Securitized Products Strategy

Securitization Weekly

Bank of America Merrill Lynch

24 June 2016

Overview– Cap rates, rents, home prices, demographics and more Fed tightening

The Fed warned this week that "valuations in the CRE sector appear increasingly vulnerable to negative shocks". CRE valuations seem cheap to us, relative to global interest rates; but if the Fed disagrees, then downside is likely. We stick with our neutral stance across SP as we continue balancing short term concerns with our intermediate term optimism.

Agency MBS – Order amidst chaos

Our views across rates, convexity, supply, speeds, vol, risk assets, liquidity and positioning leads us to staying neutral. We revise August speeds higher. The impact on carry is already reflected into modestly wider spreads. The use of consumer trended data in underwriting may expand credit, but is unlikely to result in a pick up in refi speeds.

Non-agency MBS - Tale of borrowers who may never exit

The obvious highlight for the week was Brexit; trading in legacies virtually stopped on Friday while CRT outperformed Corps. SOL risk for mortgage foreclosure hangs in the balance as higher courts' verdict is currently awaited in FL, NY and NJ. Any meaningful surprises in aggregate recoveries seem unlikely; seasoned legacies and NPL pools can have concentrated risk.

CMBS – Slowing growth & tighter credit availabilty: hindering price appreciation & '06 loan refis

Spreads widened post Brexit vote, eliminating the tightening realized earlier this week. Remain neutral: wider cash bond spreads may seem like a buying opportunity, but they may be biased wider still. Brexit to have neg. effect on marginal properties' refinananceability. Y/Y CRE price gains likely lower than our 3% forecast.

ABS – Volatility failed to benefit on the run ABS

While growth expectations have moderated, new vehicle sales should be above 2015 levels, supporting auto ABS issuance. We expect spreads for seasoned FFELP ABS to remain under pressure, as roughly half of the market remains on review/watch.

CLO – UK exposure in European CLO 2.0 portfolios

Volatility and near-term downside risks remain elevated and we expect primary issuance to slow in the near term. We look at country, industry and currency exposure in European CLO 2.0 portfolios, following the UK vote to leave the EU. We retain our belief that the diversity of US CLO managers remains healthy and review the current US CLO manager landscape.

Securitized Products Strategy
United States

US
Chris Flanagan
MBS/CLO Strategist
MLPF&S
+1 646 855 6119
christopher.flanagan@baml.com

Satish Mansukhani
MBS Strategist
MLPF&S
+1 646 855 6441
satish.mansukhani@baml.com

Theresa O'Neill
ABS Strategist
MLPF&S
+1 646 855 9285
theresa.o'neill@baml.com

Alan Todd, CFA
CMBS Strategist
MLPF&S
+1 646 855 6383
alan.todd@baml.com

Europe
Alexander Batchvarov, CFA
Int'l Str. Fin. Strategist
MLI (UK)
+44 20 7995 8649
alexander.batchvarov@baml.com

See Team Page for Full List of Contributors

Link to Common acronyms

Overview

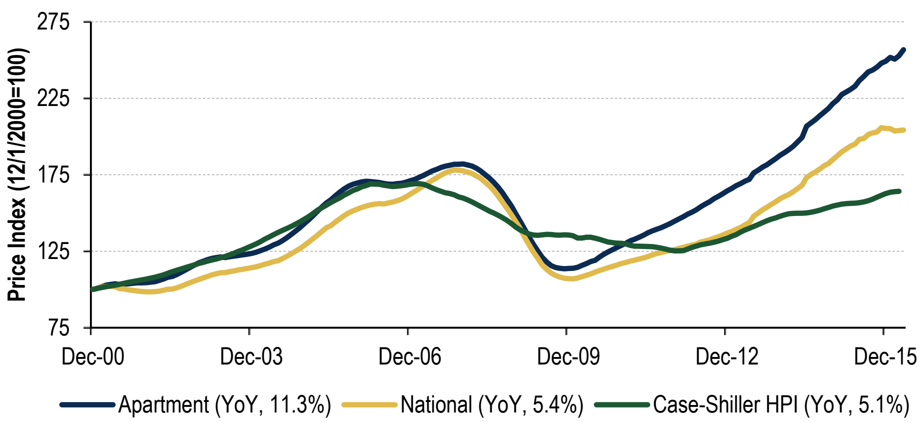
Chris Flanagan
MLPF&S
christopher.flanagan@baml.com

Mao Ding
MLPF&S
mao.ding@baml.com

Cap rates, rents, home prices, demographics and more Fed tightening

In this week's Monetary Policy Report to Congress, the Fed warned that "valuations in the CRE (commercial real estate) sector appear increasingly vulnerable to negative shocks, as CRE prices have continued to outpace rental income and exceed, by some measures, their pre-crisis levels." Chart 1 shows prices for CRE, along with the multifamily price index and the Case Shiller home price index. Multifamily has been especially strong.

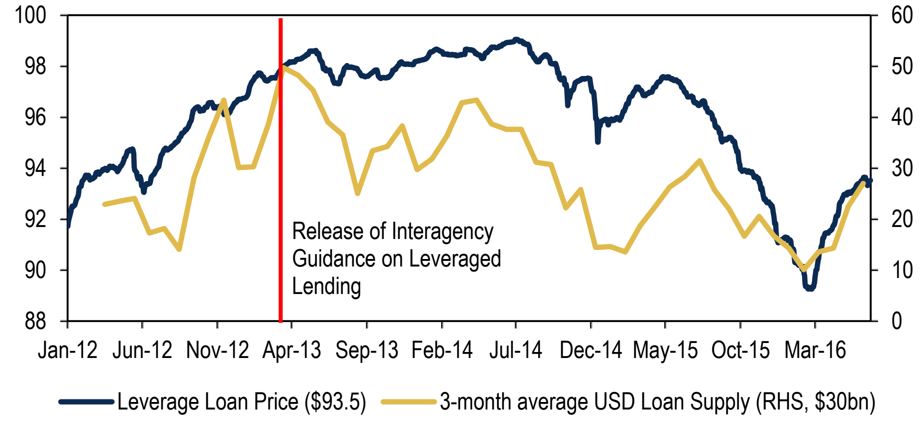
Chart 1: Case-Shiller HPI vs. CRE Price (all and multifamily properties)



Source: S&P/Case-Shiller, RCA

The Fed also noted that "banks tightened lending standards in the fourth quarter of 2015 and first quarter of 2016." The Fed appears to be weighing in on CRE with an intent to constrain lending, which we view as akin to its Guidance on Leveraged Lending in March 2013, albeit perhaps in a lesser form. Note that since that Leveraged Lending Guidance release in 2013, the leveraged loan price index dropped from about 98 to as low as 89 this past February, and is now at 93.5 (Chart 2). Loan supply went from a peak of averaging $50 billion per month to more recent levels of $10-$30 billion. The bottom line: leveraged loan origination and prices both declined in the wake of regulatory tightening.

Chart 2: Leverage loan price and 3-month moving average monthly USD loan supply ($bn)



Source: S&P/LCD

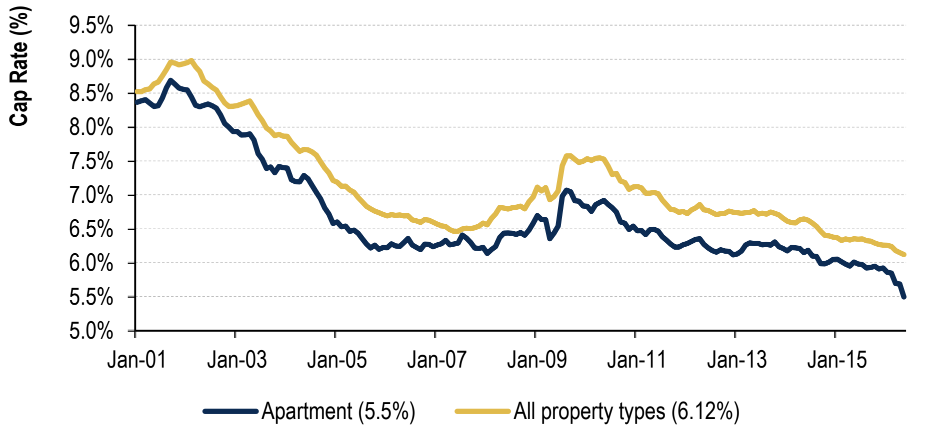
Will the price and origination declines on leveraged loans since regulatory guidance be replicated on CRE loans? We've observed that when the Fed talks, people, especially banks that the Fed regulates, listen. So the answer to the question is "probably, at least to some degree."

We found it remarkable that the Fed seems to want to rein in CRE lending, presumably as part of its financial stability mandate, given that it is simultaneously attempting to raise interest rates. In the past, we've referred to these regulatory activities as "regulatory tightening" (see 2014 Securitized Products Outlook: Regulatory tightening sustains monetary easing). With this initiative on CRE lending, the Fed appears willing to simultaneously engage in both regulatory and monetary tightening.

We believe this part of regulatory tightening is both unnecessary, since it targets an asset class that is probably cheap given the level of global interest rates, and potentially harmful to the economy on a number of fronts, including pressuring CRE prices lower by reducing credit availability, reducing construction job growth potential and pressuring rents for multifamily tenants higher.

To assess why we think the Fed's focus on CRE lending is misguided, we consider cap rates relative to global interest rates. Yes, CRE cap rates are at historic lows (Chart 3, all sectors and multifamily), but so are global interest rates, which are even negative in many instances. We should note up front that, although we think CRE valuations are arguably relatively cheap, this does not mean we are especially bullish on the sector. If the Fed follows through and reins in CRE lending, which it is quite capable of doing in its regulatory capacity, CRE prices are likely to decline. Asset prices will be difficult to sustain without credit availability. "Don't fight the Fed" is as relevant on the downside as it is on the upside.

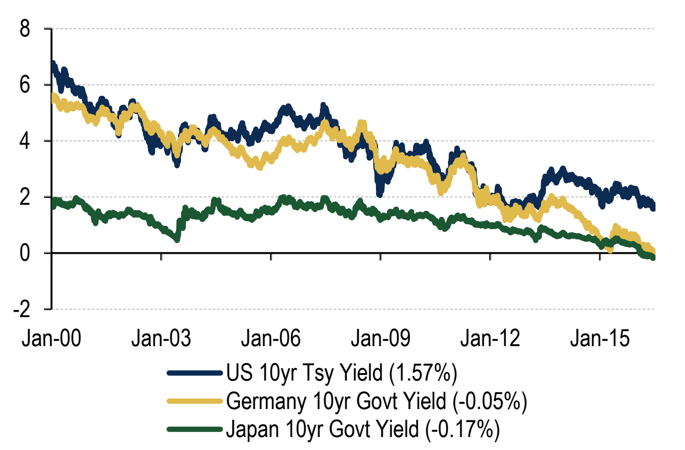
Chart 3: Cap rates for all commercial real estate and for multifamily properties



Source: RCA

We start the analysis with a review of global interest rates. Chart 4 shows the 10yr yield in Japan, Germany and the US, currently at -0.17%, -0.05% and 1.57%. Obviously, central banks have played a role in the interest rate decline, but as we discussed in "Demography is destiny," we think a major factor underlying the decline in global interest rates is the aging of developed economy populations. Table 1 captures this dynamic by showing the % of populations over 65, in both 2015 and 2050. Our simple premise from our earlier article is that aging is deflationary. Japan and Germany, where 10yr yields are negative, are among the oldest countries in the world. While the US is younger (and will stay so in the years ahead), meaning there are less age-related deflationary pressures in the US, interest rates have been unable to decouple from global downward pressures, so 10yr yields are still near record lows.

Chart 4: US, Germany and Japan 10yr government yield



Source: Bloomberg

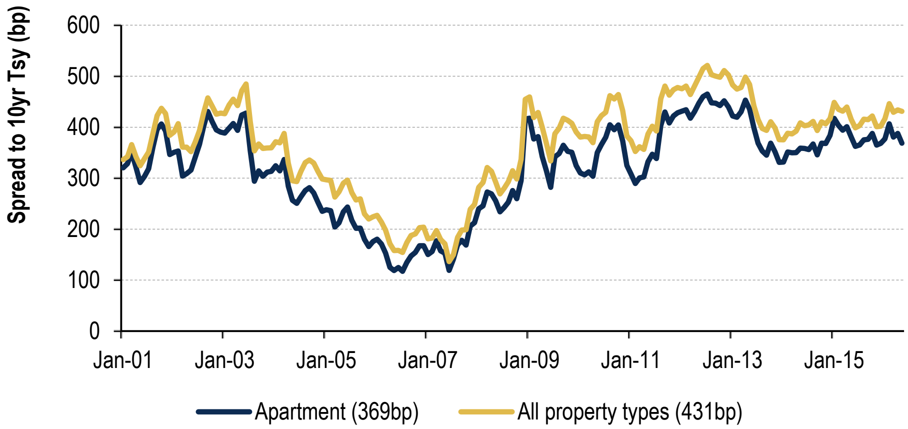
Table 1: % of population with a 65-year or older age

Country	2015	2050
Japan	26%	37%
Italy	22%	33%
Germany	21%	33%
Spain	18%	35%
UK	17%	24%
US	15%	21%
Australia	15%	22%
Russia	13%	20%
China	9%	24%
Brazil	8%	23%
India	5%	13%
Average	15%	26%

Source: UN DESA

Chart 5 shows the spread to the 10yr treasury for the all-sector CRE cap rate, as well as the national multifamily cap rate. Focusing on multifamily, we see that the spread is in fairly normal territory relative to the past 15 years, if not on the wide side. Notably, it has been trending wider since December 31, 2013, when the multifamily spread hit a recent low of 331 basis points; it is now almost 40 basis points wider, at 369 basis points. In our view, it's no coincidence that the post-crisis tight occurred precisely just before the Fed started to taper its QE3 MBS purchases (ie tightening commenced). Fed tightening, either monetary or regulatory, seems to drive cap rate spreads wider.

Chart 5: Spread to the 10yr treasury for the all-sector CRE and multifamily cap rate



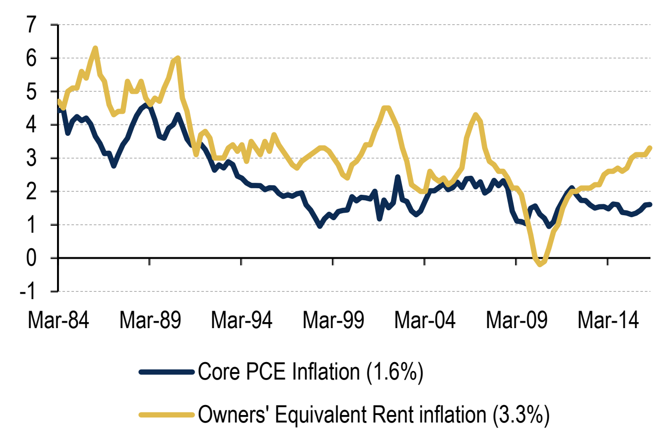
Source: RCA

As far as relative value goes, in the past 15 years, the only time the multifamily cap rate spread was consistently wider than the current level was from August 2011 (US debt downgrade) to May 2013, a period deemed so economically stressful that QE3 was considered necessary. In other words, in the past, when multifamily cap rates were near current levels, the Fed responded with extraordinary monetary easing, not regulatory and monetary tightening as in this instance. The current spread seems wide by historical standards, but given the Fed's current tightening (regulatory and monetary) proclivities, there is a good chance that the cap rate spread will widen further. The same appears to be true for the broader cap rate spread measure.

Next, we consider rents and home prices.

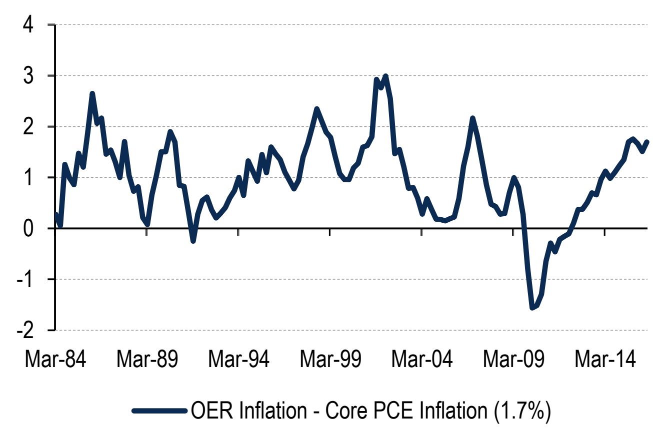
Rent inflation has been strong in recent years. Chart 6 mixes measures somewhat, showing owners' equivalent rent inflation along with core PCE inflation: the last data points are 3.26% and 1.60%, respectively. Chart 7 shows the spread between the two; the rising differential highlights the fact that rent inflation has been a large driver of what little inflation we do have and how elevated rent inflation is. Many factors have contributed to strong rent inflation, including the difficulties associated with obtaining a mortgage and buying a home in the post-crisis environment (more regulatory tightening).

Chart 6: Owners' Equivalent Rent (OER) inflation vs. Core PCE inflation



Source: Bureau of Labor Statistics

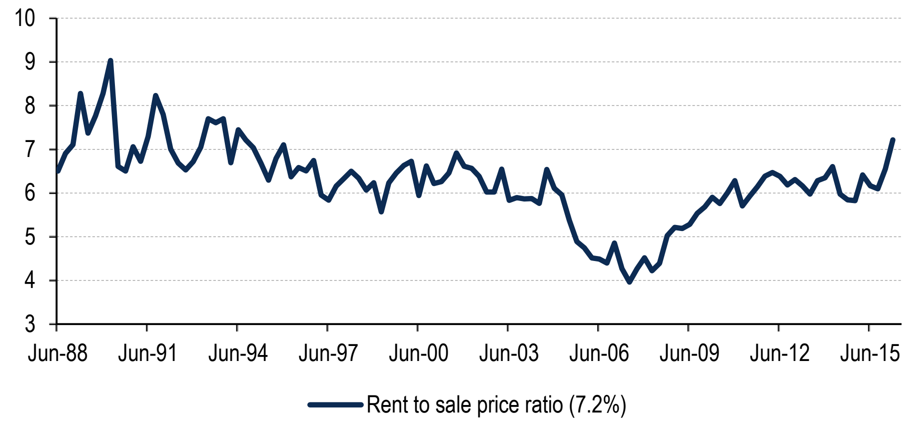
Chart 7: The spread between OER inflation and Core PCE inflation



Source: Bureau of Labor Statistics

Chart 8, the rent to price ratio over the last thirty years, provides some insight into what tight mortgage lending standards have done: the rent to price ratio is the highest since 1994. As noted in 2016's "The State of the Nation's Housing" report from the Joint Center for Housing Studies of Harvard University, "it has been three decades since (rental vacancy rates and rent inflation) registered such tightness in the rental market." We struggle to understand how tightening multifamily lending (if that is indeed what the Fed is doing) is an appropriate policy response to this condition (particularly if the cap rate spread is relatively wide by historical standards).

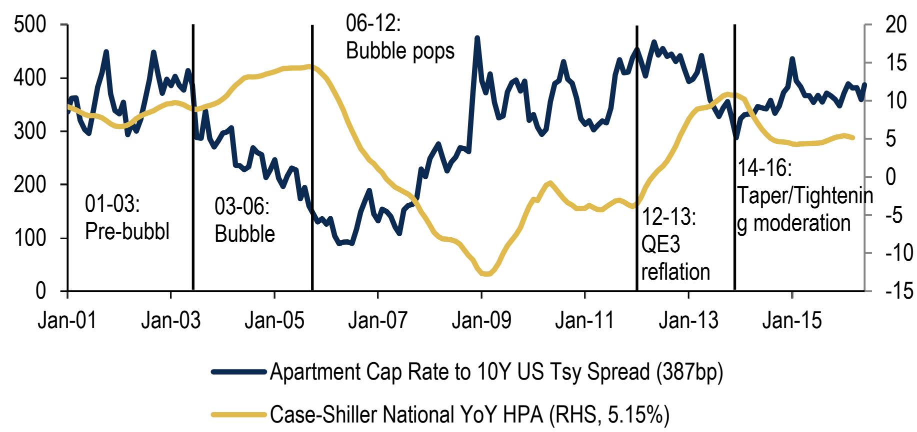
Chart 8: Rent to price ratio



Source: U.S. Census Bureau

Chart 9 compares home price growth with the multifamily cap rate spread. The most noteworthy period in which widening cap rate spreads were accompanied by declining home price growth was 2006-2008. 2014-2016 has also seen a far more modest co-occurrence, although home price growth has remained remarkably resilient over the past year. At a minimum, home price growth should slow if the multifamily cap rate spread widens. That may be the policy objective, but like driving up rents, it seems like an unusual objective.

Chart 9: Case-shiller home price growth vs. multifamily cap rate to 10yr treasury spread



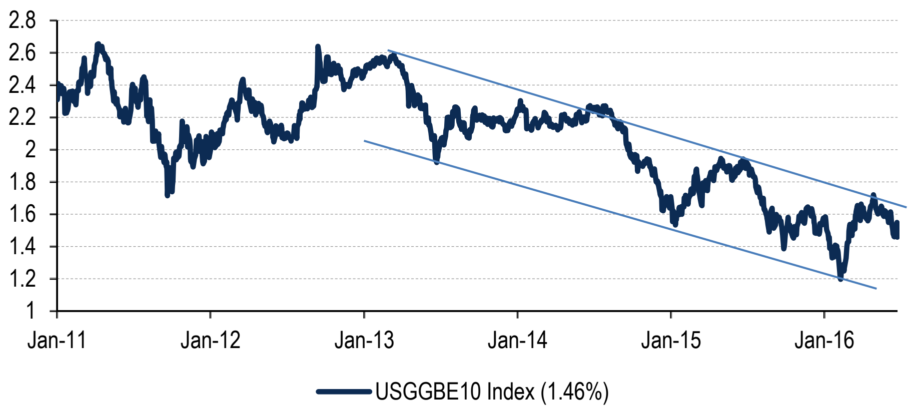
Source: S&P/Case-Shiller, RCA

Brexit, breakeven inflation and securitized products valuations

We keep our Brexit commentary to a bare minimum, and simply refer to our breakeven inflation framework. On the week, although there were some big intraday swings, the 10yr breakeven rate was essentially unchanged at about 1.46%. In effect, the event was not particularly tumultuous for our securitized products valuation framework. If anything, Brexit was a positive for securitized products in that it likely lowered the chances of the Fed raising rates anytime soon (see last week's piece, "Check, but not checkmate: the Fed plays on").

Chart 10 shows that the 10yr breakeven rate is still stuck in the downward channel that began with taper talk in 2013. We still believe that the end game for the Fed in the current environment is to fold on its tightening plans in order to drive the breakeven rate higher, and that securitized products will benefit from this scenario. This week probably was a mini-fold by the Fed, as expectations of an ease by the Fed sometime this year began to creep into the market; we expect more capitulations will come. This week also saw some intra-week volatility and downside for securitized products, which we anticipate will remain part of the landscape over the near term. We stick with our neutral stance across securitized products, as we continue to balance short term concerns with our intermediate term optimism about securitized products return potential.

Chart 10: 10yr breakeven inflation rate



Source: Bloomberg

Table 2 and Table 3 provided updated views of valuations across securitized products, as well as the WOW performance within the framework. Performance was reasonably solid and stable across all securitized products sectors within the framework. The biggest losers within the framework were agency MBS derivatives, oil, CLO mezz, S&P, and NASDAQ 100; the biggest winner was synthetic CMBX. Part of the strength for securitized products is that there is little trading into heightened volatility.

Table 2: Pricing regression vs. 10yr breakeven inflation rates (1Y lookback)

			12/29/2015			2/10/2016			6/17/2016			6/24/2016			
10yr Breakeven Inflation Rate			1.56			1.20			1.46			1.46			
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	35.0	25%	77.6	72.4	7.2%	59.0	59.8	-1.4%	64.4	69.2	-6.9%	62.7	69.0	-9.2%	-2.2%
CLO 2.0 BB	25.8	30%	85.5	83.0	2.9%	74.2	73.7	0.7%	77.4	80.7	-4.0%	75.1	80.6	-6.8%	-2.7%
CLO 2.0 BBB	14.8	28%	93.0	91.8	1.3%	85.5	86.5	-1.1%	90.5	90.4	0.1%	88.9	90.4	-1.6%	-1.7%
CMBX 7 BBB- Synthetic	21.8	52%	94.6	92.5	2.3%	82.0	84.6	-3.2%	88.9	90.4	-1.7%	89.3	90.4	-1.2%	0.5%
CMBX 7 BBB- Cash	14.7	41%	91.7	91.9	-0.3%	85.3	86.6	-1.6%	89.5	90.6	-1.1%	89.6	90.5	-1.0%	0.1%
Subprime 06 LCF	7.5	18%	65.8	63.8	3.2%	59.0	61.1	-3.4%	62.5	63.0	-0.9%	62.5	63.0	-0.9%	0.0%
NASDAQ 100 Stock	736.8	35%	4,691.1	4,410.0	6.4%	3,966.3	4,144.8	-4.3%	4,374.4	4,341.5	0.8%	4,301.5	4,339.3	-0.9%	-1.6%
Alt-A FRM	4.7	29%	76.0	76.4	-0.6%	74.5	74.7	-0.3%	75.6	76.0	-0.5%	75.6	76.0	-0.5%	0.0%
Jumbo FRM	4.6	27%	95.1	94.9	0.2%	92.7	93.2	-0.6%	94.1	94.5	-0.4%	94.1	94.5	-0.4%	0.0%
CLO 2.0 AA	4.1	42%	98.3	98.2	0.2%	96.4	96.7	-0.3%	98.2	97.8	0.4%	97.6	97.8	-0.2%	-0.7%
CMBX 7 A Synthetic	17.4	54%	95.3	94.3	1.1%	86.3	88.0	-2.0%	92.4	92.6	-0.2%	92.6	92.6	0.0%	0.3%
CLO 2.0 AAA	1.3	41%	99.1	99.3	-0.2%	98.9	98.8	0.0%	99.7	99.2	0.5%	99.4	99.2	0.2%	-0.3%
CLO 2.0 A	6.1	48%	97.4	97.4	0.0%	95.1	95.1	-0.1%	98.2	96.8	1.5%	97.1	96.8	0.4%	-1.1%
HY CDX	14.7	74%	101.0	102.1	-1.1%	97.0	96.9	0.2%	102.0	100.7	1.3%	101.7	100.7	1.0%	-0.4%
Option ARM	5.5	23%	69.2	69.9	-1.1%	66.9	67.9	-1.5%	70.3	69.4	1.3%	70.3	69.4	1.3%	0.0%
HY Loans	10.6	53%	91.2	92.9	-1.8%	89.8	89.1	0.8%	93.5	91.8	1.8%	93.5	91.9	1.8%	0.0%
S&P	376.2	57%	2,078.4	2,022.3	2.8%	1,851.9	1,886.9	-1.9%	2,071.2	1,985.0	4.3%	2,037.1	1,986.2	2.6%	-1.8%
CMBX 7 A Cash	7.4	36%	101.4	102.8	-1.3%	99.3	100.1	-0.8%	104.9	102.0	2.9%	104.8	102.1	2.7%	-0.1%
US HG Corp	3.9	13%	102.0	104.2	-2.1%	102.7	102.8	-0.1%	107.1	103.7	3.3%	106.8	103.8	2.9%	-0.4%
STACR 2014-DN2 M3	14.0	61%	93.3	93.8	-0.5%	88.3	88.7	-0.4%	96.1	92.3	4.1%	96.0	92.4	3.9%	-0.2%
US HY Corp	20.0	59%	88.5	91.9	-3.7%	84.6	84.7	-0.1%	94.5	89.8	5.3%	95.6	90.0	6.3%	1.0%
Oil Price	36.9	59%	37.9	41.8	-9.4%	27.5	28.5	-3.8%	48.0	38.0	26.4%	47.6	38.3	24.4%	-2.0%

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.

Table 3: Spreads/yields regression vs. 10yr breakeven inflation rates (1Y lookback)

			12/29/2015			2/10/2016			6/17/2016			6/24/2016			
10yr Breakeven Inflation Rate			1.56			1.20			1.46			1.46			
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)	-102.7	5%	255.3	290.2	-34.9	242.0	327.2	-85.2	285.0	300.2	-15.2	360.0	300.2	59.8	74.9
G2SF 3.5 to 10yr Tsy	-27.7	21%	40.4	46.0	-5.6	66.1	55.9	10.2	60.1	48.1	12.0	64.7	48.7	16.0	4.1
FNCL 3.5 to 10yr Tsy	-29.7	24%	61.4	65.5	-4.1	84.1	76.2	7.9	83.1	68.0	15.1	82.7	68.4	14.3	-0.8
Freddie K A2	-64.9	69%	85.0	77.7	7.3	98.0	101.0	-3.0	80.0	84.0	-4.0	84.0	84.0	0.0	4.0
IG CDX	-80.3	76%	89.7	86.5	3.2	121.5	115.4	6.1	82.8	94.3	-11.6	86.7	94.3	-7.6	3.9
AAA Prime Auto	-20.6	15%	57.0	46.7	10.3	47.0	54.2	-7.2	37.0	49.1	-12.1	37.0	48.8	-11.8	0.3
AAA Subprime Auto	-46.0	34%	90.0	80.8	9.2	90.0	97.4	-7.4	67.0	85.8	-18.8	67.0	85.3	-18.3	0.5
CMBX 7 AAA Synthetic	-64.0	67%	98.6	99.9	-1.3	132.7	122.9	9.8	95.3	106.5	-11.2	87.7	106.1	-18.4	-7.2
CMBX 7 AAA Cash	-92.0	70%	123.6	113.8	9.8	147.0	146.9	0.1	105.3	123.3	-18.0	102.1	122.8	-20.8	-2.7
10yrTsy Yield	85.0	28%	230.6	201.8	28.8	166.9	171.2	-4.3	160.9	194.7	-33.8	158.3	193.5	-35.2	-1.4
IOS FN30.300.12	185.2	16%	-2.6	-46.6	44.0	-160.0	-113.3	-46.8	-147.9	-62.9	-85.0	-119.4	-64.7	-54.7	30.3

Source: BofA Merrill Lynch Global Research, Bloomberg

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

Spreads, issuance and volumes

Table 4: 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%	50	20%	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%	25	17%	20	13%	150	170
NPL A1	297	(9)	-3%	(23)	-7%	4	2%	(81)	-21%	297	378
NPL A2	653	17	3%	17	3%	259	66%	163	33%	490	653
SFR											
A	145	5	4%	7	5%	13	10%	(24)	-14%	138	218
B	210	5	2%	10	5%	33	19%	(30)	-13%	200	275
C	265	10	4%	5	2%	62	31%	(40)	-13%	255	357
D	300	10	3%	10	3%	22	8%	(17)	-5%	290	446
E	420	10	2%	5	1%	42	11%	(15)	-3%	410	541
F	510	15	3%	25	5%	32	7%	(22)	-4%	485	641
Credit Risk Transfer											
STACR Low LTV M1	135	0	0%	0	0%	2	2%	9	7%	124	135
STACR Low LTV M2	180	10	6%	10	6%	(65)	-27%	(30)	-14%	155	230
STACR Low LTV M3 (NR)	420	(2)	0%	10	2%	(4)	-1%	(50)	-11%	395	590
STACR Low LTV B (NR)	1,017	0	0%	0	0%	175	21%	147	17%	870	1,077
STACR High LTV M1	110	0	0%	0	0%	(16)	-13%	(25)	-19%	110	155
STACR High LTV M2	240	10	4%	10	4%	(5)	-2%	(15)	-6%	230	295
STACR High LTV M3 (NR)	420	(4)	-1%	(34)	-7%	(1)	0%	(50)	-11%	410	585
CAS Low LTV M1	165	0	0%	0	0%	28	20%	9	6%	156	175
CAS Low LTV M2	495	8	2%	25	5%	57	13%	(20)	-4%	440	685
CAS High LTV M1	170	0	0%	0	0%	33	24%	14	9%	156	170
CAS High LTV M2	485	(1)	0%	19	4%	48	11%	(27)	-5%	440	680
CAS Actual Loss Low LTV M1	180	0	0%	0	0%			26	17%	154	215
CAS Actual Loss Low LTV M2	505	(2)	0%	15	3%			(40)	-7%	463	690
CAS Actual Loss High LTV M1	210	0	0%	0	0%			45	27%	165	220
CAS Actual Loss High LTV M2	530	(2)	0%	15	3%			(5)	-1%	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%	115	85%	50	25%	200	350
2016 on-the-run Conduit Spreads											
3yr AAA	67	0	0%	2	3%	27	68%	(8)	-11%	65	80
5yr AAA	82	0	0%	2	3%	20	32%	(13)	-14%	80	98
A-SB	102	0	0%	(3)	-3%	22	28%	(28)	-22%	100	149
10yr AAA	121	4	3%	6	5%	26	27%	(14)	-10%	115	165
A-S	156	7	5%	11	8%	26	20%	(9)	-5%	145	200
AA	220	10	5%	15	7%	65	42%	12	6%	205	320
A	337	17	5%	27	9%	117	53%	29	9%	308	445
BBB-	665	25	4%	40	6%	280	73%	150	29%	515	800

CLO	**Current Level**	**bp**	**%**	**bp**	**%**	**bp**	**%**	**bp**	**%**	**YTD Min**	**YTD Max**
1.0											
AAA	165	0	0%	0	0%	15	10%	15	10%	150	175
AA	240	0	0%	0	0%	65	37%	40	20%	200	250
A	300	0	0%	(25)	-8%	50	20%	25	9%	275	325
BBB	400	0	0%	(25)	-6%	50	14%	50	14%	350	425
BB	625	0	0%	(25)	-4%	125	25%	140	29%	485	650
2.0											
AAA	155	5	3%	5	3%	15	10%	(5)	-3%	155	185
AA	220	10	5%	10	5%	35	18%	(5)	-2%	215	275
A	315	15	5%	15	5%	40	14%	(5)	-1%	315	400
BBB	550	25	5%	25	5%	150	35%	75	15%	500	650
BB	975	50	5%	50	5%	375	58%	200	24%	825	1,200
B	1,450	50	3%	50	3%	650	76%	450	43%	1,050	1,550

Source: BofA Merrill Lynch Global Research

Table 5: 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	16.7	260	36.6
2	CLO 2.0 AAA	160	15.8	168	24.3
3	CAS Low LTV M1	165	15.8	155	6.4
4	CAS High LTV M1	170	14.9	155	6.7
5	Prime Auto-Fixed BBB 5Y	160	14.2	175	10.4
6	LCF Subprime	335	12.6	300	23.2
7	CLO 2.0 AA	230	12.1	235	12.0
8	CLO 2.0 A	330	12.1	335	15.4
9	Alt-A Floater	305	11.8	270	28.9
10	Credit Card FL 5Y BBB	110	11.5	105	8.9
11	SFR F	510	11.0	532	10.0
12	STACR High LTV M3 (NR)	420	10.9	454	13.1
13	STACR High LTV M2	240	10.9	240	9.0
14	SFR E	420	10.8	429	9.9
15	USD Lev Loans	522	10.1	576	22.3
16	Jumbo Fixed	275	10.1	245	30.3
17	FNCL 4.0	74	10.1	91	8.1
18	STACR Low LTV M2	180	9.8	200	8.5
19	CAS High LTV M2	485	9.8	493	12.4
20	CAS Low LTV M2	495	9.7	501	11.5
21	Option ARM	305	9.4	285	20.7
22	CLO 2.0 BBB	575	9.3	500	15.7
23	STACR Low LTV M3 (NR)	420	9.3	453	13.5
24	STACR High LTV M1	110	8.9	135	7.6
25	UK RMBS (AAA)	43	8.6	40	6.6
26	Credit Card FL 5Y AAA	58	8.5	65	7.5
27	CMBS 3.0 5yr (AAA)	82	8.2	81	8.0
28	Freddie K A2	84	7.6	80	6.5
29	Private SL Class BBB	330	7.5	350	11.6
30	IG Corp Index	163	7.3	181	9.5
31	SFR B	210	7.3	240	9.1
32	CLO 2.0 BB	1,025	7.0	825	14.2
33	CMBS 3.0 10yr LCF (AAA)	121	6.6	126	9.3
34	SFR A	145	6.6	166	11.7
35	FNCL 3.5	95	6.4	92	9.6

Source: BofA Merrill Lynch Global Research

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

Table 6: 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	20	13	0	7
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	20	9	2	1	1	6	24	12	5	7
Jun-16	101	30	29	42	NA	4	1	0	1	2	12	5	4	3
2016 YTD	590	218	157	215	76	27	7	1	3	15	93	54	14	24
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	122	105	9	9	170	72	488
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	9	8	1	0	6	133	54	19	33	162	56	457
2016 YTD	85	59	19	7	25	819	675	99	121	1,019	358	3,091
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 7: 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	2,286	14,602	14,919	11,664	14,342	2,279	2,646	3,390	11,319	20,306	6,444	66,669	54,359	85,315	2,288,321	348,311	760,474
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	17,182	135,021	115,192	88,501	99,917	17,276	27,636	16,960	90,063	83,154	56,353	592,103	402,232	584,004	15,373,269	2,120,986	4,866,437
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	17%	-29%	-15%	-29%	-25%	-23%	2%	-10%	14%	0%	-6%	4%	10%	38%	-12%	2%	16%

Source: TRACE

Note: the volumes include derivatives. Volumes as of 6/23/2016

Markets

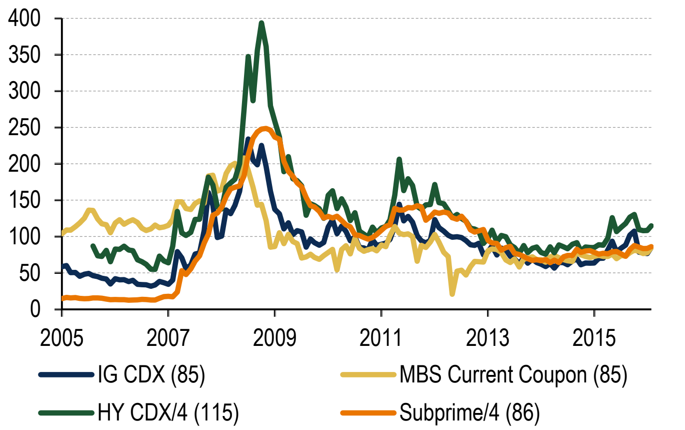
Market performance across key sectors is shown in Chart 11 though Chart 18 and Table 8 and Table 9.

Table 8: 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	8	6	4	3	2	4
February 29, 2016 - June 23, 2016	18	13	14	19	19	9
G2SF/GNSF (5, 5.5)	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**	**5.5**
WoW	14	11	12	3	2	4
February 29, 2016 - June 23, 2016	19	14	-1	-6	16	-26
FNCI	**2.5**	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**
WoW	6	5	3	2	3	0
February 29, 2016 - June 23, 2016	20	13	14	-20	-14	-5

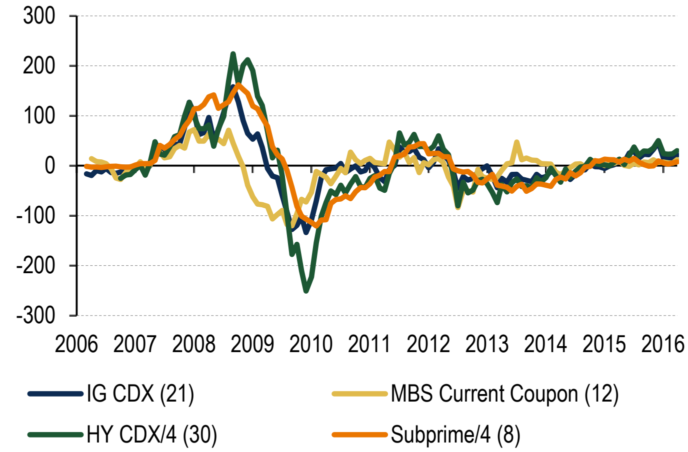
Source: BofA Merrill Lynch Global Research

Chart 11: Fixed income spreads (HY and subprime spread divided by 4 to normalize)



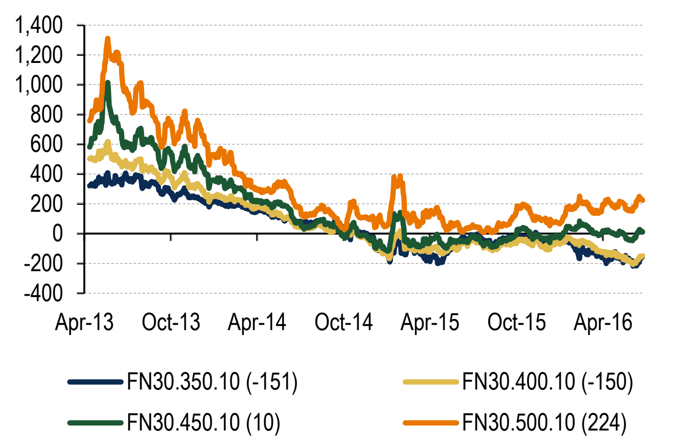
Source: BofA Merrill Lynch Global Research, Bloomberg

Chart 12: Fixed income YoY spread change (HY and subprime YoY change divided by 4 to normalize)



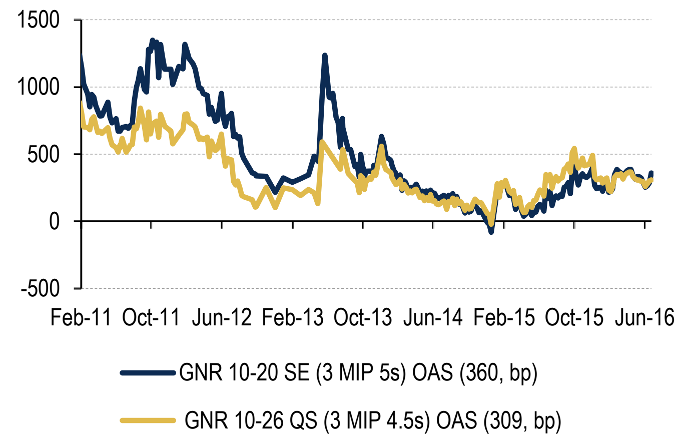
Source: BofA Merrill Lynch Global Research, Bloomberg

Chart 13: IOS OAS



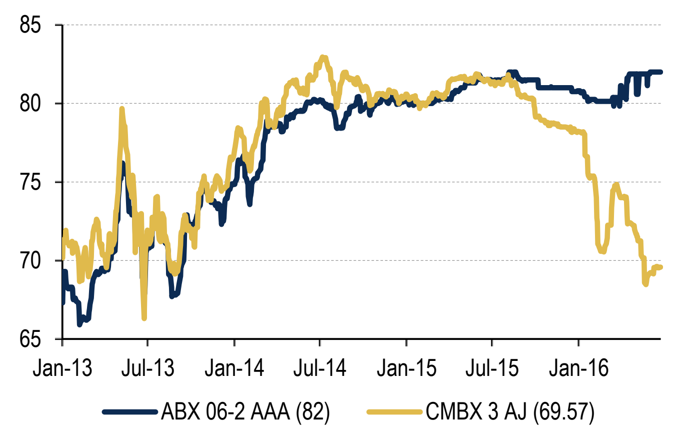
Source: BofA Merrill Lynch Global Research

Chart 14: Inverse IOS OAS



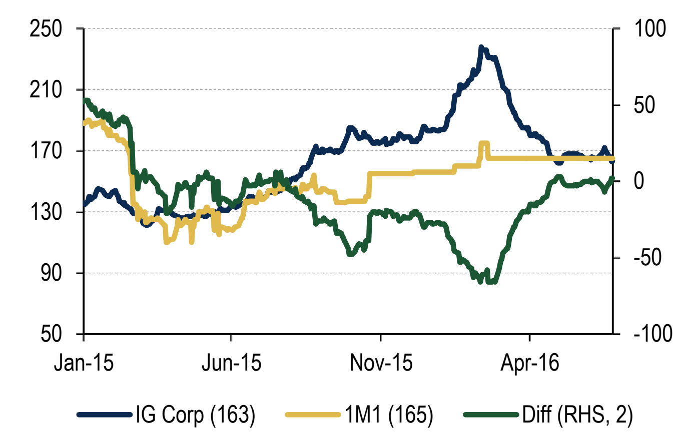
Source: BofA Merrill Lynch Global Research

Chart 15: ABX 06-2 AAA and CMBX 3 AJ Prices



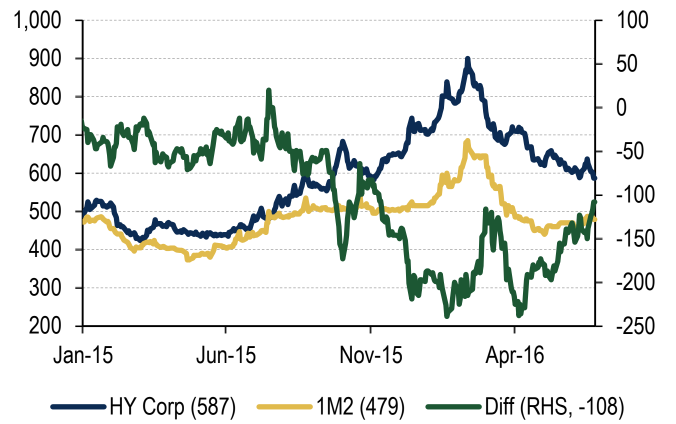
Source: Markit

Chart 16: On-the-run spread for low LTV CAS BBB vs. IG Corp



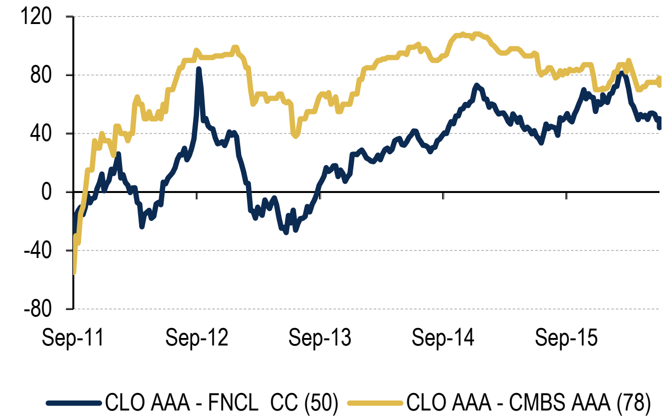
Source: BofA Merrill Lynch Global Research
Note: spreads are as of 6/23/2016

Chart 17: On-the-run spread for low LTV CAS NR vs. HY Corp



Source: BofA Merrill Lynch Global Research
Note: spreads are as of 6/23/2016

Chart 18: CLO AAA spread to CMBS AAA and FNCL Current Coupon



Source: BofA Merrill Lynch Global Research

Table 9: Prices and spreads across sectors

	Benchmark	6/23/16	6/16/16	1/8/15	1/2/14	Change 6/16/16	Change 1/8/15	Change 1/2/14
Agency MBS								
FNCL 3 OAS	LIBOR	21	21	-6	34	1	28	-12
FNCL 3 ZVOAS	LIBOR	93	102	53	42	-9	39	51
FNCL 3.5 OAS	LIBOR	19	18	-1	21	2	21	-2
FNCL 3.5 ZVOAS	LIBOR	95	94	68	38	2	27	58
FNCL 4 OAS	LIBOR	28	30	-29	15	-2	56	13
FNCL 4 ZVOAS	LIBOR	74	70	47	46	3	27	27
FNCL 4.5 OAS	LIBOR	21	26	-21	14	-4	42	8
FNCL 4.5 ZVOAS	LIBOR	47	51	23	55	-4	23	-9
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	479	487	474	437	-8	5	42
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		73	69	47	65	4	27	9
CMBX 3 AM		421	410	168	252	12	253	170
CMBX 3 AJ		4,833	4,698	1,093	1,010	134	3,740	3,822
CLOs								
AAA 1.0	LIBOR	165	165	70	110	0	95	55
AAA 2.0	LIBOR	160	155	163	150	5	-3	10
Corporates								
CDX IG		76	83	69	63	-6	8	13
CDX HY		422	450	366	313	-28	56	109

	6/23/16	6/16/16	1/8/15	1/2/14	Change 6/16/16	Change 1/8/15	Change 1/2/14
Equities							
S&P 500	2,113	2,078	2,062	1,832	35	51	281
KBW Bank Index	69	66	72	69	3	-3	0
Swaps							
5 Year	-4	-2	15	5	-2	-18	-9
10 Year	-12	-13	12	7	1	-24	-19
Commodities							
Gold	1,257	1,278	1,209	1,224	-22	48	32
Crude Oil	49	46	49	95	3	0	-46
Sovereign CDS							
UK	36	41	20	27	-5	16	9
Germany	19	20	18	25	-1	1	-6
France	36	40	49	52	-4	-13	-16
Spain	100	107	99	143	-7	1	-43
Italy	138	148	141	156	-9	-3	-18
Rates							
3M10Y Swap Spread	98	79	188	281	19	-90	-183
GT10 Yield	1.74	1.56	2.01	2.98	18	-28	-125
3M10Y BP Vol	76	82	83	81	-6	-7	-5
3Y10Y BP Vol	84	87	88	100	-3	-4	-16
Risk							
VIX	17	19	17	14	-2	0	3
FRA-OIS	27	28	14	16	-1	13	11
Euribor-OIS	8	9	11	13	-1	-2	-4
EUR Basis Swap 3M	-36	-39	-14	-3	3	-22	-33
MBS Index OAS	24	31	16	36	-7	8	-12
OAS / Gov Yield	18	26	11	22	-8	7	-4

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

Agency MBS

Chris Flanagan
MLPF&S
christopher.flanagan@baml.com

Satish Mansukhani
MLPF&S
satish.mansukhani@baml.com

Michael Khankin, CFA
MLPF&S
michael.khankin@baml.com

Ashwin Rastogi
MLPF&S
ashwin.rastogi@baml.com

Orderly performance, stay neutral

We stay neutral the MBS sector after incorporating views across the mix of vantage points; rates, convexity, supply, speeds, volatility, liquidity and positioning.

Until key rate thresholds are breached – we estimate a 3,25% primary mortgage rate, 20bps lower than market implied levels – refi exposure and speed increases will be pocketed, while structural shifts in the landscape mute down convexity risks.

MBS remain wide to corporates, while positioning and liquidity provides a favorable backdrop.

We revise August speeds higher and detail speed response especially on FN and G2 3s. If realized, technicals in 15s could turn, spec payups could appreciate and derivatives pricing could weaken.

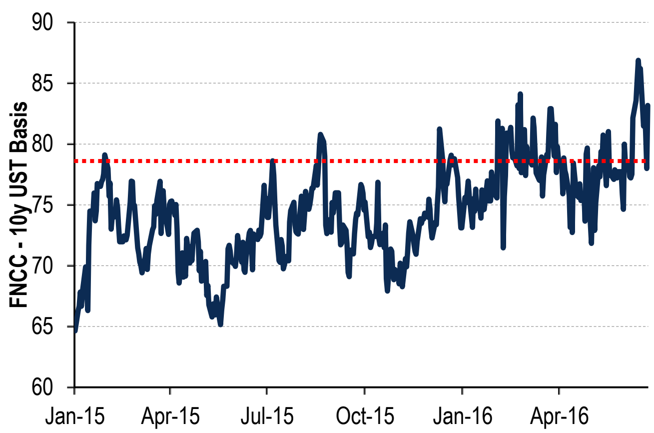
Fannie Mae has announced the inclusion of trended credit factors in its next release of Desktop Underwriter. Trended data allows for potentially more detailed and accurate credit analysis. We downplay any speed impact of the new methodology.

Market Update

We stay neutral the MBS sector after incorporating views across the mix of vantage points; rates, convexity, supply, speeds, vol, risk assets, liquidity and positioning.

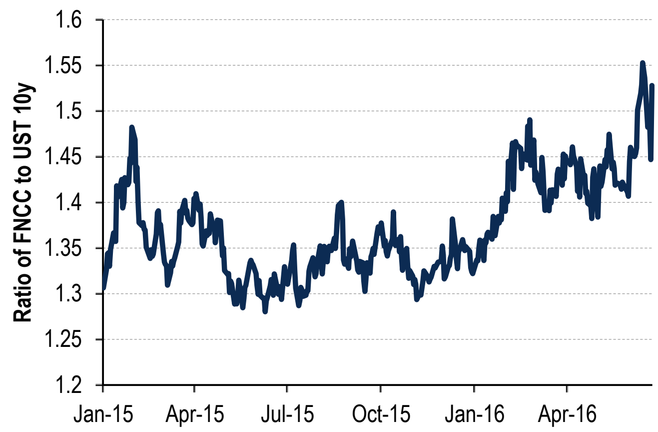
On net, MBS valuations have withstood recent volatility, despite intra week swings, MBS has mostly taken cues from rates and macro factors as opposed to sector specific features. Basis snapshots continue to reflect the range holding. The nominal spread, at 84bps, sits about five bps wider than the YTD median and to levels during Jan 2015's lows in rates. Ratios of the current coupon to the 10-year UST, at 1.53, are also incrementally higher compared to early 2015 levels.

Chart 19: Basis at 84bps, incrementally wider than the 78bps median YTD



Source: BofA Merrill Lynch Global Research

Chart 20: Ratio of current coupon to 10y UST is elevated



Source: BofA Merrill Lynch Global Research

Key mortgage rate threshold is 20bps lower

Since then, however, a few factors have changed, notably lower rates and weaker liquidity. Global economic weakness and lower inflation breakevens have driven bond yields lower. Driving mortgage rates have followed the grind steadily lower; compare the Freddie Mac survey rate at around 3.6% to a 2H15 average of 3.93%. Against this backdrop, Brexit risks rates remaining lower. However, as we profiled last week (What about refis?), primary mortgage rates need to drop below 3.25% for a step up in refi exposure as well as for the supply outlook to reset materially higher. Our market based read on primary mortgage rates is 3.46%, leaving another 20bps of room for the fundamental and technical landscape for agency MBS to be reshaped.

Convexity flows contained to pipeline hedging

Absent a drop through key rate thresholds, convexity hedging is expected to be contained to mortgage originator pipeline hedging (Table 10). Lower applications volumes thus far have limited pipeline build up. Hence, our estimated $27bn in 10-year swap equivalent is half the contribution to convexity flows seen in June 2003, when pipelines reflected higher refi volumes. Pipeline hedging likely supported MBS performance today, as application fallouts prompts originators to buy back MBS sold forward. As this effect wears out, supply from new locks could surface early next week, weighing down on performance.

Table 10: Convexity hedging should be contained around 1.50% 10y UST

	Pipeline	MSR	REIT	Money Managers / Hedge Funds / GSEs	Total	Treasury Market	% of Treasuries
Today	27	19	7	20	74	8,924	0.8
Jun-03	53	28	1	87	169	1,669	10.1

Source: BofA Merrill Lynch Global Research

MSR hedging needs are also lower, especially as holdings have shifted from banks to the nonbanks. Along similar lines MBS holdings have shifted from the GSEs, active hedgers, to the Fed, a non-hedger. Finally, as the volume of outstanding US treasuries have grown over five fold, the potential impact of convexity flows has waned considerably.

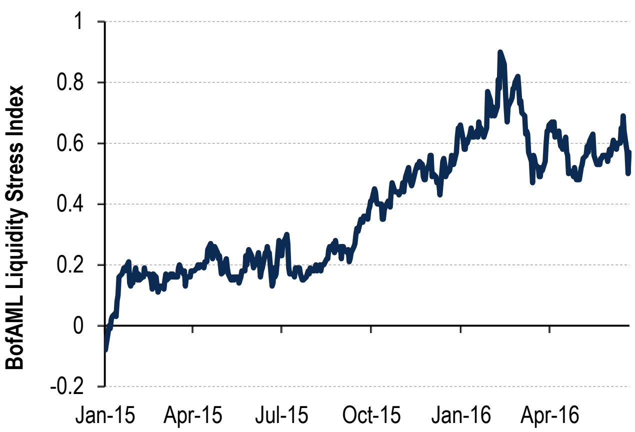
Faster speeds, lower carry by August, already priced into basis

We revise our August prepayment projections higher by 5-10 CPRs across 3s, 3.5s and 4s, led by recent vintages. This translates into lower carry and hedge-adjusted carry; however, with today's widening this is largely already reflected in the basis. We detail, in the following section, the nature and magnitude of these speed increases, especially drawing attention to response in FN and G2 3s.

Liquidity benefits trump

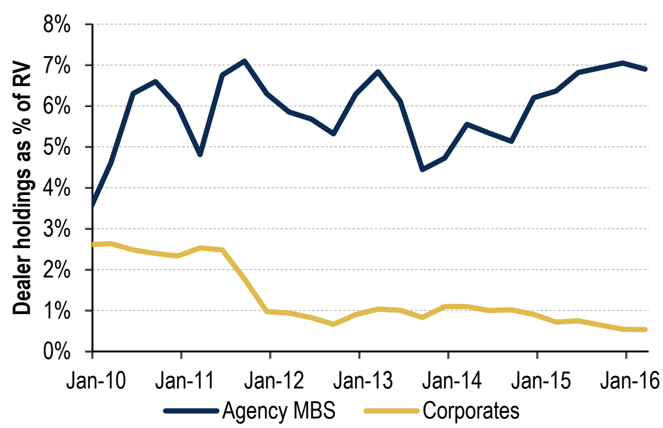
Liquidity risks remain elevated, based on the BofAML Liquidity risk index (Chart 21). Agency MBS stand to benefit in this environment. The sector continues to exhibit better liquidity conditions based on our preferred metric of dealer balance sheets as a share of holdings in relative value hands (Chart 22). Further delays in Fed hikes and lowering of the hike path have pushed out any changes to the FOMC's reinvestment policy. Their continued reinvestments filter back into dealer balance sheet sizing, while the Fed's regulatory regime favors agency MBS as a preferred asset class in incorporating Basel's liquidity paradigm.

Chart 21: Liquidity stress is still at elevated levels



Source: BofA Merrill Lynch Global Research

Chart 22: Agency MBS exhibit strong liquidity advantage over corporates

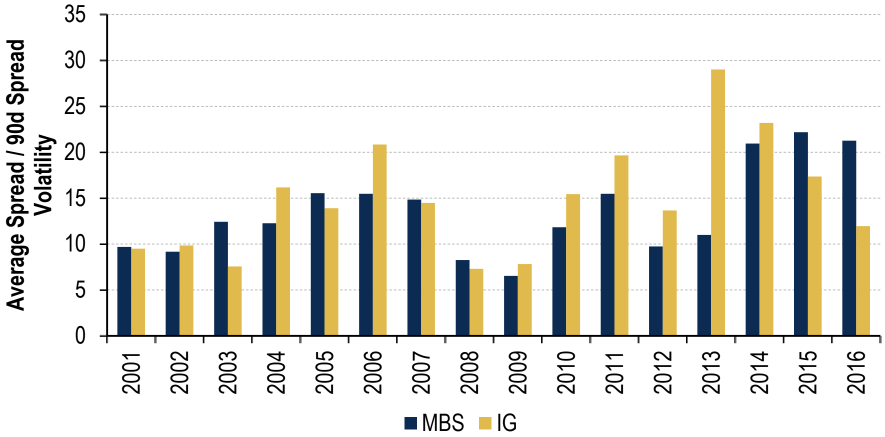


Source: Fed Z1, BofA Merrill Lynch Global Research

Positioning and spreads, in contrast to high grade

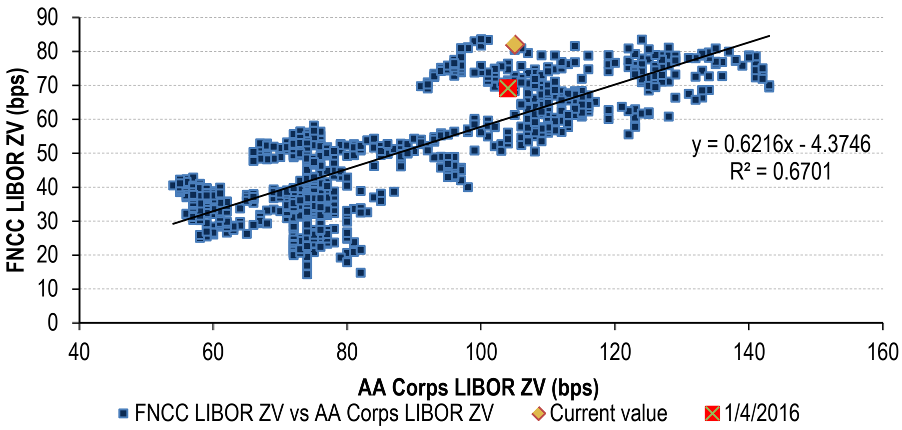
Following a ratio of spread to spread volatility metric, agency MBS now surpass high grade, reversing positions from 2013, when the opposite was true. In 2013, positioning needs of relative value players drove up MBS spread vol, as overweights amassed during rounds of QE were unwound into the QE3 taper tantrums. Today, positioning and liquidity is weaker in high grade, resulting in far greater volatility in spreads (Chart 23). Despite this, agency MBS spreads are at the wide end when regressed against corporates (Chart 24)

Chart 23: Agency MBS now surpass IG corporates on spread vs volatility metrics



Source: BofA Merrill Lynch Global Research

Chart 24: MBS are 20bps cheap to corporates on a long-term regression



Source: BofA Merrill Lynch Global Research

August prepayment, revised higher by 5-10 CPR

With the prevailing rate range likely to persist, especially on flows into USD assets, we expect mortgage rates, currently estimated at just below 3.5%, to hold. This will be reflected into faster speeds in August. Our estimates of speeds by cohort in Table 11 below point to increases on the order of 5-9 CPR in 3s, 6-10 CPR in 3.5s, and 5-to-9 CPR in 4s. Higher seasoned coupons are less impacted, on the order of 1-3 CPR.

Table 11: FNCL august speed estimates by cohort at 1.70% and 1.57% 10-year UST (CPR)

Coupon	Vintage	Balance	WAC	ACLS	May Actual	August Forecast 1.70% 10yr UST	August Forecast 1.57% 10y UST	Difference
3.0	2015	60	3.78	277	10	**11**	**20**	**9**
3.0	2013	160	3.58	242	11	11	17	5
3.0	2012	118	3.59	247	11	11	18	6
3.5	2015	194	4.11	258	14	**16**	**25**	**9**
3.5	2014	64	4.24	246	20	22	31	8
3.5	2013	84	4.02	215	15	16	22	6
3.5	2012	140	4.00	221	15	16	24	8
3.5	2011	25	4.02	223	16	16	27	10
3.5	2010	9	4.11	208	17	18	27	9
4.0	2015	58	4.58	217	15	**18**	**24**	**6**
4.0	2014	102	4.59	221	23	24	28	4
4.0	2013	62	4.58	206	22	23	28	5
4.0	2012	42	4.47	183	17	17	25	7
4.0	2011	48	4.47	201	18	19	27	8
4.0	2010	41	4.49	201	19	20	27	7
4.0	2009	24	4.55	185	22	23	27	4
4.5	2016	4	4.94	201	7	11	15	3
4.5	2015	5	4.98	154	15	17	21	4
4.5	2014	19	5.02	174	21	**22**	**23**	**1**
4.5	2013	12	5.04	171	20	21	24	3
4.5	2012	4	4.96	151	17	18	23	5
4.5	2011	38	4.93	182	19	20	25	5
4.5	2010	35	4.94	191	21	22	27	5
4.5	2009	46	4.93	181	23	23	28	4
4.5	2003	3	5.06	115	20	19	19	0
5.0	2011	11	5.38	172	20	20	22	3
5.0	2010	19	5.37	182	22	22	24	1
5.0	2009	14	5.42	168	21	22	24	3
5.0	2008	5	5.65	163	25	25	29	4
5.0	2007	1	5.73	156	22	22	26	4
5.0	2006	1	5.77	137	20	21	24	3
5.0	2005	10	5.64	138	22	22	24	2
5.0	2004	6	5.55	124	19	19	21	2
5.0	2003	14	5.50	109	18	19	20	1
5.5	2010	2	5.85	154	19	19	22	2
5.5	2009	2	5.94	142	22	18	22	4
5.5	2008	8	6.03	156	24	24	28	4
5.5	2007	7	6.13	156	23	24	27	3
5.5	2006	4	6.15	146	23	24	26	2
5.5	2005	10	5.98	124	19	19	22	3
5.5	2004	9	5.94	112	19	19	20	1
5.5	2003	15	5.94	102	17	18	19	2
6.0	2008	4	6.54	140	22	23	26	3
6.0	2007	10	6.57	141	22	23	26	3
6.0	2006	8	6.56	132	22	22	24	2
6.0	2005	3	6.50	106	17	17	20	3
6.0	2004	4	6.45	97	18	17	19	2
6.0	2003	3	6.49	90	17	16	19	2
6.5	2008	1	6.99	119	21	19	23	4
6.5	2007	3	7.05	116	20	20	22	1
6.5	2006	4	7.01	110	21	21	21	0
6.5	2005	1	6.98	95	16	17	19	2

Source: BofA Merrill Lynch Global Research

Notably, this will be the first refinancing opportunity for borrowers in recent higher WAC FN 3s, causing 2015 cohort speeds to rise to as high as 20 CPR for a short while. Meanwhile TBA deliverable speeds on 3.5s are likely to rise to high-20s, approaching 30 CPR. August speeds will be reported in early September, already projected to be a peak month for supply (see 2016 supply forecasts revised higher).

Speed impact on basis, already realized

Based on the projected speed increases for August we estimate the impact on the August/September roll on the order of 1.5 ticks, assuming overnight funding levels normalize back over the coming days and weeks on back stops in place by the central banks (Table 12).

Table 12: Carry impact of higher speeds is about 1.5 ticks across FNCL 3s, 3.5s, and 4s

		Old TTB		New TTB		Aug/Sep Carry @ 50bps funding		
Coupon	WAC	WALA	CPR	WALA	CPR	Old TTB	New TTB	Difference
3.0	3.80	0	0	7	20	7.1	5.7	-1.4
3.5	4.11	7	18	10	28	6.0	4.4	-1.6
4.0	4.61	11	25	11	30	4.7	3.4	-1.3
4.5	5.01	22	32	22	33	2.0	1.6	-0.4

Source: BofA Merrill Lynch Global Research

Conventional 3s merit attention where we see potential for the deliverable to shift to more seasoned bonds, similar to what we observed in 3.5s earlier this year. With speeds on 2015 3s projected at 20 CPR the carry differential of 1.5 ticks can force new production 3s to trade at a small payup. New production 3s trade at a + for July settle.

The hedged carry impact will be lower than on outright rolls. The yield curve remains largely unchanged and with the 10-year UST carrying half a tick lower and hedge ratios shortening some of the impact is blunted. The net impact on hedged carry is expected to be about a tick, worst in 3.5s (Table 13). The Jul/Aug roll is not likely to benefit as funding costs rose.

Table 13: HAC impact is about a tick, worst in 3.5s

			HAC Aug/Sep (34d)		
Coupon	Old HR	New HR	Pre-Brexit	Post-Brexit	Impact
3.0	0.48	0.44	5.0	4.0	-1.0
3.5	0.33	0.31	4.5	3.2	-1.3
4.0	0.23	0.21	3.6	2.6	-1.0
4.5	0.14	0.13	1.3	1.1	-0.2

Source: BofA Merrill Lynch Global Research

Not all of it is likely to be realized. For example FN 3 deliverable shift is likely to be only partially priced into the roll. Also, FN 4s are likely to trade special as the float declines and index-oriented money managers take delivery in 4s and 4.5s and use them as proxies for the higher coupons in the index. This leaves 3.5s as the most exposed coupon.

We estimate the value of this decrease in hedged carry to be worth about 6-8 ticks on the basis. About 5 ticks of this was already realized today, leaving us neutral.

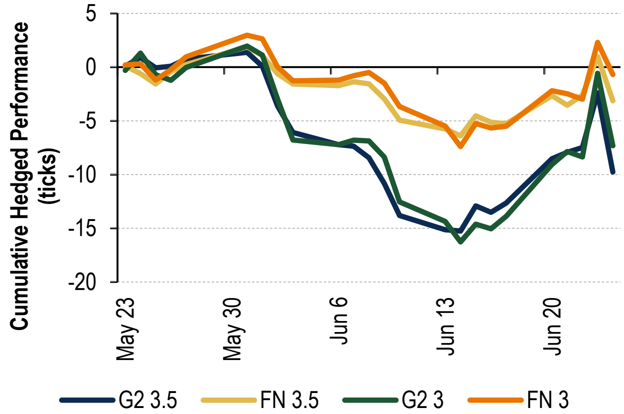
GNMAs lagging conventionals for now, setting up for recovery

Ginnie Maes underperformed conventionals, with empirically high valuations previously supported by HTM bank and foreign buyers who tend to take pause during rising bouts of volatility (see Chart 25 and Seasonals in perspective). In the wake of the events in Britain this underperformance is likely to hold in the near-term.

Once the volatility subsides, however, strong GNMA technicals should return, particularly in light of the dollar-positive nature of today's events. We expect some of the bank and foreign buyers to return to the sector, once more negating any fundamental deterioration in cashflows.

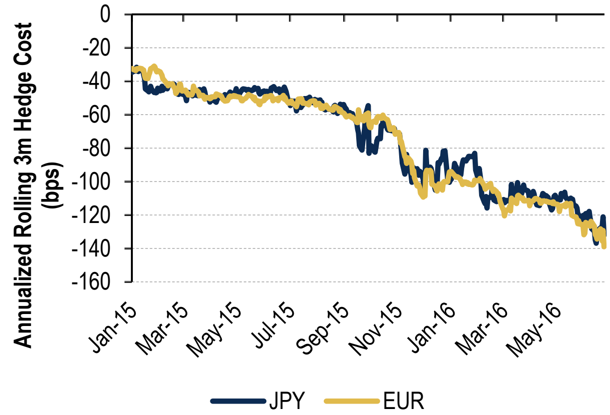
Carry has deteriorated as rates rallied, particularly in G2 3.5s where the roll dropped from 7 to 4+ ticks in recent weeks. However, buy and hold buyers tend not to roll and are more yield-focused. The cost of rolling 3-month currency hedges stands between 130 and 140bps in native currency for the yen and the euro (Chart 26). This means that 5yr UST yield of 1.07% is effectively offering -37bps in native currency while 10yr USTs offer about 16bps of return. G2 3.5s meanwhile offer 50bps to maturity in native currency on a 4-year bond, at 20 CPR life time speed yield 1.9% USD. This is an attractive return compared to 20yr JGB at 14bps.

Chart 25: GNMAs underperform as rates rally



Source: BofA Merrill Lynch Global Research

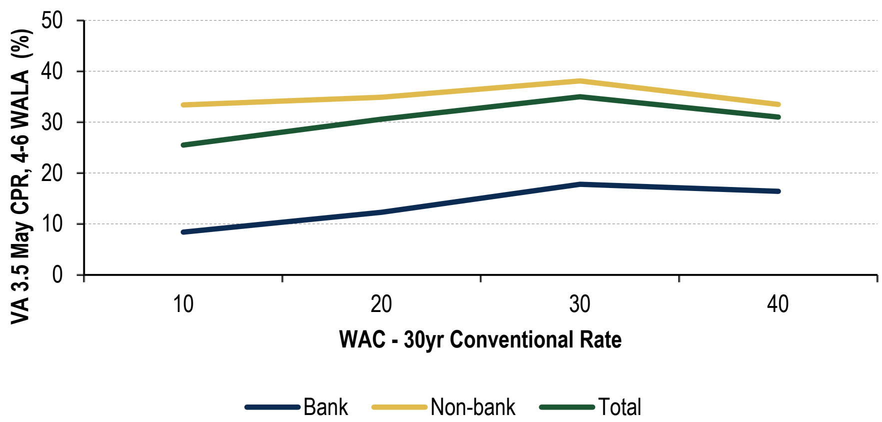
Chart 26: Rolling 3-month currency hedges now costs 130-140bps



Source: BofA Merrill Lynch Global Research

With the bulk of the GNMA flow driven by non-relative value buyers cash flow deterioration may not be reflected in valuations for some time (see Seasonals in perspective). Nevertheless GNMA 3s are becoming more exposed to surprises in speeds, with VA share running above 50% in recent production. VA loans led speed increases in 3.5s earlier this year with non-bank servicers aggressively refinancing their customers as they got in the money (see VA leads Ginnie Mae speed increases). In-the-money 3.5s were paying above 25 CPR in May (Chart 27). G2 3s with higher loan sizes and borrowers facing a first refi window will be even more sensitive in the face of similar incentives. We estimate that about 30% of 4-6 WALA VA 3s have over 10bps of incentive relative to the conventional primary rate and could thus prepay at similar type of speeds. Individual pools that are more exposed to these servicers could see sharp increases in August.

Chart 27: VA speeds in 3.5s were above 25 CPR in May, 30% of G2 3 VA has WACs above 3.55%

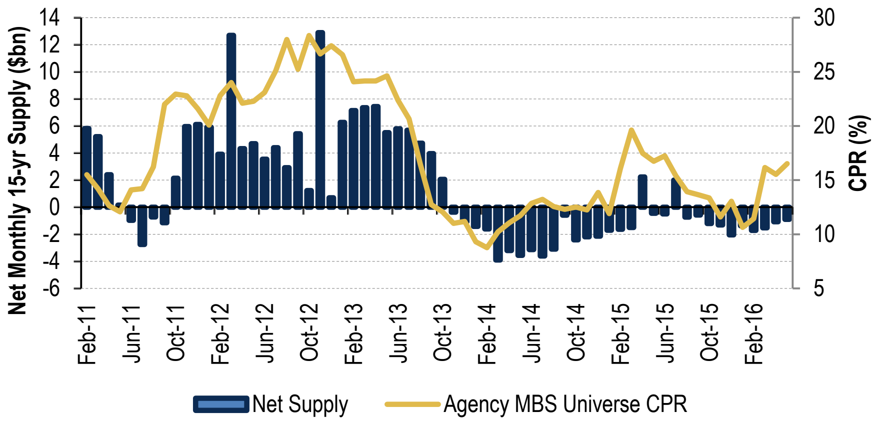


Source: BofA Merrill Lynch Global Research

15s trade in-line with 30s, likely to remain here

15s are outperformed 30s today as flight to quality takes hold and also helped by shorter spread durations. Nevertheless, the projected speed increases in Table 11 could generate sufficient refi activity and generate incremental supply in 15s, if sustained (Chart 28). The key refi threshold is still 20bps away however, at 3.25% for the 30-year mortgage rate, and helps blunt this shock (see What about refis?). Nevertheless, even bringing net supply to zero has the potential to further erode carry in the sector which has benefitted from strong technicals.

Chart 28: Net supply in 15s, geared to the aggregate MBS CPR, could rise

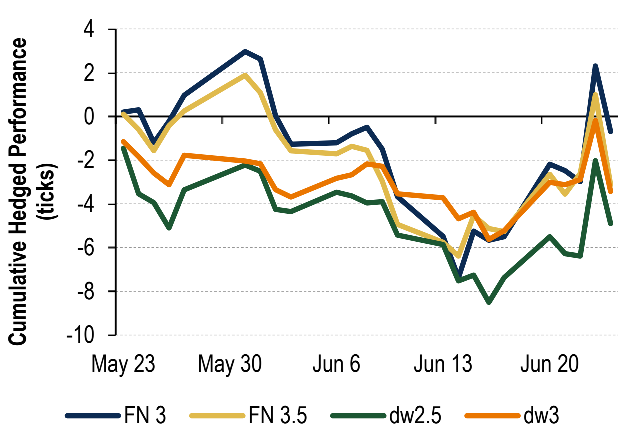


Source: BofA Merrill Lynch Global Research

Like higher coupon 30-year TBA, intermediate duration sectors enjoy index money manager sponsorship as a proxy for the shorter duration bonds in the index, keeping rolls well bid and special. 15-year MBS also offer some degree of prepayment protection. This is due to a shorter amortization schedule, lower loan balances, and reluctance by the borrowers who on a shorter amortization term to extend their term. 15-year borrowers typically need to be 100bps in the money to generate sufficient savings to refinance.

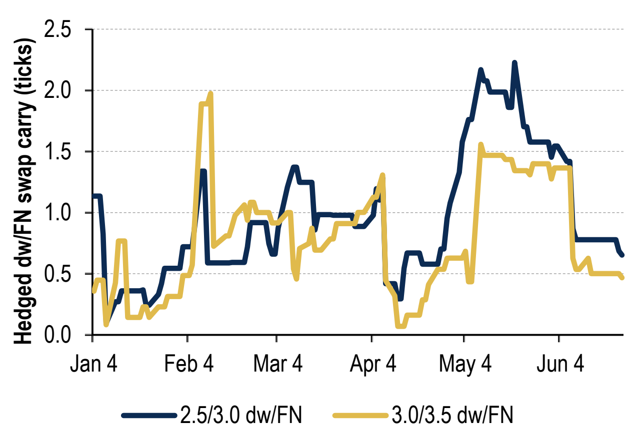
Away from higher supply, these supportive technicals and fundamentals could be offset by the leveraged REIT players involved in the sector, liable to delever as the basis widens. Overall this leaves us neutral on 15s versus 30s which have remained tightly bound in recent months (Chart 29). Carry has weakened but remains in the + to 1 tick range where it's been for the majority of the year (Chart 30). As a result we could see some weakness in dw2.5s versus dw3s, particularly if production in 2.5s materializes.

Chart 29: 15s traded roughly in-line with 30s into the recent widening



Source: BofA Merrill Lynch Global Research

Chart 30: dw/FN hedged carry remains between a + and a tick

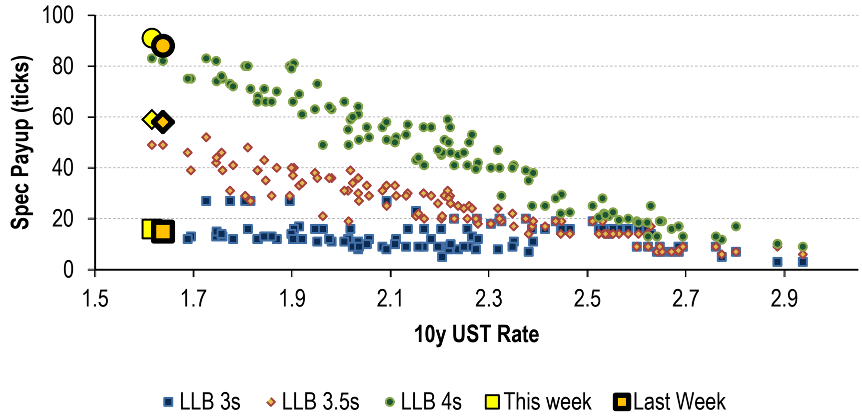


Source: BofA Merrill Lynch Global Research

Specifieds hold in with duration, have room for upside

Call protected paper has benefitted from the rate rally as the 10-year UST rate approached the important 1.50% threshold, particularly in cuspy 3.5s with the largest impact on prepayments per Table 11 (Chart 31).

Chart 31: Specified pools are well bid empirically, particularly in cuspy 3.5s



Source: BofA Merrill Lynch Global Research

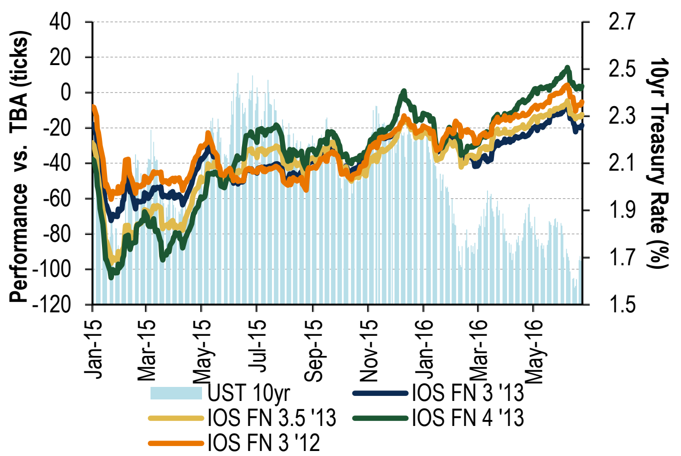
These pools continue to make sense, particularly with deteriorating carry on the TBA, and have room to outperform in the coming weeks on the outlook of the new rate range holding. We highlighted the investor 4 story which offers HLB-like degree of protection of late while trading at nominal payup (see May Prepayments).

IOs mirror specified pools, have room to the downside

After having underperformed hedges by 10 ticks through yesterday, IO prices took another tumble today (Chart 32). As of this morning benchmark GN IIOs were down about half a point, widening OAS by 100bps (Chart 33). Keep in mind the benchmarks are deep-in-the money bonds at this point, with limited prepayment sensitivity.

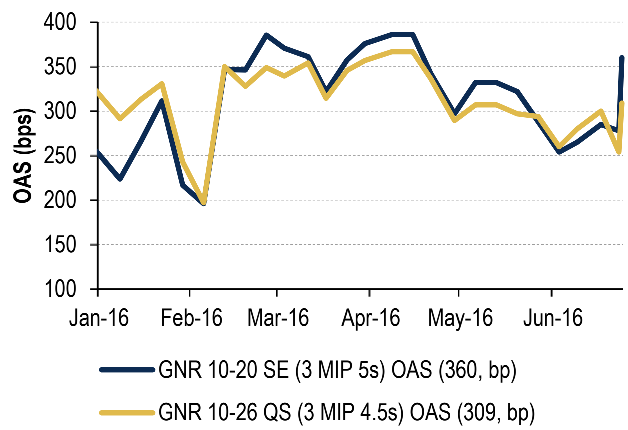
Recent performance points to the importance of the 1.50% rate threshold on 10s that we have highlighted before. A clearer read on valuations is likely to emerge next week, but as a mirror to the specified pools, we see downside to IOs as the prevailing rate range resets lower in the coming weeks. Any near-term relief on rates is likely to present a good selling opportunity or a way to rotate into deeper call protected stories.

Chart 32: IOs lost 10 ticks into the recent rally prior to today



Source: BofA Merrill Lynch Global Research

Chart 33: As of this morning benchmark IIOs were 100bps wider



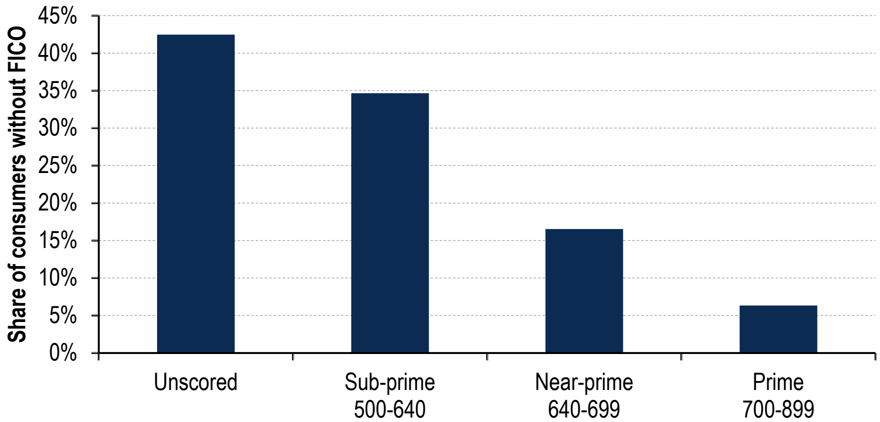
Source: BofA Merrill Lynch Global Research

Minimal speed impact from trended credit underwriting

In March, Fannie Mae announced plans to include trended credit data in their upcoming release of Desktop Underwriter 10.0, currently scheduled for September 2016. Trended credit data helps develop a fuller lens on an applicant's credit profile, allowing for the assessment of some borrowers without traditional credit scores. Though the broader adoption of this new methodology may incrementally improve credit access, we do not expect any material impact on prepayment speeds with this change.

Whereas a traditional credit report and credit score reflect current outstanding balances, trended credit data includes historical records of balances, scheduled payments, and actual payments. This allows for a more robust risk assessment based on past borrower behavior across the board. In particular, many borrowers that were previously unscored due to insufficient credit history can be assessed using these additional data (Chart 34). However, nearly 80% of these remain well outside the conventional credit box, limiting the impact of this change on overall credit availability. As trended credit data becomes more widely adopted in the industry, some impact may be seen on the GNMA lending front.

Chart 34: Risk assessment distribution for consumers without a traditional FICO score

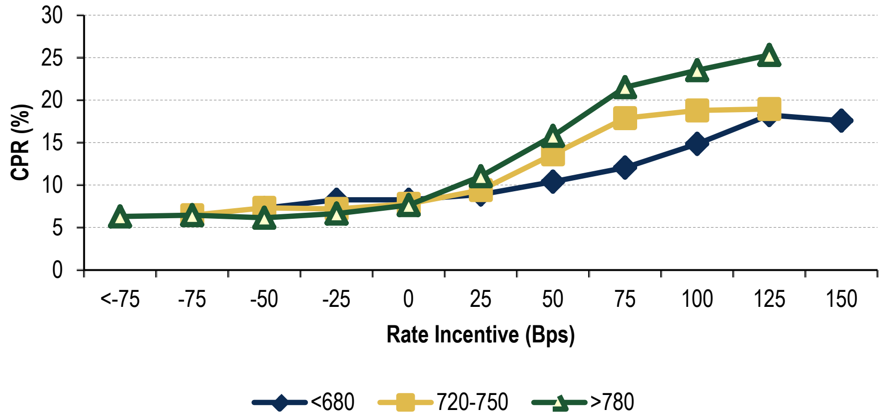


Source: TransUnion

The new methodology replaces FNMA's proprietary risk assessment largely based on credit report data, in place since 2000. The new DU release will factor in balance and payment history on revolving credit card accounts, favoring borrowers who pay off balances, and allowing for faster credit curing of borrowers who experience payment delinquencies. Fannie Mae reports 'materially improved modeling of loan performance' based on analysis of 3.7mm consumer credit histories studied in 2015.

This underwriting change naturally raises the question of speed impact, particularly for low FICO pools. Indeed, current low FICO S-curves are certainly shifted relative to super-prime borrowers (Chart 35), matching intuitive expectations. In our view, the slower speeds are likely attributable to the current GSE LLPA matrix, rather than credit box constraints faced by these borrowers.

Chart 35: Low FICO S-curves are likely shifted by LLPA incentives, rather than credit impairment



Source: BofA Merrill Lynch Global Research

Low FICO borrowers face a steep LLPA schedule, with 720 borrowers paying 50-75bps, and 680 borrowers paying 150-200bps above the cleanest prime applicants. The resulting shift in rate incentive is more than enough to account for the slower speeds observed by these borrowers. Thus expansion of credit access to some of these lower credit borrowers via trended credit analysis is unlikely to impact speeds materially, as long as the LLPA schedule remains based on FICO scores.

Table 14: LLPA costs shifts effective rate incentive for the various FICO ranges

		LTV Range							
		< 60%	60-70%	70-75%	75-80%	80-85%	85-90%	90-95%	95-97%
FICO	> 740	0.00%	0.25%	0.25%	0.50%	0.25%	0.25%	0.25%	0.75%
	720-739	0.00%	0.25%	0.50%	0.75%	0.50%	0.50%	0.50%	1.00%
	700-719	0.00%	0.50%	1.00%	1.25%	1.00%	1.00%	1.00%	1.50%
	680-699	0.00%	0.50%	1.25%	1.75%	1.50%	1.25%	1.25%	1.50%
	660-679	0.00%	0.50%	2.25%	2.75%	2.75%	2.25%	2.25%	2.25%
	640-659%	0.50%	1.25%	2.75%	3.00%	3.25%	2.75%	2.75%	2.75%
	620-639	0.50%	1.50%	3.00%	3.00%	3.25%	3.25%	3.25%	3.50%
	< 620	0.50%	1.50%	3.00%	3.00%	3.25%	3.25%	3.25%	3.75%

Source: FNMA

Table 15: MBS performance snapshot

		Performance snapshot (ticks)				
		1-day	1-week	1-month	3-month	HR
FNCL	**Price**					
2.5	99-25	7	13	0	6	0.65
3	102-22	5	8	2	14	0.49
3.5	104-28+	4	6	1	7	0.34
4	106-28+	3	4	2	6	0.24
4.5	109	2	3	2	13	0.14
5	110-31	2	2	-2	17	0.07
5.5	112-3	3	4	-1	6	0.04
FNCI						
2	100-18+	6	9	-6	-2	0.52
2.5	102-23	4	6	-1	13	0.36
3	104-12+	3	5	1	8	0.25
3.5	105-24	2	3	4	17	0.14
4	103-26	1	2	-5	-14	0.10
4.5	102-19	1	3	-2	-11	0.05
5	102-25	0	0	0	2	0.01
G2SF						
2.5	100-19	7	13	3	13	0.65
3	103-22+	8	14	0	16	0.49
3.5	105-22+	5	11	-2	8	0.34
4	106-24+	6	12	-3	-6	0.24
4.5	107-12	2	3	-6	-10	0.14
GNSF						
5	110-30+	2	2	-4	15	0.07
5.5	111-16+	3	4	-1	-29	0.04
IOS Performance						
FN30 3.00 13	17-30+	1	3+	1	7+	1.09
FN30 3.00 12	17-29+	1+	5	2+	7+	1.09
FN30 3.50 14	16-08	1	1+	-2+	1	1.56
FN30 3.50 13	18-15+	1	2	1	8	1.28
FN30 3.50 12	18-11+	1	2	-0+	4	1.25
FN30 3.50 10	16-30	1	1+	0	3	1.23
FN30 4.00 14	17-17+	1	0+	1+	9+	1.39
FN30 4.00 13	17-24+	1	0+	1	15	1.28
FN30 4.00 11	18-31+	0+	-0+	-1	11	1.22
FN30 4.00 10	18-20	1	-0	-1+	13	1.20
FN30 4.00 09	17-21+	1	-0+	-4+	6+	1.15
FN30 4.50 11	20-05+	1	0+	-0	11+	1.08
FN30 4.50 10	19-02	1	0+	0+	12	1.09
FN30 4.50 09	18-04+	1	0	-1	8+	1.07
FN30 5.00 10	20-00+	0+	-1+	-3	0+	0.92
FN30 5.00 09	19-04	0+	-0+	2	8+	0.90
FN30 5.00 08	19-06	0	-1	2+	16	0.76
FN30 5.00 05	21-10+	0+	-1+	2+	17+	0.66
FN30 5.00 03	21-23	0+	-1+	3+	19+	0.57
FN30 5.50 08	22-07+	0	-1	2+	16	0.64
FN30 5.50 05	24-20	0+	-1+	2+	17+	0.54
FN30 5.50 03	23-26	0+	-1+	3+	19+	0.50
GII30 5.00 10	19-27	0+	-2+	4	22+	0.82
GII30 4.50 10	18-06+	0	-3+	3+	21	0.99
GII30 4.00 10	17-03	0	-3	6+	22	1.06

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

Table 16: 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	Jun	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 17: 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 $3.3bn WoW (Table 18). The Fed's share of GNMA purchases fell to 38% from 50% last week (Table 19). The Fed resumed buying 15s this year, comprising 7% of the total purchase.
- The Fed shifted slightly up-in-coupon, with $3.2bn (36% of overall purchase) in 3s versus $1.6bn (33% of overall purchase) last week.

Table 18: Fed purchases, net of roll, WoW ($ million)

Week of 6/16/16

	Coupon	FHLMC	FNMA	GNMA	GNMA2	Total, by coupon
	3	1,400	2,136	0	1,400	**4,936**
	3.5	524	770	0	1,914	**3,208**
	4	0	0	0	0	**0**
30yr Totals		1,924	2,906	0	3,314	**8,144**
15yr	2.5	184	289	0	0	**473**
	3	79	105	0	0	**184**
	3.5	0	0	0	0	**0**
15yr Totals		263	394	0	0	**657**
Total, by sector		**2,187**	**3,300**	**0**	**3,314**	**8,801**

Week of 6/9/16

	Coupon	FHLMC	FNMA	GNMA	GNMA2	Total, by coupon
	3	700	1,068	0	1,499	**3,267**
	3.5	262	385	0	932	**1,579**
	4	0	0	0	0	**0**
30yr Totals		962	1,453	0	2,431	**4,846**
15yr	2.5	0	0	0	0	**0**
	3	0	0	0	0	**0**
	3.5	0	0	0	0	**0**
15yr Totals		0	0	0	0	**0**
Total, by sector		**962**	**1,453**	**0**	**2,431**	**4,846**

Source: NY Fed

Table 19: Fed purchases as a % of total purchases, net of roll

Week of 6/16/16

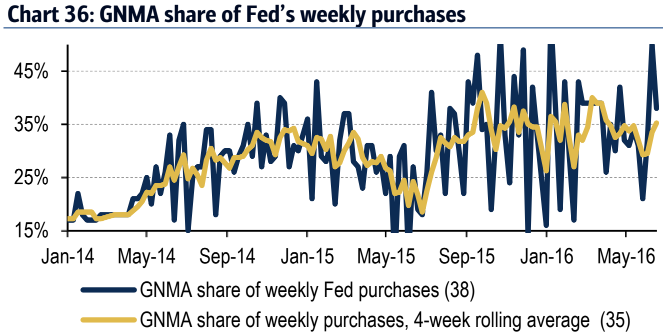
	Coupon	FHLMC	FNMA	GNMA	GNMA2	Total, by coupon
30yr	3	16%	24%	0%	16%	**56%**
	3.5	6%	9%	0%	22%	**36%**
	4	0%	0%	0%	0%	**0%**
30yr Totals		22%	33%	0%	38%	**93%**
15yr	2.5	2%	3%	0%	0%	**5%**
	3	1%	1%	0%	0%	**2%**
	3.5	0%	0%	0%	0%	**0%**
15yr Totals		3%	4%	0%	0%	**7%**
Total, by sector		**25%**	**37%**	**0%**	**38%**	**100%**

Week of 6/9/16

	Coupon	FHLMC	FNMA	GNMA	GNMA2	Total, by coupon
30yr	3	14%	22%	0%	31%	**67%**
	3.5	5%	8%	0%	19%	**33%**
	4	0%	0%	0%	0%	**0%**
30yr Totals		20%	30%	0%	50%	**100%**
15yr	2.5	0%	0%	0%	0%	**0%**
	3	0%	0%	0%	0%	**0%**
	3.5	0%	0%	0%	0%	**0%**
15yr Totals		0%	0%	0%	0%	**0%**
Total, by sector		**20%**	**30%**	**0%**	**50%**	**100%**

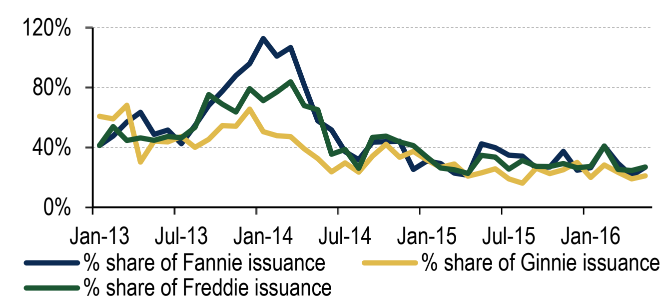
Source: NY Fed

Chart 36: GNMA share of Fed's weekly purchases



Source: NY Fed, BofA Merrill Lynch Global Research

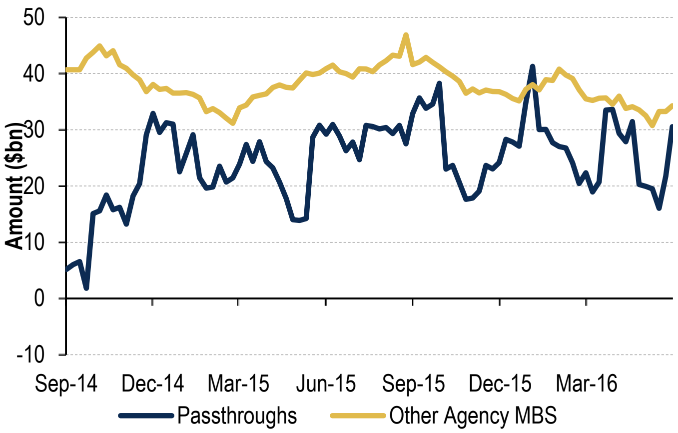
Chart 37: Fed MBS Purchases, as a percent of gross issuance



Source: NY Fed, BofA Merrill Lynch Global Research

- Primary dealer holdings of agency MBS pass-throughs were up $8.8bn WoW to $30.5bn, while holdings of other agency MBS were up$1.4bn to $33.2bn (Chart 38, Table 20).

Chart 38: Primary dealer net positions



Source: NY Fed, BofA Merrill Lynch Global Research

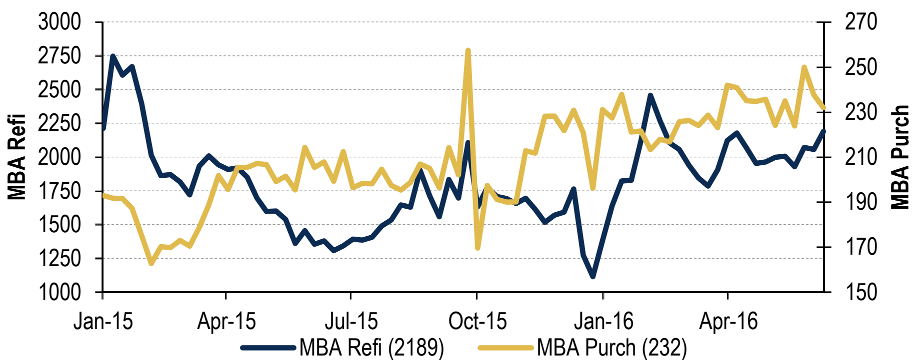
Table 20: Primary dealer net positions, as of 6/1/2016

Category	Current	WoW	Previous week
Federal Agency and GSE RMBS, Passthrough	30,539	8,770	21,769
Federal Agency and GSE RMBS, Other	34,285	1,044	33,241
Federal Agency and GSE CMBS	5,312	(97)	5,409
Non-Agency RMBS	9,100	59	9,041
Other CMBS	5,751	(264)	6,015

Source: NY Fed, BofA Merrill Lynch Global Research

- For the week ending June 3, the MBA refi index rose 6.5 %, while the purchase index decreased 2.4% (Chart 39). The MBA government refi index was up 9.6% WoW and the government purchase index declined 3.4%. The MBA conventional refi index rose 5.8% WoW and conventional purchase index dropped 2.0%.

Chart 39: MBA refi and purchase indices



Source: MBA

- Freddie Mac's 30-year survey rate was up 2bps to 3.56% this week.

Table 21: 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	5,909	2,509	0	0	25%	10%	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	3,920	1,665	0	0	16%	7%	0%	0%																

Source: NY Fed, BofA Merrill Lynch Global Research

Table 22: 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	4,462	3,922	0	0	19%	16%	0%	0%																

Source: NY Fed, BofA Merrill Lynch Global Research

Table 23: 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	733	277	0	0%	3%	1%	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	492	208	0	0%	2%	1%	0%																

Source: NY Fed, BofA Merrill Lynch Global Research

Non-agency MBS

Chris Flanagan
MLPF&S
christopher.flanagan@baml.com

Harkaran Talwar
MLPF&S
harkaran.talwar@baml.com

Mao Ding
MLPF&S
mao.ding@baml.com

Market overview

This obvious highlight for this week was Brexit, which sent shockwaves down many a global markets. Brexit was not particularly tumultuous for securitized products or non-agencies. In fact, non-agencies performed well on a relative basis. Trading activity in legacies pretty much grinded to a halt on Friday which suggests that there was no real panic selling in legacies. CRT still saw some trades and the B/Not-rated tranches ended the day about 10bps wider, outperforming the corporate high-yield market.

After the initial outperformance, the focus now shifts to next week as investors try to gain more clarity of Brexit repercussions. Fundamentally, US mortgage credit is not really exposed to Britain or Europe other than any resulting economic slowdown. On the technical side, coincidentally, the non-agency investors would be receiving ~$7bn cash from the Countrywide settlement on Monday.

The 7th 2016 VOLT NPL deal was priced this week. Class A1 was priced at 3.78% yield (or approximately 297 spread to swaps), and Class A2 was priced at 7.5% yield (or approximately 653 spread to swaps). Two SFR deals from B2R and PROG are also premarketing. Year-to-date non-agency issuance is $25.8bn, with $7.3bn in CRT, $2.0bn in Jumbo 2.0, $1.3bn in SFR, $15.1bn in NPL/RPL/seasoned securitization/S&D and $162mn in non-prime securitizations (Table 24).

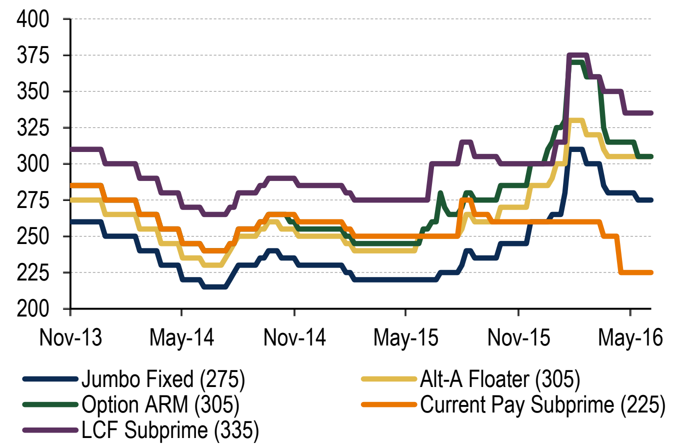
Table 24: Non-agency RMBS annual gross issuance and forecast

Sector	2014	2015	2016 YTD	2016E
Jumbo	8.8	12.1	2.0	10
Alt-A	0.0	0.0	0.0	0
Option ARM	0.0	0.0	0.0	0
Subprime/Non-QM	0.0	0.5	0.2	1
RPL/NPL	23.4	28.5	15.1	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**	**25.8**	**51**

Source: BofA Merrill Lynch Global Research, Intex

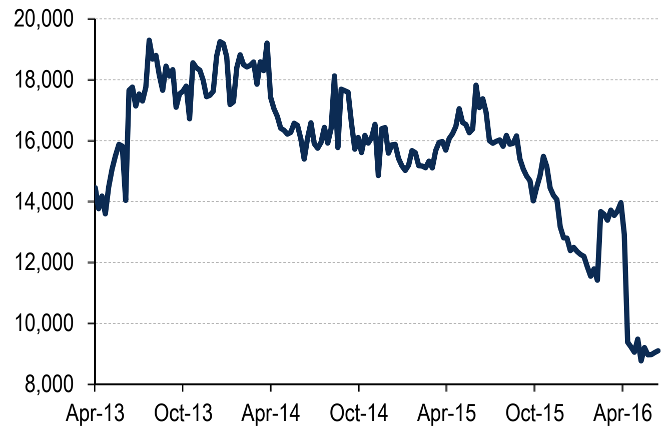
Weekly BWIC volumes in the legacy non-agency RMBS space dropped by 44% to $0.5bn, with $272mn in subprime, $104mn in Alt-A, $39mn in Option ARM, and $53mn in jumbo. There were also $11mn ReREMICs in for the bid. Primary dealer non-agency holdings in the week of 6/15/2016 increased slightly by 0.7% to $9.1bn (Chart 41) and spreads remained relatively unchanged WoW (Chart 40). We remain overweight legacy RMBS and believe strong mortgage credit fundamentals and favorable technicals from negative net supply should support further spread tightening.

Chart 40: Non-agency spreads



Source: BofA Merrill Lynch Global Research

Chart 41: Primary Dealer Non-agency Holdings ($mn)

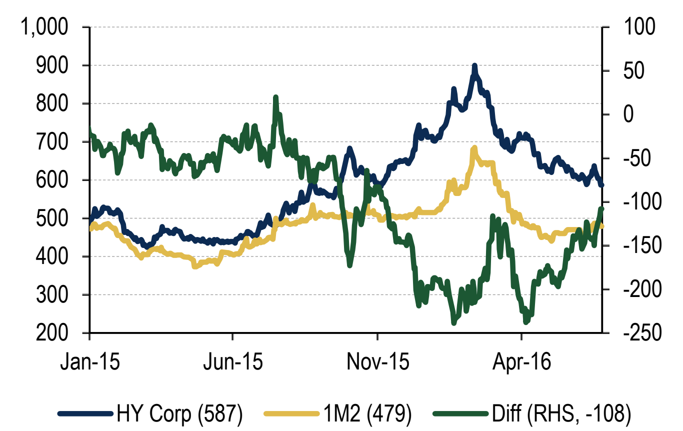


Source: NY Fed

CRT weekly volumes as of Thursday totaled at least $172mn; 38% of the trades were on CAS and 79% on the CAS M2s/STACR M3s. As of Thursday, spreads for STACR M3/CAS M2 bonds tightened by 10-20bps compared with a 38bps spread tightening for high yield corporates (H0A0 Index, Chart 42). Spreads for IG –rated CRT tranches remained relatively unchanged, compared with a 7bps spread widening for IG corporates week over week (C0A0 Index, Chart 43). Amid Brexit aftershocks, CAS M2/STACR M3 bonds widened by 10-15bps DoD as of noon Friday.

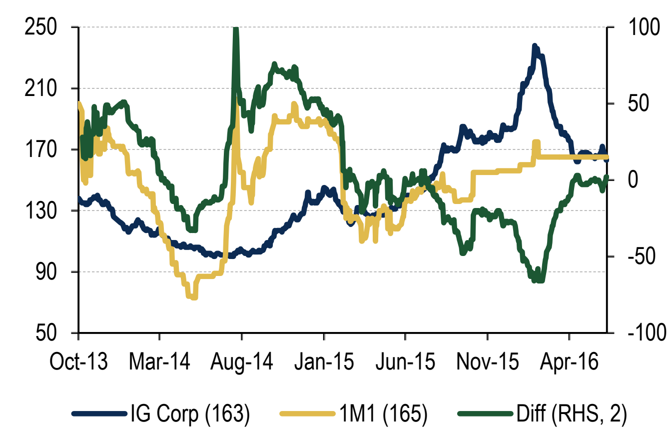
Weekly volumes in the SFR space as of Thursday totaled at least $30mn, according to TRACE. At least $19mn was on the AAA-rated classes, $8mn was on BBB- rated classes, and $3mn on the other tranches. Spreads widened by 5-10bps across the capital stack WoW, compared with a 7bps spread widening for CMBS AS bonds (Chart 44 and Chart 45).

Chart 42: On-the-run spread for low LTV CAS NR vs. HY Corp



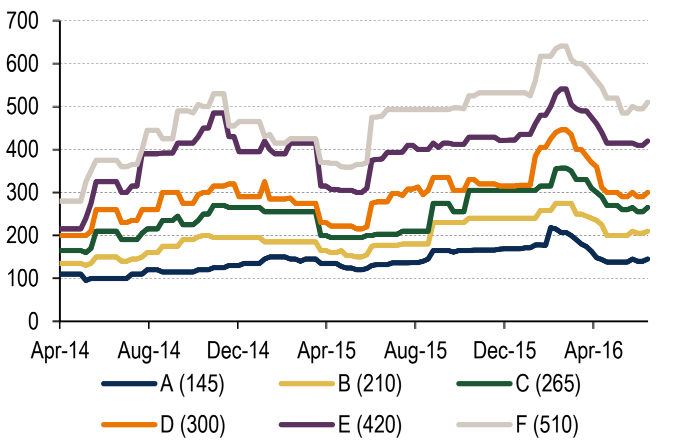
Source: BofA Merrill Lynch Global Research
Note: HY Corp spreads are as of 6/23/2016

Chart 43: On-the-run spread for low LTV CAS BBB vs. IG Corp



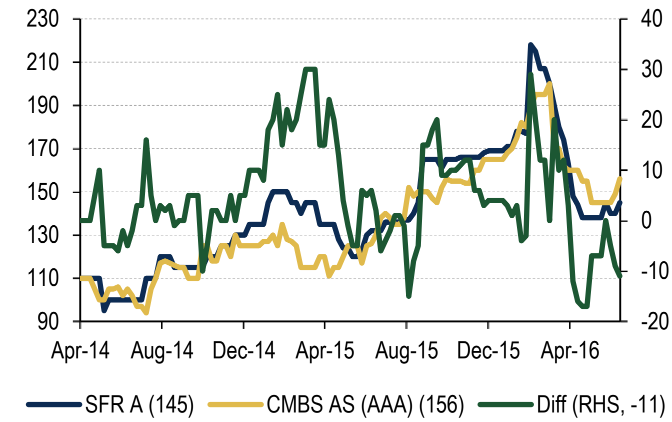
Source: BofA Merrill Lynch Global Research
Note: IG Corp spreads are as of 6/23/2016

Chart 44: SFR 5Y Floating-rate Spreads



Source: BofA Merrill Lynch Global Research

Chart 45: SFR A (AAA) vs. CMBS AS (AAA)



Source: BofA Merrill Lynch Global Research

Tale of borrowers who may never exit

Non-agency investors would be all too familiar with statutes of limitations (SOL) by now. It has been a key contention for investors trying to pursue lenders for representation and warranty breaches. It has also been used as a defense by borrowers to stop and invalidate foreclosure proceedings which can create surprises in non-agency bonds' cashflows. Below we focus on the latter and provide the current standing of three states – Florida, New Jersey and New York – on this matter. We also attempt to quantify the risk associated with this and find that while the risk maybe muted at sector level, certain deals may have high SOL exposure.

Recap of the statute of limitations risk

A statute of Limitation is *a statute prescribing a period of limitation for the bringing of certain kinds of legal action.* Simply put, it sets a time limit for initiating a legal claim. In the context of mortgages, such a statute can invalidate a foreclosure that is not filed within the applicable statute. While there is no ambiguity in the length of the time period prescribed by the SOL(applicable period for mortgage foreclosure is six years in New York and New Jersey, five years in Florida), figuring out when the SOL clock starts has been a point of ongoing debate.

Typically, every mortgage payment would have its own SOL clock, i.e. every time a borrower misses a payment, the lender can pursue a claim against that payment within the applicable statute starting from the missed payment date. However, that can change once a foreclosure is initiated. A foreclosure "accelerates" the mortgage debt and makes the entire loan balance immediately due. In various courts, borrowers have successfully argued that the SOL clock starts on the date of foreclosure for the entire mortgage debt. Hence, the servicer could be time barred from initiating a (new) foreclosure if it was 'x' number of years after the first foreclosure start, where 'x' is the applicable statute for the state.

To be clear, if the foreclosure proceeding itself last longer than the applicable statute, the proceeding is still valid and not subject to the SOL. However, if a foreclosure is dismissed by the court and the servicer does not re-initiate the foreclosure within the applicable period starting from the date of first foreclosure filing, then the borrower can bring the SOL defense into play.

Do note that SOL is not a valid defense against a non-judicial foreclosure and can be used as a defense only in a judicial foreclosure proceeding. Moreover, among the loans in judicial states, New York, New Jersey and Florida loans comprise more than 60% of the present non-agency universe (more than 70% of the delinquent non-agency loans) and hence the bulk of the SOL risk is concentrated in these three states.

Status Check for FL, NJ and NY

Whether a borrower can use SOL as a valid defense hangs in the balance in all three states – Florida, New Jersey and New York. In Florida and New York, the lower courts have ruled against the lenders and the higher courts' verdicts on the lenders' appeals of those decisions is still awaited. In New Jersey, on the other hand, a federal court has ruled in the favor of lenders but the borrower has appealed it and that matter is still pending.

Florida – State Supreme Court's decision still awaited

In Florida, the State Circuit Courts as well as a District Court of Appeal (which is higher in hierarchy than the State Circuit Courts) have recently ruled against the lender and have allowed the borrowers to get a foreclosure dismissed if it was filed more than five years after the first foreclosure (which was dismissed without the borrower curing). Without going into the details of those cases, we would mention that the lender in one such case, *U.S. Bank vs. Bartram*, has filed an appeal in the Supreme Court, the highest court in the state. The State Supreme Court's verdict is likely to determine the future of all the foreclosure filings where SOL has been (and can be) used as a successful defense.

The Supreme Court's verdict is still awaited and is expected to come in the next few months. The last oral argument in the case was held in November last year, more than seven months ago.

New Jersey – A federal court's ruling in 2015 favored the lenders, matter pending with Court of Appeals

In a widely covered bankruptcy court's decision, *Washington v. Specialized Loan Servicing*, the judge ruled against the lender and allowed the borrower to retain the property free of any mortgage claim. The judge said that the six year statute began from the date of debt acceleration (July 2007) and time barred the lender from asserting any claim after July 2013. The foreclosure action against the borrower was dismissed in July 2013 and the lender discharged the lis pendens in August 2013. Subsequently, the borrower filed for bankruptcy and in the bankruptcy action, borrower sued the lender seeking a declaration that the mortgage debt is unenforceable.

However, that decision was subsequently overturned by the U.S. District Court for the District of New Jersey (a federal court). New Jersey does differ from other states as it has a special statute of limitations for residential foreclosures. From N.J.S.A. § 2A:50-56.1:

> *An action to foreclose a residential mortgage shall not be commenced following the earliest of:*
>
> *a. Six years from the date fixed for the making of the <u>last payment or the maturity date set forth in the mortgage</u> []*
>
> *b. Thirty-six years from the date of recording of the mortgage []*
>
> *c. Twenty years from the date on which the debtor defaulted [].*

In its ruling, the federal judge said that the bankruptcy court incorrectly interpreted the last payment or maturity date to mean an 'accelerated' mortgage or advanced maturity date. The date of maturity set forth for the mortgage was March 1, 2037 and the 'maturity date' was never accelerated. Thus, the six-year statute of limitations was not applicable in this matter.

The ruling also cited that several NJ state courts have reviewed similar cases and on the issue of 'acceleration', it interpreted a state court's ruling to mean that acceptance of borrower's argument here "would ignore the plain meaning of the statute, rendering it superfluous and insignificant".

The borrower did file an appeal against the District Court ruling last September. The case remains open in the United States Court of Appeals for the Third Circuit. The case number is 15-3210.

New York – State courts continue to favor the borrowers

In New York, State Supreme Courts[1] have ruled against the lender on more than one occasion. One of the recent rulings came in January this year where the Queens' county Supreme Court dismissed the foreclosure action in *Soroush vs. Citimortgage*. In another instance, Suffolk county Supreme Court had ruled against the lender in *Tovar vs. Beneficial Homeowner Service* in 2015. The list probably goes on.

[1] In New York, Supreme Courts are the courts of original instance unlike Florida and New Jersey, where a Supreme Court is the court with highest authority. New York Supreme Courts' decisions can be appealed in Appellate Divisions of the Supreme Court. Appellate Divisions' rulings can be further appealed to the Court of Appeals.

Although we are not legal experts, the precedents established in New York seem more explicit and rather onerous to us. Some of the past rulings that have also been cited in recent rulings explicitly say that:

- "The filing of the summons and complaint and lis pendens in an action accelerate[s] the note and mortgage" - *Clayton Nat'l. Inc. vs. Guidi, Appellate Division: Second Judicial Department*

- "Even if a mortgage is payable in installments, once a mortgage debt is accelerated, the entire amount is due and the Statute of Limitations begins to run on the entire debt" - *Wells Fargo Bank, N.A. v. Burke, Appellate Division: Second Judicial Department*

- "Even if a foreclosure action has been dismissed, the acceleration survives" - *FNMA vs. Mebane, Appellate Division: Second Judicial Department*

- "Without an affirmative and unambiguous act by a lender to revoke a prior acceleration, the acceleration remains undisturbed and the limitations statute still runs" - *UMLIC VP, LLC v. Mellace / Guidi / Lavin v. Elmakiss, Appellate Division: Second Judicial Department*

- "Once a mortgagee makes the election to file a foreclosure summons and complaint, thus accelerating the mortgage debt due and owed in full, said election is "final and irrevocable … and not subject to change at the option of the [mortgagee]" - *Kilpatrick v. Germania Life Ins, Court of Appeals*

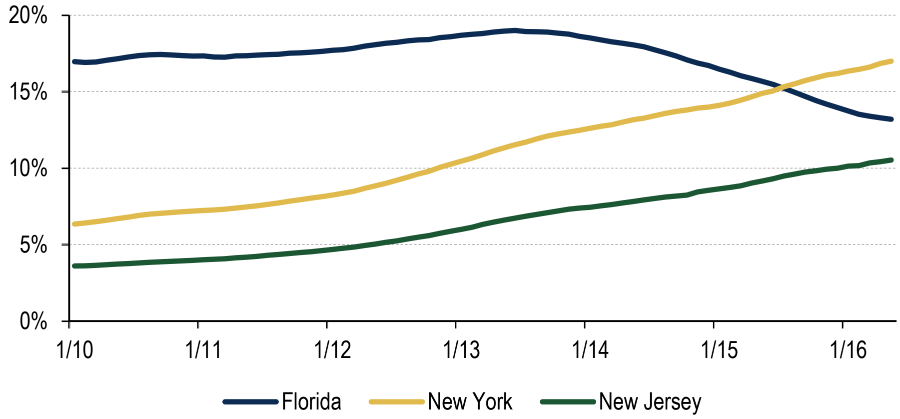
That said, the lender has appealed the decision in the *Tovar vs. Beneficial Homeowner Service* and the case remains pending in the Appellate Division of the Second Department. The docket number for the case is 2015-02811.

Given the above background, we next discuss the magnitude of SOL risk for non-agency investors.

Share of NY-NJ loans in the pipeline has been steadily rising

Successful SOL defense by the borrower would throttle any potential recovery on the applicable loans. Looking at the current composition of legacy non-agencies, we notice that the share of New York and New Jersey loans in the delinquent pipeline has been steadily rising. On the other hand, Florida's share has been decreasing since 2014 (Chart 46). Currently, New Jersey loans comprise 11% of the current pipeline, Florida 13% and New York 17%. Collectively, the loans from these three states comprise 41% of current non-agency pipeline.

Chart 46: Share of FL, NY and NJ loans in the current non-agency pipeline



Source: CoreLogic, BofA Merrill Lynch Global Research

SOL exposure may seem significant…

Even within a state, the loans at risk of SOL defense should only be those where all of the following is true:

- Foreclosure proceeding on the loan was dismissed previously
- The loan has not been modified and remains delinquent
- New foreclosure has not been filed or filed after the statute expired

However, we are not sure whether the loan remittance data available to us would accurately report the change in delinquency/foreclosure status for a loan when a foreclosure gets dismissed by the court. The reasons cited by the court while dismissing some of these foreclosures suggests to us that servicers might have erred on their side and hence the loan level reporting they provide may also suffer from inconsistency. For example, if the foreclosure was dismissed because the servicer was not present in the court then it is possible that the servicer reports the true status of the foreclosure with a delay. In such dismissals, LoanPerformance may continue to report the delinquency status of the loan as 'F' rather than '9' even if the court has already disallowed the foreclosure motion. Moreover, there is also a possibility that the current foreclosure gets dismissed and if sufficient time has passed, borrower may be able to use SOL as an affirmative defense.

Hence we chose to estimate the SOL exposure by sizing the loans that were foreclosed more than five years (for FL) or six years (for NJ and NY) ago, have not cured since then and are still in foreclosure or are 90 days+ delinquent. Using such estimates, we got the aggregate non-agency exposure that is exposed to SOL risk as 3.7% of outstanding balance or 22% of the delinquent balance. This may seem very significant, however, it is important to note that this is an overestimate and it is important to haircut this exposure to get a more real estimate.

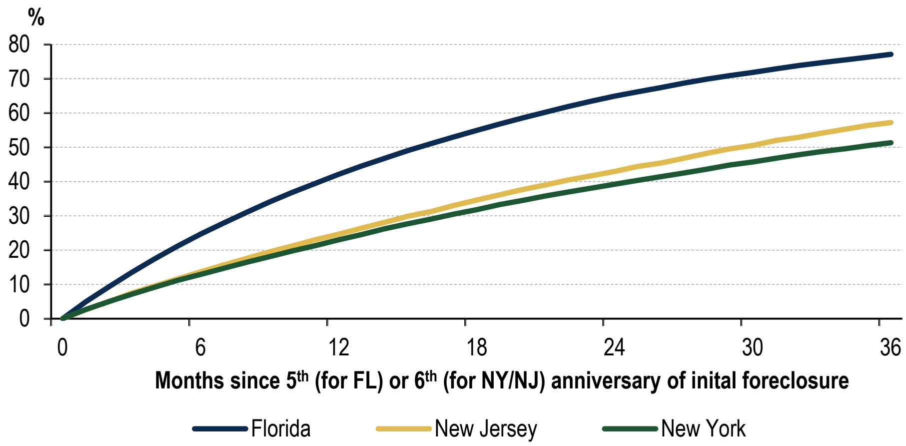
True exposure would be much lower

Although, any mortgage that meets the above described criteria is in theory exposed to SOL risk, however, most of them do liquidate or resolve at a regular pace. That does not surprise us as the SOL defense never becomes valid for many (initial foreclosure is never dismissed) and further, not every borrower that can use a SOL defense would necessarily end up using it. Even if the time period for a foreclosure statute of limitations has expired, the borrower must assert the SOL defense to defeat the foreclosure. If the borrower does not assert it, the SOL defense is deemed waived.

Based on the historical resolution rates for such loans, two-thirds of them should resolve within 36 months after completing the 5th or 6th anniversary (for Florida and

New Jersey/New York respectively) of the initial foreclosure (Chart 47). Florida loans resolve faster than New York/New Jersey, which is consistent with higher resolution rolls observed for Florida since 2013-14.

Chart 47: Cumulative resolution of mortgages that were foreclosed more than 5/6 years ago



Source: CoreLogic, BofA Merrill Lynch Global Research

Hence, for a better estimate of the true SOL exposure, we haircut the balance past the 5th/6th year anniversary of initial foreclosure by the 36-months cumulative resolution rate. Specifically, we use the following haircuts: 77% for FL, 51% for NY, 57% for NJ.

After applying the haircuts, our estimates for the SOL exposure become much more contained – 1.4% of outstanding balance or 8.4% of delinquent balance (Table 25). Considering that even this is likely to be an overestimate (after all these mortgages continue to liquidate/resolve even after the 36th month) and further, the loss expectations on such deeply delinquent loans may already be low, we do not see SOL creating any meaningful surprises in non-agency recoveries. Moreover, all this discussion would be irrelevant if the pending court verdicts favor the lenders.

Table 25: Sector wise SOL exposure estimates for legacy non-agencies

	Foreclosed loans that are past their 5th/6th anniversary of intial foreclosure								Exposure after Haircut	
	As % of UPB				As % of DQ Balance				Haircut = 77% for FL, 51% for NY and 57% for NJ	
Sector	**FL**	**NY**	**NJ**	**FL+NY+NJ**	**FL**	**NY**	**NJ**	**FL+NY+NJ**	**As % of UPB**	**As % of DQ Balance**
Prime	0.3	0.3	0.4	1.0	5.3	4.0	5.4	14.6	0.4	5.5
Alt-A	1.2	0.8	1.4	3.4	8.0	5.4	9.8	23.1	1.3	8.7
Option ARM	2.2	0.8	0.8	3.8	11.9	4.4	4.4	20.6	1.3	6.8
Subprime	1.5	1.2	2.4	5.1	7.1	5.6	11.1	23.8	2.0	9.1
Total	**1.3**	**0.9**	**1.5**	**3.7**	**8.0**	**5.2**	**9.3**	**22.4**	**1.4**	**8.4**

Source: CoreLogic, BofA Merrill Lynch Global Research

Exposure for individual deals can still be high

Although overall SOL exposure for non-agencies seems low, some of the individual pools do have a higher exposure. The exposure may be most pronounced for low balance seasoned pools where negative outcome for even a single loan can meaningfully alter the overall recoveries. Table 26 lists a few deals that might have the highest exposure.

Table 26: Deals with the highest SOL exposure

Deal (Balance of 10-100mn)	Balance ($mn)	SOL exposure (after the haircut)	Deal (Balance >100mn)	Balance ($mn)	SOL exposure (after the haircut)
MASTR 2004-10	16	49%	RAMC 2006-1	225	23%
CWHL 2004-J5	13	43%	NHELI 2006-AF1	102	23%
PHHMC 2005-5	10	43%	NAA 2006-AF1	145	23%
WAMU 2002-AR17	20	43%	NAA 2006-AF2	152	23%
WAMMS 2004-RA1	11	36%	RAMC 2006-2	232	22%
CSFB 2004-6	34	35%	GSAMP 2005-AHL2	101	22%
RFMSI 2004-S8	16	33%	ARMT 2006-3	256	22%
MASTR 2004-5	11	33%	RAMC 2006-4	223	22%

Table 26: Deals with the highest SOL exposure

Deal (Balance of 10-100mn)	Balance ($mn)	SOL exposure (after the haircut)	Deal (Balance >100mn)	Balance ($mn)	SOL exposure (after the haircut)
GMACM 2003-J6	19	32%	SARM 2007-4	107	22%
CSFB 2003-8	30	32%	FHLT 2006-1	113	22%

Source: CoreLogic, BofA Merrill Lynch Global Research

Mods on long delinquent loans can also slightly pickup

The SOL may also lead servicers to proactively modify the deeply delinquent borrowers to mitigate the risk to foreclosure proceeding. Typically, the mod rate for loans delinquent for three years or more are very low (~1% of delinquent balance) and if the servicers chose to proactively modify in Judicial states, we can see slight pickup in mod rate for deeply delinquent loans in that state.

Note that a unilateral decision by the servicer to modify a previously foreclosed loan might not be deemed sufficient to 'decelerate' the 'accelerated' loan. At least in New York, the Appellate Division has invalidated such unilateral deceleration and has said that to revoke the acceleration of a mortgage, there must be "an affirmative act by the lender revoking its election to accelerate", *EMC Mortgage Corp. v. Patella*, *Appellate Division: Second Judicial Department.*

NPL pools can also have concentrated SOL risk

In addition to legacy non-agencies, NPL pools also have exposure to SOL risk. NPL pools by definition comprise of delinquent mortgages (often deeply delinquent mortgages) and moreover, their returns are more levered to liquidation recoveries than legacy RMBS. Hence, recoveries for NPL pools with high concentration of New York/New Jersey/Florida can be highly susceptible to the court's verdict on the matter.

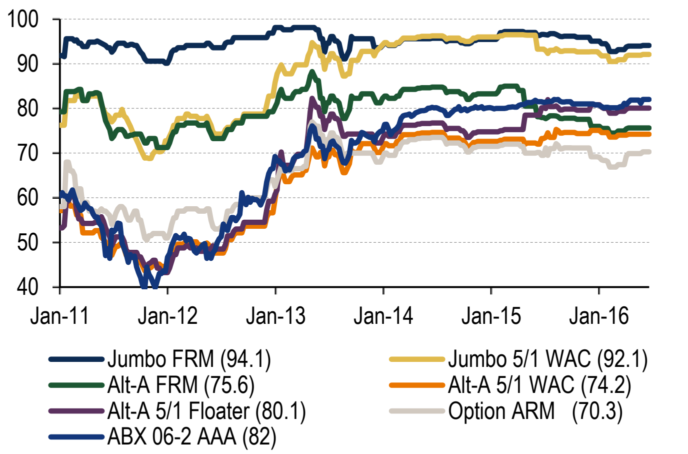
Market pricing and spread

Table 27: 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%	50	20%	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%	25	17%	20	13%	150	170
NPL A1	297	(9)	-3%	(23)	-7%	4	2%	(81)	-21%	297	378
NPL A2	653	17	3%	17	3%	259	66%	163	33%	490	653
SFR											
A	145	5	4%	7	5%	13	10%	(24)	-14%	138	218
B	210	5	2%	10	5%	33	19%	(30)	-13%	200	275
C	265	10	4%	5	2%	62	31%	(40)	-13%	255	357
D	300	10	3%	10	3%	22	8%	(17)	-5%	290	446
E	420	10	2%	5	1%	42	11%	(15)	-3%	410	541
F	510	15	3%	25	5%	32	7%	(22)	-4%	485	641
Credit Risk Transfer											
STACR Low LTV Actual Loss M1	108	0	0%	(9)	-8%	(11)	-9%	(23)	-18%	108	190
STACR Low LTV Actual Loss M2	210	11	6%	5	2%	(25)	-11%	(80)	-28%	199	315
STACR Low LTV Actual Loss M3	525	3	1%	38	8%	163	45%	40	8%	463	690
STACR Low LTV Actual Loss B	1,125	0	0%	80	8%	370	49%	191	20%	934	1,197
STACR Low LTV M1	135	0	0%	0	0%	2	2%	9	7%	124	135
STACR Low LTV M2	180	10	6%	10	6%	(65)	-27%	(30)	-14%	155	230
STACR Low LTV M3 (BB)	335	5	2%	15	5%	(58)	-15%	(120)	-26%	310	540
STACR Low LTV M3 (NR)	420	(2)	0%	10	2%	(4)	-1%	(50)	-11%	395	590
STACR Low LTV B (NR)	1,017	0	0%	0	0%	175	21%	147	17%	870	1,077
STACR High LTV M1	110	0	0%	0	0%	(16)	-13%	(25)	-19%	110	155
STACR High LTV M2	240	10	4%	10	4%	(5)	-2%	(15)	-6%	230	295
STACR High LTV M3 (BB)	395	(9)	-2%	5	1%	32	9%	(35)	-8%	380	555
STACR High LTV M3 (NR)	420	(4)	-1%	(34)	-7%	(1)	0%	(50)	-11%	410	585
STACR High LTV B (NR)	805	(14)	-2%	(14)	-2%	30	4%	(6)	-1%	805	866
STACR High LTV Actual Loss M1	114	0	0%	(46)	-29%			2	2%	112	170
STACR High LTV Actual Loss M2	228	10	5%	(12)	-5%			(62)	-21%	218	320
STACR High LTV Actual Loss M3	540	(1)	0%	19	4%			45	9%	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%	28	20%	9	6%	156	175
CAS Low LTV M2	485	(2)	0%	15	3%	47	11%	(30)	-6%	440	685
CAS High LTV M1	170	0	0%	0	0%	33	24%	14	9%	156	170
CAS High LTV M2	485	(1)	0%	19	4%	48	11%	(27)	-5%	440	680
CAS Actual Loss Low LTV M1	180	0	0%	0	0%			26	17%	154	215
CAS Actual Loss Low LTV M2	505	(2)	0%	15	3%			(40)	-7%	463	690
CAS Actual Loss Low LTV B	1,045	0	0%	2	0%					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	530	(2)	0%	15	3%			(5)	-1%	495	710
CAS Actual Loss High LTV B	1,165	0	0%	0	0%					1,165	1,275

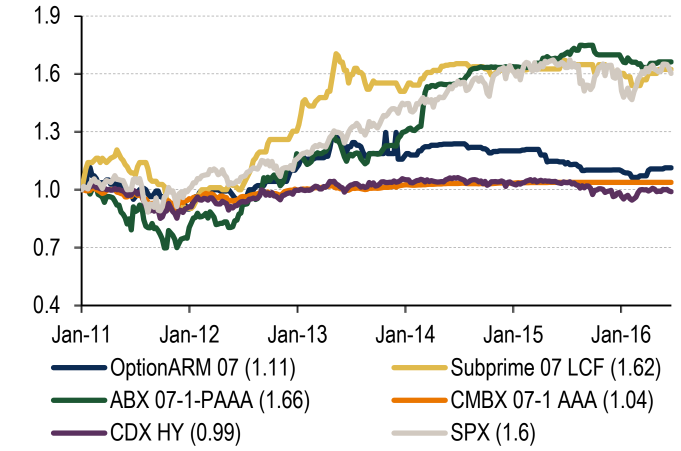
Source: BofA Merrill Lynch Global Research

Chart 48: Non-agency senior bond prices- 2006 vintage



Source: BofA Merrill Lynch Global Research

Chart 49: Non-agency prices vs. CDX HY & S&P 500 (100=1/11)



Source: BofA Merrill Lynch Global Research

Table 28: 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 29: 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 30: 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	758			162	795		2,271	3,986	
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	903			195	1,111	739	1,717	4,665	785
2015-10	680				1,528	239	3,122	5,569	1,021
2015-09	761				965	478	2,026	4,230	1,237
2015-08	915			72	93		520	1,600	1,136
2015-07	878			0	1,878		2,992	5,748	1,292
2015-06	1,000				1,376	2,306	3,879	8,561	1,142
2015-05	967				1,489	380	1,891	4,727	2,209
2015-04	1,138				1,010	1,107	1,890	5,145	2,727
2015-03	933				860	553	2,780	5,126	3,302
2015-02	1,726				1,469	559	3,401	7,154	2,663
2015-01	1,940				880	541	2,434	5,795	3,365
2014-12	536					531	2,755	3,821	2,952
2014-11	2,036				1,449	1,298	4,601	9,383	2,867
2014-10	1,102				1,087		2,101	4,290	1,154
2014-09	1,189				770	987	2,716	5,661	1,747
2014-08	929				1,132	1,375	1,205	4,641	658
2014-07	670				2,050		1,741	4,460	1,192

Source: BofA Merrill Lynch Global Research, Intex, Bloomberg

Table 31: 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	1,982			162	7,305	1,274	15,121	25,844	1,188
2015	12,072			474	13,248	6,902	28,475	61,170	21,563
2014	8,792			10	10,812	6,737	23,387	49,739	16,227
2013	12,830				1,805	479	11,986	27,100	11,989
2012	3,469						4,635	8,104	14,164
2011	671						3,536	4,207	23,827
2010	273			162			4,141	4,576	60,238
2009	0			0			7,131	7,131	58,453
2008	14,941	9,433	371	4,421			397	29,564	14,656
2007	153,641	188,214	91,893	248,061			7,870	689,679	21,192
2006	145,756	279,290	157,514	535,020			12,231	1,129,811	20,203
2005	183,140	278,846	147,948	530,959			11,614	1,152,507	36,214
2004	195,602	164,702	40,187	430,550			19,035	850,077	9,684
2003	238,245	86,393	3,362	240,555			6,044	574,599	6,207
2002	178,665	46,584	4,624	184,006			1,710	415,588	7,746
2001	118,269	27,458	2,584	110,667			629	259,607	2,885
2000	46,597	12,336	7,336	72,944			493	139,707	1,669

Source: BofA Merrill Lynch Global Research, Intex, Bloomberg

CMBS

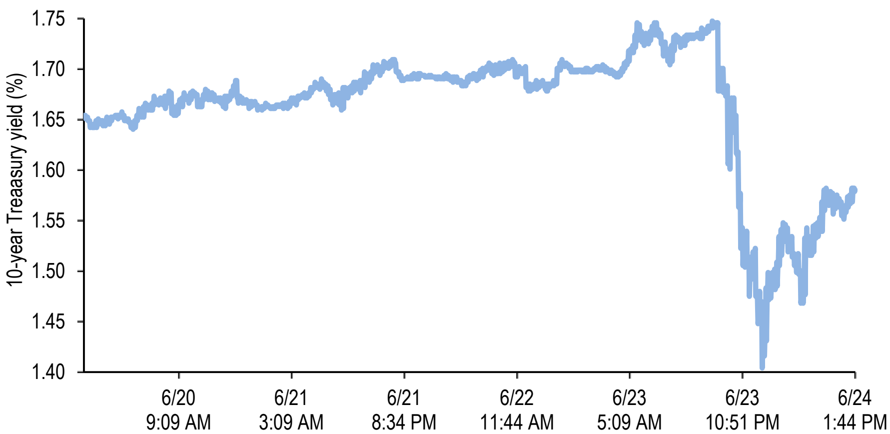
Alan Todd, CFA
MLPF&S
alan.todd@baml.com

Mao Ding
MLPF&S
mao.ding@baml.com

Recap & relative value

It was a return to risk-on during the first four days this week as the long-awaited "remain" vote in Britain appeared to remove one of the most significant binary "unknowns" plaguing investors. That changed on Friday as a final "leave" outcome caught investors off-guard. Following the vote, 10-year Treasury yields collapsed (Chart 50), briefly touching 1.4%, the lowest level since mid-2012, before settling in in the mid 1.50% range.

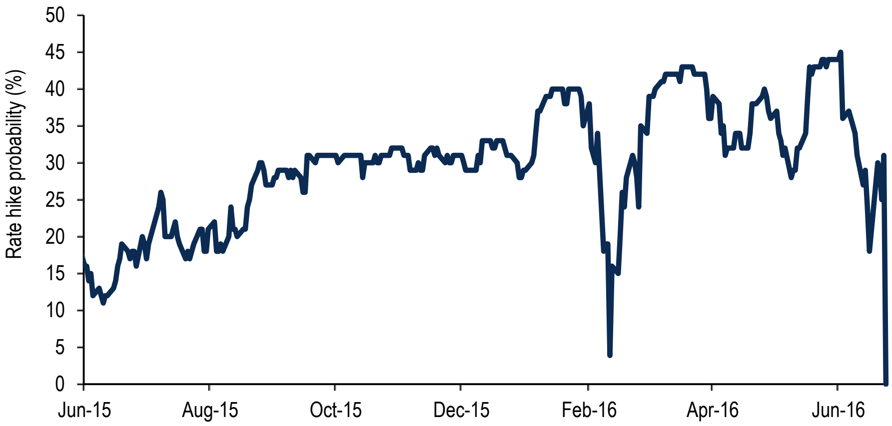
Chart 50: 10-year Treasury yields collapsed following Thursday's Brexit vote



Source: Bloomberg

Additionally, dovish comments during Fed Chair Yellen's Humphry Hawkins testimony earlier this week led investors to conclude that despite earlier threats, the Fed doesn't appear to be in any hurry to raise interest rates. Yesterday's Brexit vote all but cemented this expectation. **On the heels of yesterday's Brexit vote, Bank of America's economists pushed back from September to December their expectation for the next Fed rate hike, and in our opinion, even that may be subject to further revision, given that global growth projections were cut as well.** This seems to be consistent with what the market is thinking, as well, as the implied probability of a rate hike before December 2016 fell to zero (Chart 51).

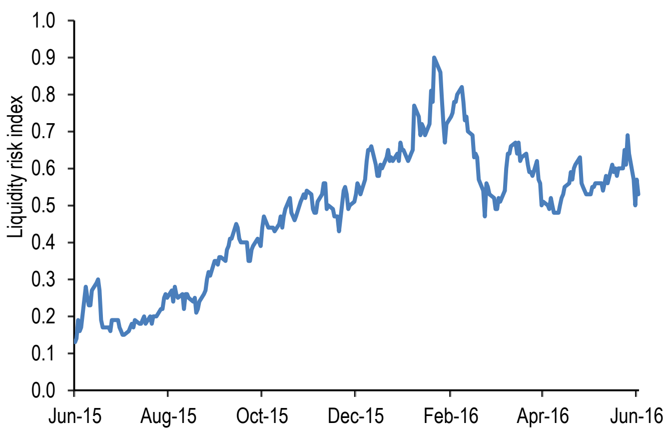
Chart 51: The implied probability of a rate hike before December fell to 0 following yesterday's Brexit vote



Source: Bloomberg

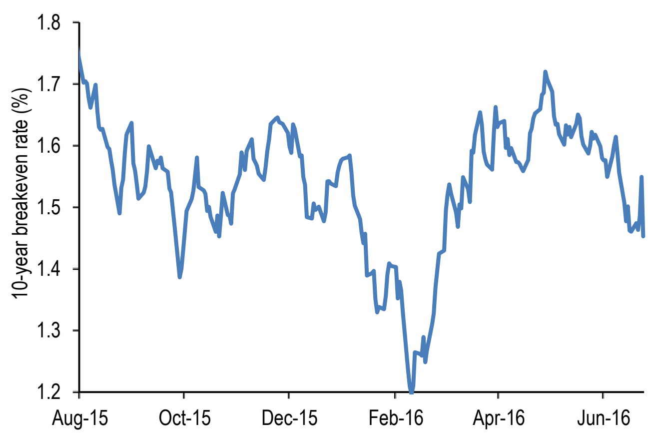
Despite the uptick in volatility early Friday, by the end of the day the BofAML liquidity risk index was still lower than it was at the close of business last Friday (Chart 52) and 10-year Treasury breakevens were basically changed on the week (Chart 53). Nonetheless, although neither index may indicate things are worse in the US, we think both continue to suggest that a low growth/low interest rate environment may persist for the foreseeable future.

Chart 52: Despite Brexit, the BofAML Liquidity Risk Index ended the week lower week/week



Source: Bloomberg

Chart 53: 10-year breakeven yields ended the week roughly unchanged



Source: Bloomberg

What does this mean for commercial real estate and the CMBS market? Broadly speaking, we anticipate that our forecast for 3% year-over-year price growth may now be somewhat too optimistic. As investors further consider the economic uncertainty that Britain leaving the EU may impart and how global growth may slow, the result will be, in part, a possible delay in corporate spending. **Furthermore, as lenders consider economic growth – and hence – rental growth, many are likely to pare their expectations, which would result in tighter lending standards. So, while low coupons may help borrowers at the margin, we think any benefits will be more than offset by tighter lending standards, including fewer proceeds and lower leverage, which could reinforce a slowdown in CRE price growth.**

While this may mean strong borrowers with good underlying properties may not obtain optimal financing, they should still be able to successfully refinance, even if it means a lower LTV loan. **It will, however, be considerably more negative for borrowers with marginal properties, which have had – and will continue to have – a more difficult**

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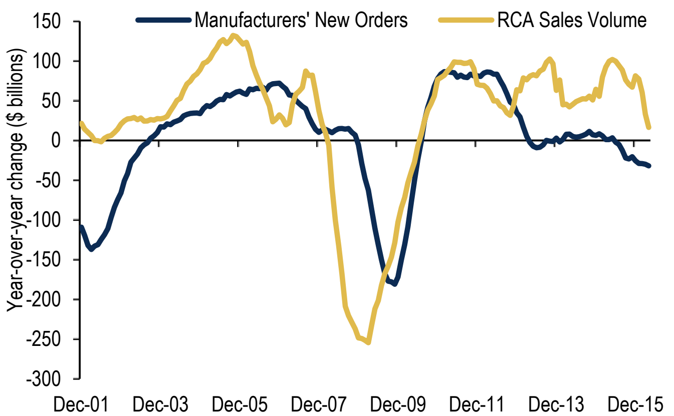
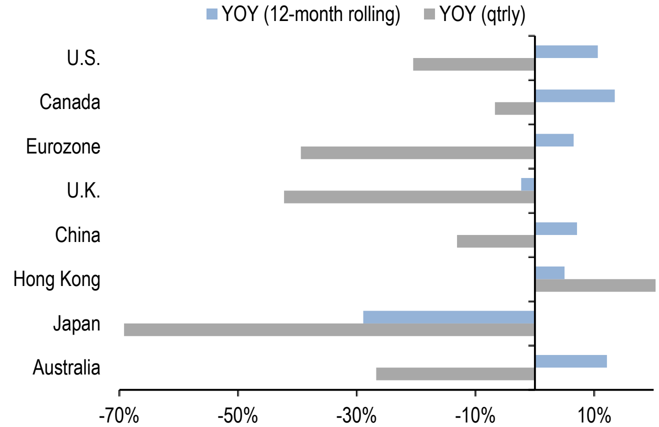
time obtaining financing. This is likely to result in a feedback loop of further stagnation/slowdown of CRE price appreciation. Already, according to Real Capital Analytics, commercial real estate sales volume has slowed significantly and appears to be correlated to changes in manufacturers' new order volume (Chart 54), with global CRE transaction volume slowing most in Japan, the U.K. and in Europe (Chart 55).

Chart 54: Slowing pace of investment may result in fewer CRE sales, which could hurt prices



Source: Real Capital Analytics, US Census Bureau

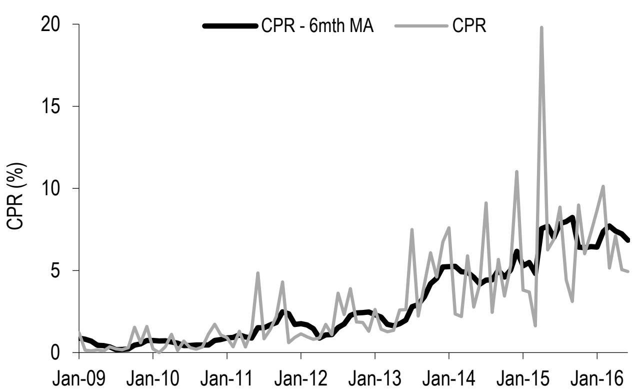
Chart 55: Transaction volume drops globally in 1Q 2016



Source: Real Capital Analytics

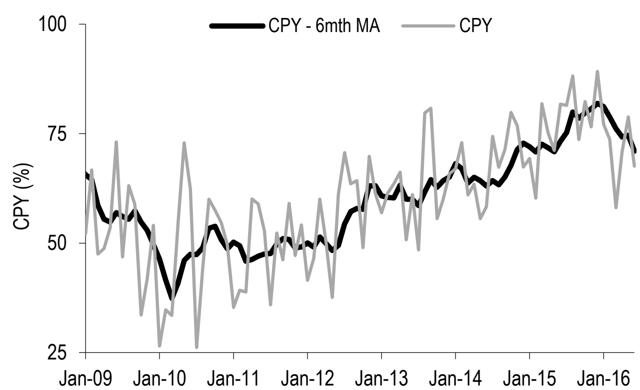
This credit tightening, in turn, will likely affect many legacy CMBS borrowers' ability to successfully refinance. **To this point, the rate at which borrowers prepaid their loans either with (Chart 56) or without a penalty (Chart 57) has already slowed and we expect it will slow further.**

Chart 56: The voluntary conduit loan prepayment rate slipped over the past few months



Source: Intex, BofA Merrill Lynch Global Research

Chart 57: The rate at which borrowers prepaid once all penalties expired also decreased recently



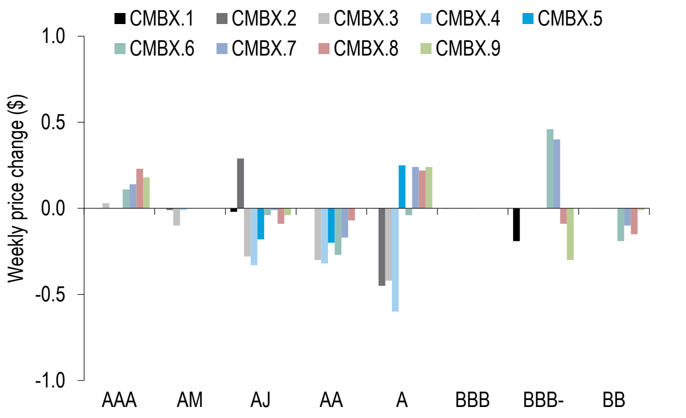
Source: Intex, BofA Merrill Lynch Global Research

While we think this broadly benefits holders of premium dollar priced legacy A4s or AMs, the benefit for legacy AJs is less obvious. We have become more cautious about refinance risk inherent in the loans collateralizing mid-$90s (and lower) dollar priced AJs. Certain bonds could realize multi-point price drops if supposed "money good" loans encounter difficulty refinancing, which has become a distinct possibility given the recent stagnation we've seen in CRE price growth and the prospect for tighter lending standards.

Although CMBS cash bond spreads were quoted wider this morning, the current state of the market's illiquidity showed its true colors: some dealers widened offers a bit, many clients were trying to buy bonds on the bid side and very little traded. While wider cash bond spreads and a steeper credit curve may appear to present investors with a buying opportunity, we think that spreads are likely to

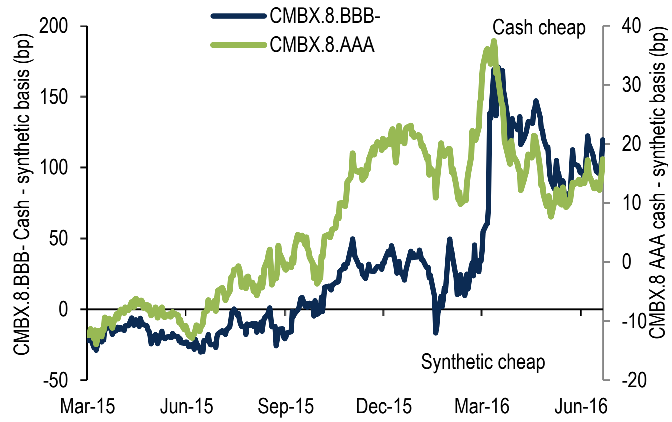
remain soft over the near term. Benchmark triple-A conduit cash bond spreads are likely to widen as all-in yields fall below some investors' yield hurdles, while the credit curve should steepen as investors re-price credit risk in conjunction with the weaker broader market tone. Despite the volatility, CMBX prices ended the week within half a point of last Friday's closing level (Chart 58). At the same time, the cash/synthetic spread basis widened on the week as cash reference obligation bonds underperformed their respective CMBX tranches (Chart 59).

Chart 58: Despite the volatility, CMBX prices ended the week within roughly half a point from last Friday's close



Source: BofA Merrill Lynch Global Research, Markit Partners

Chart 59: The cash/synthetic basis widened this week as synthetics outperformed their underlying reference obligations



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

Given the lack of a recent new issue conduit deal pricing to give the market direction, we think that near term changes in the cash/synthetic basis will largely reflect the movement of the synthetic indices. Furthermore, even after we get a new issue conduit print (the $736 million SGCMS 2016-C5 conduit deal was announced this week), we don't anticipate that the CMBX cash/synthetic spread basis, which is based on conduit deals issued in 2012-2015, will truly reflect demand for the new issue deal(s). Why is that? For many of the reasons we've previously discussed:

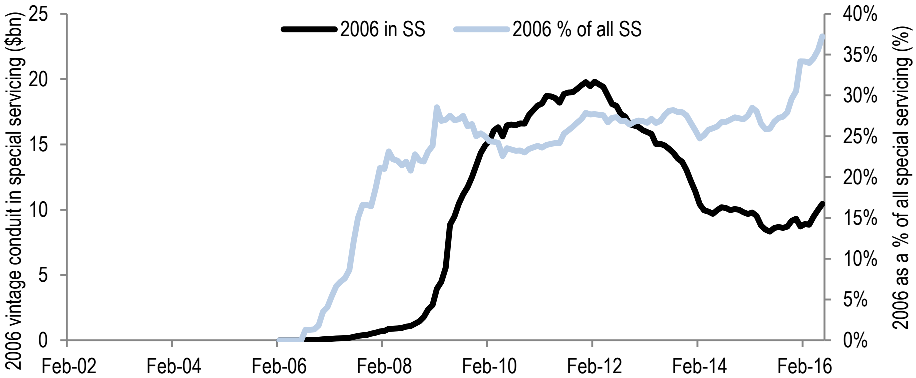
1. The limited availability of bonds offered for sale in the secondary market has led to limited liquidity (or vice versa in a feedback loop),

2. Of bonds that are offered on bid lists or dealers' inventory sheets, the small sizes (often on the order of $5 million) often don't garner interest from large investors since the amount for sale isn't enough to help them "move the needle," and

3. Concerns that a technical overhang exists. Investors worry that previously issued mezzanine conduit bonds could widen substantially if a fast money investor that also owns those securities decides to sell.

As we move through the summer and into the latter half of the year we think legacy and new issue bonds will increasingly march to the beat of separate drummers. While we anticipate that new issue conduit spreads could tighten to the extent that broader market conditions stabilize, legacy conduit bond performance will be much more idiosyncratic. In addition to the aforementioned issues that make it difficult to buy cash bonds in the secondary market, tighter lending standards have resulted in less clarity regarding how legacy bonds – particularly AJs in the legacy space or original 5-year A2s in the CMBS 2.0/3.0 space – may perform as the loans collateralizing these bonds approach their respective maturity dates. **For example, through the June remittance period, the amount of 2006-vintage loans in special servicing jumped, as did the percentage that 2006-vintage conduit loans comprise of all specially serviced loans (Chart 60).**

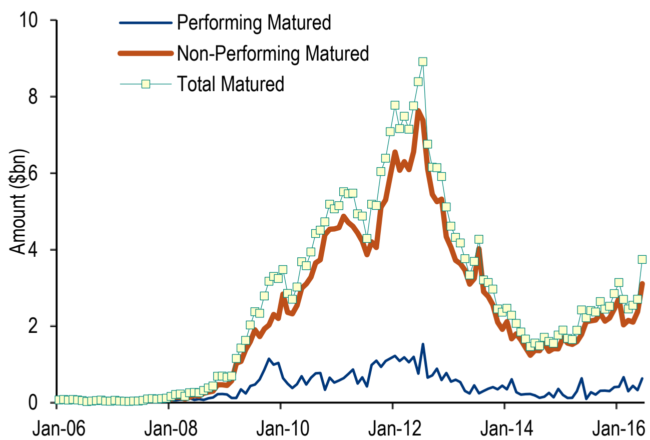
Chart 60: The amount of 2006-vintage conduit loans in special servicing increased by almost $500 million last month and $1.2 billion since the beginning of the year; almost 40% of all loans in special servicing were originated in 2006



Source: BofA Merrill Lynch Global Research, Intex

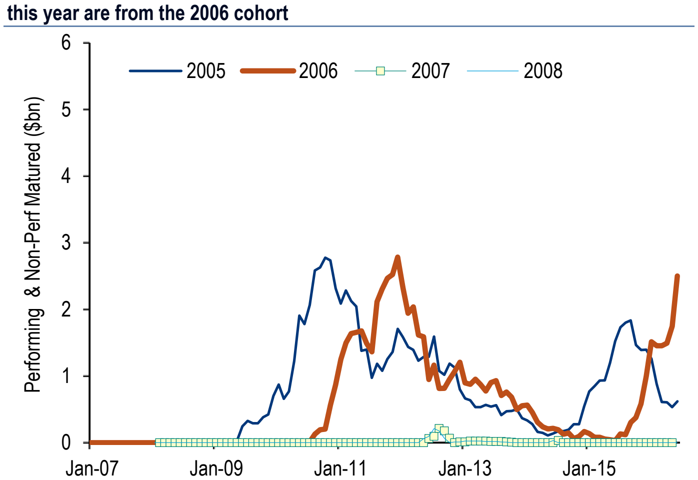
When we dug a little more deeply, we found that a significant amount of the specially serviced loans was comprised of those that were unable to refinance at maturity. Not only did the amount of matured (and non-performing) loans jump over the past few months (Chart 61), but a significant number/amount were originated in 2006 (Chart 62).

Chart 61: The amount of non-performing matured loans jumped over the past few months



Source: Intex, BofA Merrill Lynch Global Research

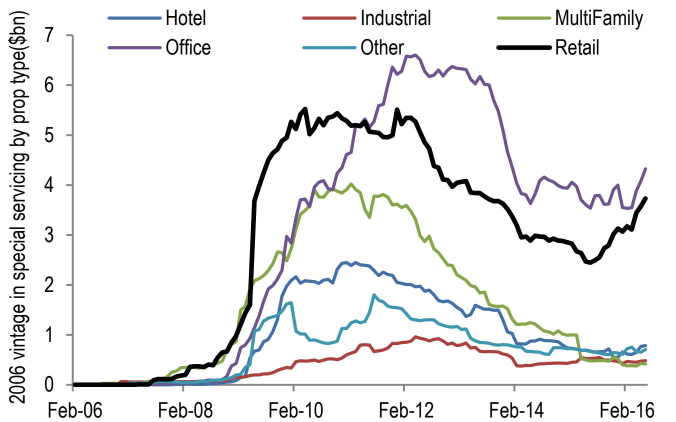
Chart 62: A significant amount of the matured loans that were unable to refinance this year are from the 2006 cohort



Source: Intex, BofA Merrill Lynch Global Research

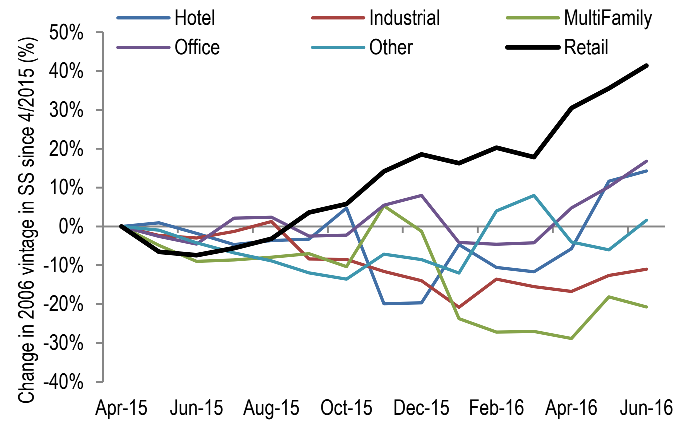
When we analyzed the composition of 2006-vintage conduit loans that are currently in special servicing, loans collateralized by retail properties accounted for the most significant increase by dollar amount (Chart 63) and the biggest percentage change over the past year (Chart 64).

Chart 63: The amount of 2006-vintage retail loans in special servicing increased by over $1bn since April 2015



Source: BofA Merrill Lynch Global Research, Intex

Chart 64: Over the past year, the amount of retail loans in special servicing increased by almost 40%



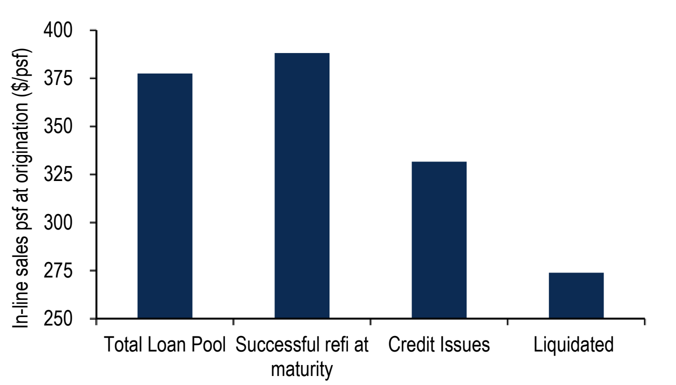
Source: BofA Merrill Lynch Global Research, Intex

The fact that loans collateralized by retail properties have been struggling lately shouldn't be a surprise. In fact, over the past several weeks the following quotes/stories were posted on public news sites:

> *"Loan Against Another CBL-Owned Mall Moves to Special Servicing"*
>
> *"Starwood Said to Offer $1.2 Billion of U.S. Malls for Sale"*
>
> *"WP Glimcher Says CEO Resigns, Plans Charge Related to Change"*
>
> *"June 6, Blackstone's Jonathan Gray said Class B shopping malls are [in] a "very tough environment"*

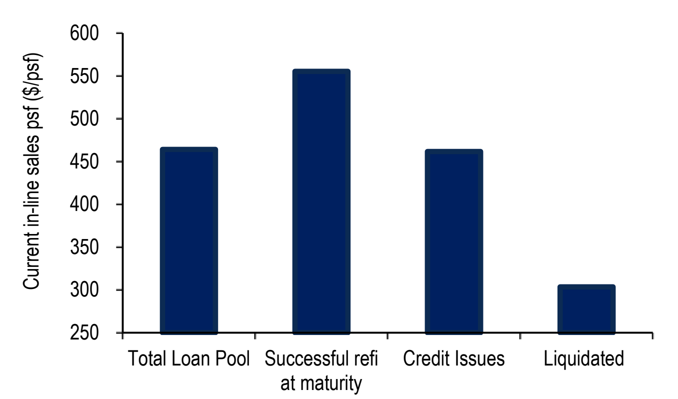
A closer look at the universe of mall loans reveals an unsurprising conclusion: there has been a positive correlation between in-line sales per square foot (psf) when a loan was originated and its subsequent credit performance. Malls that did not experience credit issues had average sales psf at origination (Chart 65) that were 42% higher than malls that had credit issues or were liquidated. Furthermore, loans that did not incur losses but nevertheless experienced credit issues, such as requiring a maturity date extension or entering FC/REO, had original sales psf that were 17% lower on average than did performing loans that refinanced successfully on time.

Chart 65: Sales psf at origination were higher for loans that refinanced successfully than for loans that subsequently had credit problems



Source: BofA Merrill Lynch Global Research, Intex, Fitch, S&P, deal documents

Chart 66: Current sales psf were higher for loans that refinanced successfully than for loans that have credit problems

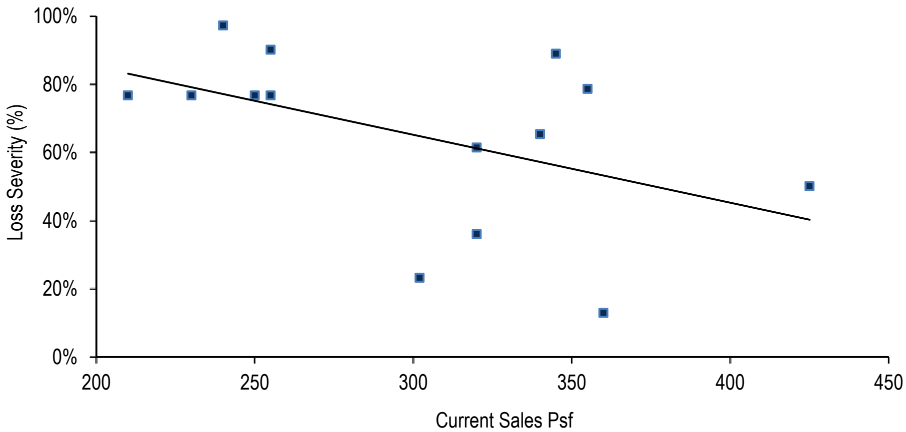


Source: BofA Merrill Lynch Global Research, Intex, Fitch, S&P, deal documents

Using current sales per square foot data, malls that struggled to refinance unsurprisingly witnessed disappointing sales figures relative to those that didn't have credit issues (Chart 66). Within the group of mall loans originated between

2005 and 2008, current sales psf were 83% lower among malls that were liquidated than among properties that did not experience credit issues. Of the malls in our sample set that were liquidated, the average loss severity was 57.5% of the original loan balance. Additionally, we found that there was a negative correlation between loss severity and a property's current sales psf (Chart 67).

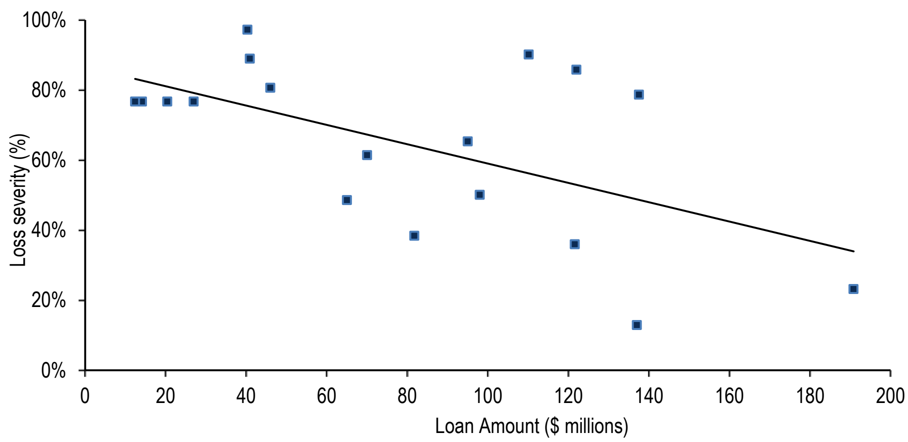
Chart 67: Loss severities were slightly higher among loans with lower current in-line sales per square foot



Source: BofA Merrill Lynch Global Research, Intex, Fitch, S&P, deal documents

Furthermore, we found that there was also a correlation between loss severity and loan amount, with larger loans generally experiencing lower severities (Chart 68).

Chart 68: Larger loans, on average, realized lower loss severities than did smaller loans



Source: BofA Merrill Lynch Global Research, Intex, Fitch, S&P, deal documents

While it may be too early to fully understand how Brexit may affect commercial real estate lending standards, we think that the impact is likely to be negative, not positive as uncertainty causes business leaders to delay or cancel expansionary plans until there's more clarity regarding global growth trends. This could result in tighter lending standards and lower CRE prices, which in turn could lead to wider bid/offer levels and a slowdown in transaction volume. **Ultimately, the retail mall statistics we show in this report are unlikely to improve over the coming year.**

Issuance Summary

Table 32: 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	0	7,729	19,138	28,327	7,729	11,409	14,951	16,838	16,945	19,138	61,915	51,752	53,145	32,082
Single Asset / Single Borrower	300	1,011	6,668	19,513	1,011	5,658	6,864	5,111	7,081	6,668	31,488	26,879	22,845	14,660
Multi-borrower Floater	0	0	0	1,221	0	0	305	0	676	0	1,526	4,203	912	343
Other	98	98	264	1,884	98	166	995	1,415	659	264	4,294	4,954	2,994	598
Private Label Total	**398**	**8,838**	**26,070**	**50,944**	**8,838**	**17,233**	**23,114**	**23,364**	**25,361**	**26,070**	**99,223**	**87,787**	**79,896**	**47,684**
FNMA DUS	1,459	6,366	17,599	25,016	6,366	11,232	7,825	7,843	12,740	17,599	37,587	27,734	32,921	42,316
FNMA GeMS	0	2,851	5,584	5,353	2,851	2,733	3,690	1,842	4,147	5,584	13,982	13,295	11,556	13,392
Freddie K	1,185	15,181	24,855	12,273	15,181	9,674	13,690	6,781	10,007	24,855	35,479	21,325	28,036	21,204
Freddie SBL	0	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	6,810	2,393	4,633	3,125	3,596	4,721	7,026	15,160	18,329	22,796	18,776
SBAP	0	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	**2,644**	**28,429**	**59,613**	**50,576**	**28,429**	**31,184**	**30,505**	**22,549**	**32,586**	**59,613**	**109,785**	**86,356**	**101,648**	**102,161**
TOTAL	**3,042**	**37,267**	**85,683**	**101,521**	**37,267**	**48,417**	**53,619**	**45,913**	**57,947**	**85,683**	**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	
	24-June	Wk	Mnth	YTD	Min	Max
2016 On-the-Run Conduit Bond Spreads						
3 Year AAA	67	0	2	-8	65	85
5 Year AAA	82	0	2	-13	80	98
A-SB	102	0	-3	-28	100	149
10 Year AAA	121	4	6	-14	115	165
A-S	156	7	11	-9	145	200
AA	220	10	15	12	205	320
A	337	17	27	29	308	445
BBB-	665	25	40	150	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	93	-2	3	-5	87	139
AS	149	1	4	14	133	208
AA	222	3	-3	31	191	321
A	315	-2	-7	46	272	437
BBB-	477	-7	8	94	388	635
BB	877	6	32	270	611	998
CMBX.8 spreads						
AAA	103	-2	1	-7	98	157
AS	172	2	8	18	153	229
AA	258	2	5	51	209	341
A	359	-1	-1	63	300	473
BBB-	612	5	29	131	485	790
BB	997	7	39	282	722	1,110
CMBX.9 spreads						
AAA	116	-1	1	-26	109	171
AS	188	2	4	-13	170	244
AA	273	1	2	-13	242	360
A	379	-2	-2	-23	330	498
BBB-	632	10	35	-40	526	818
BB	1,008	5	36	22	885	1,138
Swap spreads						
5 YR Swap	-3.8	-2.2	-0.8	-1.7	-9.4	-1.6
10 YR Swap	-12.4	0.6	1.6	-5.3	-16.9	-8.6
UST closing yields (%)	Changes in bp					
2 YR	0.64	-4	-22	-36	0.6	1.1
5 YR	1.09	2	-25	-62	1.1	1.8
10 YR	1.58	2	-24	-66	1.6	2.3

Source: BofA Merrill Lynch Global Research

** Swap spreads and Treasury yields as of prior night's close

YTD max & min reflect only values collected weekly.

ABS

Chris Flanagan
MLPF&S
christopher.flanagan@baml.com

Theresa O'Neill
MLPF&S
theresa.o'neill@baml.com

Elana Lipchak
MLPF&S
elana.c.lipchak@baml.com

Market View

New issue volume

This week, nine new deals with an aggregate principal balance of $4.8bn priced. The transactions included prime and nonprime auto loan ABS, a credit card ABS, a FFELP student loan ABS, two consumer loan ABS, an aircraft lease ABS, and a timeshare transaction. Total new issue volume is down 20% year-over-year. So far this year, 165 deals totaling over $95.8bn have priced. This time last year, 179 deals with an aggregate principal balance of $120.0bn had priced. Next week's new issue volume is expected to be light before the holiday weekend.

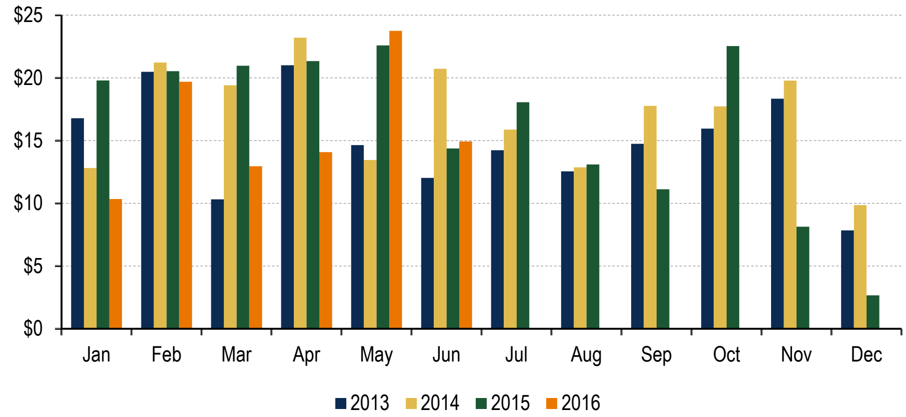
This week Sofi Lending Corp (SoFi) issued its first consumer loan ABS (Sofi Consumer Loan Program 2016-1 LLC). The single-A rated notes were priced at a spread of +238bp/2.3 year swaps for a yield of 3.3%. The senior notes have a credit enhancement level of 25.5%, while the underlying borrowers had an average FICO score of 736. Sofi has issued over $3.3bn of private student loan ABS. The single-A rated subordinated notes for their last student loan deal priced at +255bp for a yield of 3.84% and the triple-A rated notes priced at LIBOR +120bp. The senior notes have a credit enhancement level of nearly 23%, while the underlying borrowers have an average FICO score of 767. For comparison purposes, OneMain 's last consumer loan ABS issued a single-A rate note that priced at +260bp/5.5 year swaps for a yield of 3.96%. The senior notes have 27.5% of credit enhancement, while the underlying borrowers have an average FICO score of 642.

Table 33: New issue volume

Sector	2016 Forecast	2016 Actual	2015 Actual
Auto	$115,000	$54,010	$125,000
Credit Cards	$37,000	$15,452	$50,000
Ed Loans	$15,000	$5,742	$15,000
Equip	$10,000	$5,922	$15,000
Other	$23,000	$15,932	$30,000
Total	$200,000	$97,058	$235,000

Source: BofA Merrill Lynch Global Research

Chart 69: 2013-2016 new issue volume by month



Source: BofA Merrill Lynch Global Research

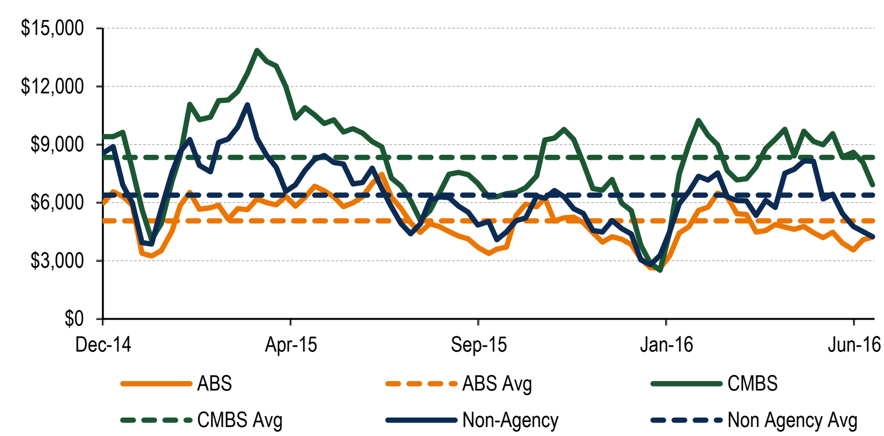
Secondary market activity: spreads move wider

Following the outcome of the Brexit referendum, spreads in secondary ABS markets moved wider in sympathy with the broader markets. 3-year senior prime and sub-prime auto loan ABS moved 5bp wider, while sub classes moved 5-10bp wider. Similarly, 3-year credit card and equipment ABS widened by 5bp, while 5-year private student loan spread also widened by 5bp. FFELP ABS spreads, along with certain off-the-run sectors, were unchanged on the week. Though auto floorplan, fleet, rental car, timeshare, franchise and consumer loan spreads moved 5bp wider.

TRACE data covering June 17 to June 23 show that there were 1,512 trades with total volume of at least $2.4bn (based on current face). These trades involved 639 securities with 378 of these securities trading more than once. Based on Bloomberg's TACT function, there were at least 91 trades that exceeded the dissemination cap of $10mn. For trades that exceed the cap, FINRA only reports the original face as $10mn+.

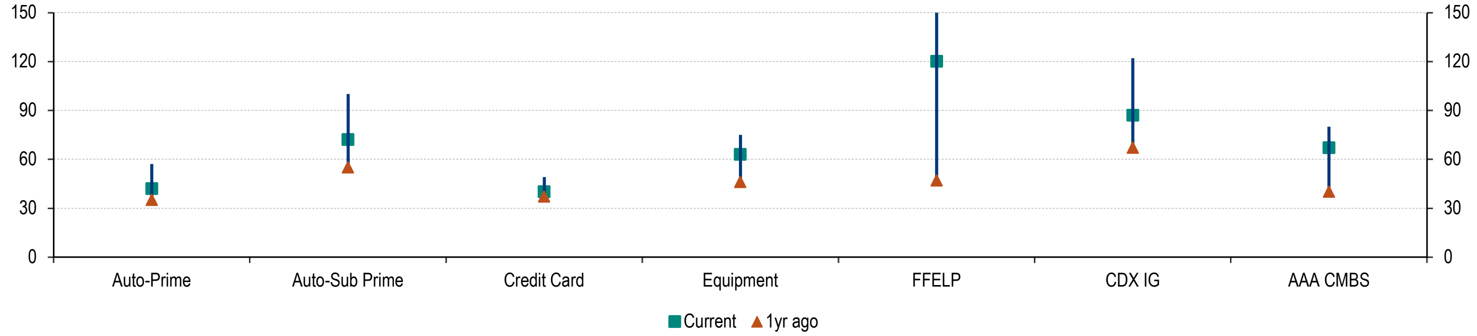
Chart 70: TRACE weekly volumes for securitized products ($bn)

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



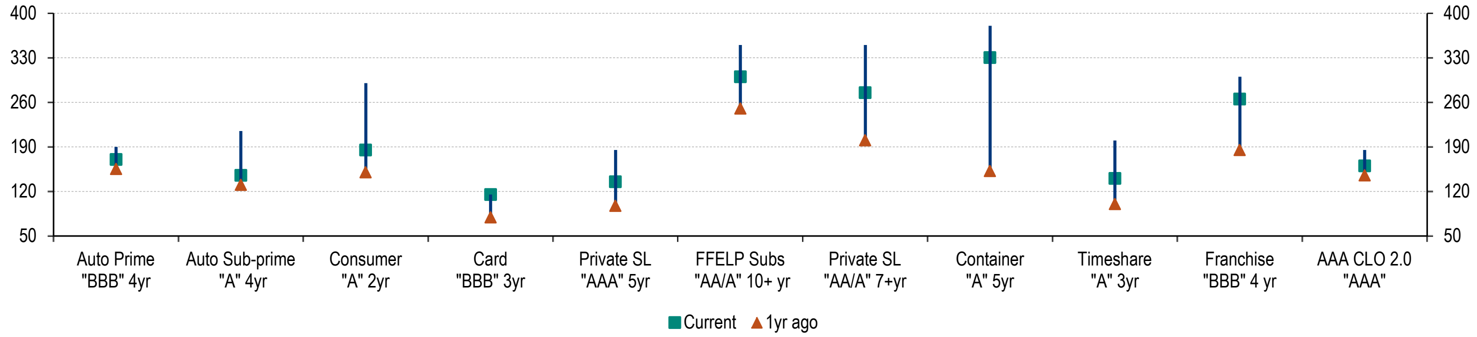
Source: FINRA, BofA Merrill Lynch Global Research.

Chart 71: 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 72: 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 34: ABS Spreads

	Current Week 06/24/16	1-wk change	10 week Min	10 week Max	10 week Avg
Credit Cards (Fixed Rate-Swaps)					
1-yr	19	3	16	19	17
2-yr	29	4	25	30	27
3-yr	40	5	35	44	38
5-yr	63	5	58	65	60
7-yr	79	5	74	81	76
10-yr	99	5	94	101	96
Class B -5y, "A"	95	5	90	95	91
Class C -5y, "BBB"	120	5	115	120	116
Credit Cards (Floating Rate-1Mo. LIBOR)					
1-yr	19	3	16	19	16
2-yr	30	4	26	30	27
3-yr	40	5	35	42	38
4-yr	53	5	48	53	50
5-yr	63	5	58	65	60
7-yr	79	5	74	81	76
9-yr	100	5	95	100	96
10-yr	105	5	100	105	101
15-yr	130	5	123	130	125
Class B -5y, "A"	95	5	90	95	91
Class C -5y, "BBB"	115	5	110	115	111
Auto -Prime (Fixed-Swaps)					
1-yr	20	3	17	22	19
2-yr	32	4	28	33	30
3-yr	42	5	37	42	39
Class B-5y ("AA")	105	5	100	130	110
Class D-5y ("BBB")	170	10	160	190	170
Auto -Prime (Floating Rate-1Mo. LIBOR)					
MMKT	-10	0	-10	-10	-10
1-yr	21	3	18	22	19
2-yr	33	4	29	33	30
3-yr	41	5	6	42	30
Auto -Subprime (Fixed-Swaps)					
1-yr	58	3	55	70	60
2-yr	66	4	62	75	66
3-yr	72	5	67	80	71
Auto -Subprime (Floating Rate-1Mo. LIBOR)					
1-yr	60	3	57	70	61
2-yr	66	4	62	75	66
3-yr	72	5	67	80	71

	Current Week 06/24/16	1-wk change	10 week Min	10 week Max	10 week Avg
Student Loan-FFELP (3 Mo. LIBOR)					
1-yr	90	0	90	90	90
2-yr	105	0	105	110	106
3-yr	120	0	120	130	122
5-yr	130	0	130	150	139
7-yr	140	0	140	155	145
10-yr	150	0	150	165	155
13-yr	155	0	155	170	160
Class B ("A")	300	0	300	350	328
Student Loan-Private (3 Mo. LIBOR)					
3-yr	110	5	105	150	118
5-yr	135	5	130	165	141
7-yr	160	5	155	200	169
10-yr	170	5	165	215	179
15-yr	195	5	190	240	204
Class B ("A/BBB")	275	5	270	340	283
Class C ("BBB/BB")	335	5	330	415	345
Stranded Assets (Swaps)					
1-yr	33	3	30	33	31
2-yr	44	4	40	44	41
3-yr	55	5	50	55	50
5-yr	65	5	60	65	60
7-yr	73	5	68	73	68
10-yr	86	5	81	86	81
Equipment (Swaps)					
1-yr	38	3	35	45	39
2-yr	47	4	43	53	47
3-yr	63	5	58	70	63

Source: BofA Merrill Lynch Global Research

Sector Update

Auto ABS

Lower forecast for US new vehicle sales

Earlier this week, our equity analysts covering the auto industry lowered their 2016 estimates for US new vehicle sales from 18.2mn to 17.7mn and their peak estimate from 20mn to 18mn units in 2018. Though they are moderating their forecasts, they continue to disagree with the notion that the US cycle has already reached a peak, and, consequently, expect the industry to grind higher (albeit more modestly) over the next few years.

The equity team believe sales will continue to be supported by the following factors: (1) supply remains constrained given an aged vehicle fleet, (2) demand continues to accelerate as used pricing remain high, (3) employment and consumer confidence are remain supportive, (4) leasing, attractive financing & low gas prices will continue to be supportive, and (5) a wave of new products and obsolescence kick in.

Although expectations for growth have moderated, the aforementioned factors should still push sales above last year's levels and support our 2016 new issue volume forecast for auto ABS.

CarMax Inc (KMX) reports earnings results

The company's financing arm, CarMax Auto Finance (CAF), saw income decline 7.7% YoY during the quarter. The decline was driven by an increase in provision for loan losses and a lower total interest margin percentage, partially offset by the effects of an increase in average managed receivables. Receivable grew by 12.5% to $9.8bn.

For loans originated during the quarter, the weighted average contract rate charged to customers was 7.5%, up from 7.4% in last year's first quarter. Even so, total interest margin declined to 5.9% of average managed receivables compared to 6.3% in the first quarter of last year. Charge-offs and loss provision were within management's range of expectations. Ending allowance for loan losses was 1.05% of managed receivables compared to 0.94% in last year's first quarter. According to management, CAF has expanded its credit box which has resulted in increased losses in the portfolio, though provided the benefit of higher rates.

CAF net penetration was 43.9% compared to 42.7% in last year's first quarter. Management said the increase reflects the mix of applications in stores where they continue to see growth at the higher end of the credit spectrum and less volume at the lower end. Even so, with respect to credit availability, management said that at least 90% of customers who submit an application receive some kind of approval. Net loan dollars originated in the quarter rose 6% year-over-year to $1.4bn, driven by a combination of the growth in sales and CAF's higher penetration rate.

Management also noted that lower tier financing as a percent of sales declined year-over-year due to a combination of lower applicant volume and credit tightening by third-party lenders. Management said they are not interested in working with "a new player [lender] that is too risky" to replace volume lost from credit tightening at more established third party lenders. Separately, CAF is testing offering customers online financing. According to management, "being prequalified for financing before the store visit helps build the customer's confidence and will make the in-store shopping experience faster and more enjoyable."

With respect to securitization, management noted the company has been involved in the market for over 13 years, over a range of conditions. Even so, management said "the structure and the enhancement of the deal might need to be modified if the perceived losses and the rating agency values change. What that usually means though is a change in the over-collateralization that gets built into the deals and builds over time, meaning [KMX gets] money back a little bit slower."

FFELP ABS

The release by Moody's of new rating methodology for FFELP ABS (The wait is over) and the announcement by Fitch that it is close to releasing its new methodology (The countdown before the countdown) bring the FFELP ABS market closer to the end of a prolonged period of ratings uncertainty. The end, however, could still be over half a year away; Fitch and Moody's have each indicated that they may take up to 6 months from the date each agency publishes its new ratings criteria for FFELP ABS to make ratings changes.

Moody's has not provided too much guidance on the potential impact of the new methodology's on ratings, aside from indicating that the new methodology "will result in rating changes to a number of securities." Even so, we believe the rating changes will be skewed towards downgrades. The mechanics of the rating caps could mean a fewer number of seasoned FFELP ABS retain their Aaa rating.

We expect spreads for seasoned FFELP ABS will remain under pressure, as roughly half of the market remains on review/watch for possible downgrade (see Table 35, Chart 73 and Chart 74) and the broader market reacts to Brexit. Such pressure could increase or decrease if rating changes surprise to the downside or upside, respectively. Even so, spreads should stabilize as the market gains more clarity on ratings. Before that time, investors less sensitive to ratings risk should be able to find attractive opportunities in the market. These investors tend to focus on the ultimate payment of principal rather than a structural event of default. The ultimate payment of principal gets a boost from the full faith and credit of the US government. As shown in Chart 75, most data points on spreads hover around +150bp. This compares to +50bp for 5-year Freddie/Fannie Mae multi-family CMBS.

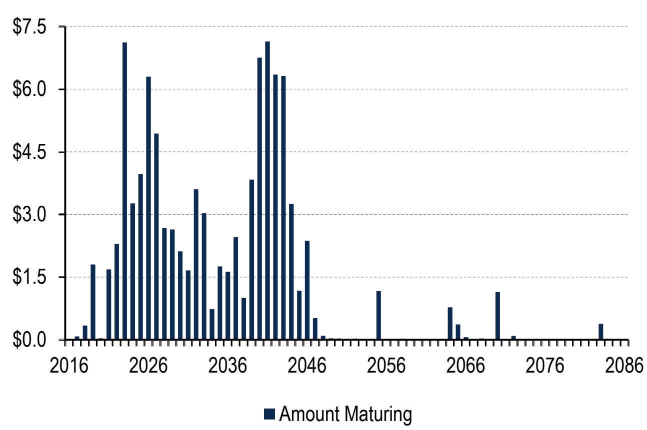
Table 35: Current face of FFELP ABS on watch or review ($bn)

Roughly $99.7bn in FFELP ABS are currently on ratings watch or review by either Moody's and/or Fitch. Moody's currently has $84.3bn in securities on a review status, while Fitch has $71.6bn. Out of the $99.7bn, $98.1bn in securities have at least one negative ratings review or watch status, while $52.8bn are on review and watch by both agencies.

	Fitch: Watch Negative	Fitch: No Action	**Total**
Moody's: Review for Downgrade/Uncertain	$52.8	$26.5	**$79.4**
Moody's: Review for Upgrade	$3.3	$1.6	**$4.9**
Moody's: No Action	$15.5		**$15.5**
Total	**$71.6**	**$28.2**	**$99.7**

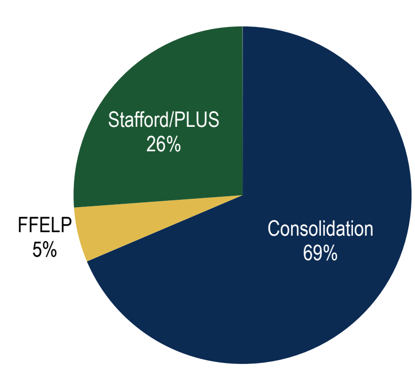
Source: Bank of America Merrill Lynch Global Research, Bloomberg, Moody's, Fitch

Chart 73: FFELP ABS on downgrade review/watch negative by maturity



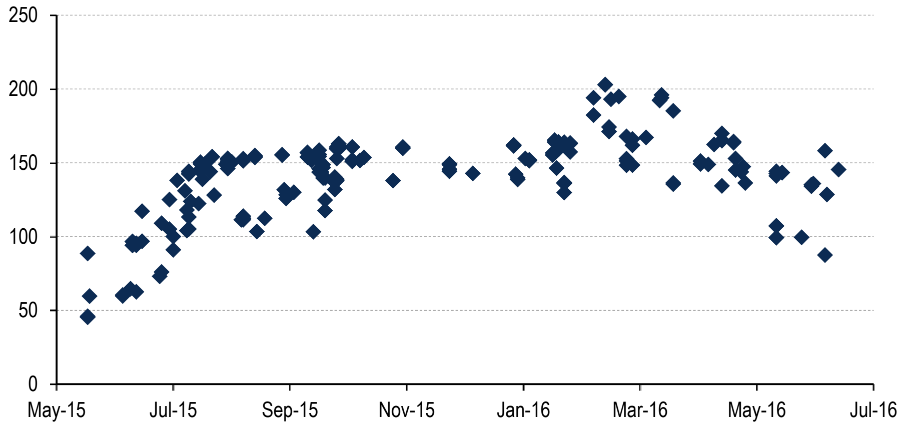
Source: Bank of America Merrill Lynch Global Research, Bloomberg

Chart 74: Watch/Review universe by loan type



Source: Bank of America Merrill Lynch Global Research, Intex

Chart 75: Spreads for FFELP ABS downgrade review/watch negative

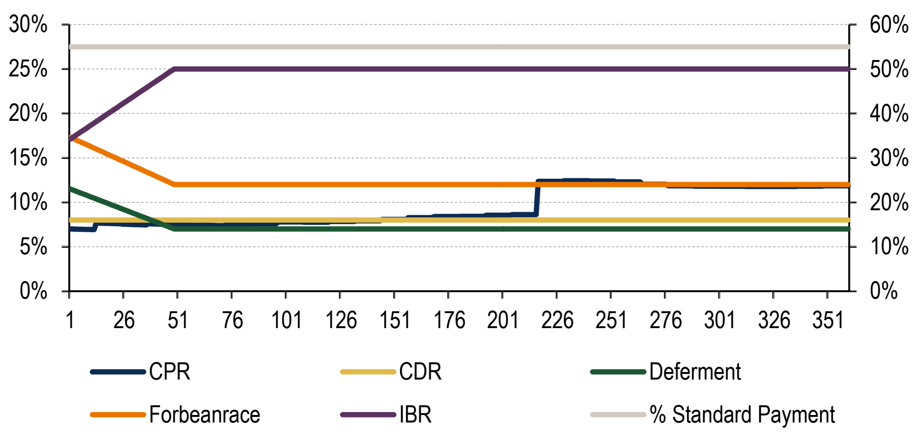


Source: Bank of America Merrill Lynch Global Research, Bloomberg *includes bonds with WAL of 4-6 years

The new methodology released by Moody's is complex, incorporating 28 cash flow scenarios with assumptions on at least 18 variables; a 4% tolerance level when comparing pool and industry performance measures, which could lead to upward or downward revisions in scenario assumptions; ratings caps, which can lower model output ratings of Aaa/Aa to Aa1/A1; and qualitative assessments on operational and legal risks and sponsor support. This complexity, along with variances among cash flow models used by sector participants, makes for a challenging assessment of potential rating impacts of the new methodology.

We have started our assessment by reviewing several FFELP ABS. We used an approximation of the "Most Likely Scenario" under the new methodology released by Moody's. The scenario carries a 60% weight so failing it likely means a relatively high risk of a rating downgrade, although the ultimate rating depends upon the level of loss under the "Most Likely Scenario" along with the results of the remaining 28 scenarios. Our next steps will be to re-run the FFELP ABS under approximations of all 28 scenarios, recognizing the results could be different from those generated by Moody's.

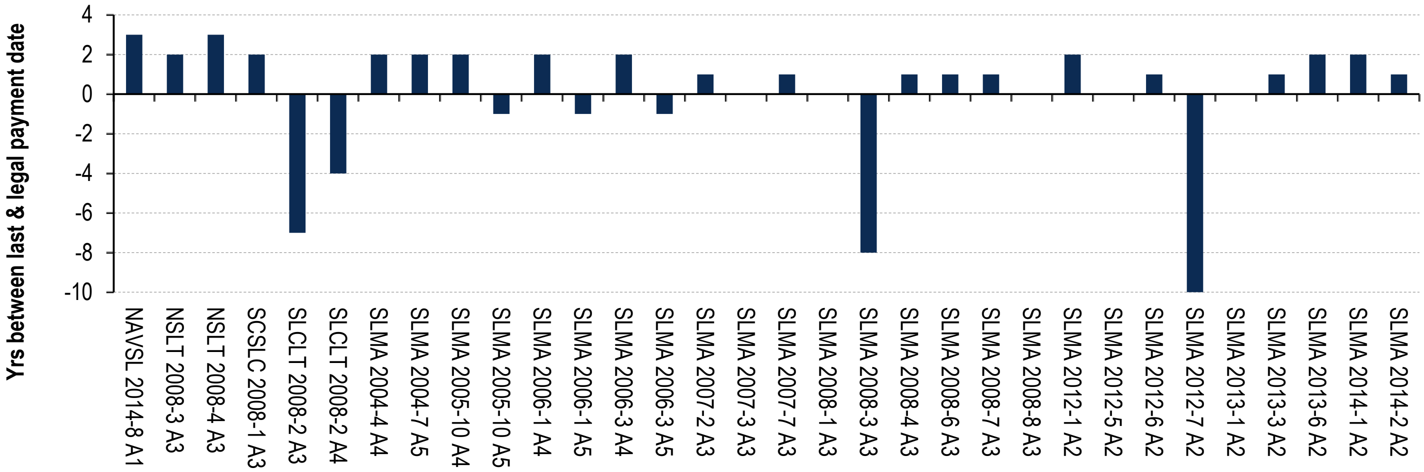
Chart 76: Cash flow assumptions for Stafford/PLUS ABS



Source: BofA Merrill Lynch Global Research

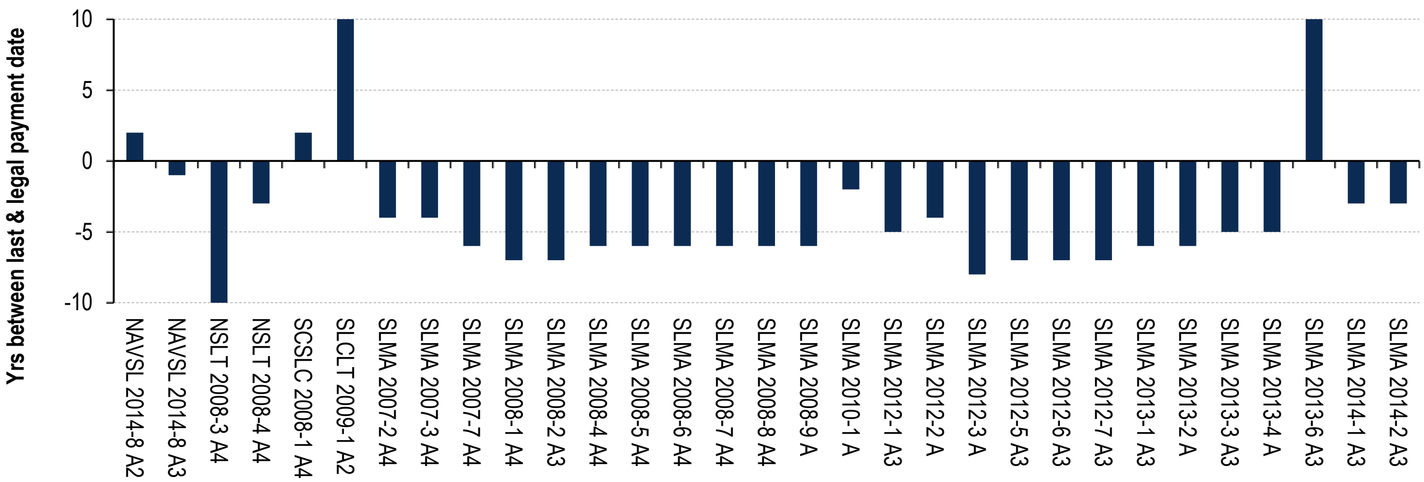
Chart 77: Stafford/PLUS ABS (trust has one or more notes on watch/review, Class A notes, legal maturity date within 5 years)

Using the assumptions found in Chart 76, we found that 22% of the notes would not be fully repaid on their respective legal maturity date and, consequently, would experience a principal payment event of default. For notes experiencing an event of default, the cumulative loss rates (amount not paid at legal final over current face at the time of analysis) resulting from the analysis range from 1% (WAL of 1.62 years) to 55% (WAL of 5.6 years). The results of the 28 scenarios are needed to obtain a model rating. .



Source: Intex, BofA Merrill Lynch Global Research

Chart 78: Stafford/PLUS ABS (trust has one or more notes on watch/review, Class A notes, legal maturity date beyond 5 years)



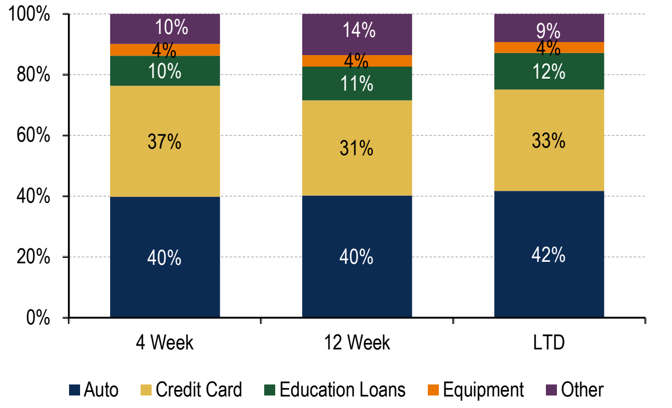
Source: Intex, BofA Merrill Lynch Global Research

TRACE Data

Chart 79 through Chart 84 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.

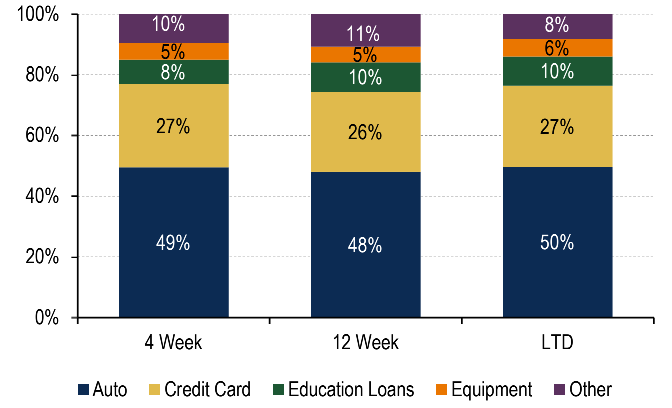
Table 36 shows the tickers with the highest trade volume for the most recent 4-week period, while Table 37 provides a sector breakdown by current face, trade count and average price for the most recent 4-week period.

Chart 79: Percentage of trading volume by sector (current face)



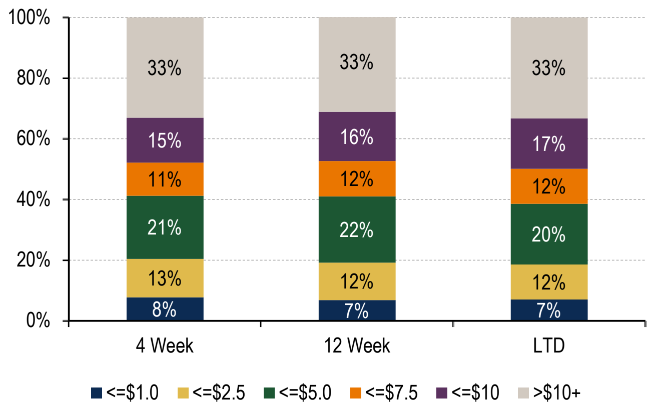
Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research. Note trades exceeding $10mn are assumed to have a $10mn face amount.

Chart 80: Percentage of trading volume by sector (trade count)



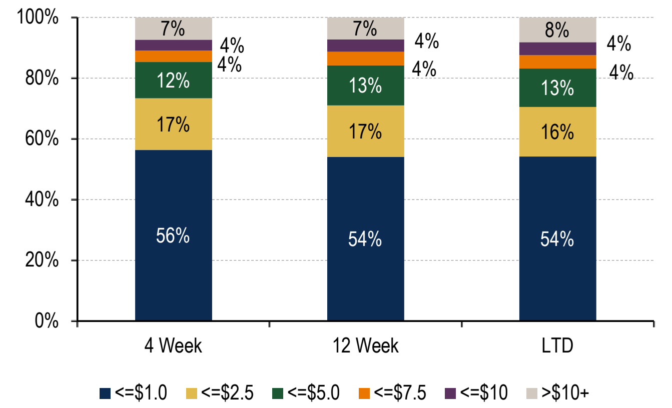
Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

Chart 81: 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.

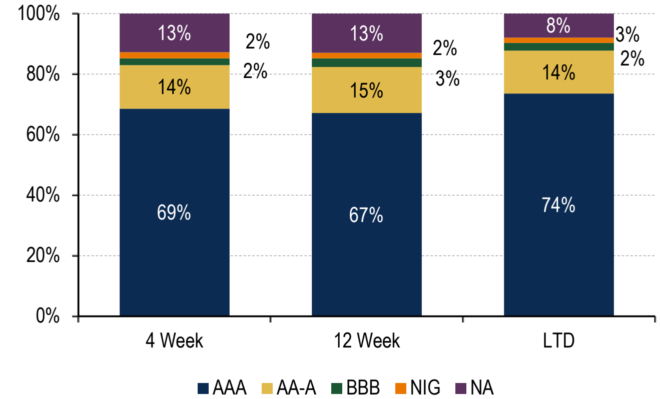
Chart 82: Percentage of trading volume by trade size (trade count)



Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

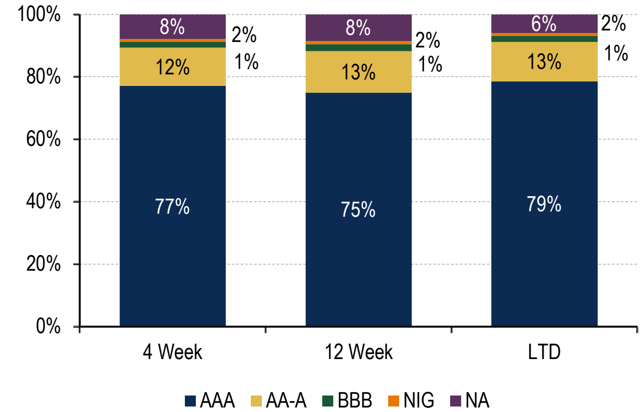
Bank of America Merrill Lynch

Chart 83: 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 84: Percentage of trading volume by rating (trade count)



Source: FINRA, Bloomberg, BofA Merrill Lynch Global Research

Table 36: Tickers with the highest volume by current face ($ thousands)

TICKER	Current Face	Average Price	Number of Trades
CHAIT	$1,029,353	$100.17	324
CCCIT	$603,184	$101.23	253
SDART	$483,879	$100.64	218
COMET	$428,671	$100.26	221
SLMA	$425,599	$214.97	165
DCENT	$376,013	$101.08	121
FORDO	$289,694	$100.09	139
AMXCA	$289,206	$99.99	135
AMCAR	$275,880	$100.16	204
BACCT	$234,607	$99.87	92
CARMX	$231,398	$99.86	198
AMOT	$230,813	$100.18	52

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

Table 37: Sector by Current Face, Number of Trades and Average Price ($ thousands)

Sector	Sub-Sector	Current Face	Number of Trades	Average Price
Auto	Auto - Fleet	$82,151	64	$99.76
	Auto - Floorplan	$419,065	151	$100.10
	Auto - Leases	$523,918	282	$99.96
	Auto - Non US	$11,643	18	$99.14
	Auto - Non-Prime Loans	$1,252,328	770	$100.33
	Auto - Prime Loans	$1,780,741	1,273	$99.94
	Auto - Rental	$157,207	49	$101.08
Auto Total		**$4,227,053**	**2,607**	**$100.08**
Credit Card	Credit Card - General Purpose	$3,221,272	1,221	$100.49
	Credit Card - Non US	$147,680	34	$100.14
	Credit Card - Private Label	$512,719	194	$100.94
Credit Card Total		**$3,881,671**	**1,449**	**$100.54**
Education Loans	Education Loans - FFELP	$499,308	277	$94.44
	Education Loans - Private	$565,477	147	$91.45
Education Loans Total		**$1,053,785**	**424**	**$140.33**
Equipment	Equipment - A&C	$97,424	148	$99.80
	Equipment - Floorplan	$40,213	27	$99.78
	Equipment - Large-Ticket	$52,125	22	$99.92
	Equipment - Mid-Ticket	$146,077	35	$99.97
	Equipment - Small-Ticket	$41,694	36	$99.91
	Equipment - Trucks	$27,619	13	$100.00
	Equipment - Other	$2,854	8	$88.50
Equipment Total		**$408,006**	**289**	**$99.54**
Other	Other	$51,290	20	$99.67
	Other - Consumer	$298,325	117	$100.12
	Other - Container	$128,758	52	$96.29
	Other - Film Rights	$8,072	6	$99.86
	Other - Franchise	$242,241	94	$100.85
	Other - Insurance Premiums	$64,494	17	$95.88
	Other - Planes	$30,944	21	$74.40
	Other - Rail	$80,106	18	$97.68
	Other - RRB	$16,635	93	$101.80
	Other - Structured settlement	$12,037	9	$99.16
	Other - Tax Lien	$38	1	$99.13
	Other - Time Share	$93,222	40	$99.98
	Other - Trade Receivables	$800	4	$99.35
	Other - Solar	$9,713	1	$94.13
	Other - Cell Tower	$22,000	8	$100.76
Other Total		**$1,058,672**	**501**	**$98.80**
Grand Total		**$10,629,188**	**5,270**	**$103.29**

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 38: 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	$16,228	$4,921	$4,975	$1,281	$524	$4,527
YTD Summary						
2016	$97,058	$54,010	$15,452	$5,742	$5,922	$15,932
	100%	56%	16%	6%	6%	16%
2015	$120,016	$61,852	$22,704	$9,010	$9,311	$17,138
	100%	52%	19%	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

US

Chris Flanagan
MLPF&S
christopher.flanagan@baml.com

Collin Chan
MLPF&S
collin.chan@baml.com

Europe

Alexander Batchvarov, CFA
MLI (UK)
alexander.batchvarov@baml.com

Rondeep Barua, CFA
MLI (UK)
rondeep.barua@baml.com

Market View

The US secondary market had another quiet summer week with BWIC volumes totaling just about $380mn. This was despite the outcome of the Brexit vote which roiled global financial markets. Bid levels were pushed wider today but much of the action took place elsewhere and there was minimal trading in the US secondary CLO market. Volatility would likely pick up in the coming weeks and US CLO spreads could catch up with some of the risk-off movements in the broader market in the coming weeks. However, volumes could well remain somewhat muted.

Three new deals managed to price this week in the US including Golden Tree's $411mn GoldenTree Loan Opportunities XII, Anchorage's $409mn Anchorage Capital CLO 8 and Ares Management's $510mn Ares XXXIX. Of these, the GoldenTree deal was reported to have priced at 153, 215, 290, 450 and 850 DM while Anchorage's deal was reported to have priced at 167, 225, 315 and 495 DM from AAA to BBB. Altogether, just shy of $25bn of US BSL/MM CLOs have priced this year. Given today's events, there could be a slowdown in the primary market as markets look to reset and find a new reference point.

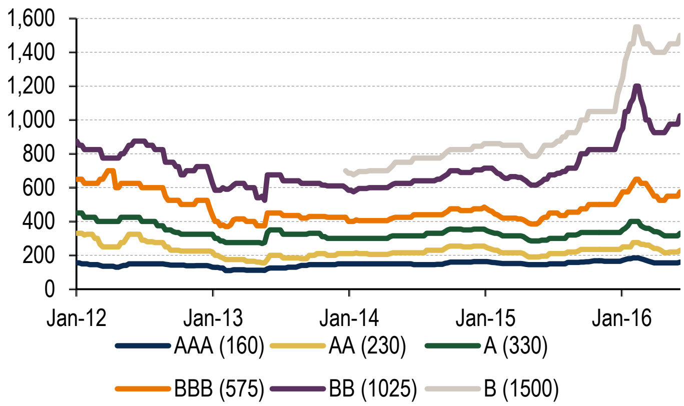
Today's events add to our conviction that the Fed probably has no choice but to continue to push out its rate hike decisions. The market-implied probability of a July/September rate hike dropped to 0% following Brexit and our economists also revised their rate hike forecast to one hike in December for this year (US Economic Weekly: The only certainty is uncertainty 24 June 2016). Given our belief that the Fed would ultimately fully capitulate on its rate hike plans, we still see value in US CLOs in the intermediate term. However, since we think the shift in Fed's rhetoric would be slow, significant near term downside risks remain. We balance our short term concerns with our intermediate term optimism and retain our broadly neutral stance on US CLOs.

With limited trading so far in Europe, it is also too early to gauge the reaction of the European CLO market to the vote. However, Euro CLO spreads are likely to widen in line with broader markets. Equity market indices have fallen sharply in Europe, and credit spreads have widened significantly. iTraxx Crossover widened around 100bps initially on Friday morning, to 415bps, before tightening to the high 300s as of writing.

Given the considerable uncertainties involved, the impact on CLO performance is difficult to predict. However, as we discuss in our commentary, risks of performance deterioration have clearly increased in our view, given the fairly significant exposure to UK companies in Euro CLO portfolios, as well as the potential implications for other European economies. Our economists have stated that they expect a recession in the UK, and believe that downside economic risks are large.

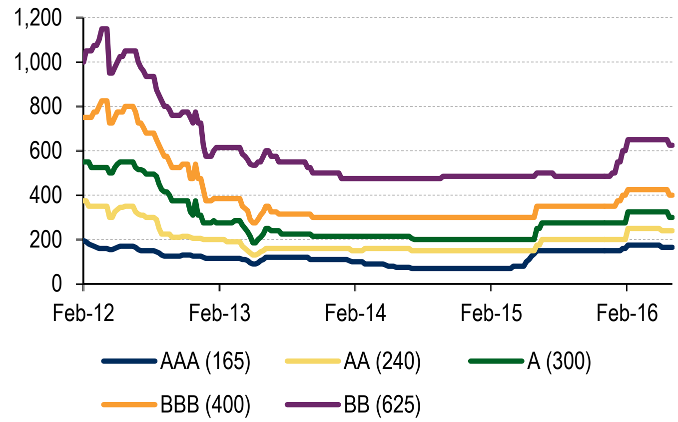
After a relatively busy few months for Euro CLO issuance, the increased uncertainty may also cause the primary market to slow, at least in the short term, until further clarity appears over asset and liability pricing. Issuance volumes for the remainder of the year are likely to be determined largely by relative pricing of CLO and leveraged loan spreads, as well as the impact on investor appetite across the capital structure.

Chart 85: US CLO 2.0/3.0 indicative spread levels



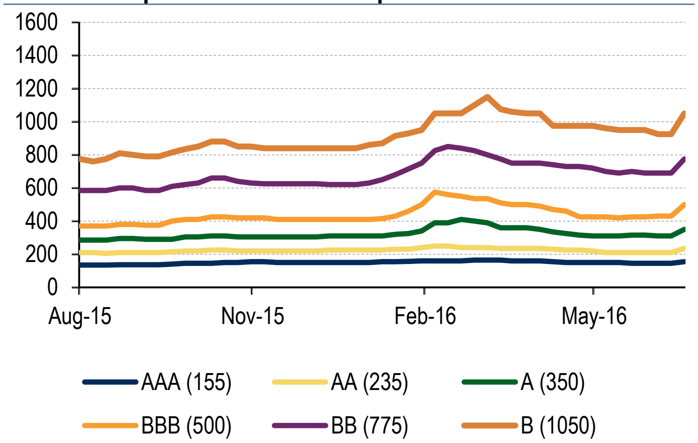
Source: BofA Merrill Lynch Global Research

Chart 86: US CLO 1.0 indicative spread levels



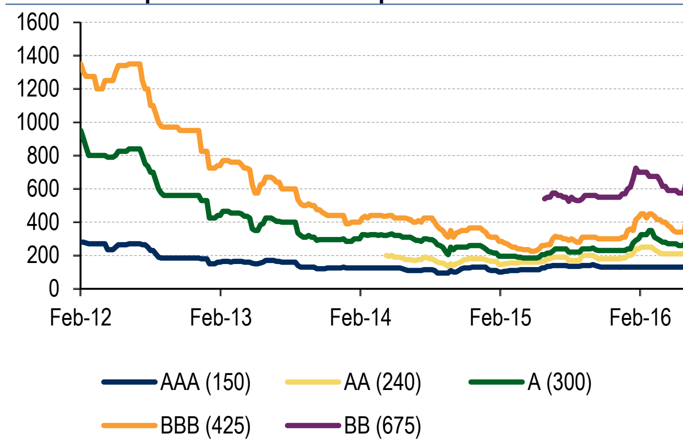
Source: BofA Merrill Lynch Global Research

Chart 87: European CLO 2.0 indicative spread levels



Source: BofA Merrill Lynch Global Research

Chart 88: European CLO 1.0 indicative spread levels



Source: BofA Merrill Lynch Global Research

Table 39: CLO spread tracker

	6/24/2016	Change 1-Wk	1-Mo	YTD	2016 YTD Min	Max
US						
CLO 2.0/3.0						
AAA	160	5	5	-5	155	185
AA	230	10	10	-5	215	275
A	330	15	15	-5	315	400
BBB	575	25	25	75	500	650
BB	1,025	50	50	200	825	1,200
B	1,500	50	50	450	1,050	1,550
Legacy CLO 1.0						
AAA	165	0	0	15	150	175
AA	240	0	0	40	200	250
A	300	0	-25	25	275	325
BBB	400	0	-25	50	350	425
BB	625	0	-25	140	485	650
Europe						
CLO 2.0						
AAA	155	10	10	5	145	165
AA	235	25	25	10	210	250
A	350	40	35	40	310	410
BBB	500	70	75	90	410	575
BB	775	85	75	155	620	850
B	1,050	125	100	210	840	1,150
Legacy CLO 1.0						
AAA	150	20	20	20	130	150
AA	240	30	30	60	180	250
A	300	40	30	70	230	350
BBB	425	85	85	125	300	450
BB	675	100	85	125	550	725

Source: BofA Merrill Lynch Global Research

UK exposure in European CLO 2.0 portfolios

With the UK voting to leave the EU, a period of considerable uncertainty appears to have commenced. Our economists believe the effect on the UK economy is clearly negative, and although the size of the effect is unclear, they forecast a mild recession over the next three quarters. The broader implications for the rest of Europe are also highly uncertain. Equity and credit markets have reacted negatively in the first few hours following the announcement of the result, with sharp falls in European equity market indices and steep widening in iTraxx indices. Sterling has also depreciated significantly against other major currencies.

Based on the initial reactions of credit markets, CLO spreads are also likely to widen, with lower mezzanine and equity likely to be the worst affected by the sharp repricing across global markets. Liquidity also looks set to deteriorate, with bid ask spreads likely to widen in light of the increased uncertainty.

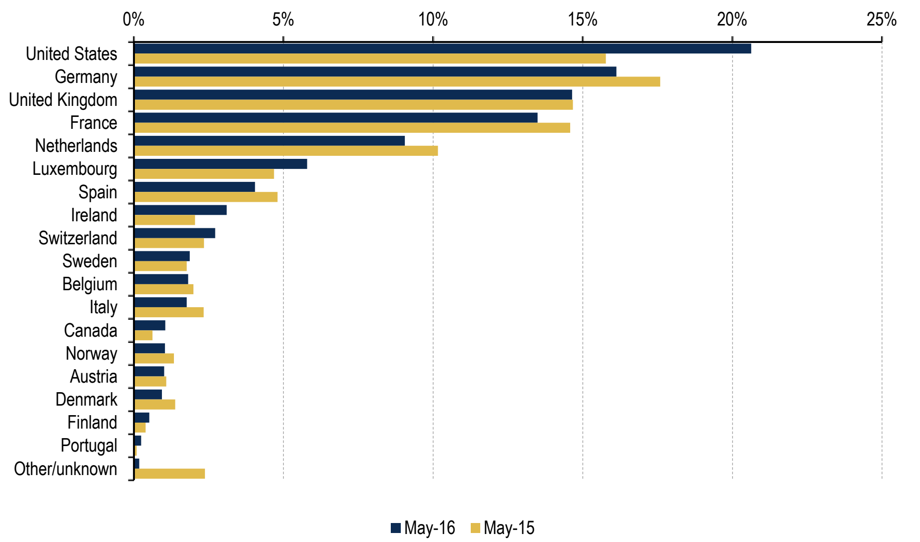
In the following, we update our charts showing European CLO 2.0 breakdowns by country, industry and currency. At 15% on average, UK exposures account for a significant proportion of collateral, and a UK recession therefore increases the risk of a performance deterioration leading to potential increases in CCC and defaulted buckets.

While we note that potential negative impacts are mitigated by factors such as the very little sterling exposure in portfolios, current high overcollateralization across 2.0 deals and otherwise generally supportive trends for European credit, the risks to performance and pricing have clearly increased in our view, and we expect to see increased price volatility, particularly for lower mezzanine and equity tranches. We believe credit and price tiering is also likely to increase across deals and managers.

Significant UK exposure, but little sterling exposure

European CLOs typically have significant exposure to UK companies. Data from Intex (typically obtained from CLO trustee reports) show that around 15% of European CLO 2.0 collateral is exposure to UK companies. We note that while this is an imperfect measure of the actual exposure to country risk, it highlights that a UK recession is likely to have a negative impact on many of the borrowers in European CLO portfolios.

Chart 89: Country exposure in European CLO 2.0 collateral, May 2016 vs. May 2015

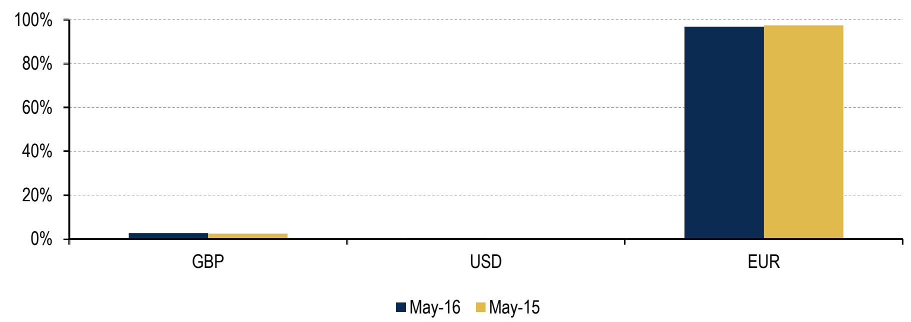


Source: BofA Merrill Lynch Global Research, Intex

Exposure to UK companies has remained stable over the last twelve months, with little sign of managers reducing exposure in the months going into the referendum (though there may have been some trading in recent weeks that is not reflected in the above data). The highest exposure in 2.0 portfolios is currently to US companies, which has increased to around 21%, from 16% a year ago.

While exposure to UK companies is relative high, exposure to sterling assets is negligible, mitigating the impact of currency volatility on CLO transactions (most European CLO liabilities are euro-denominated). 2.7% of 2.0 collateral was sterling denominated as of May 2016, compared to 2.4% in May 2015.

Chart 90: European CLO 2.0 collateral currency breakdown

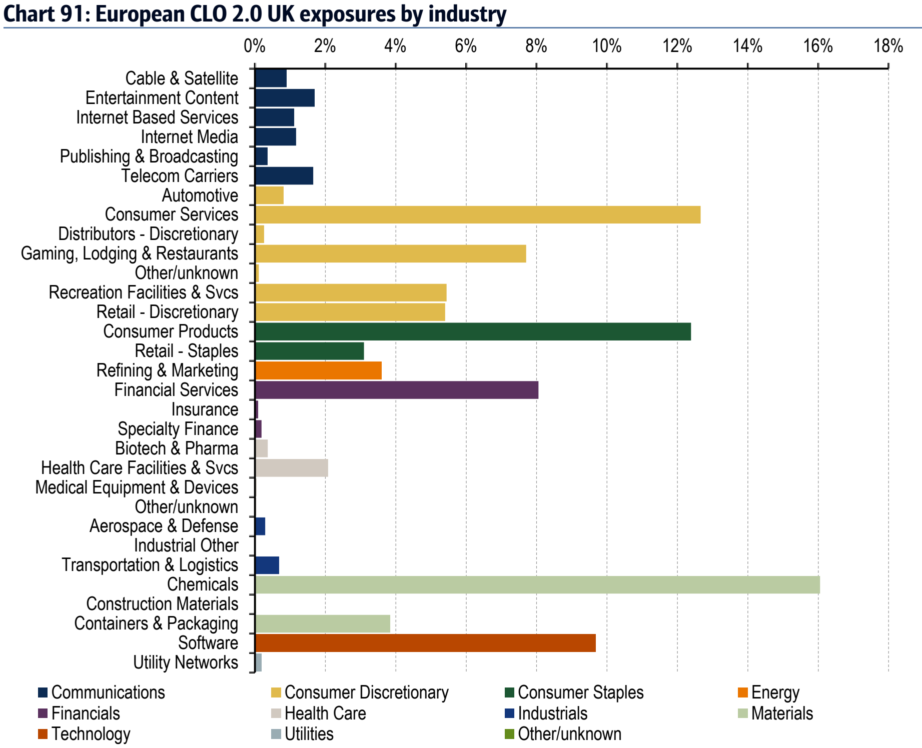


Source: BofA Merrill Lynch Global Research, Intex

UK exposures concentrated in consumer related sectors

Bearing in mind the imprecise nature of estimates of country exposures, as well as estimating industry exposures, the chart below shows our estimates of how UK exposures in European CLOs are split by industry. We aim to fit companies into categories according to Bloomberg's Industry Classification Standard, though note there is some subjectivity in determining categorizations.

Chart 91: European CLO 2.0 UK exposures by industry

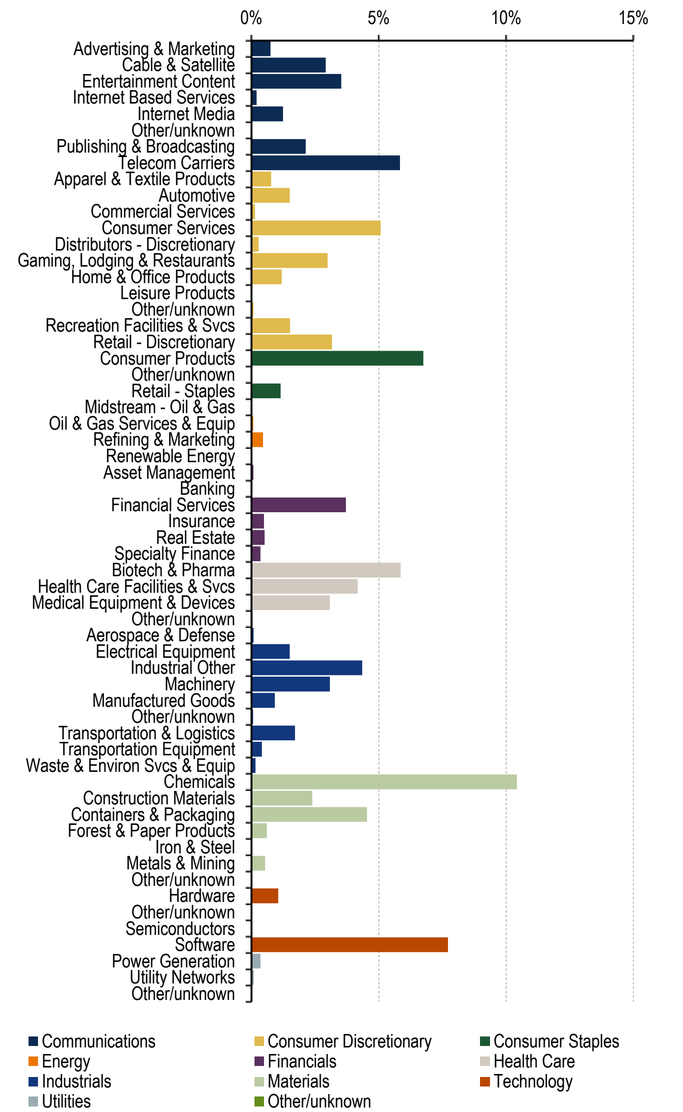


Source: BofA Merrill Lynch Global Research, Intex, Bloomberg, Markit

The implications of the UK exiting the EU for different industries are unclear at this stage, but different factors are likely to be more important in each case. Uncertainty over future trade negotiations is significant for export focused companies for example (or companies relying on imported inputs), while domestic growth, employment and disposable income trends are likely to be significant for companies focused on domestic consumers.

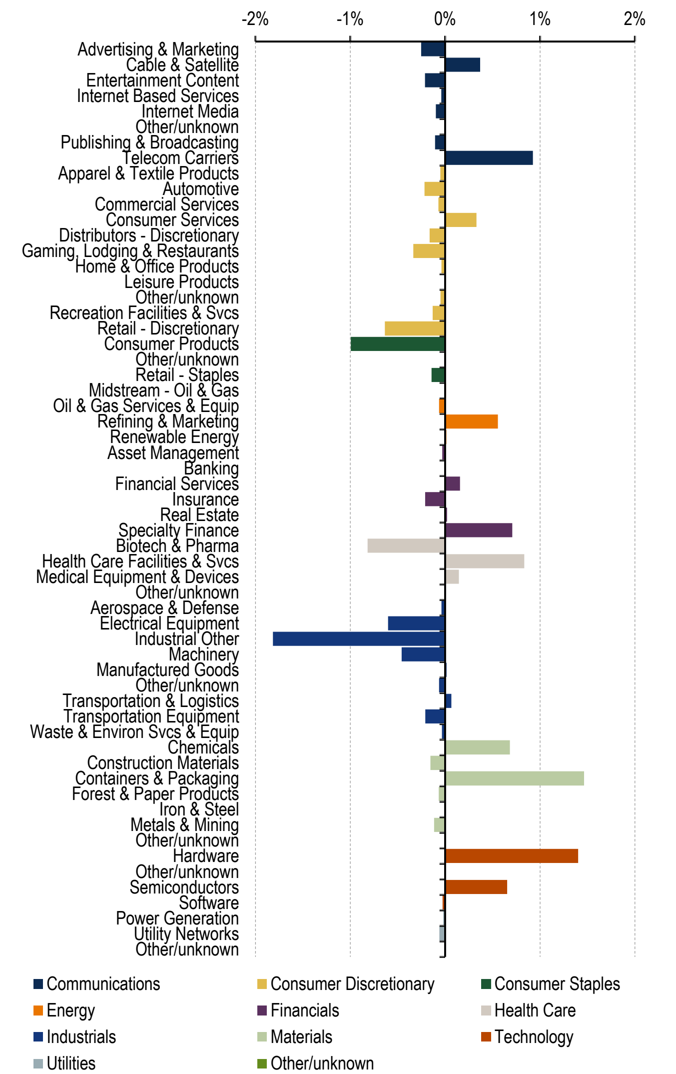
We note that the UK companies in European CLO 2.0 portfolios are relatively concentrated in consumer industries (though of course not all of these companies are exclusively serving UK consumers), with 48% of UK exposures in the consumer discretionary or consumer staples categories. Materials (20%), technology (10%) and financials (8%) also account for significant proportions of European CLO 2.0 UK exposures.

Chart 92: European CLO 2.0 industry exposure



Source: BofA Merrill Lynch Global Research, Intex, Bloomberg, Markit

Chart 93: Change in European CLO 2.0 industry exposure, May 2016 vs. May 2015



Source: BofA Merrill Lynch Global Research, Intex, Bloomberg, Markit

For European CLO 2.0 portfolios as a whole, exposures are less concentrated in consumer sectors. Exposure to the consumer discretionary and consumer staples categories account for 22% in total. Other significant exposures include to materials (20%), communications (17%) and health care (13%).

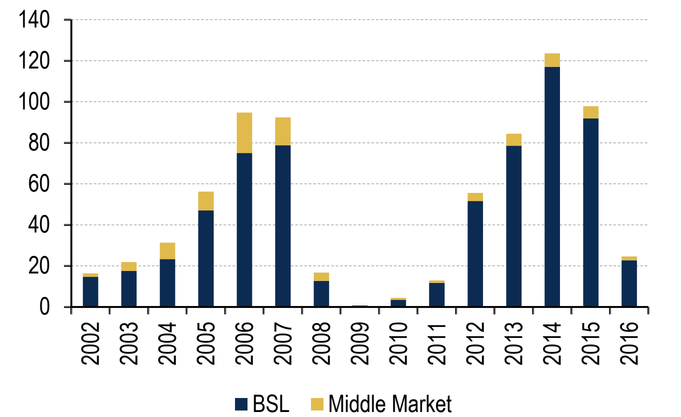
Looking at current exposures compared to those of 12 months ago, some notable shifts are evident. Exposure to the industrials sector has fallen from 12% to 9% for example. Exposure to consumer sectors has also fallen. On the other hand, exposure to materials, technology and financials has generally increased in the period. We believe these shifts partly reflect the availability of collateral, and trends in loan issuance. We believe this likely reflects a combination of trends in loan issuance as well as managers implementing trading strategies based on their outlooks for different companies and industries.

The US CLO Manager Landscape

With US risk retention going live in December 2016, we expect more consolidation in the primary market as fewer managers would be able and willing to source the capital needed to continue issuing new deals. We do not necessarily view this as a negative for the overall US CLO market, given that the managers with planned solutions for risk retention are likely the ones that have a performance track record and are committed to retaining the staff members needed to keep their CLO management operations running.

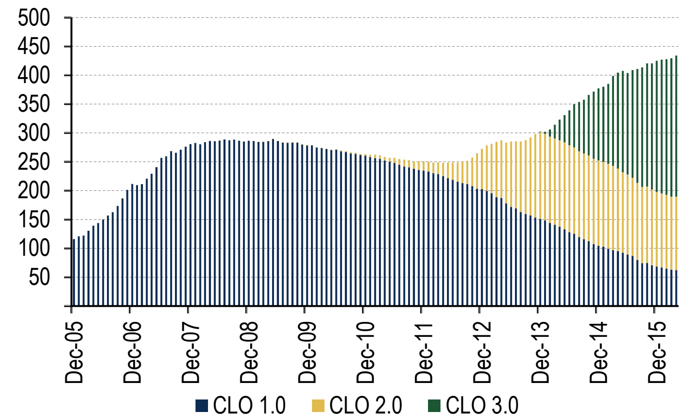
We look at 2.0/3.0 issuance trends over the past few years and review the current US CLO manager landscape using data from the most recent iteration of the CLO Manager Handbook published by Fitch. Despite the decrease we saw in the number of managers issuing new deals since the US risk retention rules were finalized, we still believe that the diversity of the US CLO manager universe remains healthy.

Chart 94: Annual US CLO issuance ($bn)



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

Chart 95: Total US CLO outstanding ($bn)

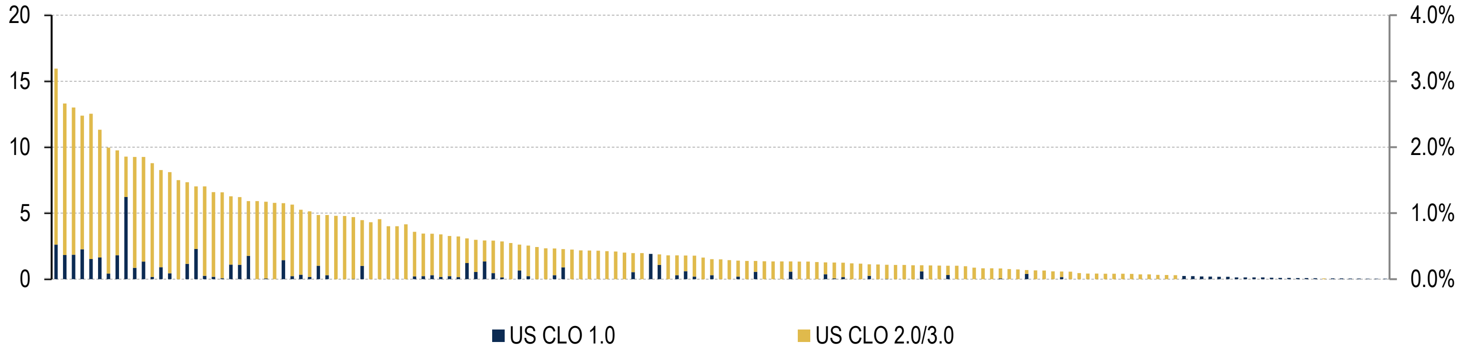


Source: BofA Merrill Lynch Global Research, Intex, S&P LCD

Since 2010, approximately $400bn worth of BSL and MM CLOs has been issued here in the US (Chart 94). Of this total, about $380bn remains outstanding and is managed by 129 managers. In addition to this, there are about 24 managers which never returned to the primary market following the financial crisis but are still overseeing some legacy 1.0 transactions.

Plotted below in Chart 96 is the distribution of total US CLO assets under management (AUM) across different managers. With the exception of the 24 managers who never returned to the primary market following the financial crisis and a few others, US CLO 2.0/3.0 deals comprised the majority of the US CLOs under management for most of the managers.

Chart 96: Distribution of total US CLO AUM by all US CLO managers ($bn / % of the total US CLO market)

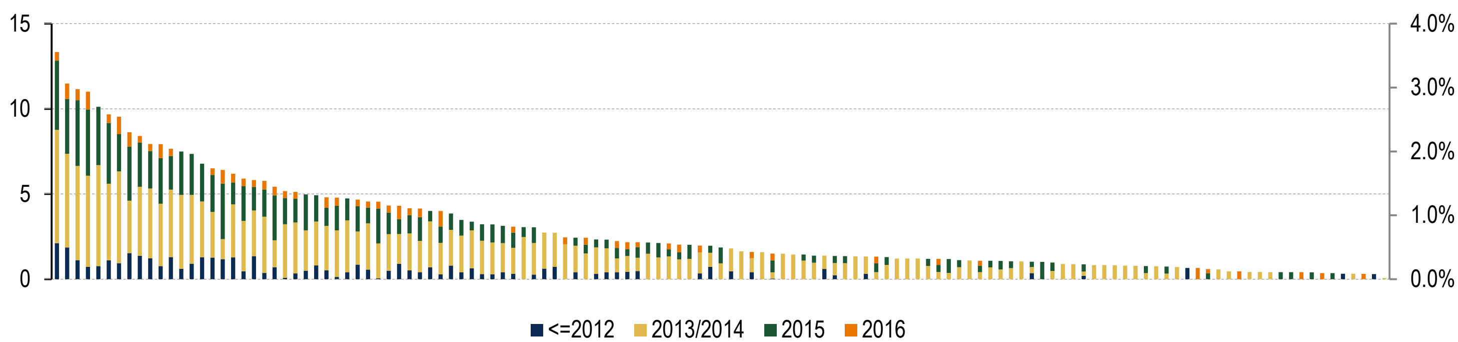


Source: BofA Merrill Lynch Global Research, Intex, S&P LCD

Currently, the top 6 managers by total US CLO AUM all have more than $10bn worth of outstanding US CLOs. None of them have more than 4% of the total market share, and 80% of the deals by volume are managed by the top 58 managers.

Honing in on the larger 2.0/3.0 sub-universe, Chart 97 shows the distribution of total US CLO 2.0/3.0 AUM for US CLO 2.0/3.0 managers. The top 5 managers all have at least 15 2.0/3.0 deals under managing totaling more than $10bn. The top 57 managers oversee 80% of the 2.0/3.0 transactions but none of them have more than 3.5% of the total market share. Breaking this data up further by vintage, we see that 67 managers still have deals issued between 2010 and 2012 under management. This compares with 115 for deals issued in 2013 and 2014, 87 for deals issued in 2015 and 50 for deals issued so far in 2016.

Chart 97: Distribution of total US 2.0/3.0 CLO AUM by all US CLO 2.0/3.0 managers ($bn / % of total US CLO 2.0/3.0 market)



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

Even though deals issued prior to December 2016 are not required to be compliant with US risk retention rules, investors have begun scrutinizing managers' ability and willingness to comply with the rules as early as late 2014. Post-crisis deals are typically structured with two-year non-call periods after which equity investors have the option to refinance the debt tranches given advantageous market conditions.

Because debt tranche refinancing completed after December 2016 is expected to trigger risk retention compliance even when the original deal is grandfathered from the rules, CLO market participants have begun looking into potential solutions as early as late 2014. This resulted in fewer active managers in the primary market over the past two years.

Thus far in 2016, about 57 BSL/MM deals have priced in the US from about 50 managers, which is about 37 fewer than the total we saw in all of 2015 and represents just under 40% of the entire US 2.0/3.0 manager universe. We summarize the list of all

US 2.0/3.0 managers who issued BSL/MM deals in 2015 and 2016 at the end of this section in Table 40.

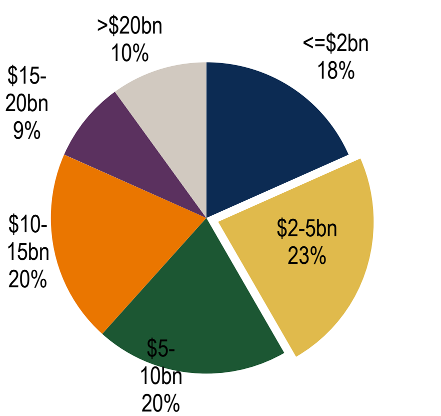
Using data from the most recent iteration of the CLO Manager Handbook published by Fitch, we look at the distribution of some high-level and quantifiable data for the 69 US and Euro CLO managers included in the final compilation. A lot of additional details are provided for each of these managers in the handbook including their organization structures, their self-described US risk retention strategies, alongside Fitch's comments on these companies, their CLO management platforms, their experience in credit investments, their risk management infrastructures as well as their investment decision making processes.

Chart 98, Chart 99 and Chart 100 show the distribution of total loan AUM for all managers with reported data, the total % of AUM belonging to the leveraged loan class, as well as the percentage of all loan assets managed via CLO vehicles.

We make the note here that the reporting was not uniform across all managers especially since some of the larger managers have very complex organization structures. The total AUM could be reported at different levels of the organization structure based on the managers' discretions.

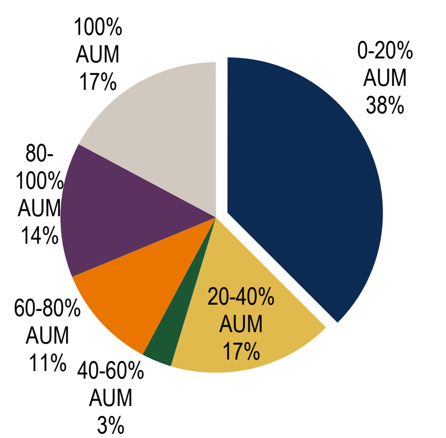
The total amount of loan AUM for all managers with reported data ranges from about $0.6bn to over $62bn. The highest percentage of managers has between $2-5bn. While 17% of the managers are dedicated exclusively to the management of leveraged loans, many consider themselves as multi-strategy asset management firms and have under their management other assets including equities, corporate bonds, structured products and other alternative assets. Chart 99 shows that 38% of the managers with reported data have less than 20% of their assets in loans.

Chart 98: Distribution of loan AUM for all managers with reported data



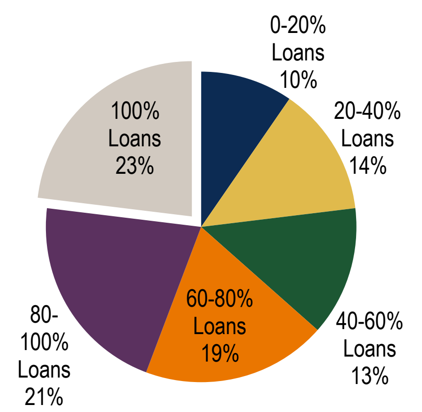
Source: BofA Merrill Lynch Global Research, Fitch Rating Services

Chart 99: Distribution of % AUM invested in loans for all managers with reported data



Source: BofA Merrill Lynch Global Research, Fitch Rating Services

Chart 100: Distribution of % US loans managed via US CLOs for all managers with reported data

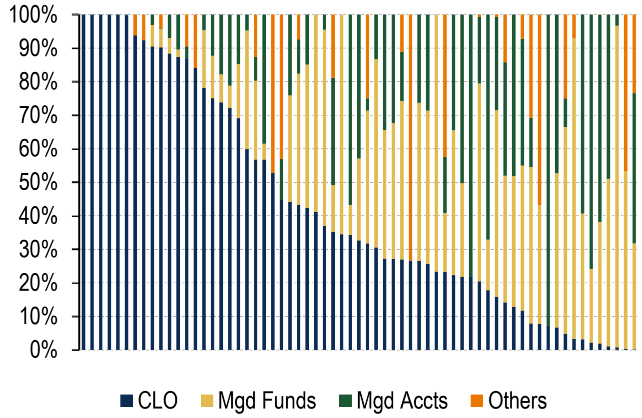


Source: BofA Merrill Lynch Global Research, Fitch Rating Services

In addition to CLOs, it is not uncommon for leveraged loans to be managed for separate accounts and through credit funds set up by CLO managers. Chart 100 shows the distribution of % US loans managed via US CLOs for all managers with reported data. 23% of the CLO managers manage their loan assets exclusively through CLOs and about 10% of the managers have less than 20% of their loan assets managed via CLOs.

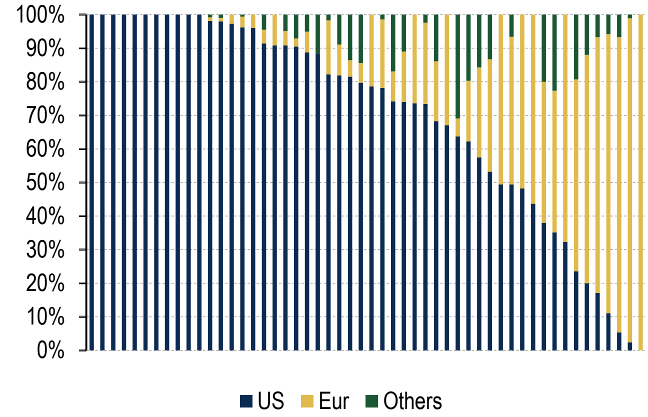
Chart 101shows the distribution of financial products offered by managers in addition to CLOs and Chart 102 shows the distribution of their regional AUM. On average, CLOs comprise 43% of the products offered to investors while managed funds make up 28%. US assets make up the largest percentage of AUM. The median percentage of US assets held by managers with reported data is at about 80%. (Note that the universe of managers with data in Fitch's handbook is not sampled uniformly.)

Chart 101: Distribution of financial products offered by managers to investors



Source: BofA Merrill Lynch Global Research, Fitch Rating Services

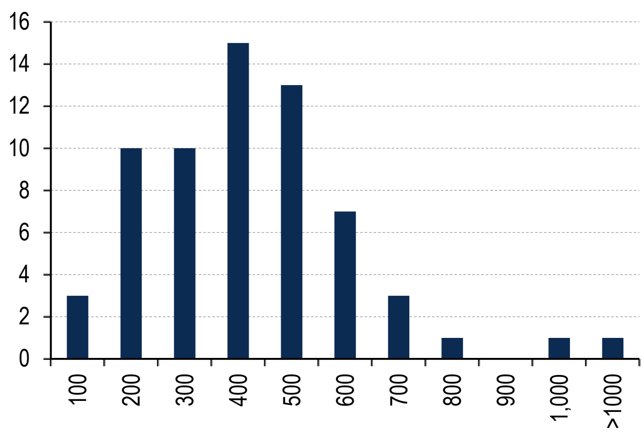
Chart 102: Distribution of regional AUM for US CLO managers



Source: BofA Merrill Lynch Global Research, Fitch Rating Services

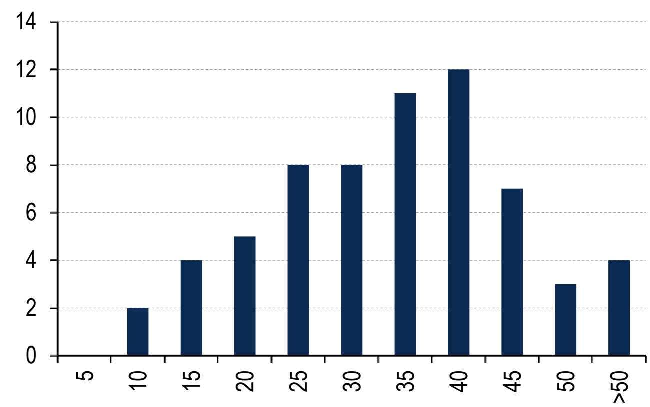
Finally, Chart 103 and Chart 104 show the distributions of the total number of credits invested in and the number of credits covered by each analyst for the managers with reported data. Chart 103 shows that the median number of credits invested in by CLO managers is at around 360 and Chart 104 shows that each analyst covers about 34 credit names.

Chart 103: Distribution of the total number of credits invested in



Source: BofA Merrill Lynch Global Research, Fitch Rating Services

Chart 104: Distribution of the number of credits per analyst



Source: BofA Merrill Lynch Global Research, Fitch Rating Services

We do make the note that the coverage ratio statistics reported in Chart 104 could mean something different to different managers. While some managers may view this as a measure of the number of credits exclusively covered by each analyst, others may include in the measure the total number of credits monitored by an analyst.

However, these statistics should provide investors with a high level understanding of the amount of resources dedicated to the credit/leveraged loan platform from which investors could draw additional questions.

Table 40: US CLO 2.0/3.0 Managers

CLO Manager	Approximate total US CLO AUM ($mn)	2016 US CLO Count	2016 US CLO Total ($mn)	2015 US CLO Count	2015 US CLO Total ($mn)
CSAM	13,336	1	505	5	3,631
Carlyle	11,480	2	902	6	3,184
GSO/Blackstone	11,157	1	650	6	3,347
Apollo	11,006	2	923	4	2,980
CIFC	10,124			5	2,666
Ares	9,676	1	510	5	2,949
Octagon	9,534	2	1,020	3	2,188
MJX	7,939	1	411	3	1,736
Highland	3,053			1	578
Prudential	8,410	1	402	4	2,148
Voya	7,932	2	827	3	1,991
Golub	8,623	2	832	6	3,181
CVC	7,354			4	2,036
BlueMountain	7,658	1	424	4	1,979
Och Ziff	7,499			4	2,095
Symphony	6,192	1	512	2	916
Columbia	4,742			2	1,288
Oak Hill	6,783			3	1,670
Guggenheim	6,415	2	811	4	3,256
LCM	6,506	1	381	3	1,736
Invesco	5,175	1	406	2	1,132
Babson	5,125	1	407	2	1,024
KKR	4,146	1	508	3	1,389
Onex	5,909	1	502	3	2,033
Bain (Sankaty)	5,821	1	402	3	1,432
Sound Point	5,777	1	513	3	1,601
GoldenTree	4,322	1	411	2	1,271
Blackrock	5,422	1	501	4	2,271
Halcyon	4,926			3	1,543
3i	4,974			3	1,775
Alcentra	3,850			2	951
Neuberger Berman	4,563	1	362	2	921
THL	4,801	1	608	2	1,064
Oaktree	4,784	1	470	3	1,446
PineBridge	4,674	1	398	3	1,477
Providence Equity	4,548	1	404	3	1,636
Fortress	3,475			2	775
American Money	4,310	1	406	2	869
Anchorage	4,161	1	410	2	1,087
KVK	4,009			1	612
Highbridge	4,006	2	909	2	971
Man (Silvermine)	3,379			1	512
American Capital	3,214			2	1,062
Brigade	3,133			2	1,014
Shenkman	3,225			2	972
JFIN	3,043			2	922
NewStar	3,085	1	348	2	894
Seix	1,861			2	981
KCAP	2,431			1	464
Black Diamond	1,592	1	360		
Napier Park	2,455	1	411		
NY Life	1,961			1	415
Whitehorse	2,322			1	513
TPG	2,430	1	410	1	515
Marathon	2,333			1	461
Canyon	2,026	1	451	1	412
Eaton Vance	1,379			1	409
Triumph	2,234	1	407	1	409
MidOcean	2,174	1	405	1	411
40/86 Advisors	2,171	1	303	2	612
Greywolf	2,150			1	659
Palmer Square	2,123			2	844
Arrowpoint	2,098	1	355	1	408
Intermediate Capital Group	2,015			2	822
Aegon	1,968	1	397		

Table 40: US CLO 2.0/3.0 Managers

CLO Manager	Approximate total US CLO AUM ($mn)	2016 US CLO Count	2016 US CLO Total ($mn)	2015 US CLO Count	2015 US CLO Total ($mn)
Denali	1,190	1	359	1	414
DFG	1,503	1	406	1	414
Hildene	1,443			1	358
NXT	1,357			1	409
Credit Value Partners	1,348			1	409
Westgate Horizons	774	1	306		
York	1,328	1	403	1	512
Cutwater	1,294			1	462
AXA Investment Managers	1,191			1	414
Carlson	1,178			2	815
Cerberus	1,113			1	413
Allstate	1,071			1	501
Moelis	1,081	1	307	1	361
Ivy Hill	1,079			1	385
ZAIS	1,053			1	409
BMO	1,021			1	308
Fifth Street	1,015			3	1,035
Mariner	978			1	505
Valcour	868			1	416
Monroe	770			1	412
Garrison	738			1	414
Brightwood	653	1	653		
Wellfleet	587	1	359	1	360
TIAA	456	1	456		
Loomis Sayles	413			1	413
Doubleline	412			1	415
TCI	409	1	409		
Z Capital	400			1	401
Newfleet	356	1	356		
Maranon	355			1	355
		57	24584.93	187	97853.53

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

Relative value

Table 41: 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	160	5	3%	5	3%	15	10%	(5)	-3%	155	185
AA	230	10	5%	10	5%	35	18%	(5)	-2%	215	275
A	330	15	5%	15	5%	40	14%	(5)	-1%	315	400
BBB	575	25	5%	25	5%	150	35%	75	15%	500	650
BB	1,025	50	5%	50	5%	375	58%	200	24%	825	1,200
B	1,500	50	3%	50	3%	650	76%	450	43%	1,050	1,550
1.0											
AAA	165	0	0%	0	0%	15	10%	15	10%	150	175
AA	240	0	0%	0	0%	65	37%	40	20%	200	250
A	300	0	0%	(25)	-8%	50	20%	25	9%	275	325
BBB	400	0	0%	(25)	-6%	50	14%	50	14%	350	425
BB	625	0	0%	(25)	-4%	125	25%	140	29%	485	650
Corporate											
S&P/LSTA Loan Indices*											
All Loans*	522	5	1%	(8)	-2%	32	7%	(102)	-16%	517	669
BB Loans*	382	6	2%	0	0%	(8)	-2%	(71)	-16%	376	473
B Loans*	578	7	1%	(11)	-2%	32	6%	(142)	-20%	571	765
Corp Indices											
IG Corp	163	(7)	-4%	(2)	-1%	25	18%	(21)	-11%	162	236
HY Corp	587	(38)	-6%	(26)	-4%	132	29%	(115)	-16%	587	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%	50	20%	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	297	(9)	-3%	(23)	-7%	4	2%	(81)	-21%	297	378
NPL A2	653	17	3%	17	3%	259	66%	163	33%	490	653
SF Rental											
A	145	5	4%	7	5%	13	10%	(24)	-14%	138	218
B	210	5	2%	10	5%	33	19%	(30)	-13%	200	275
C	265	10	4%	5	2%	62	31%	(40)	-13%	255	357
D	300	10	3%	10	3%	22	8%	(17)	-5%	290	446
E	420	10	2%	5	1%	42	11%	(15)	-3%	410	541
F	510	15	3%	25	5%	32	7%	(22)	-4%	485	641
Risk Transfer											
STACR Low LTV M1	135	0	0%	0	0%	2	2%	9	7%	124	135
STACR Low LTV M2	180	10	6%	10	6%	(65)	-27%	(30)	-14%	155	230
STACR Low LTV M3 (BB)	335	5	2%	15	5%	(58)	-15%	(120)	-26%	310	540
STACR Low LTV M3 (NR)	420	(2)	0%	10	2%	(4)	-1%	(50)	-11%	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%	115	85%	50	25%	200	350
2006/2007 AJs	800	0	0%	0	0%	(145)	-15%	325	68%	475	900
2015 On-the-Run Conduit Spreads											
5yr AAA	82	0	0%	2	3%	20	32%	(13)	-14%	80	98
10yr AAA	121	4	3%	6	5%	26	27%	(14)	-10%	100	149
A-S	156	7	5%	11	8%	26	20%	(9)	-5%	145	200
AA	220	10	5%	15	7%	65	42%	12	6%	205	320
A	337	17	5%	27	9%	117	53%	29	9%	308	445
BBB-	665	25	4%	40	6%	280	73%	150	29%	515	800

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

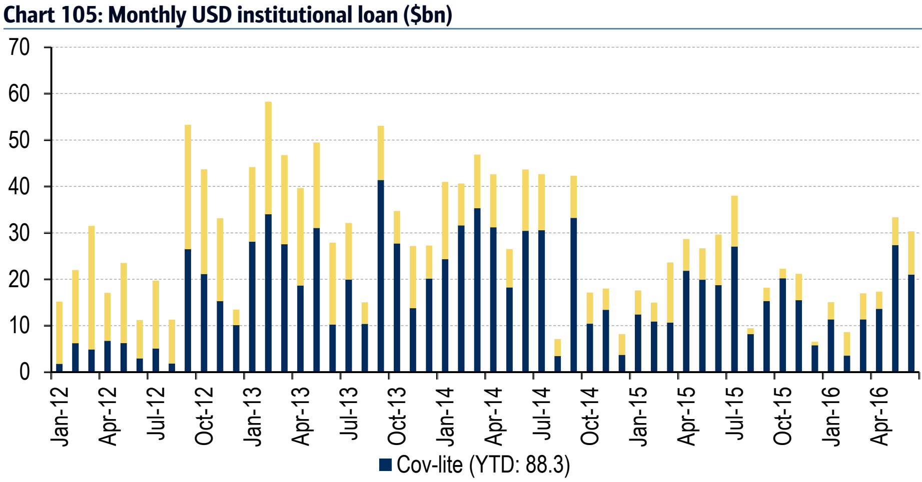
CLO and institutional loan issuance

Table 42: 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	6,138	0	0	0	1,643
2016 YTD	22,752	509	1,833	1,139	6,932
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 105: Monthly USD institutional loan ($bn)



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

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Research Analysts

US

Collin Chan
CLO Strategist
MLPF&S
+1 646 855 6849
collin.chan@baml.com

Mao Ding
MBS Strategist
MLPF&S
+1 646 855 9968
mao.ding@baml.com

Chris Flanagan
MBS/CLO Strategist
MLPF&S
+1 646 855 6119
christopher.flanagan@baml.com

Michael Khankin, CFA
MBS Strategist
MLPF&S
+1 646 855 6835
michael.khankin@baml.com

Elana Lipchak, CFA
ABS Strategist
MLPF&S
+1 646 855 8677
elana.c.lipchak@baml.com

Satish Mansukhani
MBS Strategist
MLPF&S
+1 646 855 6441
satish.mansukhani@baml.com

Theresa O'Neill
ABS Strategist
MLPF&S
+1 646 855 9285
theresa.o'neill@baml.com

Ashwin Rastogi
MBS Strategist
MLPF&S
+1 646 855 8553
ashwin.rastogi@baml.com

Harkaran Talwar
MBS Strategist
MLPF&S
+1 646 855 9764
harkaran.talwar@baml.com

Alan Todd, CFA
CMBS Strategist
MLPF&S
+1 646 855 6383
alan.todd@baml.com

Europe

Alexander Batchvarov, CFA
Int'l Str. Fin. Strategist
MLI (UK)
+44 20 7995 8649
alexander.batchvarov@baml.com

Rondeep Barua, CFA
Research Analyst
MLI (UK)
+44 20 7996 2360
rondeep.barua@baml.com