 | 170 |
| STACR High LTV Actual Loss M2 | 218 | (2) | -1% | (22) | -9% | | | (72) | -25% | 218 | 320 |
| STACR High LTV Actual Loss M3 | 517 | 2 | 0% | 7 | 1% | | | 22 | 4% | 503 | 690 |
| STACR High LTV Actual Loss B | 1,145 | 0 | 0% | (42) | -4% | | | 99 | 9% | 1,046 | 1,275 |
| CAS Low LTV M1 | 165 | 0 | 0% | 0 | 0% | 42 | 34% | 9 | 6% | 156 | 175 |
| CAS Low LTV M2 | 465 | 5 | 1% | 5 | 1% | 50 | 12% | (50) | -10% | 440 | 685 |
| CAS High LTV M1 | 170 | 0 | 0% | 0 | 0% | 43 | 34% | 14 | 9% | 156 | 170 |
| CAS High LTV M2 | 463 | (3) | -1% | 8 | 2% | 47 | 11% | (49) | -10% | 440 | 680 |
| CAS Actual Loss Low LTV M1 | 180 | 0 | 0% | 0 | 0% | | | 26 | 17% | 154 | 215 |
| CAS Actual Loss Low LTV M2 | 487 | (3) | -1% | 12 | 3% | | | (58) | -11% | 463 | 690 |
| CAS Actual Loss Low LTV B | 1,045 | 0 | 0% | (9) | -1% | | | | | 1,043 | 1,210 |
| CAS Actual Loss High LTV M1 | 210 | 0 | 0% | 0 | 0% | | | 45 | 27% | 165 | 220 |
| CAS Actual Loss High LTV M2 | 509 | (1) | 0% | 4 | 1% | | | (26) | -5% | 495 | 710 |
| CAS Actual Loss High LTV B | 1,165 | 0 | 0% | 0 | 0% | | | | | 1,165 | 1,275 |

Source: BofA Merrill Lynch Global Research

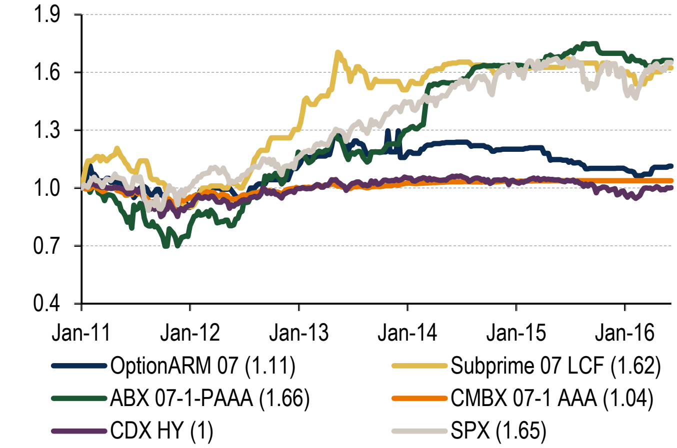
Note: current spreads are as of 6/09/2016

**Chart 36: Non-agency senior bond prices- 2006 vintage**




Source: BofA Merrill Lynch Global Research

**Chart 37: Non-agency prices vs. CDX HY & S&P 500 (100=1/11)**




Source: BofA Merrill Lynch Global Research

**Table 26: Non-agency market pricing using sample, indicative bonds**

| Sector | Sub-sector | Vintage | Price | Yield (%) |
|---|---|---|---|---|
| Jumbo | Fixed Rate | 2005 | 100.09 | 4.20 |
| | | 2006 | 94.08 | 4.35 |
| | | 2007 | 97.29 | 4.30 |
| | 5/1 WAC | 2005 | 98.08 | 4.55 |
| | | 2006 | 92.08 | 4.90 |
| | | 2007 | 89.33 | 4.58 |
| Alt-A | Fixed Rate | 2005 | 81.71 | 5.45 |
| | | 2006 | 75.63 | 5.33 |
| | | 2007 | 73.94 | 5.51 |
| | 5/1 WAC | 2005 | 78.33 | 5.12 |
| | | 2006 | 74.22 | 4.95 |
| | | 2007 | 69.23 | 5.20 |
| | 5/1 Floater | 2005 | 73.40 | 4.65 |
| | | 2006 | 80.07 | 4.95 |
| | | 2007 | 72.50 | 5.25 |
| Option ARM | | 2005 | 80.82 | 4.85 |
| | | 2006 | 70.28 | 4.92 |
| | | 2007 | 77.37 | 5.00 |

Source: BofA Merrill Lynch Global Research

**Table 27: Subprime market pricing using sample, indicative bonds**

| Vintage | Crossover | Tranche | Price | Yield (%) |
|---|---|---|---|---|
| 2005 | Sequential | FCF | 99.54 | 1.55 |
| 2006 | Pro Rata | Mid Pay | 89.26 | 3.95 |
| | | 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 28: RMBS Monthly Issuance by Asset Type (in $ millions)**

| Date | Jumbo | Alt-A | Option ARM | Subprime | CRT | SFR | RPL/ NPL | Total Non Agency | Re REMIC |
|---|---|---|---|---|---|---|---|---|---|
| 2016-06 | 345 | | | | 795 | | 37 | 1,177 | |
| 2016-05 | | | | | 1,543 | 791 | 5,862 | 8,196 | 20 |
| 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 | 957 | | | 195 | 1,070 | | 1,717 | 3,939 | 785 |
| 2015-10 | 680 | | | | 1,528 | 450 | 3,122 | 5,779 | 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 | 1,557 | | 2,992 | 5,427 | 1,292 |
| 2015-06 | 1,000 | | | | 1,376 | 1,632 | 3,879 | 7,887 | 1,142 |
| 2015-05 | 967 | | | | 1,449 | 674 | 1,891 | 4,980 | 2,209 |
| 2015-04 | 1,138 | | | | 1,010 | 1,488 | 1,890 | 5,526 | 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 29: RMBS Annual Issuance by Asset Type (in $ millions)**

| Date | Jumbo | Alt-A | Option ARM | Subprime | CRT | SFR | RPL/ NPL | Total Non Agency | Re REMIC |
|---|---|---|---|---|---|---|---|---|---|
| YTD 2016 | 1,569 | | | | 7,305 | 1,274 | 12,887 | 23,035 | 1,188 |
| 2015 | 11,858 | | | 474 | 12,846 | 6,373 | 28,475 | 60,293 | 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

# CMBS

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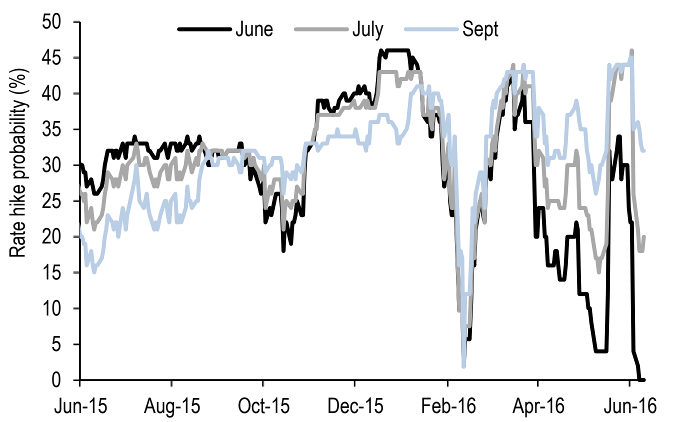
## Recap & relative value

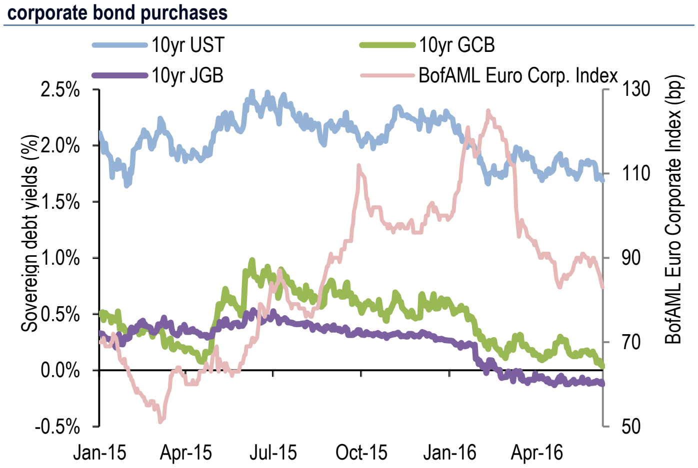
Investors returned to "risk on" mode early this week, fueled (pun intended) by rising oil prices, Fed Chair Yellen's dovish comments this Monday, which many investors may have interpreted to imply that the Fed would be on hold at least through the summer, and an announcement on Wednesday that the ECB began to buy corporate bonds as part of its $80 billion euro monthly purchase program. On the heels of this information, the probability of a rate hike before September fell to below 20% (Chart 38) and yields decreased globally (Chart 39), exacerbating the pressure many fixed income investors may already be under to find investments that offer suitable returns.

**Chart 38: The implied probability of a summer rate hike collapsed over the past two weeks**




Source: Bloomberg

**Chart 39: Yields declined globally this week, fueled by a dovish Fed and ECB corporate bond purchases**

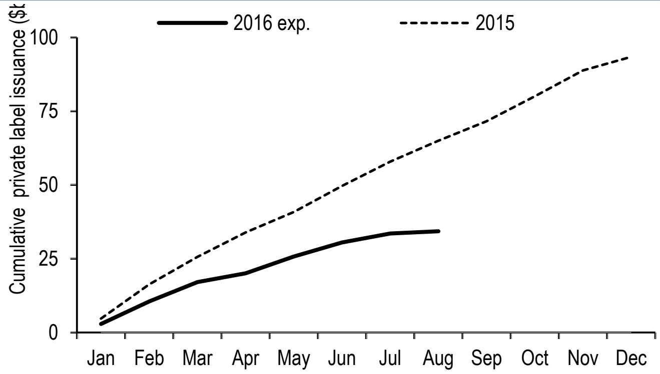



Source: BofA Merrill Lynch Global Research, Bloomberg

**By the end of the week, however, the early optimism faded as a resurgence in "safe haven" demand returned. As a result of the cross currents affecting the broader market, CMBS investors may feel as if they're stuck in the middle again: although decreasing odds of a near term rate hike may make them want to add risk and clip coupon, the uncertain macro environment against a backdrop of limited liquidity may temper their enthusiasm.** As a result, we think spreads will remain rangebound with investors buying dips and selling rallies.

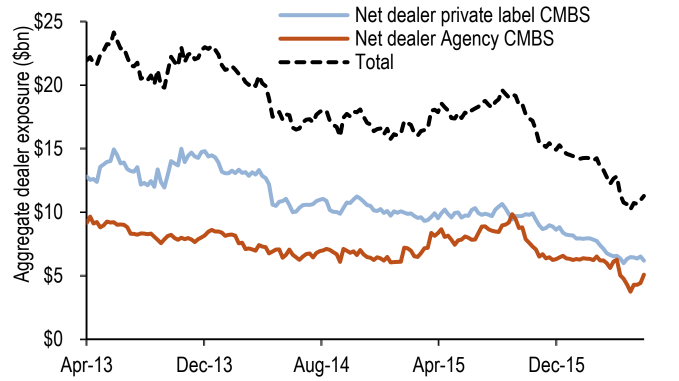
**One possible bright side for CMBS investors** is that private label issuance, and conduit issuance in particular, is expected to be very limited over the near term: one $162 million single-asset deal and one $506 million conduit deal priced this week and no other conduit deals are anticipated to price until at least after next week's CREFC conference. The paucity of new issue, which has led to a significant year/year decrease in private label CMBS issuance (Chart 40) may actually help support new issue deal pricing; investors still have to put money to work and deals that are perceived to be higher quality will likely be the beneficiaries of the pent up demand. We are less optimistic over the near term, however, that recently issued conduit bonds will rally in secondary trading. **Shrinking dealer balance sheets have exacerbated the problem (Chart 41) and offer a limited selection of bonds for investors to choose from.**

**Chart 40: We anticipate only about $35 billion of private label supply during the first 8 months of 2016 versus almost $65bn over the same time frame in 2015**




Source: BofA Merrill Lynch Global Research, Commercial Mortgage Alert

**Chart 41: Dealer balance sheet exposure to private label CMBS is about 25% below the level at which it began 2016**




Source: Federal Reserve Bank of New York

Additionally, the lackluster performance that has troubled many faster money investors over the past year has significantly reduced the number of buyers of mezzanine conduit paper. As a result, year-to-date CMBS excess returns have lagged that of other credit products (Table 30) and we, unfortunately, think this trend will continue through the summer.

**Table 30: Total and excess returns for securitized products credit through the middle of May, 2016**

| | Modified | Total Returns | | | | Excess Returns | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Duration | 5/16 | QTD | YTD | 2015 | 5/16 | QTD | YTD | 2015 |
| **Non-Agency** | | | | | | | | | |
| Prime Fixed | 3-5Y | 0.7% | 2.0% | 0.7% | 4.5% | 0.7% | 2.2% | -1.7% | 2.8% |
| Alt-A 5/1 WAC | 0-1Y | 0.5% | 1.5% | 1.1% | 4.0% | 0.5% | 1.5% | 1.0% | 3.9% |
| Option ARM | 0-1Y | 0.0% | 3.6% | 1.2% | -0.1% | 0.0% | 3.5% | 1.0% | -0.2% |
| Subprime ARM | 0-1Y | 1.0% | 2.2% | 0.9% | 1.8% | 1.0% | 2.2% | 0.8% | 1.7% |
| **Risk-transfer** | | | | | | | | | |
| Low LTV A | | 0.3% | 0.4% | 0.8% | 1.5% | 0.2% | 0.4% | 0.7% | 1.4% |
| Low LTV BBB | | 0.5% | 1.7% | 2.7% | 2.5% | 0.5% | 1.6% | 2.6% | 2.4% |
| Low LTV BB/B | | -0.2% | 3.6% | 5.7% | 3.6% | -0.2% | 3.6% | 5.6% | 3.5% |
| Low LTV First Loss | | 1.7% | 6.0% | 0.4% | 7.7% | 1.7% | 6.0% | 0.3% | 7.6% |
| High LTV A | | 0.2% | 0.4% | 0.7% | 1.8% | 0.2% | 0.3% | 0.6% | 1.7% |
| High LTV BBB | | 1.2% | 2.1% | 2.7% | 2.9% | 1.2% | 2.0% | 2.6% | 2.8% |
| High LTV BB/B | | -0.1% | 3.1% | 4.8% | 5.4% | -0.2% | 3.1% | 4.7% | 5.3% |
| High LTV First Loss | | 0.9% | 4.6% | -0.8% | 0.5% | 0.9% | 4.6% | -0.9% | 0.4% |
| **SFR** | | | | | | | | | |
| A | | 0.1% | 1.6% | 1.6% | -0.1% | 0.1% | 1.5% | 1.5% | -0.2% |
| B | | 0.5% | 2.4% | 2.1% | 0.3% | 0.4% | 2.4% | 2.0% | 0.2% |
| C | | 0.7% | 3.0% | 2.5% | 0.3% | 0.7% | 2.9% | 2.4% | 0.2% |
| D | | 0.7% | 3.9% | 2.2% | 2.2% | 0.7% | 3.8% | 2.1% | 2.1% |
| E | | 0.5% | 3.7% | 2.6% | 2.6% | 0.5% | 3.6% | 2.5% | 2.5% |
| F | | 0.6% | 3.9% | 2.5% | 2.8% | 0.6% | 3.8% | 2.4% | 2.8% |
| **CMBS** | **4.4** | **0.0%** | **0.7%** | **3.4%** | **1.1%** | **0.1%** | **0.9%** | **1.0%** | **-0.6%** |
| AAA | 4.9 | 0.0% | 0.4% | 3.9% | 1.2% | 0.0% | 0.6% | 1.2% | -0.7% |
| AA-BBB | 3.3 | 0.1% | 1.3% | 2.3% | 1.1% | 0.1% | 1.4% | 0.6% | -0.3% |
| BBB | 4.0 | 0.0% | 1.3% | 1.0% | 0.7% | 0.0% | 1.5% | -1.1% | -1.0% |
| Agency | 5.3 | 0.0% | 0.3% | 4.0% | 1.6% | 0.1% | 0.5% | 0.9% | -1.0% |
| **ABS - Fixed** | 2.0 | 0.2% | 0.4% | 1.3% | 1.2% | 0.2% | 0.5% | 0.3% | 0.2% |
| Autos | 1.4 | 0.2% | 0.4% | 1.1% | 1.0% | 0.2% | 0.4% | 0.5% | 0.3% |
| Cards | 2.1 | 0.1% | 0.3% | 1.7% | 1.2% | 0.2% | 0.4% | 0.5% | 0.0% |
| HEL | 6.0 | 0.4% | 1.6% | 2.3% | 5.5% | 0.4% | 1.8% | -0.8% | 3.0% |
| MH | 5.6 | 0.4% | 0.8% | 2.0% | 6.7% | 0.4% | 0.9% | -1.4% | 4.1% |
| Other | 3.3 | 0.4% | 0.8% | 1.4% | 1.6% | 0.5% | 1.0% | -0.4% | 0.1% |
| **ABS - Floating** | 0.1 | 0.4% | 0.6% | 0.4% | -0.5% | 0.4% | 0.5% | 0.2% | -0.6% |
| Cards | 0.1 | 0.1% | 0.3% | 0.6% | 0.4% | 0.1% | 0.2% | 0.4% | 0.3% |
| HEL | 0.0 | 0.0% | 0.2% | -0.1% | 1.4% | 0.0% | 0.2% | -0.3% | 1.3% |
| Other | 0.1 | 0.6% | 0.9% | 0.2% | -1.5% | 0.6% | 0.8% | 0.1% | -1.6% |
| Student Loans | 0.1 | 0.7% | 0.9% | 0.2% | -1.6% | 0.6% | 0.8% | 0.0% | -1.7% |
| **High Yield** | 4.7 | 0.7% | 4.7% | 8.1% | -4.6% | 0.8% | 5.0% | 5.7% | -6.7% |
| **High Grade** | 7.0 | -0.1% | 1.3% | 5.3% | -0.6% | -0.2% | 1.4% | 1.5% | -3.2% |
| Banks | 5.0 | 0.2% | 0.9% | 3.0% | 1.9% | 0.2% | 1.1% | 0.3% | -0.2% |
| Financials | 5.4 | 0.2% | 1.0% | 3.2% | 1.7% | 0.2% | 1.2% | 0.3% | -0.5% |

Source: BofA Merrill Lynch Global Research, Bloomberg

In new issue we think the conduit market will continue to tier. Deals that are perceived to be lower quality or less liquid will trade poorly, while those that investors like will trade at significantly tighter spreads. **This highlights the recent disparity in investors' attitudes regarding the primary and secondary market.** Historically, the levels at which a deal priced in the primary market were in part determined by how well (or not) bonds were trading in the secondary market. Today, however, that is not necessarily true as many new issue conduit bonds trade at levels that are well through where similarly rated, recently issued bonds trade in the secondary market. Why? Not only does the new issue market potentially allow investors to buy bigger block sizes, but they may also feel more comfortable knowing that:

- they are buying bonds based on the most up-to-date information on the loans that collateralize the deal (which limits negative surprises or information asymmetries),
- the clearing level is known, and
- the potential for a technical selloff (that could occur if fast money investors need to sell a block of the same paper) is significantly more remote.

**As one result of the limited new issuance this year, we've seen an increase in the number of investors using the CMBX to gain exposure.** Not only does the CMBX allow investors to add larger, block-sized exposure, but by the nature of its construction, it limits their exposure to idiosyncratic, bond-specific risk. For example, using CMBX data provided by DTCC, we see that dealers got shorter CMBX.9.AAA (investors added risk) by about $458 million during the week ending June 3 (Table 31).

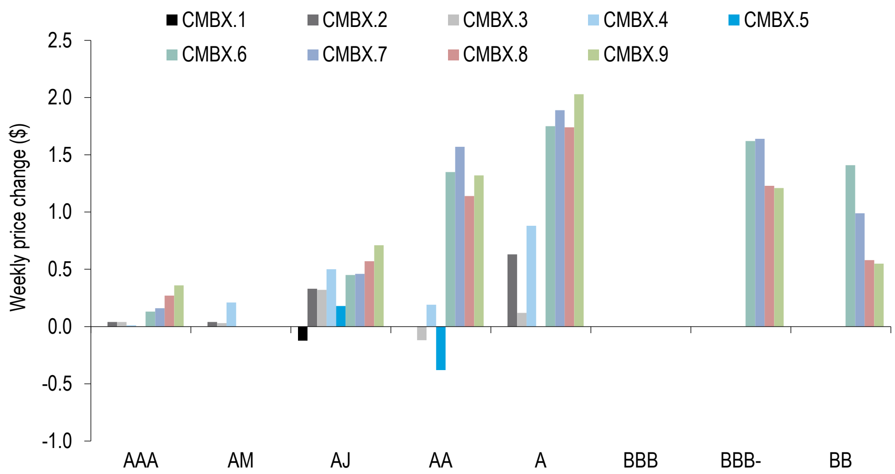
**Table 31: Net dealer exposure to CMBX.9.AAA decreased by about $460 million during the week ending June 3**

| Net dealer exposure ($mn) | Week Ending 06/03/16 | Week Change $mn | Month Change $mn | YTD Change $mn | YTD Min | YTD Max |
|---|---|---|---|---|---|---|
| **AAA** | | | | | | |
| CMBX.1 | 28 | 0 | 0 | (50) | 28 | 78 |
| CMBX.2 | (1,791) | 50 | (50) | (50) | (1,841) | (1,416) |
| CMBX.3 | (1,319) | 0 | (99) | (241) | (1,319) | (1,077) |
| CMBX.4 | (3,434) | (25) | 0 | 27 | (3,461) | (3,409) |
| CMBX.5 | 2 | 0 | 0 | 12 | (10) | 2 |
| CMBX.6 | (774) | (3) | 255 | (489) | (1,157) | 104 |
| CMBX.7 | (328) | 64 | 252 | 1,357 | (1,686) | (328) |
| CMBX.8 | (2,086) | 43 | 460 | 1,095 | (3,886) | (2,035) |
| CMBX.9 | (915) | (458) | (674) | (915) | (915) | (216) |
| Total | (10,618) | (328) | 143 | 746 | | |

Source: DTCC

As a result of the uptick in demand, the CMBX rallied early this week in conjunction with other risky assets, sold off on Thursday and Friday (again in conjunction with the broader market), but was still able to increase by as much as two points (Chart 42).

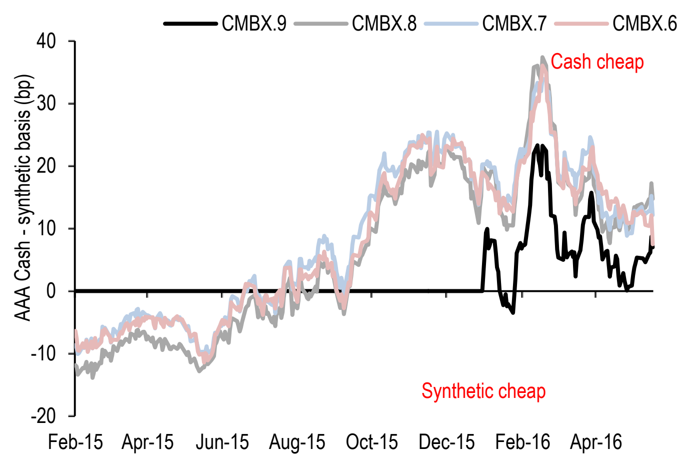
Chart 42: CMBX prices rallied by as much as two points this week




Source: BofA Merrill Lynch Global Research, Markit Partners

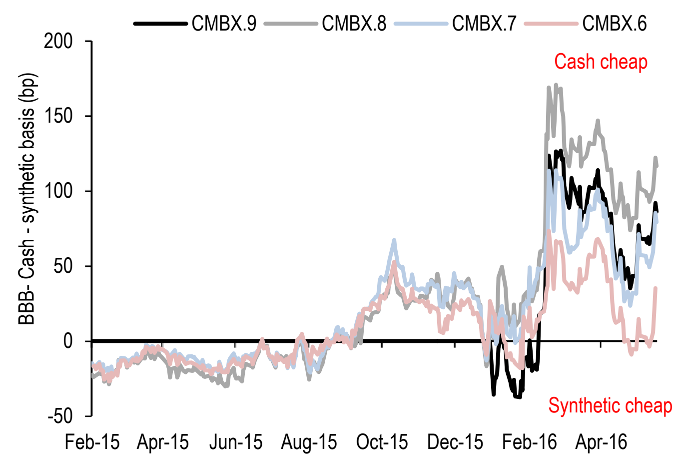
With cash spreads ending the week unchanged on limited secondary trading activity, the cash/synthetic basis widened as CMBX.6-9 triple-A (Chart 43) and BBB-minus (Chart 44) tranches outperformed their underlying reference obligations.

Chart 43: CMBX.8 and 9 AAA tranches outperformed the underlying reference obligations this week




Source: BofA Merrill Lynch Global Research, Markit Partners, IDC

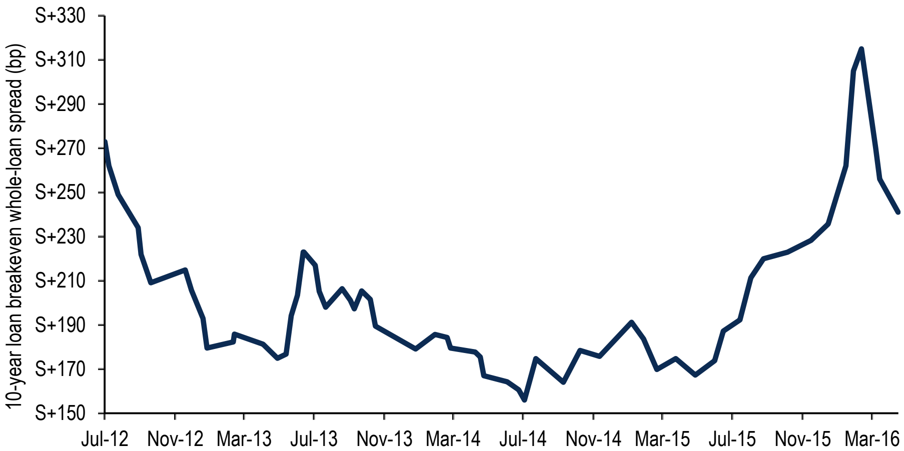
Chart 44: Synthetic BBB- tranches outperformed the underlying reference obligations this week




Source: BofA Merrill Lynch Global Research, Markit Partners, IDC

**While part of the change in CMBX.9.AAA net position was due to investors adding risk, some was also due to dealers hedging whole loan pipelines as the recent rally in rates and CMBS market spread stability have brought some borrowers off the sideline.** While the potential exists for an uptick in conduit issuance post-Labor Day if rates/spreads remain low and breakeven whole loan spreads decline further (Chart 45), the most common investor question we get is: what's going to happen with all of the legacy loans that need to finance in 2016?

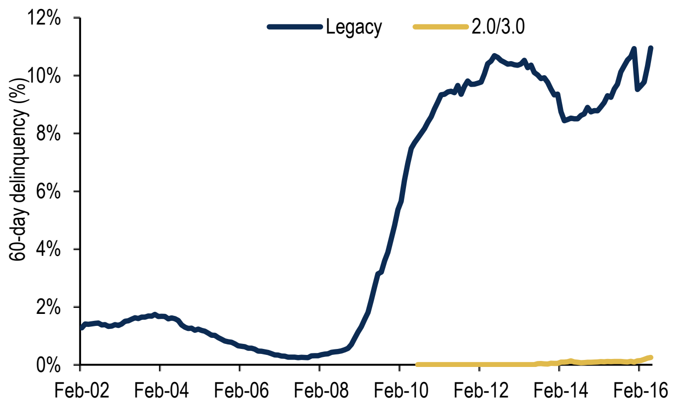
**Chart 45: Whole-loan breakeven spreads recently narrowed and are now at levels seen at the beginning of the year**




Source: BofA Merrill Lynch Global Research

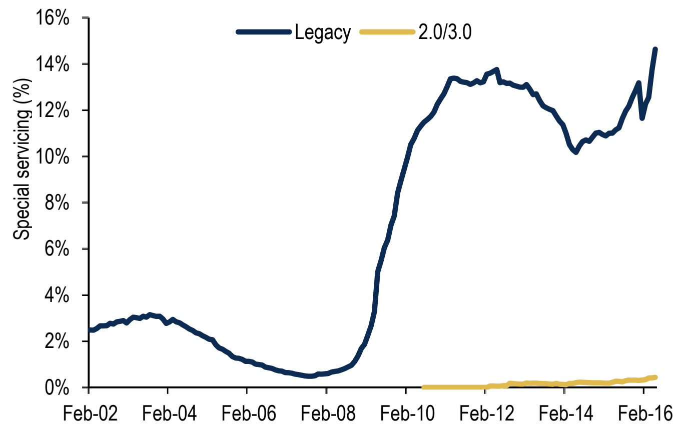
While many borrowers will be able to successfully refinance their loans, it is inevitable that some will not. **To the extent that borrowers with higher quality properties have already refinanced, we think that many of the outstanding 2006 vintage loans are adversely selected.** If they can't refinance we anticipate that the 60+ day delinquency rate (Chart 46) and special servicing rate (Chart 10) for legacy loans could increase sharply over the next six months.

**Chart 46: The 60+ day delinquency rate will likely increase over the next 6 months as legacy borrowers have difficulty refinancing**




Source: BofA Merrill Lynch Global Research, Intex

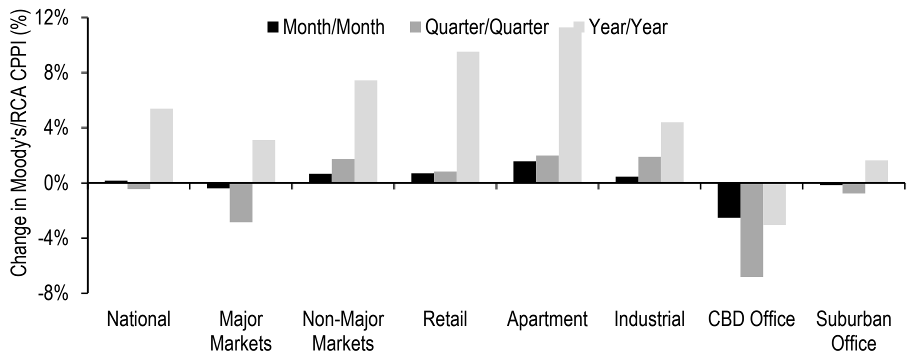
**Chart 47: The special servicing rate will likely increase over the next 6 months as legacy borrowers have difficulty refinancing**




Source: BofA Merrill Lynch Global Research, Intex

**The inability for some legacy borrowers to refinance will likely be exacerbated by the recent slowdown of CRE price appreciation.** To this point, April 2016 Moody's/RCA CPPI data were released this week and offered mixed results. Although the data indicate that the index increased 16bp month/month at the national level, the index that represents assets in major markets fell (Chart 48). Furthermore, price change by property type was mixed as well. At the property level, prices for retail, apartment and industrial properties increased, while office prices fell.

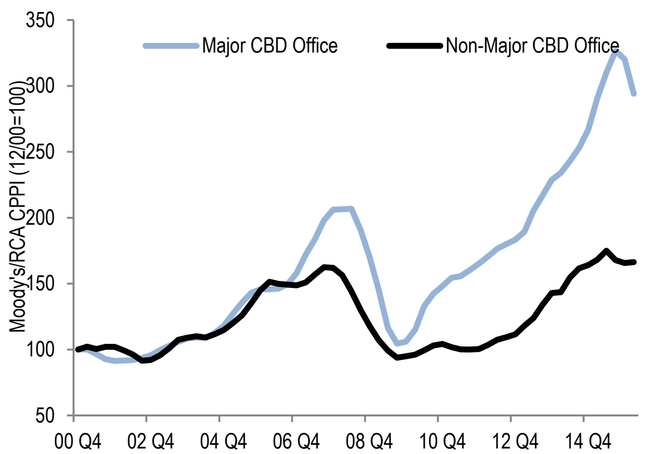
**Chart 48: Moody's/RCA CPPI performance was mixed last month across markets and property types**




Source: Real Capital Analytics

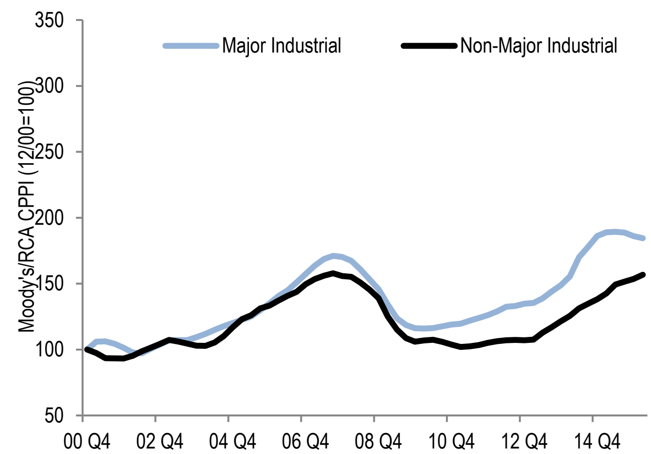
When we analyzed the long term commercial real estate price trends by property type, the slowdown in commercial real estate price appreciation for assets located in major markets was especially noticeable. This held true for each of the core property types: office (Chart 49), industrial (Chart 50), retail (Chart 51) and apartment (Chart 52).

**Chart 49: CPPI index for CBD office properties located in major and non-major markets**



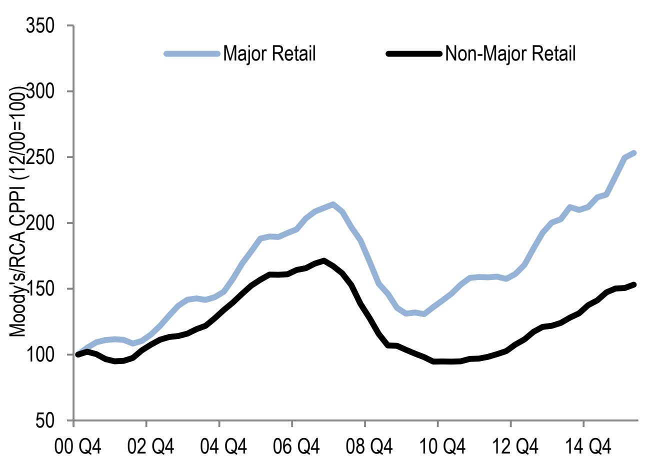

Source: Real Capital Analytics

**Chart 50: CPPI index for industrial properties located in major and non-major markets**



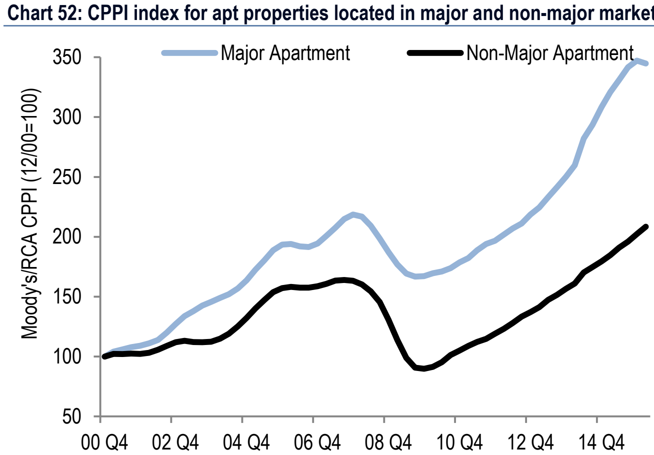

Source: Real Capital Analytics

**Chart 51: CPPI index for retail properties located in major and non-major markets**




Source: Real Capital Analytics

**Chart 52: CPPI index for apt properties located in major and non-major markets**




Source: Real Capital Analytics

**Interestingly, it appears that price appreciation for the retail sector has held up better than it has for other property types. We think, however, that headline metrics may be deceiving and that there is a considerable performance distribution at a more granular level.** For example, our equity retail analyst, Lorraine Hutchinson, published a report earlier today titled [Consumer still spending, just not in full-priced apparel](), which details that while the overall consumer is showing positive signs, she continues to see a shift in wallet share away from full-price apparel. **Quarterly same-store sales (SSS) by retail segment support this: mall-anchored department store SSS were the most negative of any of the segments, falling 3.2% Y/Y for the quarter ending April 2016 (Table 32).**

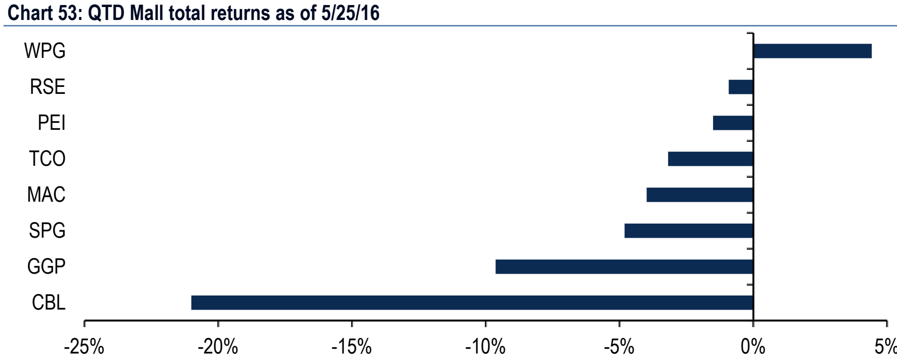
**Table 32: Quarterly same store sales by shopping center format (% YoY chg)**

| | Qtr End Apr'16 | Qtr End Jan'16 | Qtr End Oct'15 | Qtr End Jul'15 | Qtr End Apr'15 | Qtr End Jan'15 | Qtr End Oct'14 |
|---|---|---|---|---|---|---|---|
| Mall Specialty Tenants | -2.40% | -0.60% | 0.00% | 0.20% | -1.00% | 2.70% | 0.40% |
| Mall Anch - Dept Store | -3.20% | -0.70% | -0.60% | 1.30% | 1.40% | 3.70% | 0.10% |
| Comm. Center Tenants | 3.20% | 3.20% | 3.00% | 3.60% | 2.90% | 5.00% | 4.00% |
| Big Box - Comm. Ctrs | 0.50% | -1.20% | 0.80% | 0.60% | -0.50% | 1.00% | -0.90% |
| Power Center Anchors | 1.50% | 2.30% | 2.20% | 2.50% | 2.80% | 3.30% | -0.10% |
| Total Formats | -0.10% | 0.60% | 1.10% | 1.60% | 1.10% | 3.10% | 0.70% |

Source: Company Reports, BofA Merrill Lynch Global Research

Within the mall space, quarter-to-date returns don't look particularly attractive as only one of the eight companies our equity mall REIT analysts cover posted positive returns (Chart 53). Along this line, Ralph Lauren announced this week that it plans to cut 8% of its workforce and close more than 50 stores.

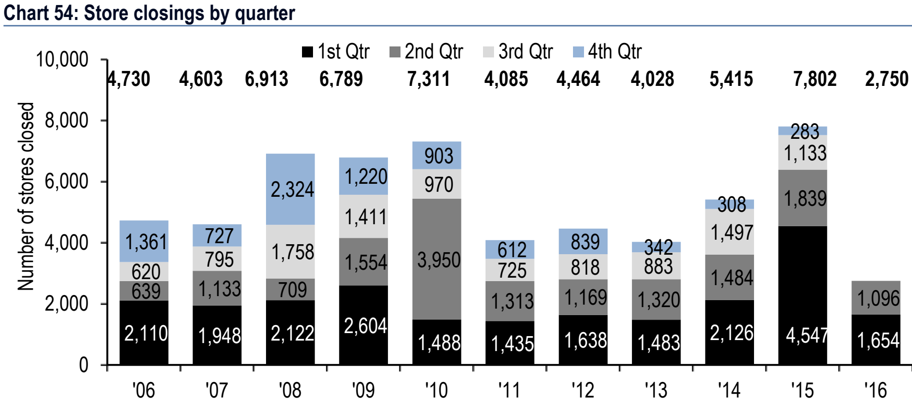
**Chart 53: QTD Mall total returns as of 5/25/16**




Source: FactSet, BofA Merrill Lynch Global Research

**Despite feeling like we read these types of announcements several times a week, store closings so far this year are not only lower than they were last year at this time, but are at levels last seen in 2013 (Chart 54).**

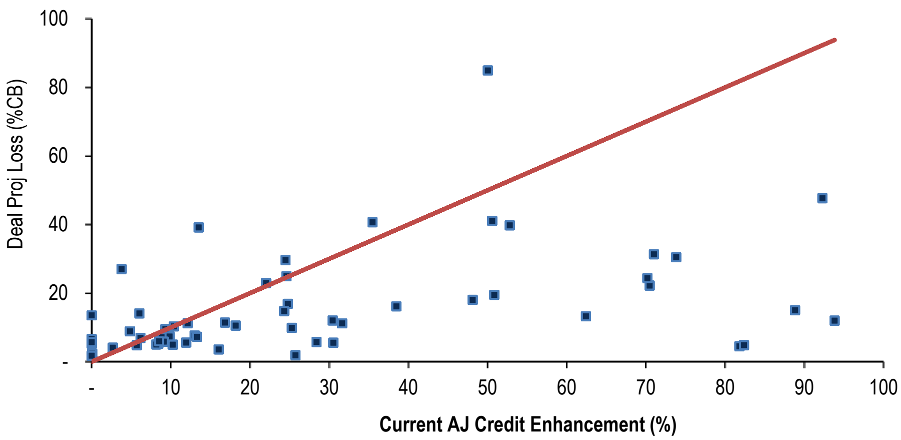
**Chart 54: Store closings by quarter**




Source: Company reports, BofA Merrill Lynch Global Research

**Bringing this back to what retail sector weakness means for the CMBS market, we think that the weakness, coupled with slowing CRE price growth, imply that loss expectations for cuspy legacy bonds may be too low. This could be particularly painful for bonds in this category that are priced at levels that don't incorporate unexpected downside.** For example, many legacy deals only have a small handful of loans left, many of which are, and have been, current. **Despite this, if a tenant has (or plans to) vacate the building but is still paying rent, this might result in a loss that has been neither considered nor accounted for.** When we plotted 2006 vintage AJ current subordination levels against our credit model's expected deal losses, we found that a number of AJs were very close to taking an expected loss (Chart 55) – even without taking into the account unknown unknowns that could cause performance to deteriorate relative to one's current expectations.

Chart 55: **2006 vintage AJ bonds current credit enhancement vs. projected deal loss**

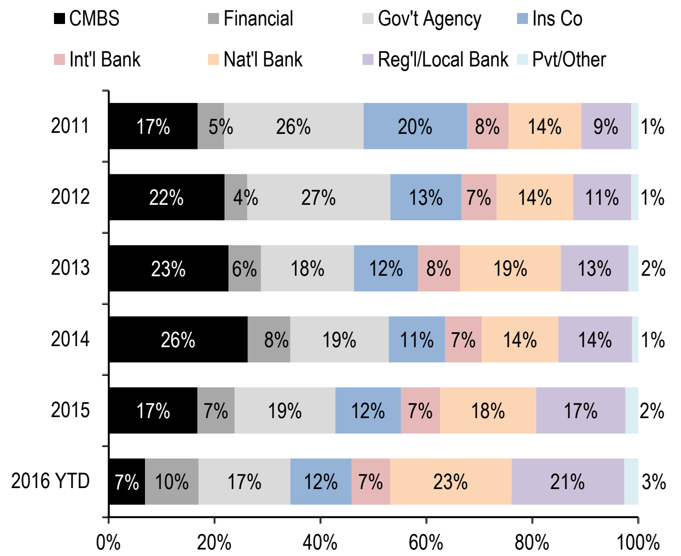



Source: BofA Merrill Lynch Global Research, Intex

The way to interpret Chart 55 is that any "dot" above the diagonal red line indicates that expected deal losses exceed the amount of subordination for the AJ represented by the dot. **While it is likely that many of these AJs already trade at discounted dollar prices given the expectation that they will incur some loss, what about bonds trading at mid-to-high $90s (or higher) that are not expected to take a loss?** These bonds are represented by dots below the diagonal line. Obviously, dots closer to the line indicate that less cushion exists to absorb any unanticipated negative surprises.

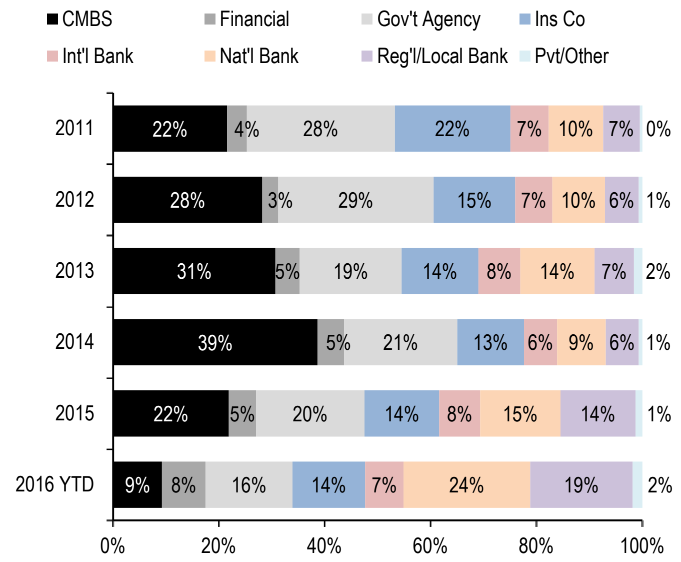
**Although greater market stability may lead to better refinance success, it appears that fewer loans are being recycled back into the CMBS market. To the extent that the alternate lender has tighter underwriting standards, it is possible that losses could increase relative to many investors' current expectations.** In fact, despite recent comments from regulators noting the increase in CRE exposure on bank balance sheets, many local, regional and national banks continue to increase their CRE loan origination activity and market share. This holds true both for all commercial real estate lending (both acquisition and refinance) (Chart 56) as well as for only loans that are refinancing (Chart 57). **While we aren't suggesting that losses may increase significantly from current levels, we think that it makes sense to price "cuspier" bonds to a slightly more negative scenario in order to buffer against unanticipated negative events.**

**Chart 56: CMBS lenders lost market share to local, regional & national banks over the past year**




Source: Real Capital Analytics

**Chart 57: Market share percentage among lenders for refinancing CRE loans**




Source: Real Capital Analytics

# Issuance Summary

**Table 33: Issuance Summary**

| ($mm) | This Week | Quarter to Date | 2016 YTD | 2015 comparable YTD | Q2 16 | Q1 16 | Q4 15 | Q3 15 | Q2 15 | 2016 Total | 2015 Total | 2014 Total | 2013 Total | 2012 Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conduit/Fusion | 506 | 7,729 | 19,138 | 25,104 | 7,729 | 11,409 | 14,951 | 16,838 | 16,945 | 19,138 | 61,915 | 51,752 | 53,145 | 32,082 |
| Single Asset / Single Borrower | 162 | 711 | 6,368 | 17,786 | 711 | 5,658 | 6,864 | 5,111 | 7,081 | 6,368 | 31,488 | 26,879 | 22,845 | 14,660 |
| Multi-borrower Floater | 0 | 0 | 0 | 545 | 0 | 0 | 305 | 0 | 676 | 0 | 1,526 | 4,203 | 912 | 343 |
| Other | 0 | 0 | 166 | 1,729 | 0 | 166 | 995 | 1,415 | 659 | 166 | 4,294 | 4,954 | 2,994 | 598 |
| **Private Label Total** | **668** | **8,439** | **25,672** | **45,164** | **8,439** | **17,233** | **23,114** | **23,364** | **25,361** | **25,672** | **99,223** | **87,787** | **79,896** | **47,684** |
| | | | | | | | | | | | | | | |
| FNMA DUS | 578 | 5,264 | 16,497 | 26,295 | 5,264 | 11,232 | 7,825 | 7,843 | 12,740 | 16,497 | 37,587 | 27,734 | 32,921 | 42,316 |
| FNMA GeMS | 0 | 1,950 | 4,683 | 4,075 | 1,950 | 2,733 | 3,690 | 1,842 | 4,147 | 4,683 | 13,982 | 13,295 | 11,556 | 13,392 |
| Freddie K | 1,280 | 12,797 | 22,471 | 9,846 | 12,797 | 9,674 | 13,690 | 6,781 | 10,007 | 22,471 | 35,479 | 21,325 | 28,036 | 21,204 |
| Freddie SBL | 386 | 1,007 | 1,938 | 0 | 1,007 | 931 | 1,314 | 435 | 0 | 1,938 | 1,749 | 0 | 0 | 0 |
| GNR | 0 | 2,393 | 7,026 | 5,654 | 2,393 | 4,633 | 3,125 | 3,596 | 4,721 | 7,026 | 15,160 | 18,329 | 22,796 | 18,776 |
| SBAP | 350 | 631 | 1,505 | 1,124 | 631 | 874 | 861 | 860 | 971 | 1,505 | 3,476 | 3,670 | 4,654 | 5,100 |
| SBIC | 0 | 0 | 1,107 | 0 | 0 | 1,107 | 0 | 1,192 | 0 | 1,107 | 2,352 | 2,004 | 1,686 | 1,373 |
| **Agency CMBS Total** | **2,594** | **24,042** | **55,226** | **46,993** | **24,042** | **31,184** | **30,505** | **22,549** | **32,586** | **55,226** | **109,785** | **86,356** | **101,648** | **102,161** |
| **TOTAL** | **3,263** | **32,481** | **80,898** | **92,157** | **32,481** | **48,417** | **53,619** | **45,913** | **57,947** | **80,898** | **209,007** | **174,144** | **181,544** | **149,845** |

Source: BofA Merrill Lynch Global Research, Commercial Mortgage Alert, Bloomberg, BNY Mellon
"Other" category includes CRE CLOs, NPLs, etc.

CMBS Spreads to Swaps

| | | | Change | | YTD | |
|---|---|---|---|---|---|---|
| | 10-June | Wk | Mnth | YTD | Min | Max |
| **2016 On-the-Run Conduit Bond Spreads** | | | | | | |
| 3 Year AAA | 65 | 0 | 0 | -10 | 65 | 85 |
| 5 Year AAA | 80 | 0 | 0 | -15 | 80 | 98 |
| A-SB | 100 | -5 | -5 | -30 | 100 | 149 |
| 10 Year AAA | 115 | 0 | 0 | -20 | 115 | 165 |
| A-S | 145 | 0 | 0 | -20 | 145 | 200 |
| AA | 205 | 0 | -10 | -3 | 205 | 320 |
| A | 310 | 0 | -5 | 2 | 308 | 445 |
| BBB- | 625 | 0 | -25 | 110 | 515 | 800 |
| **2006/2007 Vintage Legacy Credit Bonds** | | | | | | |
| 10 Yr AM | 250 | 0 | 0 | 50 | 200 | 350 |
| 10 Yr AJ | 800 | 0 | 0 | 325 | 475 | 900 |
| **CMBX.7 spreads** | | | | | | |
| AAA | 89 | -2 | -2 | -10 | 87 | 139 |
| AS | 140 | -7 | -6 | 5 | 133 | 208 |
| AA | 202 | -24 | -21 | 12 | 191 | 321 |
| A | 294 | -31 | -22 | 24 | 272 | 437 |
| BBB- | 449 | -29 | -15 | 66 | 388 | 635 |
| BB | 833 | -22 | 22 | 225 | 611 | 998 |
| **CMBX.8 spreads** | | | | | | |
| AAA | 98 | -4 | -5 | -12 | 98 | 157 |
| AS | 158 | -8 | -8 | 4 | 153 | 229 |
| AA | 238 | -17 | -10 | 31 | 209 | 341 |
| A | 336 | -27 | -11 | 40 | 300 | 473 |
| BBB- | 569 | -23 | -2 | 88 | 485 | 790 |
| BB | 949 | -15 | 9 | 234 | 722 | 1,110 |
| **CMBX.9 spreads** | | | | | | |
| AAA | 109 | -5 | -7 | -32 | 109 | 171 |
| AS | 177 | -9 | -8 | -24 | 170 | 244 |
| AA | 256 | -18 | -11 | -30 | 242 | 360 |
| A | 356 | -30 | -11 | -46 | 330 | 498 |
| BBB- | 582 | -22 | -13 | -90 | 526 | 818 |
| BB | 965 | -14 | 10 | -21 | 885 | 1,138 |
| **Swap spreads** | | | | | | |
| 5 YR Swap | -3.8 | -0.9 | 0.5 | -1.6 | -9.4 | -2.5 |
| 10 YR Swap | -12.9 | -0.1 | 1.1 | -5.8 | -16.9 | -8.6 |
| **UST closing yields (%)** | **Changes in bp** | | | | | |
| 2 YR | 0.76 | -13 | 0 | -24 | 0.6 | 1.1 |
| 5 YR | 1.21 | -15 | -3 | -50 | 1.1 | 1.8 |
| 10 YR | 1.68 | -13 | -8 | -56 | 1.6 | 2.3 |

Source: BofA Merrill Lynch Global Research
**CMBX prices, Swap spreads and Treasury yields as of prior night's close
YTD max & min reflect only values collected weekly.

# ABS

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# Market View

### Another week of $6bn+ new issue volume

This week, eleven new deals with an aggregate principal balance of $6.1bn priced. The transactions included two non-prime auto loan ABS, one prime auto loan ABS, a motorcycle loan ABS, two credit card ABS, a FFELP student loan ABS, and an equipment transaction. Total new issue volume is down 22% year-over-year. So far this year, 149 deals totaling over $88.7bn have priced. This time last year, 168 deals with an aggregate principal balance of $114.2bn had priced. In the coming weeks, new issue volume will be supported by at least seven new deals in the pipeline including: subprime auto loan, auto fleet, auto floorplan, solar, and equipment transactions.

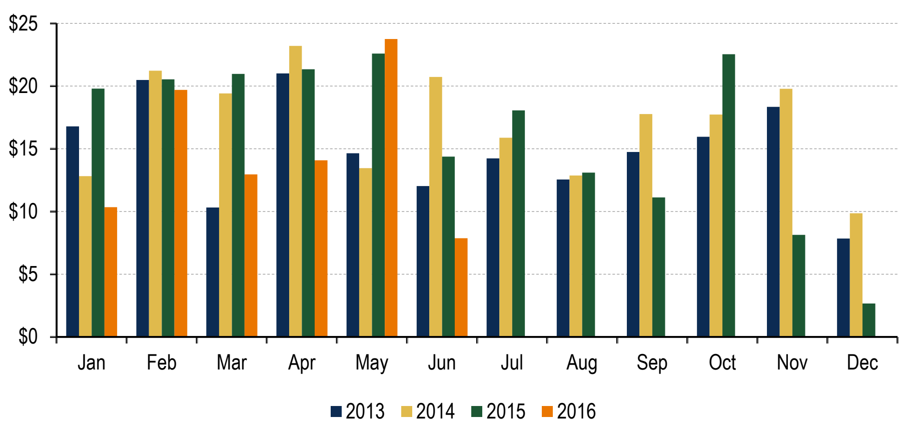
This week, JP Morgan Chase issued $1.8bn of three-year credit card ABS (CHAIT 2016-A2 A). The transaction was upsized from $500mn and priced at the tight end of guidance at 36bp over swaps. Moreover, the deal priced 9bp tighter than the platform's prior transaction which came to market mid-May (CHAIT 2016-A1 A).

**Table 34: New issue volume**

| Sector | 2016 Forecast | 2016 Actual | 2015 Actual |
|---|---|---|---|
| Auto | $115,000 | $51,304 | $125,000 |
| Credit Cards | $37,000 | $13,927 | $50,000 |
| Ed Loans | $15,000 | $5,222 | $15,000 |
| Equip | $10,000 | $5,582 | $15,000 |
| Other | $23,000 | $12,662 | $30,000 |
| Total | $200,000 | $88,696 | $235,000 |

Source: BofA Merrill Lynch Global Research

**Chart 58: 2013-2016 new issue volume by month**




Source: BofA Merrill Lynch Global Research

### Secondary market activity: spreads for higher yielding assets continue to tighten

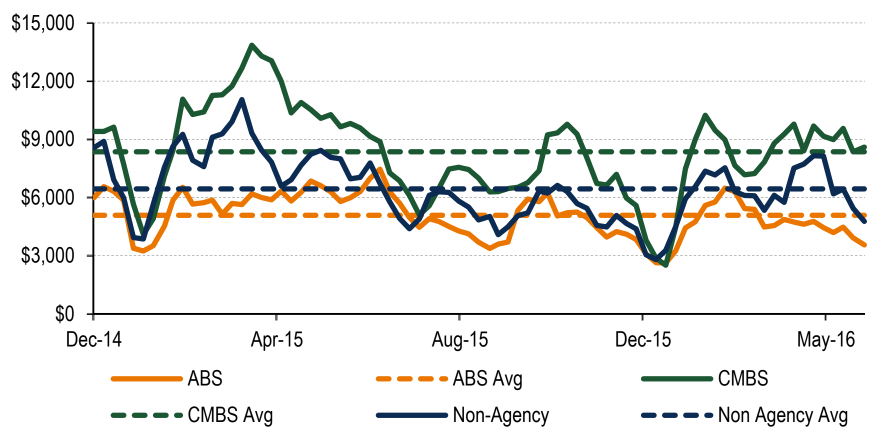
Secondary spreads for auto, credit card, and student loan ABS were unchanged from last week's levels, while spreads for floorplan, fleet and rental leases, container, and railcar moved to tighter levels.

Spreads in several sectors have moved inside the middle of 12-month or longer trading ranges. Since the end of the first quarter, spreads for prime and sub-prime auto loan ABS have tightened 8bp and 23bp, leaving them inside the middle of their respective 12-, 24- and 36-month trading ranges. Credit card ABS, equipment ABS and private student loan ABS sectors have seen similar performance, with spreads tightening 15bp, 17bp and 55bp since the end of the first quarter. Since the end of the second quarter, triple-B sub-prime auto loan and consumer loan (non-marketplace lending) have seen the most spread tightening (95bp and 90bp, respectively). Given the increased risks in the overall market the move to tighter spreads in these sectors may have stalled for these and certain higher yielding ABS.

TRACE data covering June 3 to June 9 show that there were 1,537 trades with total volume of at least $3.6bn (based on current face). These trades involved 673 securities with 389 of these securities trading more than once. Based on Bloomberg's TACT function, there were at least 140 trades that exceeded the dissemination cap of $10mn. For trades that exceed the cap, FINRA only reports the original face as $10mn+.

**Chart 59: TRACE weekly volumes for securitized products ($bn)**

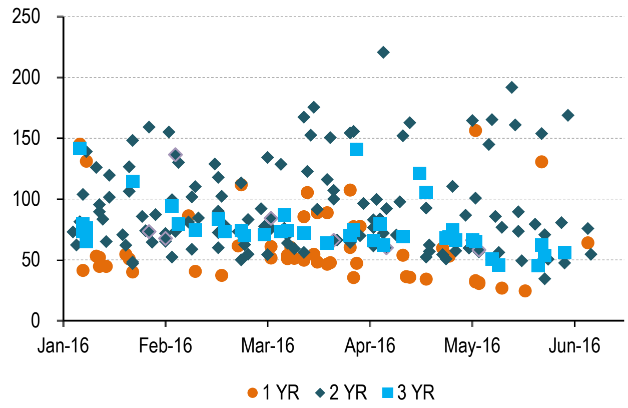
Secondary volume for ABS has been lower but more stable than other markets




Source: FINRA, BofA Merrill Lynch Global Research.

**Chart 60: TRACE Spreads for A&C and mid-to-large ticket equipment**

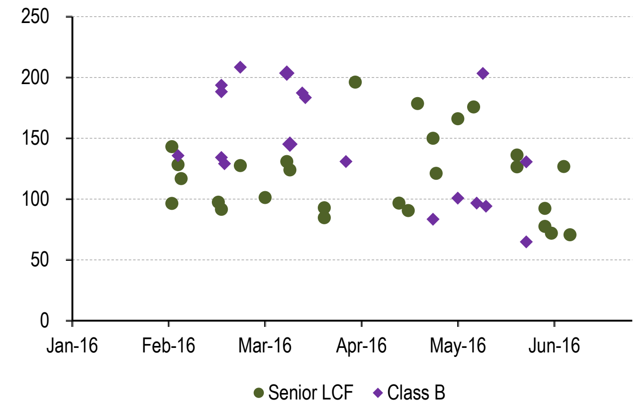
Generic 3-year AAA rated equipment ABS spreads have tightened 17bp since the end of 1Q and are now trading around the middle of 12-month trading ranges. Though, spreads are still wider than the middle of 36-month trading ranges.




Source: Bloomberg, FINRA, BofA Merrill Lynch Global Research.

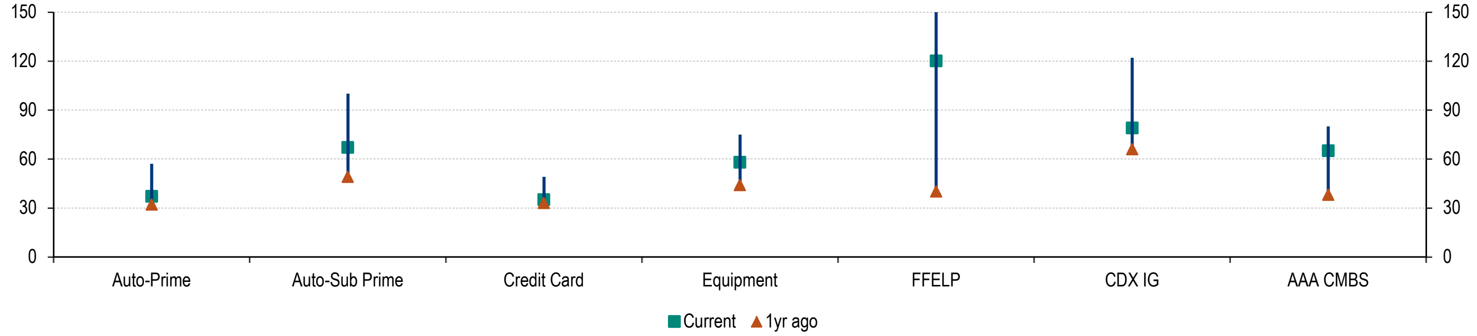
**Chart 61: TRACE Spreads for small ticket equipment**

Both senior and sub classes of small-ticket equipment ABS spreads have tightened since February wides, though trading volumes are lower and tiering is greater relative to the A&C and mid-to-large ticket sectors.



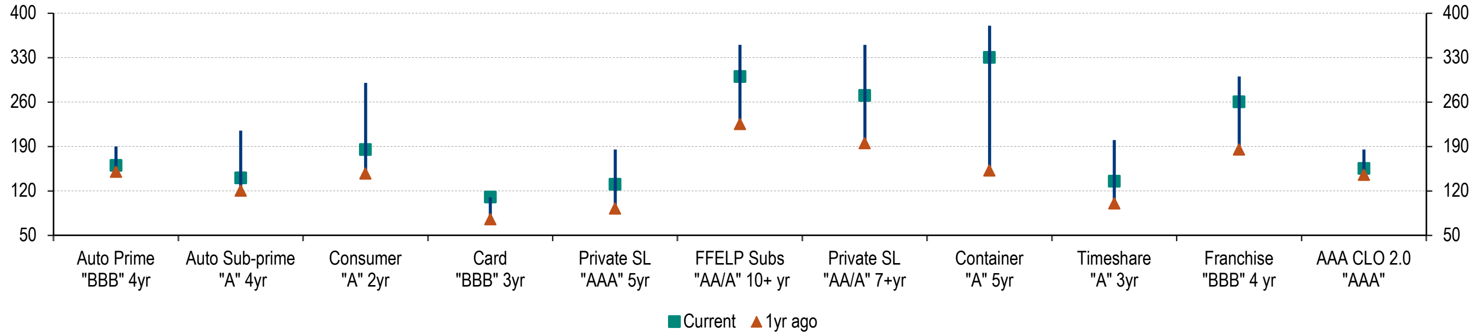

Source: Bloomberg, FINRA, BofA Merrill Lynch Global Research.

**Chart 62: Current spreads versus 12-month trading range and year ago levels for 3-year, triple-A rated auto, card, equipment , FFELP ABS and CMBS**




Source: BofA Merrill Lynch Global Research

**Chart 63: Current spreads versus 12-month trading range and year ago levels for higher yielding ABS sectors and CLOs**




Source: BofA Merrill Lynch Global Research

**Table 35: ABS Spreads**

| | Current Week | 1-wk | 10 week | | |
|---|---|---|---|---|---|
| | 06/10/16 | change | Min | Max | Avg |
| **Credit Cards (Fixed Rate-Swaps)** | | | | | |
| 1-yr | 16 | 0 | 16 | 23 | 17 |
| 2-yr | 25 | 0 | 25 | 35 | 28 |
| 3-yr | 35 | 0 | 35 | 50 | 40 |
| 5-yr | 58 | 0 | 58 | 70 | 61 |
| 7-yr | 74 | 0 | 74 | 87 | 78 |
| 10-yr | 94 | 0 | 94 | 107 | 98 |
| Class B -5y, "A" | 90 | 0 | 90 | 90 | 90 |
| Class C -5y, "BBB" | 115 | 0 | 115 | 115 | 115 |
| **Credit Cards (Floating Rate-1Mo. LIBOR)** | | | | | |
| 1-yr | 16 | 0 | 16 | 22 | 17 |
| 2-yr | 26 | 0 | 26 | 34 | 28 |
| 3-yr | 35 | 0 | 35 | 48 | 40 |
| 4-yr | 48 | 0 | 48 | 58 | 51 |
| 5-yr | 58 | 0 | 58 | 69 | 62 |
| 7-yr | 74 | 0 | 74 | 85 | 78 |
| 9-yr | 95 | 0 | 95 | 102 | 97 |
| 10-yr | 100 | 0 | 100 | 107 | 102 |
| 15-yr | 125 | 0 | 123 | 127 | 125 |
| Class B -5y, "A" | 90 | 0 | 90 | 90 | 90 |
| Class C -5y, "BBB" | 110 | 0 | 110 | 110 | 110 |
| **Auto -Prime (Fixed-Swaps)** | | | | | |
| 1-yr | 17 | 0 | 17 | 25 | 20 |
| 2-yr | 28 | 0 | 28 | 37 | 31 |
| 3-yr | 37 | 0 | 37 | 45 | 40 |
| Class B-5y ("AA") | 100 | 0 | 100 | 130 | 115 |
| Class D-5y ("BBB") | 160 | 0 | 160 | 190 | 175 |
| **Auto -Prime (Floating Rate-1Mo. LIBOR)** | | | | | |
| MMKT | -10 | 0 | -10 | -10 | -10 |
| 1-yr | 18 | 0 | 18 | 25 | 20 |
| 2-yr | 29 | 0 | 29 | 37 | 31 |
| 3-yr | 36 | 30 | 6 | 45 | 31 |
| **Auto -Subprime (Fixed-Swaps)** | | | | | |
| 1-yr | 55 | -2 | 55 | 80 | 64 |
| 2-yr | 62 | 0 | 62 | 85 | 69 |
| 3-yr | 67 | 0 | 67 | 90 | 74 |
| **Auto -Subprime (Floating Rate-1Mo. LIBOR)** | | | | | |
| 1-yr | 57 | 0 | 57 | 80 | 64 |
| 2-yr | 62 | 0 | 62 | 85 | 69 |
| 3-yr | 67 | 0 | 67 | 90 | 74 |

| | Current Week | 1-wk | 10 week | | |
|---|---|---|---|---|---|
| | 06/10/16 | change | Min | Max | Avg |
| **Student Loan-FFELP (3 Mo. LIBOR)** | | | | | |
| 1-yr | 90 | 0 | 90 | 115 | 92 |
| 2-yr | 105 | 0 | 105 | 130 | 109 |
| 3-yr | 120 | 0 | 120 | 140 | 125 |
| 5-yr | 130 | 0 | 130 | 155 | 143 |
| 7-yr | 140 | 0 | 140 | 160 | 149 |
| 10-yr | 150 | 0 | 150 | 170 | 159 |
| 13-yr | 155 | 0 | 155 | 170 | 163 |
| Class B ("A") | 300 | 0 | 300 | 350 | 337 |
| **Student Loan-Private (3 Mo. LIBOR)** | | | | | |
| 3-yr | 105 | 0 | 105 | 160 | 128 |
| 5-yr | 130 | 0 | 130 | 180 | 150 |
| 7-yr | 155 | 0 | 155 | 215 | 179 |
| 10-yr | 165 | 0 | 165 | 230 | 190 |
| 15-yr | 190 | 0 | 190 | 255 | 215 |
| Class B ("A/BBB") | 270 | 0 | 270 | 340 | 295 |
| Class C ("BBB/BB") | 330 | 0 | 330 | 415 | 360 |
| **Stranded Assets (Swaps)** | | | | | |
| 1-yr | 30 | 0 | 30 | 37 | 32 |
| 2-yr | 40 | 0 | 40 | 45 | 41 |
| 3-yr | 50 | 0 | 50 | 50 | 50 |
| 5-yr | 60 | 0 | 59 | 60 | 60 |
| 7-yr | 68 | 0 | 65 | 68 | 67 |
| 10-yr | 81 | 0 | 75 | 81 | 80 |
| **Equipment (Swaps)** | | | | | |
| 1-yr | 35 | 0 | 35 | 52 | 42 |
| 2-yr | 43 | 0 | 43 | 60 | 50 |
| 3-yr | 58 | 0 | 58 | 75 | 66 |

Source: BofA Merrill Lynch Global Research

# Sector Update

## Equipment ABS

At the time of our last equipment ABS update (March 2016), secondary spreads were at multi-year wides, with three-year triple-A rated paper trading at 75bp. The spread differential between equipment ABS and prime auto loan ABS was +28bp, a level not been seen since 2011. At the time, we expected spreads on equipment ABS would move back to the middle of their 12-month trading range, while the spread differential between equipment ABS and prime auto loan ABS would revert back to historical averages (10bp over the last two years).

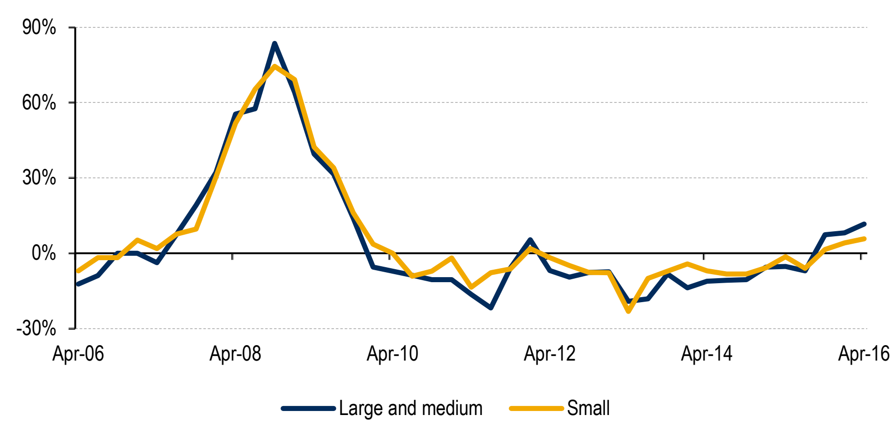
Since then, three-year triple A rated paper has tightened 17bp and is now trading at 58bp, the middle of its 12-month trading range. Even though the spread differential between equipment ABS and prime auto loan ABS has compressed to 21bp, the equipment sector continues to trade wider than the middle of its 36-month trading range, while prime auto loan spreads are tighter. We believe equipment ABS still has room to run, though sentiment in credit sensitive securitized products could move the sector in either direction.

### Despite a weaker macro backdrop in certain sectors…

The credit performance for equipment ABS continues to be relatively stable, despite a weaker macro backdrop for certain sectors. The macro environment supporting the equipment loan/lease market has become increasingly mixed over the last nine months. Going into 2016, our economists anticipated GDP growth of 2.3% for the full year. They now anticipate GDP growth to be 1.8% in 2016 and 2.0% in 2017 (see Economic Forecast Summary in the latest US Economic Weekly). Meanwhile, the April Senior Loan Officer Opinion Surveys show banks tightening lending standards for commercial and industrial loans, continuing the trend from the prior two surveys (Chart 64).

**Chart 64: Net percentage of banks reporting tightening standards for C&I loans**

Starting in October 2015, banks have increasingly reported tightening lending standards for commercial and industrial loans to firms of all sizes. According to the most recent survey, banks that tightened standards or terms on C&I loans cited a less favorable or more uncertain economic outlook as well as a worsening of industry-specific problems.




Source: FRB Senior Loan Officer Opinion Survey on Bank Lending

Spending continues to grow year-over-year in the construction sector, though the pace has slowed. Moreover, the growth in shipments for construction equipment has been negative since October 2015 (Chart 65 and Chart 66).

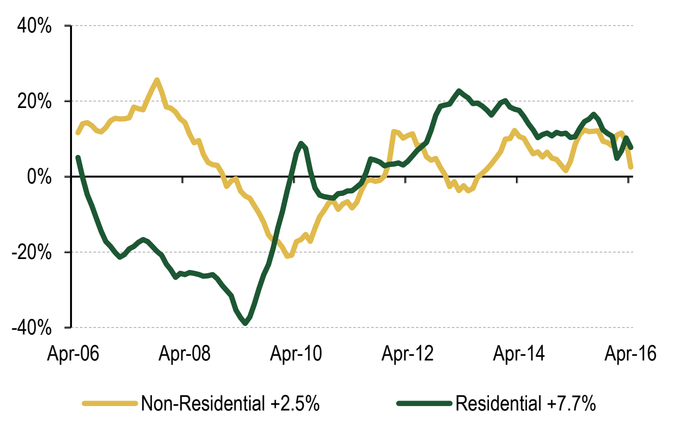
Meanwhile, in the agriculture sector, the YoY decline in farm machinery and equipment shipments has moderated, though absolute levels are well below those of 2014-2015. According to the USDA, farm financial health improved after the great recession driven by low borrowing costs, high commodity prices, and rising farm income. The USDA expects total farm asset values to drop for a second consecutive year in 2016, as commodity prices and farm income continue to decline (Chart 68).

As seen in Chart 67, US farm commodity prices have declined over the past two years. Though, grain prices, particularly soybean, have recovered in recent months. Continued strength in grain prices should offer some unexpected support to the sector.

To the point, in John Deere's 2Q16 earnings release and during the related call, company management said that second quarter results were lower than last year's, "reflecting the continuing impact of the downturn in the global farm economy and further weakness in construction equipment markets."

**Chart 65: Growth in construction spending**

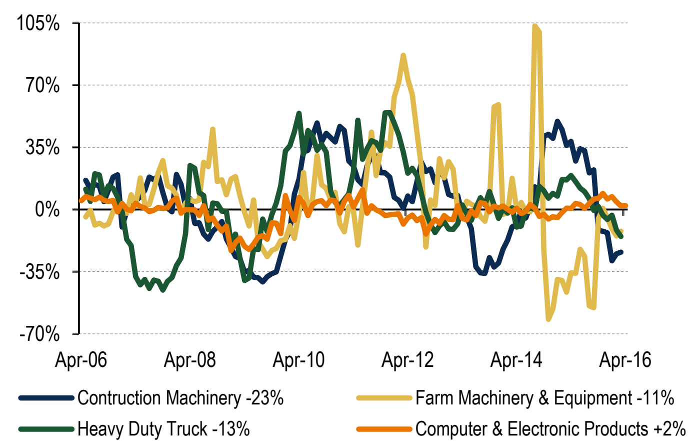
Growth in residential and, particularly, commercial construction spending has slowed, which may result in lower demand for construction equipment. Spending by energy related industries has likely had a negative impact on prices for equipment used in such industries.




Source: Bloomberg, US Census Bureau

**Chart 66: Growth in equipment shipments**

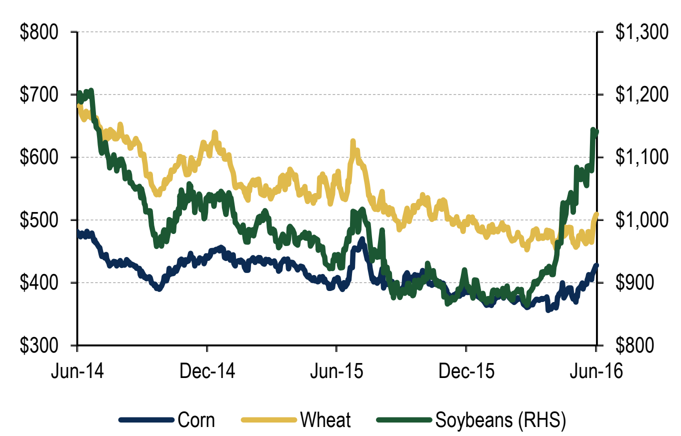
In terms of equipment shipments, the construction sector has seen negative growth for the prior seven months. Meanwhile, the YoY decline in farm machinery and equipment shipments has been less severe in 2016 than the average rate of decline in 2015.




Source: Bloomberg, US Census Bureau

**Chart 67: Corn, Wheat, and Soybean futures**

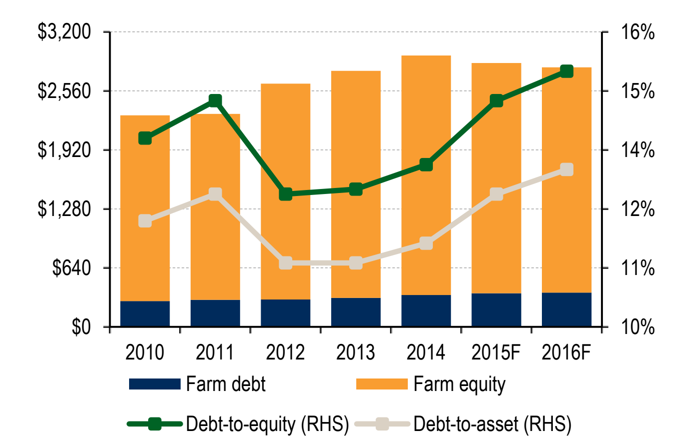
Over the past 2 years, corn, wheat and soybean prices have dropped 11%, 27%, and 5%, respectively. Though, grain prices, particularly soybean, have rebounded in recent months. Persistently low commodity prices and declining farm income have impacted farm asset values.




Source: Bloomberg, CBT

**Chart 68: Farm debt and equity and debt-to-equity ratios**

The USDA expects total farm assets and equity to fall in 2016 but expects debt will continue to rise. Even so, the USDA is forecasting a 0.7% increase in vehicle and machinery assets in 2016, as expenditures on new equipment outpace consumption. A drop in equipment prices is expected to reduce the value of existing equipment.



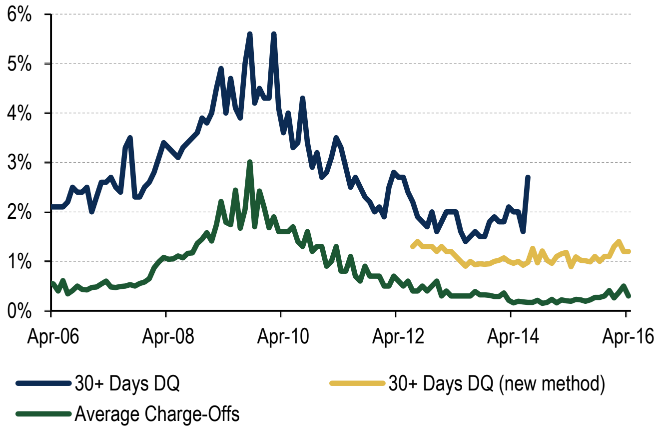

Source: USDA

### ..credit performance for equipment ABS remains relatively stable

Despite a weaker backdrop, credit performance in the equipment loan and lease market has remained relatively strong. While default and delinquency rates for the broader loan and lease market have increased marginally in recent months, both metrics remain well below peak levels seen in 2010 (Chart 69). In the equipment loan and lease ABS sector, current 60+ day delinquency rates have increased modestly from post-recession lows, yet remain considerably below recession highs (Chart 70).

**Chart 69: Equipment loan and lease default and delinquency rates**

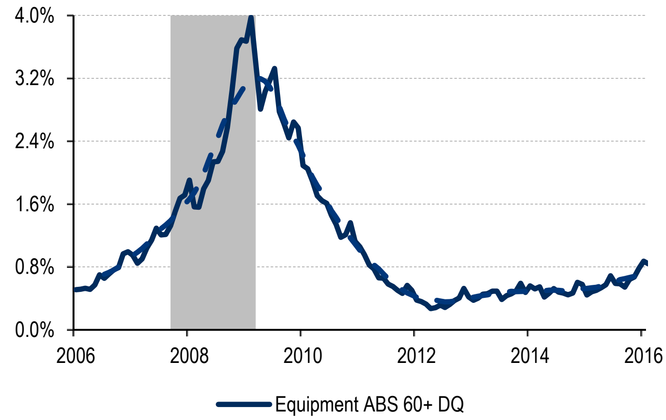
The Equipment Leasing and Finance Association reported the 30+ day delinquency rate was flat MoM but increased 31bp YoY in April. Charge-offs were 0.3% for the month, down 20bp MoM but up 11bp YoY.




Source: Equipment Leasing and Finance Association

**Chart 70: Equipment ABS 60+ day delinquency rate**

In the equipment loan/lease ABS market, the 60+ day delinquency rate was 0.84% in May, down 3bp MoM and up 35bp YoY. Delinquencies remain well below peak recession highs of 4%.



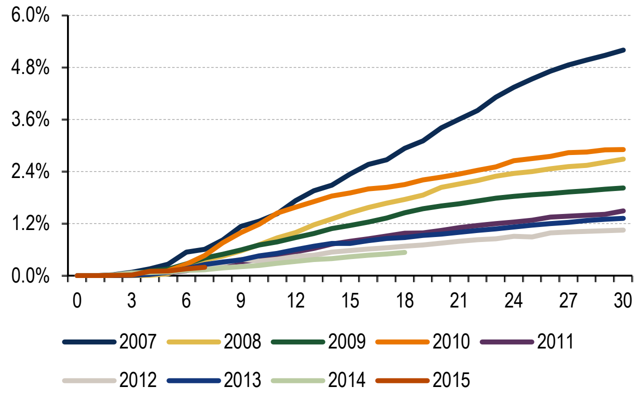

Source: BofA Merrill Lynch Global Research, Intex

From a vintage perspective, the credit performance in recent vintages of equipment loan/lease ABS generally improved and subsequently stabilized after the great recession. Based on life-to-date cumulative net losses, however, the 2015 vintages are performing weaker than the 2014 vintages. Even so, recent vintages are well below peak great recession levels. Despite similarity in trends, the small-ticket equipment sector tends to have higher cumulative net losses relative to the mid-to-large ticket/agriculture and construction sector. The difference between the two can be explained by differences in borrower base and collateral types.

In the small-ticket equipment sector (Chart 71), the 2011-2014 vintages have outperformed the 2007-2010 vintages. After peaking in 2007, the cumulative net default curves for the small-ticket sector have generally moved lower with each successive vintage. At 18 months of seasoning, the 2014 vintage has the lowest cumulative net default rate relative to earlier vintages. The 2015 vintage is underperforming the 2014 vintage.

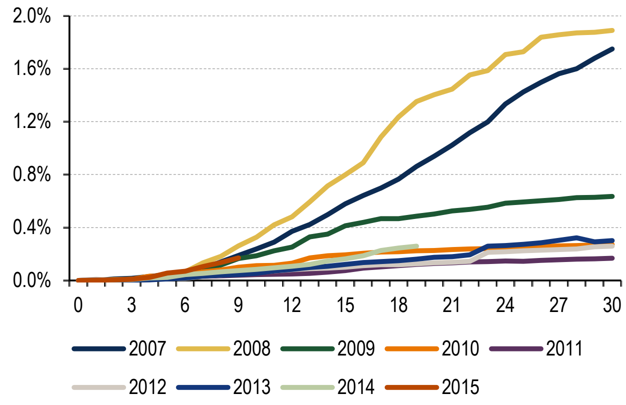
Meanwhile, in the mid-to-large-ticket/agriculture and construction sector (Chart 72), cumulative net losses peaked with the 2007-2008 vintages, with levels beginning to normalize thereafter. The 2014 vintage is tracking modestly higher than the 2010-2013 vintages, while the 2015 vintage is tracking above 2014 levels and is near the 2009 vintage (0.6% loss at 30 months).

**Chart 71: Small ticket cumulative net defaults**




Source: BofA Merrill Lynch Global Research, Intex

**Chart 72: Mid-to-Large-ticket cumulative net defaults (includes A&C)**




Source: BofA Merrill Lynch Global Research, Intex;

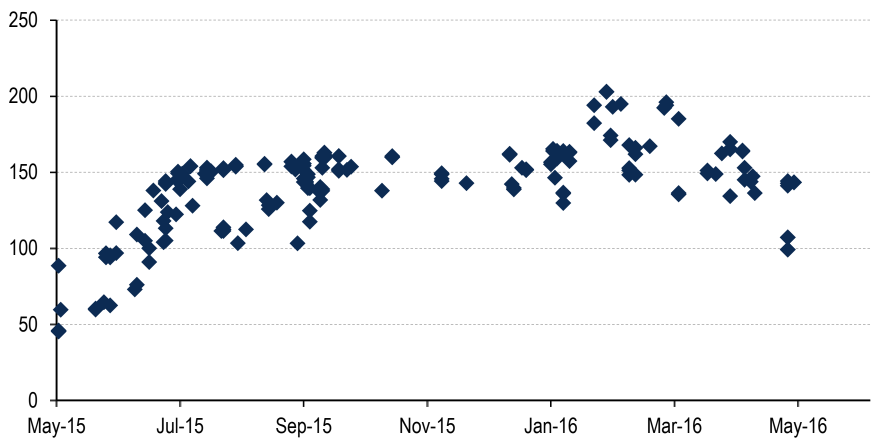
## FFELP ABS

New issue and secondary spreads for FFELP ABS have moved to tighter levels. New issue volume and secondary activity has started to increase. The best entry point into the FFELP ABS market might be now.

In the new issue market, this week's FFELP ABS priced at spreads tighter than the related sponsor's prior FFELP ABS, which priced in April 2016. The Class A1 notes (1.2 years), Class A2 notes (3.7 years) and Class A3 notes (8.3 years) priced 15bp, 20bp and 12bp tighter than comparable notes for the deal that priced in April. This week's deal brings year-to-date new issue volume for student loan ABS to $5.2bn (down 41% YoY) versus our full year forecast of $15.0bn. There is downside risk to our new issue forecast for student loan ABS, along with our credit card ABS forecast.

In the secondary market, spreads have tightened by 20bp for three-year senior notes since the end of first quarter. For comparison purposes prime auto loan, credit card, and private student loans have tightened by 8bp, 13bp, and 55bp, respectively. TRACE data shows the number of trades over the last 12 weeks has increased 14 over the prior 12 week period, while the dollar amount of trades has increased 7%. For trades over $10mn, we assume original face of $10mn.

**Chart 73: TRACE Spreads (DM) for FFELP ABS on review/watch**




Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. *Includes senior notes with WALs between 4-6 years

New issue market for FFELP ABS, sponsor's actions and changes to proposed criteria have helped to improve the sentiment in the FFELP ABS market.

The sentiment in the FFELP ABS market has improved since the end of the first quarter, as overall market sentiment has improved; new issue FFELP ABS (FFELP 2.0) have been structured with features meant to reduce principal payment events of default and have been assigned ratings based on existing and proposed criteria; investors have become more comfortable with their respective base case assumptions for cash flows; investors have been taking a longer term view on the FFELP market, despite potential for ratings volatility; and Navient continues its efforts to minimize the risk of principal payment events of default on its existing deals. Also, the lengthy review by Fitch and Moody's of their respective rating criteria for FFELP ABS could mean one or both may adopt more flexible criteria than originally proposed. In fact, a recent announcement by Fitch indicates the agency is considering changes some of its proposals (see below).

The structural features for FFELP 2.0 deals include full turbo features after a specified date and legal final maturity dates which take into account current and proposed rating agency stress tests and add a multi-year cushion to such dates. The features were added to increase the likelihood notes will be repaid by their respective legal final maturity dates.

Navient has taken several actions to minimize the risks related to principal payment events of default, including: amending legal final maturity dates (Table 36); exercising clean-up calls; amending transaction documents to add 10% optional servicer purchase rights; amending documents to incorporate revolving credit agreements with Navient; responding to the ratings agencies' request for comments; and providing additional collateral performance information.

**Table 36: Navient sponsored FFELP ABS with legal final extensions**

| | | | Ratings | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Collateral | Deal | Class | Fitch | Moody's | Effective Date of Amendment | Original Maturity | Amended Maturity | Years Extended | Total |
| Consolidation | NAVSL 2014-2 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $214,923,486 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $7,000,000 |
| | NAVSL 2014-3 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $216,041,386 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $7,000,000 |
| | NAVSL 2014-4 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $212,240,194 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $7,000,000 |
| | NAVSL 2014-5 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $127,521,815 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $4,200,000 |
| | NAVSL 2014-6 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $126,095,964 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $4,200,000 |
| | NAVSL 2014-7 | A | AAA | Aaa | 12/2/2015 | 3/25/2043 | 3/25/2083 | 40 | $128,320,527 |
| | | B | AA | Aa1 | 12/2/2015 | 6/25/2054 | 6/25/2083 | 29 | $4,200,000 |
| | SLMA 2003-14 | A7 | AAA/*- | Aaa | 6/6/2016 | 10/25/2038 | 10/25/2065 | 27 | $327,810,000 |
| | | B | A | Aa1/*- | 6/6/2016 | 10/25/2038 | 10/25/2065 | 27 | $36,276,478 |
| | SLMA 2004-3 | B | A | Aa1 | 6/6/2016 | 10/25/2039 | 10/25/2064 | 25 | $51,973,477 |
| | SLMA 2004-3A | A6A | AAA | Aaa | 6/6/2016 | 10/25/2039 | 10/25/2064 | 25 | $362,200,000 |
| | | A6B | AAA/*- | Aaa | 6/6/2016 | 10/25/2039 | 10/25/2064 | 25 | $362,200,000 |
| | SLMA 2012-4 | A | AAA | Aaa | 2/16/2016 | 7/25/2036 | 11/27/2045 | 9 | $869,201,015 |
| | SLMA 2012-8 | A | AAA/*- | Aaa | 2/16/2016 | 1/25/2039 | 4/28/2070 | 31 | $1,034,859,630 |
| | | B | AA/*- | A1 | 2/16/2016 | 4/27/2048 | 4/28/2070 | 22 | $42,500,000 |
| Stafford/PLUS | SLCLT 2008-2 | B | A/*- | Baa1 | 4/20/2016 | 9/15/2022 | 9/15/2066 | 44 | $61,365,000 |
| | SLCLT 2009-1 | A2 | AAA/*- | Aaa | 3/7/2016 | 5/15/2024 | 5/15/2055 | 31 | $143,999,223 |
| | SLMA 2007-7 | B | A/*- | A1 | 4/6/2016 | 10/25/2028 | 10/25/2070 | 42 | $60,015,000 |
| | SLMA 2008-2 | B | A/*- | Baa1 | 4/6/2016 | 1/25/2029 | 1/25/2083 | 54 | $68,414,000 |
| | SLMA 2008-3 | B | A+/*- | A2 | 4/6/2016 | 4/25/2029 | 4/25/2083 | 54 | $30,374,000 |
| | SLMA 2008-6 | B | A/*- | Baa1 | 4/6/2016 | 7/25/2029 | 7/25/2083 | 54 | $60,439,000 |
| | SLMA 2008-7 | B | A/*- | A1 | 4/18/2016 | 7/25/2029 | 7/25/2083 | 54 | $46,502,000 |
| | SLMA 2008-9 | B | AAA/*- | A1 | 4/18/2016 | 10/25/2029 | 10/25/2083 | 54 | $122,584,000 |
| | SLMA 2012-2 | B | AA/*- | Aa1 | 4/6/2016 | 4/25/2044 | 4/25/2072 | 28 | $25,000,000 |
| | SLMA 2012-3 | B | AA/*- | Aa3 | 4/6/2016 | 11/25/2042 | 1/25/2072 | 29 | $37,605,000 |
| | SLMA 2013-6 | A3 | AAA/*- | Aaa | 4/18/2016 | 6/26/2028 | 6/26/2055 | 27 | $510,700,000 |
| | | B | A+/*- | Aa1 | 4/18/2016 | 7/25/2044 | 7/25/2083 | 39 | $27,400,000 |
| | SLMA 2014-1 | B | A+/*- | Aa1 | 6/6/2016 | 6/25/2047 | 6/25/2068 | 21 | $27,300,000 |
| | SLMA 2014-2 | A3 | AAA/*- | Aaa | 4/18/2016 | 3/26/2029 | 3/26/2055 | 26 | $506,100,000 |
| | | B | A+/*- | Aa1 | 4/18/2016 | 1/25/2045 | 1/25/2072 | 27 | $27,200,000 |
| Grand Total | | | | | | | | | $5,900,761,194 |

Source: Bloomberg, related prospectus, company's press releases

Fitch is in the final phase of updating its criteria for FFELP ABS and expects to publish the new criteria in less than 60 days. Once the new criteria are finalized and published, Fitch expects to complete the related rating changes over the subsequent three months.

Fitch Ratings is in the final phase of updating its criteria for FFELP ABS and expects to publish the new criteria in less than 60 days, according to the related press release dated June 9th. The final phase of the criteria review includes transaction testing and model validation.

According to the release, once the new criteria are finalized and published, Fitch expects to complete the related rating changes over the subsequent three months, although Fitch's guidelines allow for rating changes to be implemented over a six month period.

The release states Fitch has conducted additional analysis during the review period that has resulted in modest changes to its initial proposals. Key changes to final criteria are expected to include:

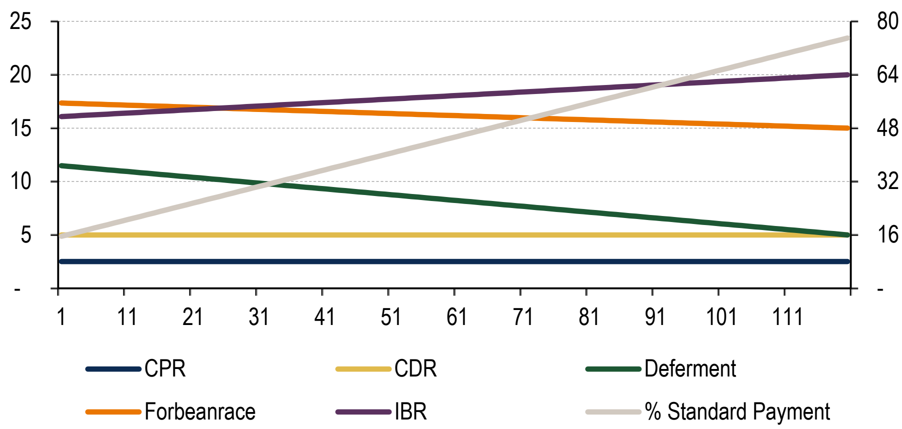
- Using a constant default rate approach to replace the FFELP default model and default timing curves in the maturity scenarios;
- Modest changes to the previously proposed deferment assumptions, floor and stresses in the maturity scenarios;
- Modest changes to the previously proposed forbearance assumptions, floor and stresses in the maturity scenarios;
- Revised assumption to include loan forgiveness for outstanding loans in IBR starting in 2036 and over a set window of time;
- A revision from an 'Asf' cap to an 'AAsf' cap for bonds that fail certain maturity stresses.

Although sentiment has improved, the risks of hitting a principal payment event of default and/or experiencing rating downgrades still exist.

The risk of principal payment events of defaults has been a key concern for the FFELP ABS market for well over a year and will likely remain a concern for at least several more months.  Measuring the risk is highly dependent upon cash flow assumptions and complex models.  Unlike other sectors backed by consumer debt, the underlying borrowers have many payment options over the life of the loan. As always, these options can be changed on a political whim.  Even so, for the most part, repayment behavior follows predicting patterns (see Class distinction).

Based on the trends we have seen in the FFELP ABS market, we have come up with a set of assumptions found in Chart 74.  The set of assumptions is only one of many that we feel could occur.  We used the set of assumptions to run cash flows for notes issued by trusts that have one or more notes on watch/review by Fitch/Moody's due to the risk of not being paid by their respective legal maturity date.  The results can be seen in Chart 75 and Chart 76.

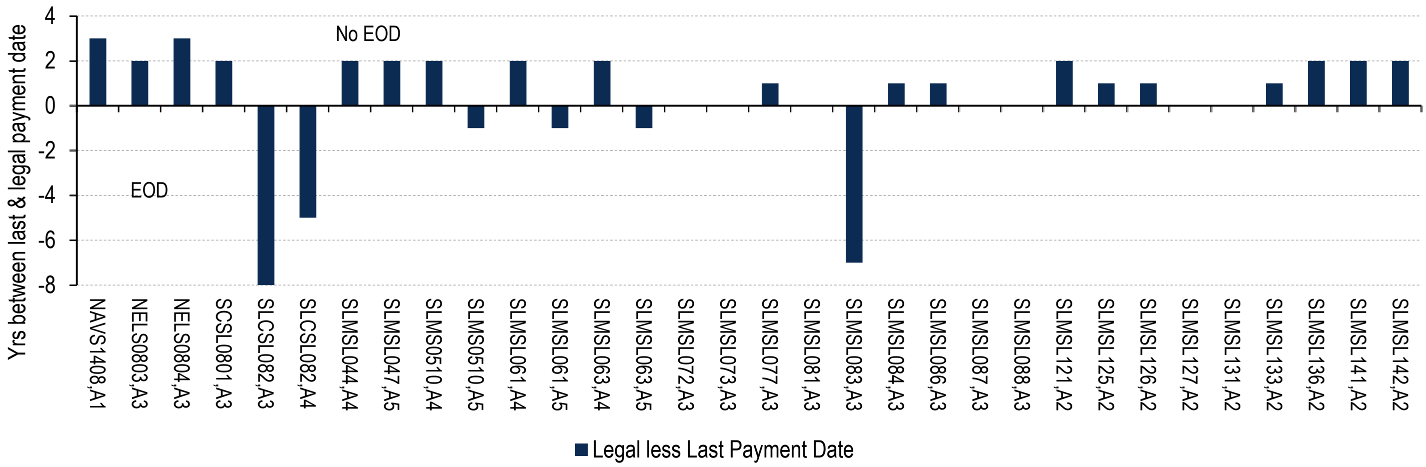
**Chart 74: Cash flow assumptions for Stafford/PLUS ABS**




Source: BofA Merrill Lynch Global Research

**Chart 75: Stafford/PLUS ABS (trust has one or more notes on watch/review, Class A notes, legal maturity date within 5 years)**

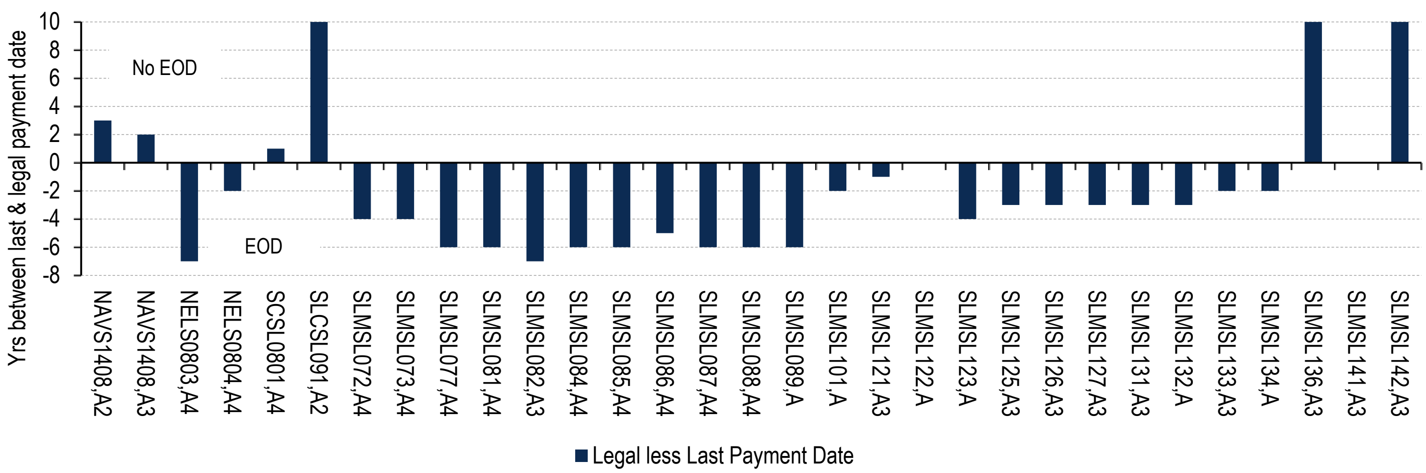
Using the assumptions found in Chart 74, we found that 6 of the 32 notes (19%) would not be fully repaid on their respective legal maturity date and, consequently, experience a principal payment event of default.




Source: Bloomberg, Intex

**Chart 76: Stafford/PLUS ABS (trust has one or more notes on watch/review, Class A notes, legal maturity date beyond 5 years)**

Using the assumptions found in Chart 74, we found that 23 of the 31 notes (74%) would not be fully repaid on their respective legal maturity date and, consequently, experience a principal payment event of default.




Source: : Bloomberg, Intex

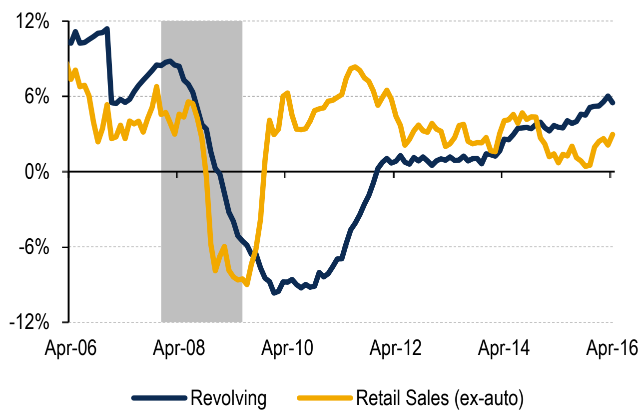
# The Data Shows

## Consumer Credit

Consumer credit grew 6.2% YoY in April.

**Chart 77: Revolving debt versus consumer spending (YoY change)**

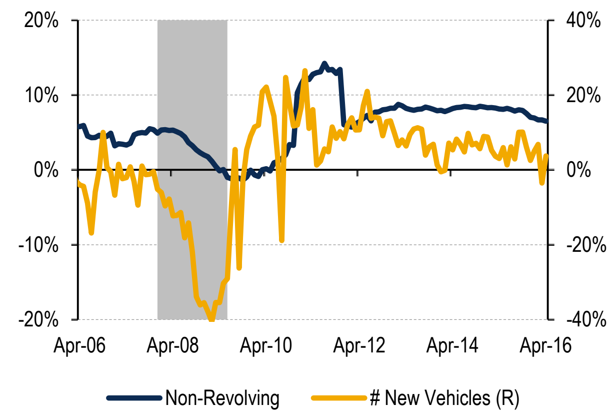
Revolving debt increased 5.5% YoY in April. Growth in revolving debt is outpacing sales. Even so, strong payment rates and the lack of new card additions have kept balances within credit card trusts at stable levels.




Source: Federal Reserve Board

**Chart 78: Non-revolving debt versus new vehicle sales (YoY change)**

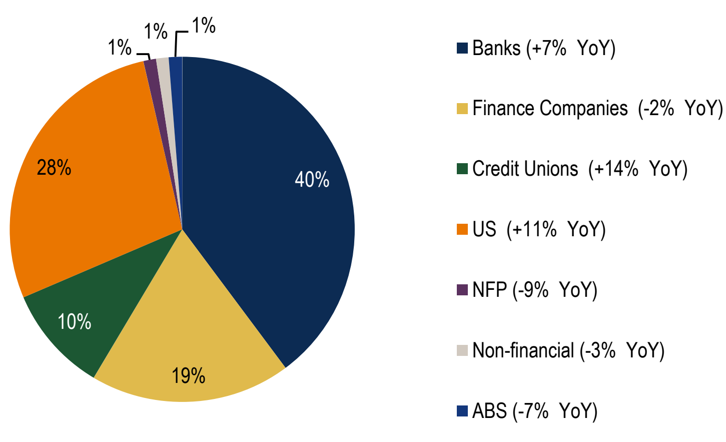
Non-revolving debt increased 6.5% YoY in April. Through May, year-to-date vehicle sales are up ~2% relative to 2015. Growth in vehicle sales and loan balances should support our 2016 new issue forecast of $100bn for auto ABS.




Source: Federal Reserve Board

**Chart 79: Holders' share of consumer debt**

Banks hold the largest share of consumer credit. Credit Unions and the Federal government have seen the greatest growth in holdings.



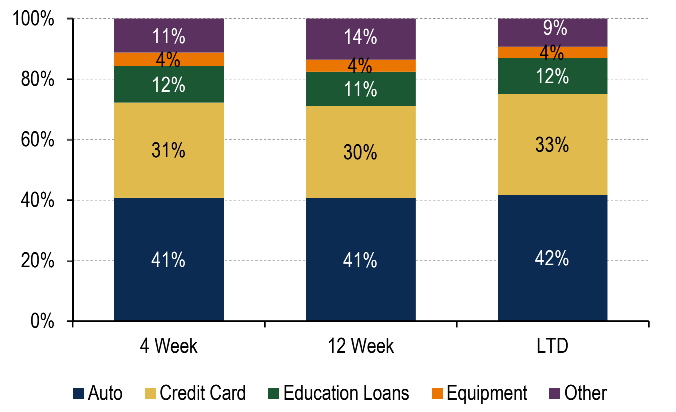

Source: Federal Reserve Board

# TRACE Data

Chart 80 through Chart 85 show the relative percentages for trade volumes by current face and trade count for 4-week, 12-week, and life-to-date TRACE transaction data.

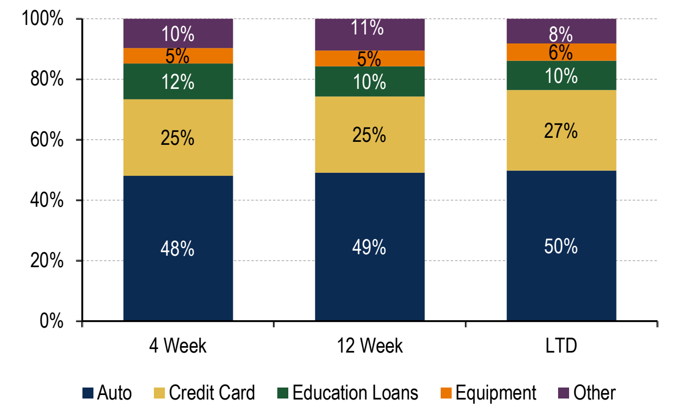
Table 37 shows the tickers with the highest trade volume for the most recent 4-week period, while Table 38 provides a sector breakdown by current face, trade count and average price for the most recent 4-week period.

**Chart 80: Percentage of trading volume by sector (current face)**



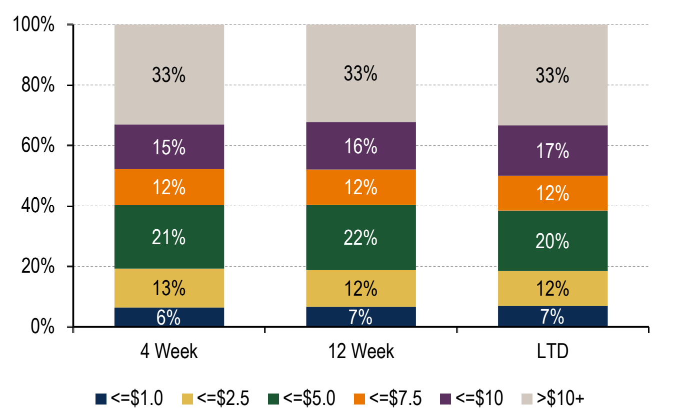

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

**Chart 81: Percentage of trading volume by sector (trade count)**



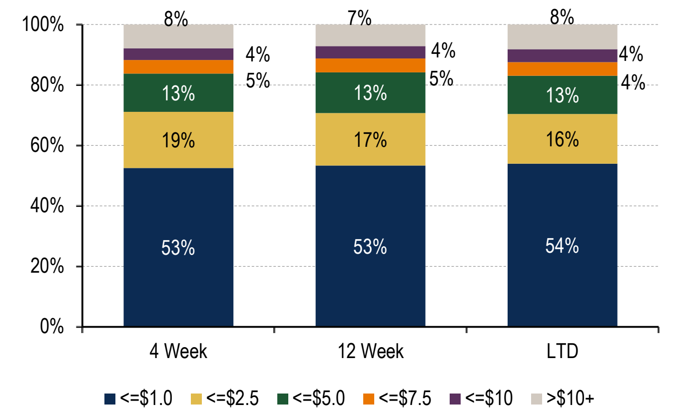

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

**Chart 82: Percentage of trading volume by trade size (current face)**



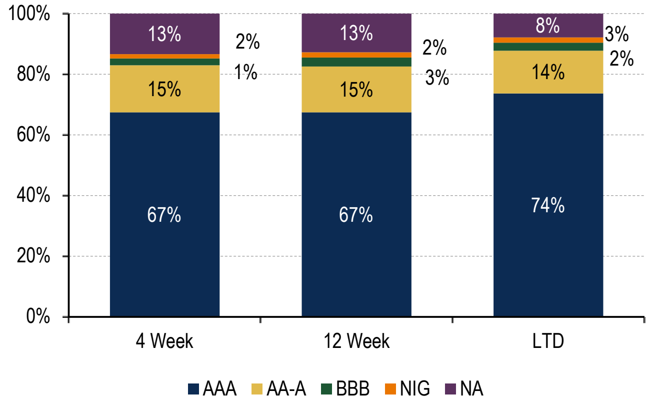

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

**Chart 83: Percentage of trading volume by trade size (trade count)**



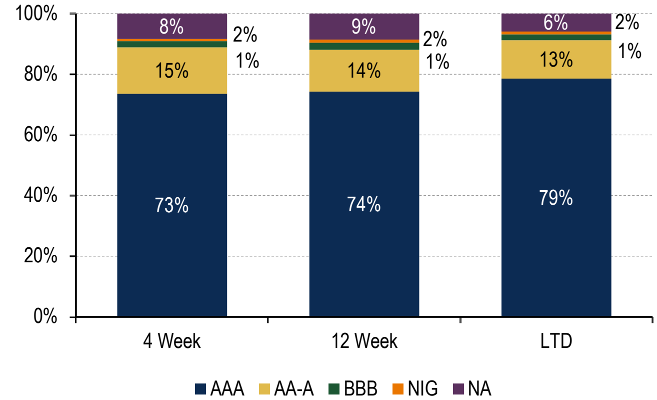

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

**Chart 84: Percentage of trading volume by rating (current face)**




Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

**Chart 85: Percentage of trading volume by rating (trade count)**




Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

**Table 37: Tickers with the highest volume by current face ($ thousands)**

| TICKER | Current Face | Average Price | Number of Trades |
|---|---|---|---|
| SLMA | $727,314 | $92.87 | 288 |
| CHAIT | $645,959 | $100.19 | 237 |
| CCCIT | $527,044 | $100.97 | 210 |
| SDART | $510,067 | $100.64 | 206 |
| COMET | $458,227 | $100.08 | 215 |
| DCENT | $446,565 | $100.85 | 123 |
| AMCAR | $363,105 | $100.31 | 202 |
| AMXCA | $319,715 | $99.81 | 122 |
| BACCT | $251,835 | $100.15 | 108 |
| CARMX | $226,222 | $99.71 | 166 |
| FORDO | $217,931 | $100.02 | 131 |
| HART | $198,882 | $99.65 | 147 |

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

**Table 38: Sector by Current Face, Number of Trades and Average Price ($ thousands)**

| Sector | Sub-Sector | Current Face | Number of Trades | Average Price |
|---|---|---|---|---|
| **Auto** | Fleet | $49,006 | 36 | $99.94 |
| | Floorplan | $322,855 | 129 | $100.01 |
| | Leases | $516,731 | 297 | $99.88 |
| | Non US | $1,448 | 8 | $99.67 |
| | Non-Prime Loans | $1,392,664 | 702 | $100.38 |
| | Prime Loans | $1,947,296 | 1,169 | $99.85 |
| | Rental | $150,107 | 42 | $100.14 |
| | Other | $3,769 | 2 | $101.74 |
| **Auto Total** | | **$4,383,875** | **2,385** | **$100.02** |
| **Credit Card** | General Purpose | $2,830,261 | 1,065 | $100.36 |
| | Non US | $106,710 | 24 | $100.10 |
| | Private Label | $432,586 | 165 | $100.73 |
| **Credit Card Total** | | **$3,369,557** | **1,254** | **$100.40** |
| **Education Loans** | FFELP | $728,777 | 433 | $92.13 |
| | Private | $576,180 | 155 | $93.38 |
| **Education Loans Total** | | **$1,304,957** | **588** | **$92.46** |
| **Equipment** | A&C | $132,517 | 138 | $99.67 |
| | Floorplan | $52,713 | 17 | $99.89 |
| | Large-Ticket | $49,090 | 12 | $99.85 |
| | Mid-Ticket | $146,760 | 30 | $100.00 |
| | Small-Ticket | $68,714 | 34 | $100.14 |
| | Trucks | $15,508 | 12 | $100.07 |
| | Other | $5,744 | 9 | $95.81 |
| **Equipment Total** | | **$471,046** | **252** | **$99.68** |
| **Other** | Other | $46,428 | 19 | $99.99 |
| | Consumer | $306,322 | 110 | $99.41 |
| | Container | $145,219 | 40 | $95.55 |
| | Film Rights | $2,757 | 4 | $99.79 |
| | Franchise | $363,823 | 100 | $100.27 |
| | Insurance Premiums | $93,898 | 17 | $92.16 |
| | Planes | $41,544 | 18 | $70.46 |
| | Rail | $70,457 | 19 | $97.09 |
| | RRB | $14,791 | 98 | $101.71 |
| | Structured settlement | $19,498 | 15 | $99.54 |
| | Time Share | $90,987 | 40 | $99.99 |
| | Trade Receivables | $3,000 | 1 | $99.55 |
| | Solar | $9,713 | 1 | $94.13 |
| **Other Total** | | **$1,208,436** | **482** | **$98.38** |
| **Grand Total** | | **$10,737,870** | **4,961** | **$99.04** |

Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

# New Issue Volume & Pricing

**Table 39: ABS Issuance by Asset Type ($ Million)**

| | Total | Auto | Credit Cards | Education Loans | Equipment | Other |
|---|---|---|---|---|---|---|
| Jan-13 | $16,788 | $12,382 | $2,917 | $1,232 | $163 | $94 |
| Feb-13 | $20,492 | $8,003 | $4,985 | $4,400 | $1,828 | $1,276 |
| Mar-13 | $10,315 | $4,545 | $1,525 | $755 | $1,429 | $2,061 |
| Apr-13 | $21,011 | $9,172 | $3,275 | $3,358 | $1,599 | $3,608 |
| May-13 | $14,646 | $9,242 | $3,358 | $1,180 | $725 | $140 |
| Jun-13 | $12,030 | $6,192 | $235 | $3,512 | $153 | $1,938 |
| Jul-13 | $14,235 | $8,792 | $3,033 | $355 | $508 | $1,547 |
| Aug-13 | $12,550 | $5,466 | $3,361 | $747 | $2,725 | $250 |
| Sep-13 | $14,750 | $7,700 | $3,003 | $2,028 | $772 | $1,248 |
| Oct-13 | $15,957 | $8,912 | $4,850 | $0 | $1,270 | $925 |
| Nov-13 | $18,346 | $9,444 | $2,654 | $2,961 | $1,707 | $1,581 |
| Dec-13 | $7,848 | $1,016 | $4,750 | $599 | $0 | $1,483 |
| Jan-14 | $12,813 | $7,759 | $3,400 | $1,654 | $0 | $0 |
| Feb-14 | $21,230 | $11,121 | $5,097 | $676 | $2,125 | $2,211 |
| Mar-14 | $19,411 | $9,738 | $6,275 | $2,075 | $202 | $1,121 |
| Apr-14 | $23,202 | $12,379 | $6,420 | $720 | $2,204 | $1,480 |
| May-14 | $13,461 | $6,231 | $4,579 | $1,812 | $265 | $574 |
| Jun-14 | $20,732 | $11,859 | $2,906 | $1,308 | $2,343 | $2,315 |
| Jul-14 | $15,887 | $4,956 | $3,700 | $2,167 | $1,397 | $3,667 |
| Aug-14 | $12,866 | $7,577 | $0 | $2,147 | $1,237 | $1,906 |
| Sep-14 | $17,768 | $7,408 | $6,049 | $647 | $589 | $3,076 |
| Oct-14 | $17,736 | $10,316 | $2,500 | $664 | $2,139 | $2,117 |
| Nov-14 | $19,787 | $8,383 | $7,362 | $1,532 | $750 | $1,760 |
| Dec-14 | $9,744 | $2,799 | $5,147 | $303 | $0 | $1,495 |
| Jan-15 | $19,802 | $12,137 | $0 | $1,263 | $1,316 | $5,086 |
| Feb-15 | $20,538 | $11,521 | $2,575 | $1,701 | $1,694 | $3,048 |
| Mar-15 | $20,977 | $7,973 | $8,609 | $1,034 | $2,415 | $946 |
| Apr-15 | $21,348 | $8,577 | $7,245 | $2,338 | $1,519 | $1,669 |
| May-15 | $22,587 | $12,150 | $3,065 | $867 | $1,955 | $4,550 |
| Jun-15 | $14,376 | $9,495 | $1,210 | $1,808 | $412 | $1,451 |
| Jul-15 | $18,061 | $9,218 | $4,573 | $1,335 | $250 | $2,686 |
| Aug-15 | $13,104 | $8,843 | $1,925 | $700 | $1,051 | $585 |
| Sep-15 | $11,121 | $5,954 | $2,290 | $340 | $1,081 | $1,456 |
| Oct-15 | $22,539 | $13,609 | $3,416 | $816 | $1,149 | $3,549 |
| Nov-15 | $8,135 | $3,319 | $2,225 | $735 | $0 | $1,855 |
| Dec-15 | $2,655 | $380 | $0 | $908 | $0 | $1,367 |
| Jan-16 | $10,340 | $7,306 | $1,625 | $488 | $663 | $258 |
| Feb-16 | $19,691 | $12,913 | $0 | $1,938 | $2,232 | $2,608 |
| Mar-16 | $12,959 | $8,270 | $976 | $0 | $0 | $3,713 |
| Apr-16 | $14,087 | $8,809 | $2,626 | $703 | $513 | $1,436 |
| May-16 | $23,752 | $11,789 | $5,250 | $1,332 | $1,991 | $3,390 |
| Jun-16 | $7,866 | $2,215 | $3,450 | $761 | $183 | $1,257 |
| | | | | | | |
| YTD Summary | | | | | | |
| 2016 | $88,696 | $51,304 | $13,927 | $5,222 | $5,582 | $12,662 |
| | 100% | 58% | 16% | 6% | 6% | 14% |
| 2015 | $114,239 | $58,237 | $22,704 | $8,788 | $9,082 | $15,428 |
| | 100% | 51% | 20% | 8% | 8% | 14% |
| Full Year | | | | | | |
| 2015 | $195,242 | $103,175 | $37,133 | $13,844 | $12,842 | $28,248 |
| | 100% | 53% | 19% | 7% | 7% | 14% |
| 2014 | $204,755 | $100,526 | $53,434 | $15,704 | $13,251 | $21,839 |
| | 100% | 49% | 26% | 8% | 6% | 11% |

Source: BofA Merrill Lynch Global Research

# CLO

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# Market View

Even though US BWIC volumes increased WoW by over 40% to about $500mn, the secondary market still felt somewhat quiet this week. The majority of the line items were senior tranches from post-crisis deals. Spread levels remained overall unchanged WoW at 155, 220, 315, 550, 975 and 1450bp down the capital structure for US CLO 2.0/3.0s.

Over in the primary market, four new deals priced this week in the US including Voya's $407mn Voya CLO 2016-2, Apollo Credit Management's $450mn ALM XVIII and GSO/Blackstone's $650mn Westcott Park CLO. Data provided by S&P LCD shows that the Voya deal priced at 154, 210, 290, 455 and 800 DM, the Apollo deal priced at 153, 215, 290, 450 and 800 DM and the GSO/Blackstone deal priced at 153, 210, 290, 450 and 800 DM from AAA down to BB. Year-to-date, issuance has surpassed $21bn including broadly syndicated and middle-market deals.

As we pointed out in Securitization Weekly Overview: Wednesday's child (is full of woe) 10 June 2016, an unchanged Fed at Wednesday's meeting (rate, dot plot) is likely to be bad news for securitized products. While high-grade and high-yield corporate credit have experienced notable increases in flows due to the global hunt for yield, the same cannot be said for deeper credit securitized products including CLOs. Using our breakeven inflation valuation framework, deeper securitized products credit including CLOs, and even leveraged loans, have actually worsened since February. The liquidity scars from February remain evident and we maintain our broadly neutral view on US CLOs as we attempt to balance poor liquidity versus cheap valuations.

Secondary market supply picked up this week for European CLOs, with around €170mn of bonds appearing on BWIC lists, mostly from 2.0 deals. 2.0 equity trading remained, busy as with previous weeks, and mostly traded at yields of around 11-12%, with relatively little tiering. Around €95mn of 2.0 mezzanine bonds appeared on lists, with spreads generally appearing to widen slightly.

In the primary market, deals from Cairn Loan Investments and Babson Capital priced this week, following a deal from KKR which priced at the end of last week. Pricing of these deals showed notable tightening in new issue AAA spreads, with discount margins of 130bps reported for Cairn's deal according to LCD. Babson's deal priced with a coupon spread of 128bps for the AAA tranche, though discount margins were not reported.

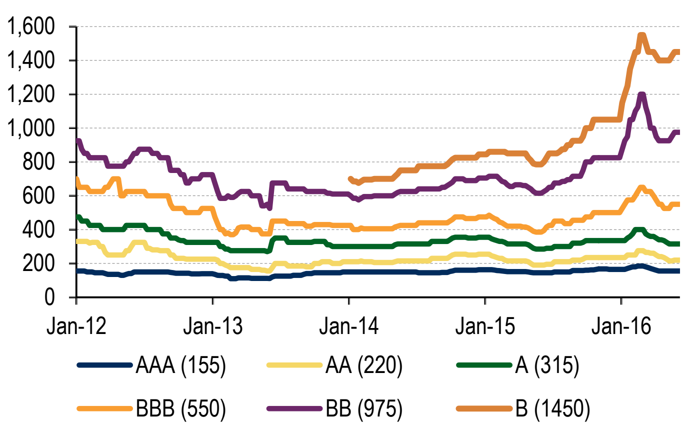
This followed a coupon spread of 135bps for KKR's deal last week, which was already several basis points tighter than the previous deals which priced in May. Across the rest of the capital structure, the coupon spreads on the AA to single B notes priced at 205, 310, 430, 625 and 825bps respectively.

For Babson's deal, the floating rate AA to single B tranches priced with coupon spreads of 200, 300, 400, 610 and 810bps respectively. The deal also includes fixed rate AAA and AA tranches which priced with coupons of 1.52% and 2.36% respectively. For

Cairn's deal, the floating rate AA to single B tranches priced at coupon spreads (discount margins) of 130 (130), 205 (205), 305 (305), 405 (430), 625 (725) and 835 (1020)bps respectively.

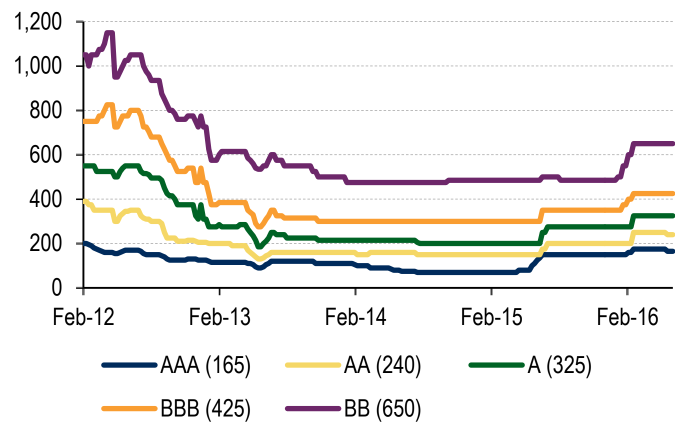
The three deals take YTD issuance to €6.5bn. slightly behind the €6.8bn that priced over the same period of 2015.

**Chart 86: US CLO 2.0/3.0 indicative spread levels**



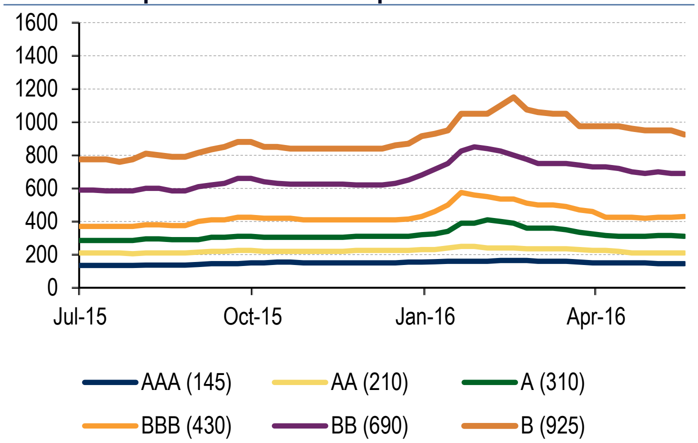

Source: BofA Merrill Lynch Global Research

**Chart 87: US CLO 1.0 indicative spread levels**



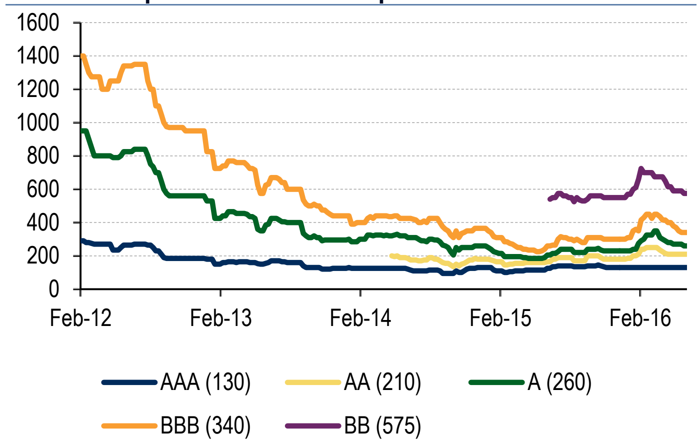

Source: BofA Merrill Lynch Global Research

**Chart 88: European CLO 2.0 indicative spread levels**




Source: BofA Merrill Lynch Global Research

**Chart 89: European CLO 1.0 indicative spread levels**




Source: BofA Merrill Lynch Global Research

**Table 40: CLO spread tracker**

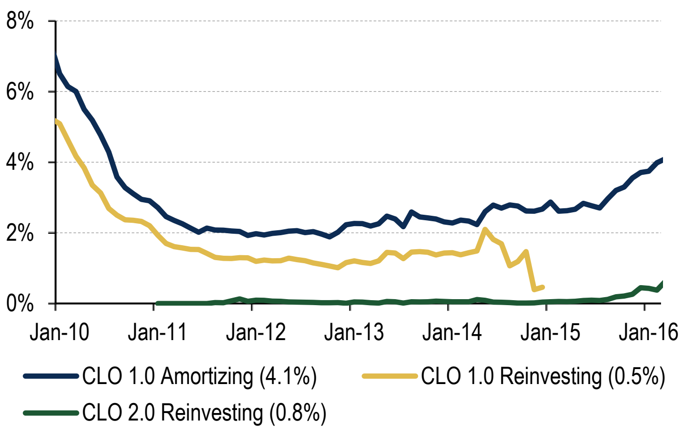
| | 6/10/2016 | Change | | | 2016 YTD | |
|---|---|---|---|---|---|---|
| | | 1-Wk | 1-Mo | YTD | Min | Max |
| **US** | | | | | | |
| **CLO 2.0/3.0** | | | | | | |
| AAA | 155 | 0 | 0 | -10 | 155 | 185 |
| AA | 220 | 0 | -5 | -15 | 215 | 275 |
| A | 315 | 0 | -10 | -20 | 315 | 400 |
| BBB | 550 | 0 | 25 | 50 | 500 | 650 |
| BB | 975 | 0 | 50 | 150 | 825 | 1,200 |
| B | 1,450 | 0 | 50 | 400 | 1,050 | 1,550 |
| **Legacy CLO 1.0** | | | | | | |
| AAA | 165 | 0 | -10 | 15 | 150 | 175 |
| AA | 240 | 0 | -10 | 40 | 200 | 250 |
| A | 325 | 0 | 0 | 50 | 275 | 325 |
| BBB | 425 | 0 | 0 | 75 | 350 | 425 |
| BB | 650 | 0 | 0 | 165 | 485 | 650 |
| **Europe** | | | | | | |
| **CLO 2.0** | | | | | | |
| AAA | 145 | 0 | -5 | -5 | 145 | 165 |
| AA | 210 | 0 | 0 | -15 | 210 | 250 |
| A | 310 | -5 | 0 | 0 | 310 | 410 |
| BBB | 430 | 5 | 5 | 20 | 410 | 575 |
| BB | 690 | 0 | -10 | 70 | 620 | 850 |
| B | 925 | -25 | -35 | 85 | 840 | 1,150 |
| **Legacy CLO 1.0** | | | | | | |
| AAA | 130 | 0 | 0 | 0 | 130 | 130 |
| AA | 210 | 0 | 0 | 30 | 180 | 250 |
| A | 260 | 0 | -10 | 30 | 230 | 350 |
| BBB | 340 | 0 | -30 | 40 | 300 | 450 |
| BB | 575 | 0 | -15 | 25 | 550 | 725 |

Source: BofA Merrill Lynch Global Research

# Slow but positive earnings growth continues despite credit deterioration

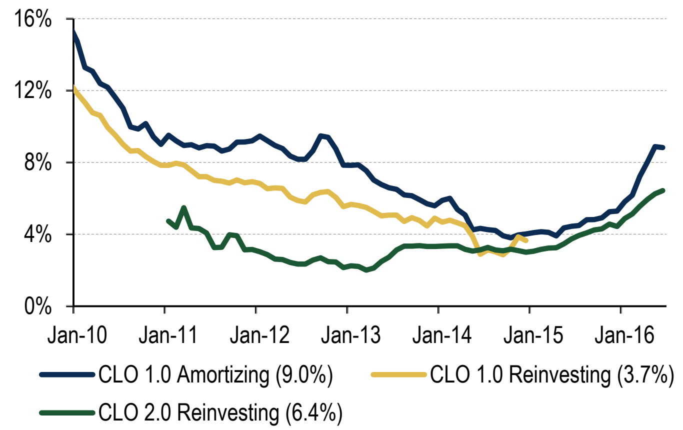
There is now overwhelming evidence that the best of the current cycle is behind us given the uptick in defaults and downgrades we have seen in both the US high-yield and leveraged loan space as well as US CLOs over the last year or so. As detailed last week in CLO Weekly: Loan prices trended higher in May amid steady US CLO issuance 03 June 2016, the weighted average percentages of defaulted and CCC+/Caa1 or below assets held by reinvesting US CLOs are now at about 0.8% and 6.4% as compared to 0.1% and 3.7% a year ago (Chart 90 and Chart 91).

**Chart 90: Weighted average defaults held by US CLOs**




Source: BofA Merrill Lynch Global Research, Intex

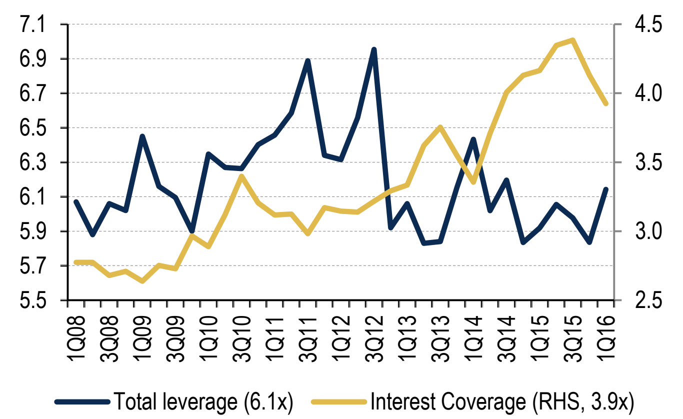
**Chart 91: Weighted average CCC+/Caa1 or below assets (combined across agencies) held by US CLOs**




Source: BofA Merrill Lynch Global Research, Intex
* %s based on the total cash and non-defaulted balances of CLO portfolios

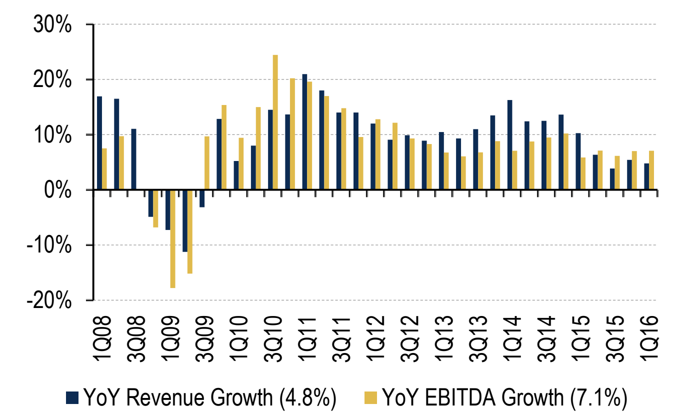
The latest statistics compiled by S&P LCD based on publicly filing issuers' 1Q data are also pointing to similar trends. Quarter over quarter, the weighted average total leverage of these companies ticked up from 5.8x to about 6.1x and the weighted average interest coverage went from 4.8x to 4.5x which are both moving in the wrong direction.

**Chart 92: Total leverage and interest coverage for publicly filing S&P/LSTA LLI index issuers**




Source: S&P LCD

**Chart 93: YoY revenue and EBITDA growth for publicly-filing loan index issuers**



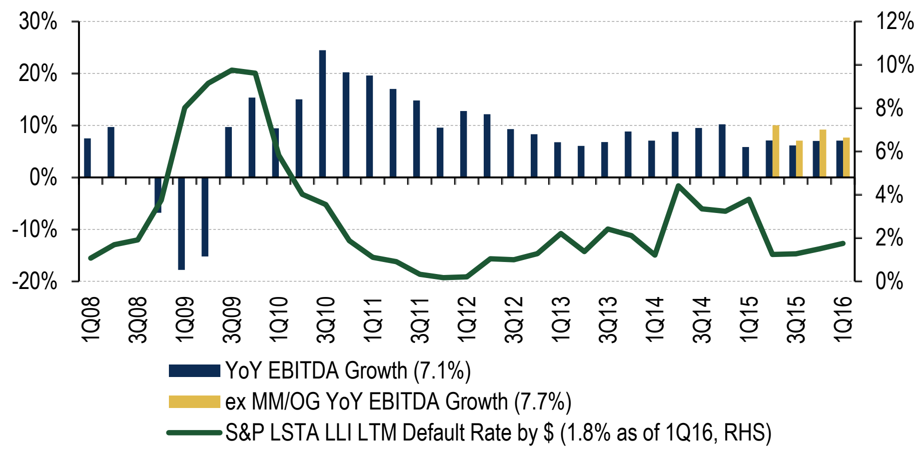

Source: S&P LCD

We make the note, however, that the total leverage is a less important statistic to look at for leveraged loans compared to a ratio that is based purely on 1st lien and secured lending relative to EBITDA. Nonetheless, a rising leverage is still indicative of some form of credit deterioration in the broader market.

Despite all of these statistics pointing to the fact that we are now likely past the peak of the current credit cycle, publically-filing leveraged loan issuers, about 200 of them, continue to post slow, but positive EBITDA growth YoY in 1Q16 (Chart 93). Compared to 1Q15, EBITDA has increased by about 7.1%. This compares favorably with those of 5.8%, 7.1%, 6.2% and 7.0% from 1Q through 4Q of 2015.

Excluding the more troubled commodities sectors, including metals & mining and oil & gas (MM/OG), which are where a lot of the weakness has been over the past year, YoY EBITDA growth concluded 1Q16 at about 7.7% which is less than that of 9.2% for 4Q15 (Chart 94), but still healthy.

**Chart 94: YoY EBITDA growth for publicly-filing loan index issuers**




Source: S&P LCD

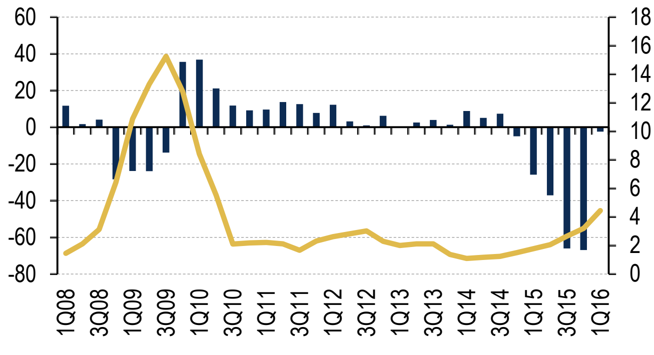
Whether the ex-MM/OG data points to slowing growth seeping into non-commodities sectors remains to be seen, as the last four data points of 10.0%, 7.1%, 9.2% and 7.7% cannot really be said to have formed much of a trend. Having said that, it is also not surprising to us that growth has slowed given where we are in the credit cycle, the upticks in downgrades and defaults, as well as the tightening path that the Fed seems determined to stay on.

What is encouraging to us and makes us believe that conditions will still be workable for US CLO managers who are doing their job of adding alpha by careful credit selections is the fact that the growth is still for the time being positive.

Moving lower in the capital structure to the more volatile space of HY bonds, things have actually had an interesting turn-around in 1Q16. Unlike the case for loans where the YoY EBITDA growth of publicly-filing companies has remained positive since the financial crisis, US HY companies experienced six consecutive quarters of negative YoY EBITDA growth starting in 4Q15 (Chart 95).

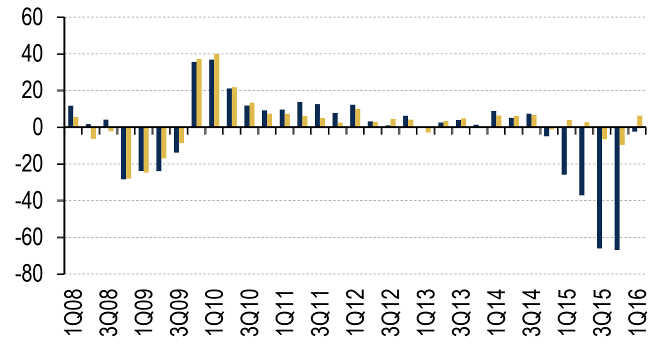
The uptick in LTM (last-twelve-month) default rate has also been more significant than in the loan space. As of the end of 1Q16, the last-twelve-month default rate of US HY was at about 4.4% (Chart 95). This compares with 1.8% (as of the end of 1Q16) for the S&P/LSTA Leveraged Loan Index (the latest data point as of the end of May for the broad leveraged loan index is at about 2.0%) (Chart 94).

**Chart 95: US HY EBITDA YoY growth against US HY LTM default rates**




Source: BofA Merrill Lynch Global Research

**Chart 96: US HY EBITDA YoY growth alongside US HY ex-commodities EBITDA YoY growth**

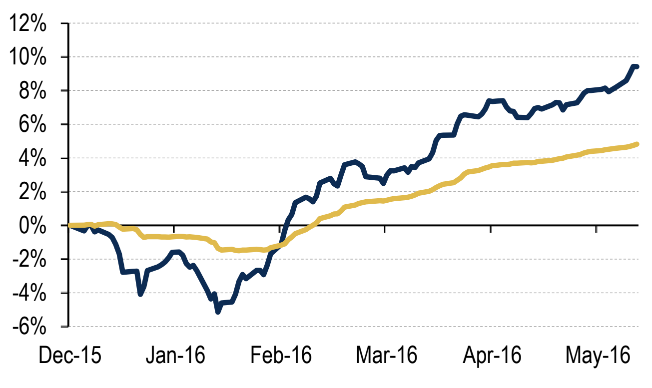



Source: BofA Merrill Lynch Global Research

Even excluding the troubled commodities sectors which comprise a much more significant percentage of the US HY universe with energy and materials companies making up 17% and 9% respectively, the YoY EBITDA growth rates trended downward throughout 2015 and were negative at -7% and -10% in 3Q15 and 4Q15. In 1Q16 however, this number surprised to the upside at about 6%.

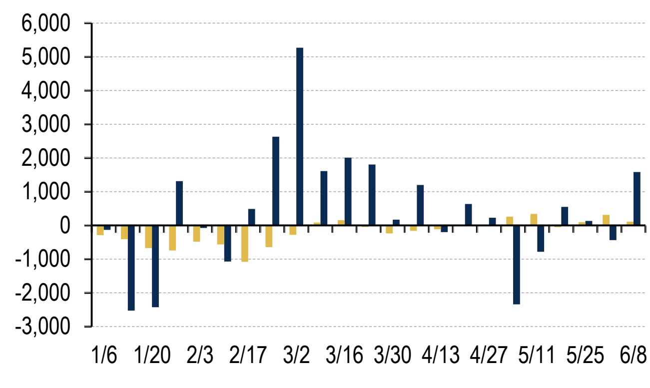
Relatively poorer fundamentals are the primary reason behind our HY credit strategists' bearish view on the US HY bond sector. Whether or not the 1Q16 data point for US HY issuers would turn into a trend remains to be seen. To the extent that this actually happens, leveraged loans, and hence US CLOs, are also likely going to benefit. But even if the data from 1Q16 were a one off for US HY issuers, our belief is still that the loan asset class would benefit from more favorable sector positioning, a more domestic focus and better diversification. This is despite the stronger performance we have seen thus far in the year for US HY, which has benefited from net positive fund flows YTD (Chart 97 and Chart 98).

**Chart 97: YTD US HY and USD loan total returns**




Source: BofA Merrill Lynch Global Research, S&P/LSTA, Bloomberg

**Chart 98: YTD weekly fund flows ($mn)**




Source: EPFR

Broad leveraged loan trends and statistics aside, US CLO managers' ability to credit pick what goes into their portfolios especially during the reinvestment period should also generate additional alpha making the asset class attractive for longer-term investors.

We finish by shifting our focus back to the US CLO 2.0/3.0 universe. Summarized below in Table 41 are the USD term-loan industry holdings by outstanding US CLO 2.0/3.0s., their relative exposure as compared to the S&P/LSTA All Leveraged Loan Index, the indicative price and spread levels of the various industries, their past total returns, alongside YoY EBITDA growth data for publicly filing companies for selected industries.

US CLOs are deemed to be overweight in an industry if the percentage exposure deviates from that of the broad loan index by more than 20%.The % pos and % neg columns to the very right of the table indicate the percentage of publicly filing companies which saw positive YoY EBITDA growth and negative YoY EBITDA growth within that industry in 1Q16.

**Table 41: US CLO 2.0/3.0 holdings by industries, S&P/LSTA LLI index level weighted average prices, spreads, and total returns alongside publicly filing EBITDA growth data**

| | US CLO / Loan Market Holdings | | | | Current Levels | | Total Return % | | | | EBITDA Growth Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S&P Industry | US CLO Relative to Loan Mkt | US CLO ($mn) | US CLO (%) | Loan Mkt (%) | Approx Price | Approx Spread | May | 3-Month | 2016 YTD | 2015 | 1Q16 vs 1Q15 | % Pos. | % Neg. | Sample Size |
| Healthcare | | 37,989 | 11.6% | 10.9% | 98.31 | 464 | 0.7% | 4.0% | 4.4% | 0.9% | 11.8% | 64% | 36% | 28 |
| Electronics | | 30,419 | 9.3% | 11.1% | 97.31 | 496 | 0.7% | 4.6% | 3.8% | 2.7% | 16.6% | 67% | 33% | 21 |
| Bus Equip & Services | | 28,219 | 8.6% | 7.6% | 96.77 | 534 | 0.9% | 4.5% | 3.6% | 2.7% | 8.8% | 73% | 27% | 15 |
| Financials | | 21,246 | 6.5% | 6.1% | 98.50 | 412 | 0.3% | 2.7% | 2.8% | 4.7% | 3.2% | 71% | 29% | 7 |
| Retailers (except food & drug) | | 18,621 | 5.7% | 5.3% | 93.72 | 591 | -0.4% | 5.3% | 4.6% | -0.2% | -3.2% | 54% | 46% | 13 |
| Chemicals / Plastics | Overweight | 16,185 | 4.9% | 4.1% | 98.87 | 439 | 1.1% | 5.4% | 4.6% | 3.9% | 12.3% | 56% | 44% | 18 |
| Telecom | | 15,133 | 4.6% | 4.2% | 95.10 | 524 | 1.2% | 5.3% | 4.7% | -0.4% | 4.4% | 50% | 50% | 16 |
| Leisure | | 14,560 | 4.4% | 3.8% | 98.64 | 432 | 1.0% | 4.8% | 4.1% | 4.0% | 15.8% | 85% | 15% | 13 |
| Oil & Gas | | 12,043 | 3.7% | 4.2% | 67.75 | 1,843 | 5.2% | 32.6% | 13.4% | -29.4% | -15.9% | 22% | 78% | 9 |
| Cable TV | | 11,286 | 3.4% | 3.2% | 99.97 | 333 | 0.5% | 3.6% | 3.8% | 3.3% | 6.9% | 100% | 0% | 4 |
| Lodging & Casinos | Underweight | 11,150 | 3.4% | 4.7% | 98.89 | 445 | 1.8% | 5.9% | 6.1% | 3.0% | 8.2% | 73% | 27% | 15 |
| Utilities | Underweight | 10,894 | 3.3% | 5.5% | 93.89 | 558 | -0.5% | 6.0% | 3.9% | -16.4% | | | | |
| Industrial Equip | Overweight | 10,551 | 3.2% | 2.0% | 96.12 | 499 | 0.7% | 5.7% | 3.4% | 2.5% | -9.0% | 50% | 50% | 4 |
| Bldg & Develop | Overweight | 9,860 | 3.0% | 2.5% | 98.93 | 410 | 0.8% | 4.6% | 3.7% | 3.9% | | | | |
| Containers & Glass | Overweight | 9,742 | 3.0% | 2.0% | 99.16 | 427 | 0.8% | 3.7% | 3.7% | 4.4% | | | | |
| Automotive | | 8,599 | 2.6% | 2.4% | 95.23 | 558 | 0.7% | 5.0% | 3.7% | 1.1% | 12.7% | 67% | 33% | 9 |
| Publishing | | 7,712 | 2.4% | 2.7% | 96.51 | 548 | 1.3% | 7.9% | 5.7% | -1.6% | 0.2% | 50% | 50% | 6 |
| Food Products | | 7,573 | 2.3% | 2.1% | 99.23 | 436 | 0.6% | 3.3% | 3.3% | 5.0% | | | | |
| Radio & TV | | 7,294 | 2.2% | 2.7% | 89.80 | 805 | 1.3% | 6.9% | 4.7% | -3.0% | 7.8% | 57% | 43% | 14 |
| Aero & Defense | | 7,274 | 2.2% | 1.9% | 97.22 | 456 | 1.0% | 5.9% | 4.7% | 0.5% | | | | |
| Food / Drug Retailers | | 4,940 | 1.5% | 1.4% | 99.97 | 454 | 0.0% | 3.5% | 2.5% | 5.0% | | | | |
| Metals / Minerals | Underweight | 5,365 | 1.6% | 2.2% | 86.39 | 944 | 4.1% | 23.7% | 5.8% | -24.2% | -41.6% | 33% | 67% | 3 |
| Surface Transport | | 4,505 | 1.4% | 1.4% | 96.23 | 567 | 1.0% | 5.2% | 2.6% | 3.3% | | | | |
| Food Service | Underweight | 4,411 | 1.3% | 2.2% | 96.81 | 438 | 0.5% | 3.5% | 2.9% | 4.6% | 3.7% | 83% | 17% | 6 |
| Air Transport | | 3,527 | 1.1% | 0.9% | | | | | | | | | | |
| Ecological | Overweight | 2,696 | 0.8% | 0.6% | 97.71 | 478 | 0.9% | 6.5% | 7.0% | 0.5% | | | | |
| Cosmetics/Toiletries | | 2,688 | 0.8% | 0.7% | 99.71 | 392 | 0.9% | 3.2% | 3.8% | 5.7% | | | | |
| Beverage & Tobacco | Overweight | 561 | 0.2% | 0.1% | 94.21 | 692 | 1.8% | 3.4% | 3.0% | 4.6% | | | | |
| Forest Products | Underweight | 119 | 0.0% | 0.2% | 99.22 | 557 | -0.6% | -1.3% | -11.2% | -21.6% | | | | |
| Conglomerates | Underweight | 5 | 0.0% | 0.3% | 94.23 | 511 | 1.5% | 3.7% | 3.9% | 1.9% | | | | |
| Farming / Agriculture | Overweight | 3 | 0.0% | 0.0% | | | | | | | | | | |
| Clothing / Textiles | | 1,698 | 0.5% | 0.6% | 97.16 | 494 | 0.1% | 3.8% | 3.0% | 3.3% | | | | |
| Home Furnish | Underweight | 724 | 0.2% | 0.3% | 99.99 | 475 | 0.7% | 3.6% | 3.4% | 5.5% | | | | |
| **Total (broad index levels)** | | **327,591** | | | **93.41** | **523** | **0.9%** | **5.7%** | **4.5%** | **-0.7%** | | | | |

Source: BofA Merrill Lynch Global Research, IntexCalc, S&P LCD

We make a few observations based on this table:

- **Excluding the two industries for which index price and spread levels are not available**, the average price level using US CLO exposure %s as weights comes down to 96.0 which compares with that of 95.6 if we use the exposure %s of the entire loan index.

- The weighted average spreads to maturity are 545 and 559, respectively, using US CLO exposure %s and loan index exposure %s as weights. The weighted average total 2016 YTD returns are 0.9% and 1.0% and the weighted average total 2015 returns are 0.1% and -0.9%, respectively.

- These statistics show that the current US CLOs are overall less biased towards industries which are trading at lower prices.
- That US CLOs are underweight in utilities, metals / minerals and forest products have helped contribute to a higher weighted average 2015 total return using US CLO exposure %s as weights. That some of these sectors have experienced a strong recovery over the past three months are contributing to the lower total YTD returns computed using US CLO exposure %s as weights.

# European CLO relative value

European CLO spreads suffered from weak risk appetite and broad market volatility in the first few weeks of the year, with 2.0 spreads reaching their widest levels yet (since the market reopened in 2013). Shorter duration 1.0 bonds also saw sharp spread widening, which we think was partly driven by loan market volatility causing participants to reassess call assumptions.

While spreads have recovered since February, helped by better risk appetite and further supportive ECB measures, spreads mostly remain wide of 2015 year end levels. They have generally lagged spread tightening in corporate bonds, which have benefited from the introduction of the ECB's Corporate Sector Purchase Programme (CSPP).

The exceptions have been 2.0 AAA-AA spreads, which have tightened inside 2015 year end levels, benefiting from an expanding investor base. Pricing for the most recent new issue deals suggests spreads of around 128-130bps for new issue AAA bonds, compared to year to date wides of around 160bps. 1.0 AAA-AA spreads remain at similar levels to the end of 2015, though trading volumes have been very thin for these bonds.

Overall, we continue to expect strong credit performance for the CLO sector. The measures announced by the ECB in March 2016 further help improve funding conditions for European corporates and leveraged loan borrowers generally face little in terms of refinancing pressure. We believe this should support mezzanine and equity performance in particular.

However, given growing potential downside risks, from weakening global growth among other things, we expect to see greater performance tiering emerge across deals and managers. These parts of the capital structure are also likely to remain most sensitive to market volatility, and are vulnerable to potential upcoming risks relating to the UK's upcoming EU referendum and US interest rate rises for example.

In addition to performance tiering, we believe regulatory tiering remains important, with investors being required to assess deal compliance with numerous regulations, each of which impact pricing and liquidity. Regulatory risks appear to have increased again following this week's publication of the European Parliament's draft report on STS securitization, which proposes increasing risk retention to 20%. Although the report is unlikely to be adopted as regulation in its current form in our view, it introduces further regulatory uncertainty to the market.

Below, we summarize our thoughts across 1.0 and 2.0 CLO markets.

- **2.0 senior** – spreads appear to have tightened sharply, based on recent new issue pricing. We believe this has been helped by an expanding investor base, with greater participation from Asian investors and the recent reported return of a large US bank investor. In the space of only a couple of months, 2.0 AAA pricing appears to have gone from its widest ever pricing to a few basis points off its tightest ever pricing. We believe pricing can tighten further, though note that tighter spreads (particularly at the AAA level) tend to prompt greater new issue volumes, which is likely to keep the pace of spread tightening limited.

  We believe vintage is likely to become increasingly important for these bonds. We note that some of the 2013 vintage deals have started exiting non-call periods, and some bonds may therefore become eligible for coupon repricing, with new issue spread tightening making this an increasingly attractive option for equity investors. In addition, as Euribor continues to fall, the liability floors typically included on bonds issued since late 2014 may cause pricing to diverge between these bonds and those from earlier vintages.

- **2.0 mezzanine** – We expect 2.0 mezzanine to benefit from a benign credit environment and continuing supportive ECB policies, though with weakening global growth, we may see greater performance tiering start to develop as certain borrowers and sectors see more challenging market conditions. Continued low yields across fixed income products should encourage more demand for products such as CLO mezzanine, though the bonds remain vulnerable to periods of market volatility

- **2.0 equity** – Cash payments have been strong so far, with cash flows generally around 15-20% of principal per annum. As described for mezzanine above, we expect to see increasing tiering in performance going forward, and manager selection is likely to become increasingly important. Equity yields have tightened sharply over the last couple of months, from high teens to 11-12%, and price tiering is generally narrow across deals

- **1.0 senior** – Trading volumes have been very low for these bonds, and this is likely to remain the case given the increasing scarcity of the bonds and the reduced liquidity caused by the introduction of the Volcker Rule. Where available, we believe spreads are attractive however, given the short duration and what is in our view negligible credit risk.

- **1.0 mezzanine** – As with 2.0 mezzanine, we believe there are supportive credit factors for 1.0 mezzanine. However, portfolios are more concentrated in these deals, and pricing can therefore be more sensitive to the performance of individual loans. Although we believe calls are largely priced in for better candidates, there may still be some upside for mezzanine investors from an earlier than expected call.

- **1.0 equity** – As with 1.0 mezzanine, these bonds are generally increasingly sensitive to the performance of individual loans in the portfolios. As these deals deleverage, cash returns are likely to continue to fade. Many 1.0 equity investors are likely to be considering the optimal call timing, provided portfolio prices are high enough to call the deal.

**Table 42: European CLO vs US CLOs and European and US corporates**

| | European legacy CLO | | | | | European 2.0 CLO* | | | | | | US 1.0 CLO | | | | | US 2.0 CLO | | | | | | US CDX | | iTraxx | | Loan flow names | | US corps | | Euro corps | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Short AAA | AAA | AA | A | BBB | AAA | AA | A | BBB | BB | B | AAA | AA | A | BBB | BB | AAA | AA | A | BBB | BB | B | IG | HY | main | Xover | Euro | US | IG | HY | IG | HY |
| Jun-16 | 90 | 130 | 210 | 260 | 340 | 145 | 210 | 310 | 430 | 690 | 925 | 165 | 240 | 325 | 425 | 650 | 155 | 220 | 315 | 550 | 975 | 1450 | 78 | 434 | 78 | 333 | 430 | 377 | 169 | 527 | 87 | 375 |
| May-16 | 100 | 130 | 210 | 270 | 340 | 145 | 210 | 315 | 425 | 700 | 950 | 165 | 240 | 325 | 425 | 650 | 155 | 220 | 315 | 550 | 975 | 1450 | 77 | 435 | 73 | 312 | 431 | 384 | 168 | 534 | 93 | 394 |
| Apr-16 | 100 | 130 | 210 | 280 | 400 | 150 | 225 | 315 | 425 | 730 | 975 | 175 | 250 | 325 | 425 | 650 | 155 | 235 | 335 | 525 | 925 | 1400 | 77 | 433 | 74 | 313 | 451 | 377 | 165 | 543 | 89 | 391 |
| Mar-16 | 100 | 130 | 250 | 350 | 450 | 160 | 235 | 360 | 500 | 750 | 1060 | 175 | 250 | 325 | 425 | 650 | 165 | 260 | 360 | 600 | 1000 | 1450 | 79 | 304 | 73 | 304 | 474 | 397 | 184 | 596 | 98 | 436 |
| Feb-16 | 100 | 130 | 250 | 325 | 450 | 160 | 240 | 410 | 550 | 840 | 1050 | 175 | 250 | 325 | 425 | 650 | 185 | 275 | 400 | 650 | 1200 | 1550 | 107 | 408 | 99 | 408 | 559 | 456 | 218 | 640 | 121 | 519 |
| Jan-16 | 100 | 130 | 200 | 240 | 360 | 157 | 230 | 325 | 460 | 715 | 930 | 150 | 200 | 275 | 375 | 550 | 175 | 250 | 360 | 575 | 1050 | 1350 | 102 | 508 | 92 | 368 | 485 | 428 | 209 | 645 | 117 | 501 |
| Dec-15 | 100 | 130 | 180 | 230 | 300 | 150 | 220 | 310 | 410 | 625 | 840 | 150 | 200 | 275 | 350 | 485 | 165 | 235 | 335 | 500 | 825 | 1050 | 88 | 470 | 77 | 314 | 480 | 505 | 179 | 582 | 102 | 457 |
| Jun-15 | 100 | 135 | 180 | 215 | 265 | 134 | 205 | 275 | 345 | 585 | 760 | 150 | 175 | 250 | 350 | 500 | 145 | 195 | 290 | 425 | 650 | 850 | 70 | 355 | 76 | 329 | 437 | 389 | 141 | 442 | 88 | 388 |
| Dec-14 | 100 | 130 | 180 | 260 | 365 | 132 | 210 | 317 | 410 | 650 | 840 | 70 | 150 | 200 | 300 | 485 | 163 | 255 | 355 | 475 | 705 | 845 | 66 | 358 | 63 | 345 | 448 | 467 | 139 | 449 | 73 | 375 |
| Dec-13 | 120 | 130 | 200 | 300 | 440 | 150 | 210 | 330 | 425 | 600 | | 110 | 160 | 215 | 300 | 500 | 150 | 210 | 300 | 425 | 610 | | 62 | 313 | 70 | 286 | 423 | 390 | 122 | 365 | 94 | 329 |
| Dec-12 | 155 | 180 | | 560 | 850 | | | | | | | 125 | 205 | 310 | 475 | 725 | 139 | 225 | 325 | 525 | 725 | | 94 | 487 | 117 | 482 | 508 | 454 | 155 | 498 | 131 | 507 |
| Dec-11 | 290 | 340 | | 1200 | 1550 | | | | | | | 250 | 475 | 675 | 900 | 1300 | 160 | 330 | 475 | 725 | 950 | | 120 | 681 | 173 | 755 | 625 | 526 | 235 | 631 | 255 | 833 |
| Dec-10 | 250 | 275 | | 850 | 1400 | | | | | | | 220 | 375 | 550 | 825 | 1050 | | | | | | | 85 | 430 | 105 | 437 | 473 | 391 | 159 | 498 | 144 | 494 |
| Dec-09 | 300 | 525 | | 1200 | 2250 | | | | | | | 275 | 475 | 750 | 1400 | 1900 | | | | | | | 86 | 518 | 76 | 432 | 438 | 456 | 170 | 553 | 135 | 618 |
| Dec-08 | 475 | 520 | | 1750 | 2250 | | | | | | | 600 | 1400 | 2700 | 4000 | 6500 | | | | | | | 205 | 1147 | 178 | 1029 | 1502 | 1028 | 496 | 1199 | 324 | 1355 |
| Dec-07 | 70 | 80 | | 250 | 400 | | | | | | | 85 | 175 | 325 | 450 | 775 | | | | | | | 78 | 495 | 50 | 339 | 321 | 313 | 134 | 470 | 78 | 411 |
| Dec-06 | 23 | 25 | | 60 | 160 | | | | | | | 24 | 40 | 60 | 150 | 375 | | | | | | | 34 | 247 | 23 | 219 | 259 | 205 | 50 | 235 | 32 | 207 |
| Dec-05 | 24 | 26 | | 65 | 165 | | | | | | | 25 | 38 | 65 | 163 | 450 | | | | | | | 46 | 348 | 37 | 279 | 302 | 202 | 44 | 294 | 34 | 364 |

Source: BofA Merrill Lynch Global Research, Bloomberg, Intex
*Estimates based on new issue discount margins or 2.0 secondary trading levels

**Table 43: European CLO vs European structured finance**

| | European legacy CLO | | | | | European 2.0 CLO* | | | | | | UK RMBS | | | | | | Dutch RMBS | | Spain RMBS | | Italy RMBS | | Auto ABS | | CMBS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Short AAA | AAA | AA | A | BBB | AAA | AA | A | BBB | BB | B | Prime AAA | Prime A | Prime BBB | NCF AAA | NCF A | NCF BBB | AAA | A | AAA | A | AAA | A | AAA | A | AAA | AA | A | BBB |
| Jun-16 | 90 | 130 | 210 | 260 | 340 | 145 | 210 | 310 | 430 | 690 | 925 | 42.5 | 140 | 185 | 142.5 | 285 | 375 | 30 | 100 | 62.5 | 175 | 75 | 185 | 33 | 125 | 145 | 230 | 310 | 375 |
| May-16 | 100 | 130 | 210 | 270 | 340 | 145 | 210 | 315 | 425 | 700 | 950 | 42.5 | 140 | 185 | 142.5 | 285 | 375 | 30 | 100 | 65 | 180 | 75 | 185 | 32.5 | 125 | 150 | 235 | 315 | 385 |
| Apr-16 | 100 | 130 | 210 | 280 | 400 | 150 | 225 | 315 | 425 | 730 | 975 | 47 | 150 | 200 | 145 | 305 | 400 | 32 | 100 | 65 | 180 | 80 | 185 | 35 | 130 | 160 | 240 | 320 | 400 |
| Mar-16 | 100 | 130 | 250 | 350 | 450 | 160 | 235 | 360 | 500 | 750 | 1060 | 47 | 150 | 200 | 145 | 310 | 400 | 33 | 100 | 65 | 190 | 80 | 185 | 35 | 130 | 160 | 240 | 320 | 400 |
| Feb-16 | 100 | 130 | 250 | 325 | 450 | 160 | 240 | 410 | 550 | 840 | 1050 | 45 | 150 | 200 | 157.5 | 325 | 400 | 35 | 100 | 65 | 215 | 85 | 190 | 35 | 135 | 160 | 235 | 300 | 340 |
| Jan-16 | 100 | 130 | 200 | 240 | 360 | 157 | 230 | 325 | 460 | 715 | 930 | 35 | 125 | 175 | 145 | 285 | 335 | 35 | 90 | 70 | 190 | 80 | 175 | 30 | 115 | 140 | 200 | 250 | 280 |
| Dec-15 | 100 | 130 | 180 | 230 | 300 | 150 | 220 | 310 | 410 | 625 | 840 | 35 | 125 | 175 | 145 | 275 | 325 | 30 | 90 | 75 | 210 | 70 | 155 | 33 | 120 | 145 | 200 | 250 | 280 |
| Jun-15 | 100 | 135 | 180 | 215 | 265 | 134 | 205 | 265 | 325 | 475 | 624 | 33 | 105 | 155 | 140 | 235 | 285 | 22 | 70 | 75 | 160 | 70 | 125 | 21 | 63 | 130 | 185 | 205 | 260 |
| Dec-14 | 100 | 130 | 180 | 260 | 365 | 132 | 210 | 317 | 410 | 650 | 840 | 42 | 105 | 155 | 120 | 190 | 245 | 31 | 83 | 65 | 145 | 65 | 120 | 27 | 68 | 120 | 155 | 190 | 250 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec-13 | 120 | 130 | 200 | 300 | 440 | 150 | 210 | 330 | 425 | 600 | | 50 | 140 | 195 | 120 | 220 | 295 | 80 | 170 | 200 | 310 | 140 | 275 | 27 | 70 | 165 | 200 | 275 | 500 |
| Dec-12 | 155 | 180 | | 560 | 850 | | | | | | | 70 | 175 | 240 | 160 | 400 | 590 | 105 | 200 | 370 | 740 | 200 | 425 | 30 | 92 | 290 | 580 | 1325 | 2000 |
| Dec-11 | 290 | 340 | | 1200 | 1550 | | | | | | | 170 | 370 | 550 | 375 | 825 | 1300 | 160 | 330 | 500 | 1300 | 475 | 950 | 63 | 150 | 675 | 950 | 1600 | 2050 |
| Dec-10 | 250 | 275 | | 850 | 1400 | | | | | | | 150 | 275 | 400 | 325 | 700 | 1000 | 145 | 350 | 400 | 1000 | 150 | 485 | 80 | 240 | 400 | 550 | 700 | 1175 |
| Dec-09 | 300 | 525 | | 1200 | 2250 | | | | | | | 155 | 725 | 950 | 650 | 1700 | 2900 | 165 | 775 | 450 | 1400 | 140 | 850 | 115 | 500 | 650 | 1200 | 1750 | 2350 |
| Dec-08 | 475 | 520 | | 1750 | 2250 | | | | | | | 415 | 1400 | 1900 | 775 | 2000 | 3250 | 325 | 1050 | 710 | 1700 | 450 | 1325 | 265 | 875 | 625 | 1100 | 1600 | 2100 |
| Dec-07 | 70 | 80 | | 250 | 400 | | | | | | | 65 | 195 | 305 | 135 | 350 | 550 | 60 | 185 | 95 | 245 | 75 | 180 | 60 | 80 | 80 | 130 | 175 | 240 |
| Dec-06 | 23 | 25 | | 60 | 160 | | | | | | | 11 | 28 | 50 | 19 | 50 | 90 | 12 | 27 | 14 | 31 | 12 | 32 | 10 | 24 | 19 | 31 | 53 | 86 |
| Dec-05 | 24 | 26 | | 65 | 165 | | | | | | | 10 | 32 | 54 | 18 | 55 | 90 | 12 | 30 | 13 | 31 | 13 | 32 | 8 | 26 | 25 | | 60 | 100 |

Source: BofA Merrill Lynch Global Research, Bloomberg, Intex

*Estimates based on new issue discount margins or 2.0 secondary trading levels

# Relative value

**Table 44: Cross-sector spreads**

| | | 1-Wk Change | | 1-Mo Change | | 12-Mo Change | | 2016 YTD | | YTD Min/Max | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CLO** | **Current** | **bp** | **%** | **bp** | **%** | **bp** | **%** | **bp** | **%** | | |
| **2.0** | | | | | | | | | | | |
| AAA | 155 | 0 | 0% | 0 | 0% | 10 | 7% | (10) | -6% | 155 | 185 |
| AA | 220 | 0 | 0% | 5 | 2% | 30 | 16% | (15) | -6% | 215 | 275 |
| A | 315 | 0 | 0% | 0 | 0% | 30 | 11% | (20) | -6% | 315 | 400 |
| BBB | 550 | 0 | 0% | 25 | 5% | 155 | 39% | 50 | 10% | 500 | 650 |
| BB | 975 | 0 | 0% | 50 | 5% | 350 | 56% | 150 | 18% | 825 | 1,200 |
| B | 1,450 | 0 | 0% | 50 | 4% | 650 | 81% | 400 | 38% | 1,050 | 1,550 |
| **1.0** | | | | | | | | | | | |
| AAA | 165 | 0 | 0% | (10) | -6% | 40 | 32% | 15 | 10% | 150 | 175 |
| AA | 240 | 0 | 0% | (10) | -4% | 90 | 60% | 40 | 20% | 200 | 250 |
| A | 325 | 0 | 0% | 0 | 0% | 125 | 63% | 50 | 18% | 275 | 325 |
| BBB | 425 | 0 | 0% | 0 | 0% | 125 | 42% | 75 | 21% | 350 | 425 |
| BB | 650 | 0 | 0% | 0 | 0% | 165 | 34% | 165 | 34% | 485 | 650 |
| **Corporate** | | | | | | | | | | | |
| **S&P/LSTA Loan Indices*** | | | | | | | | | | | |
| All Loans* | 522 | (2) | 0% | (17) | -3% | 38 | 8% | (103) | -16% | 522 | 669 |
| BB Loans* | 376 | (2) | 0% | (9) | -2% | (10) | -3% | (78) | -17% | 376 | 473 |
| B Loans* | 575 | (5) | -1% | (14) | -2% | 42 | 8% | (144) | -20% | 575 | 765 |
| **Corp Indices** | | | | | | | | | | | |
| IG Corp | 165 | (1) | -1% | (3) | -2% | 30 | 22% | (19) | -10% | 162 | 236 |
| HY Corp | 591 | (23) | -4% | (56) | -9% | 139 | 31% | (111) | -16% | 591 | 876 |
| **Non-Agency MBS** | | | | | | | | | | | |
| **Legacy Spreads** | | | | | | | | | | | |
| Jumbo Fixed | 275 | 0 | 0% | (5) | -2% | 55 | 25% | 15 | 6% | 260 | 310 |
| Alt-A Floater | 305 | 0 | 0% | 0 | 0% | 55 | 22% | 20 | 7% | 285 | 330 |
| Option ARM | 305 | 0 | 0% | (10) | -3% | 60 | 24% | 5 | 2% | 300 | 370 |
| Current Pay Subprime | 225 | 0 | 0% | 0 | 0% | (25) | -10% | (35) | -13% | 225 | 260 |
| LCF Subprime | 335 | 0 | 0% | 0 | 0% | 60 | 22% | 35 | 12% | 300 | 375 |
| **New Issue Spreads** | | | | | | | | | | | |
| NPL A1 | 320 | 0 | 0% | (30) | -8% | 2 | 1% | (58) | -15% | 320 | 378 |
| NPL A2 | 636 | 0 | 0% | 11 | 2% | 243 | 62% | 146 | 30% | 490 | 636 |
| **SF Rental** | | | | | | | | | | | |
| A | 140 | (5) | -3% | 2 | 1% | 10 | 8% | (29) | -17% | 138 | 218 |
| B | 205 | (5) | -2% | 5 | 3% | 30 | 17% | (35) | -15% | 200 | 275 |
| C | 255 | (10) | -4% | (15) | -6% | 55 | 28% | (50) | -16% | 255 | 357 |
| D | 290 | (10) | -3% | (10) | -3% | 15 | 5% | (27) | -9% | 290 | 446 |
| E | 410 | (5) | -1% | (5) | -1% | 35 | 9% | (25) | -6% | 410 | 541 |
| F | 495 | (5) | -1% | (25) | -5% | 20 | 4% | (37) | -7% | 485 | 641 |
| **Risk Transfer** | | | | | | | | | | | |
| STACR Low LTV M1 | 135 | 0 | 0% | 0 | 0% | 5 | 4% | 9 | 7% | 124 | 135 |
| STACR Low LTV M2 | 170 | 0 | 0% | 0 | 0% | (34) | -17% | (40) | -19% | 155 | 230 |
| STACR Low LTV M3 (BB) | 318 | (2) | -1% | (2) | -1% | (52) | -14% | (137) | -30% | 310 | 540 |
| STACR Low LTV M3 (NR) | 408 | (2) | 0% | 3 | 1% | 8 | 2% | (62) | -13% | 395 | 590 |
| **CMBS Spreads** | | | | | | | | | | | |
| **Legacy Spreads** | | | | | | | | | | | |
| 2006/2007 A4s | 170 | 0 | 0% | 0 | 0% | 80 | 89% | 66 | 63% | 104 | 170 |
| 2006/2007 AMs | 250 | 0 | 0% | 0 | 0% | 117 | 88% | 50 | 25% | 200 | 350 |
| 2006/2007 AJs | 800 | 0 | 0% | 0 | 0% | (130) | -14% | 325 | 68% | 475 | 900 |
| **2015 On-the-Run Conduit Spreads** | | | | | | | | | | | |
| 5yr AAA | 80 | 0 | 0% | 0 | 0% | 30 | 60% | (15) | -16% | 80 | 98 |
| 10yr AAA | 115 | 0 | 0% | 0 | 0% | 25 | 28% | (20) | -15% | 100 | 149 |
| A-S | 145 | 0 | 0% | 0 | 0% | 20 | 16% | (20) | -12% | 145 | 200 |
| AA | 205 | 0 | 0% | (10) | -5% | 55 | 37% | (3) | -1% | 205 | 320 |
| A | 310 | 0 | 0% | (5) | -2% | 100 | 48% | 2 | 1% | 308 | 445 |
| BBB- | 625 | 0 | 0% | (25) | -4% | 240 | 62% | 110 | 21% | 515 | 800 |

Source: BofA Merrill Lynch Global Research, Bloomberg, S&P LCD / *S&P/LSTA Index spreads lag by a week.

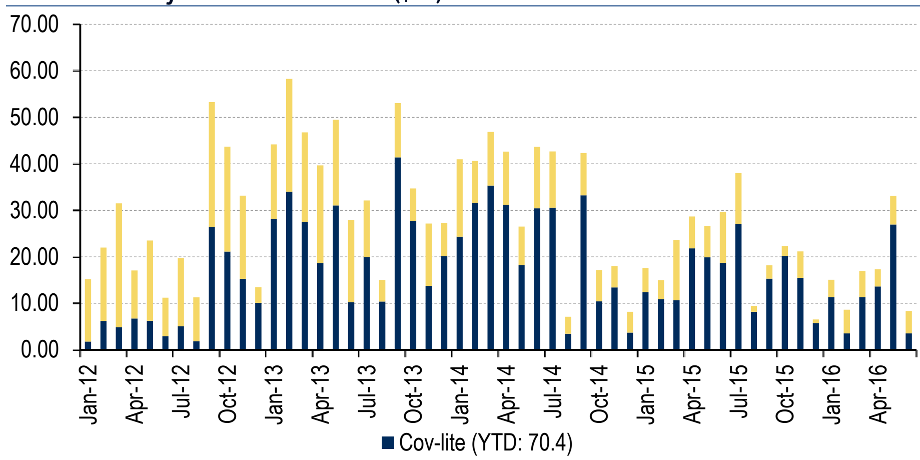
# CLO and institutional loan issuance

**Table 45: Global CLO issuance (mn)**

| | US BSL ($) | US Refi ($) | US MM ($) | Other ($) | Euro (€) |
|---|---|---|---|---|---|
| Jan-14 | 2,549 | 533 | 0 | 0 | 414 |
| Feb-14 | 7,636 | 0 | 731 | 0 | 800 |
| Mar-14 | 11,410 | 689 | 309 | 0 | 1,297 |
| Apr-14 | 10,823 | 1,007 | 1,506 | 375 | 1,027 |
| May-14 | 10,912 | 0 | 403 | 0 | 894 |
| Jun-14 | 12,893 | 380 | 704 | 0 | 2,491 |
| Jul-14 | 13,989 | 2,226 | 0 | 521 | 0 |
| Aug-14 | 10,950 | 1,139 | 358 | 0 | 1,084 |
| Sep-14 | 7,016 | 1,661 | 713 | 0 | 2,097 |
| Oct-14 | 10,083 | 0 | 1,078 | 0 | 1,802 |
| Nov-14 | 10,525 | 0 | 761 | 0 | 1,848 |
| Dec-14 | 7,847 | 0 | 407 | 0 | 739 |
| | | | | | |
| Jan-15 | 4,838 | 290 | 309 | 0 | 500 |
| Feb-15 | 9,384 | 0 | 0 | 1,112 | 1,268 |
| Mar-15 | 14,689 | 1,109 | 1,554 | 440 | 1,288 |
| Apr-15 | 9,772 | 1,743 | 409 | 170 | 1,331 |
| May-15 | 5,659 | 3,340 | 0 | 0 | 2,402 |
| Jun-15 | 11,556 | 1,816 | 1,192 | 0 | 768 |
| Jul-15 | 6,847 | 1,178 | 867 | 0 | 2,025 |
| Aug-15 | 5,610 | 572 | 0 | 0 | 0 |
| Sep-15 | 3,934 | 415 | 814 | 0 | 517 |
| Oct-15 | 7,739 | 0 | 413 | 0 | 827 |
| Nov-15 | 4,812 | 0 | 0 | 0 | 1,281 |
| Dec-15 | 6,554 | 0 | 901 | 0 | 1,348 |
| | | | | | |
| Jan-16 | 826 | 0 | 0 | 0 | 414 |
| Feb-16 | 1,726 | 120 | 826 | 0 | 410 |
| Mar-16 | 4,200 | 389 | 0 | 658 | 1,542 |
| Apr-16 | 4,420 | 0 | 1,007 | 481 | 1,793 |
| May-16 | 5,441 | 0 | 0 | 0 | 1,130 |
| Jun-16 | 2,782 | 0 | 0 | 0 | 1,236 |
| | | | | | |
| **2016 YTD** | 19,396 | 509 | 1,833 | 1,139 | 6,524 |
| **2015 Full Year** | 91,394 | 10,464 | 6,459 | 1,722 | 13,556 |

Source: BofA Merrill Lynch Global Research, Informa Global Markets, S&P LCD

**Chart 99: Monthly USD institutional loan ($bn)**




Source: BofA Merrill Lynch Global Research, S&P LCD



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BofA Merrill Lynch is currently acting as financial advisor to Hertz Corporation in connection with its approved plans to separate into two independent, publicly traded companies "Hertz" (comprised of the Hertz, Dollar, Thrifty, Firefly, and Donlen) and "HFRC" (the Hertz Equipment Rental Corporation), which was announced on March 18, 2014.

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We, Chris Flanagan, Alan Todd, CFA and Satish Mansukhani, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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