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WELLS FARGO SECURITIES

Structured Products Research

Cross-Sector Weekly

Marielle Jan de Beur, Senior Analyst
marielle.jandebeur@wellsfargo.com
212-214-8047
Gary Zhu, CFA, Analyst
gary.zhu@wellsfargo.com
212-214-8183

Structured Products Hold Up on Brexit News

Macro Highlights

In a surprise move, voters in the United Kingdom (U.K.) elected to leave the European Union (EU) in the June 23rd referendum. Implementation of the vote will take a long time to play out; however, the financial markets reacted quickly to the news. Shortly after the result was announced, the British pound tumbled 12% to 1.323, the lowest level in 30 years, and the FTSE 100 Index lost almost 200 points, closing at 6,138.

In the global market, flight-to-quality trades pushed safe-haven government bond yields lower. Ten-year U.S. Treasuries hit 1.40%, only 2 bps shy of 2012's all-time low of 1.38%.

Generic Investment Grade (IG), High Yield (HY), and Emerging Market (EM) spreads widened 6 bps, 33 bps, and 19 bps respectively on the day of 6/24.

Structured Products Sector Highlights

Investors were adding exposure to structured products (except CLOs) in the days leading up to the U.K. referendum. According to Trade Reporting and Compliance Engine (TRACE), investors net purchased about $800 million across ABS, Non-Agency CMBS, and Non-Agency RMBS between June 17 and June 23. The $322 million net purchases in ABS marked the first reversal after six consecutive weeks of net selling in this space.

NY Fed data showed primary dealers were increasing their Agency RMBS balance sheet in June. Dealers stocked more than $10 billion of Agency RMBS in the week ahead of "Brexit."

In our view, general sentiment will be toward higher-quality assets and away from more credit-oriented sectors. The short-term effects include a sell-off in risk assets while, longer term, the effects include tightening of financial conditions. We reviewed current market condition and anticipate better pricing stability than the conditions present in the summer of 2012. Mortgages should benefit in this environment.

Market Snapshot

		Changes From				52Wk			
Select Bond Sectors (Indicative levels, new issue or on-the-run)	Current Level	1 Wk Ago	4 Wks Ago	12 Wks Ago	52 Wks Ago	Max	Med(1)	Min	Std
ABS - AAA CreditCards	35	5	4	-7	6	50	42	29	7
ABS - AAA Prime Auto	35	3	3	-7	0	55	42	30	6
CLO 2.0 Primary AAA	153	0	0	-5	11	158	153	142	4
CLO 2.0 Primary AA	205	-5	-10	-35	5	255	225	205	11
CLO 2.0 Primary BBB	450	-5	-10	-90	60	585	473	405	52
CMBS - Agy Freddie A2	78	-1	7	-2	26	99	76	54	12
CMBS - Non Agy AAA 3yr	42	-4	-2	-28	-1	83	61	42	13
CMBS - Non Agy AAA 5yr	72	-4	-2	-13	9	98	80	67	9
CMBS - Non Agy AAA LCF	118	-4	0	-11	23	164	123	99	17
RMBS - Agy FNMA 30yr CC	83	-3	6	6	11	86	76	68	4
RMBS - Mortgage Index(2)	21	-2	5	3	4	24	18	11	3
RMBS - Non Agy Jumbo 2.0	168	4	16	9	60	174	138	107	19
10yr Tsy	1.56	-0.05	-0.29	-0.16	-0.91	2.46	2.05	1.56	0.22
IG Corp(2)	149	-8	0	-16	7	217	164	142	17
HY Corp(2)	590	-42	-24	-118	107	901	645	508	94
EM(2)	370	-20	-23	-66	15	509	419	362	37
Other Benchmark	**Current Level**	**1 Wk Ago**	**4 Wks Ago**	**12 Wks Ago**	**52 Wks Ago**	**Max**	**Med(1)**	**Min**	**Std**
S&P 500	2,037	-33.8	-61.7	-10	-64	2,127	2,047	1,865	70
Equity Volatility(3)	25.8	6.4	12.6	10.4	11.7	40.7	16.5	12.0	4.7
Interest Rate Volatility(4)	77.9	-4.6	11.2	7.1	-6.4	97.9	74.5	63.9	7.6
USD / EUR	1.112	-0.013	-0.001	-0.029	-0.002	1.145	1.112	1.059	0.021
JPY / USD	102.2	-2.1	-7.6	-6.2	-21.7	124.3	119.2	102.2	6.2

Notes: Current level to respective benchmark. (1) Median; (2) Source Citi Yield Book; Agency Mortgage Sub-Index Tsy OAS; (3) VIX; (4) BofAML MOVE Index

Issuance Snapshot ($Billion)

Est. as of Late June	Gross Issuance			Net Issuance		2015 Full Year	
Select Bond Sectors	MTD	YTD	FY Est.	YTD	FY Est.	Gross Issuance	Net Issuance
ABS	14	89	177	n/a	n/a	164	n/a
CLO	3	22	50	10	10	98	65
CMBS Agy	8	56	90 - 100	24	50	96	48
CMBS Non Agy	2	28	74	-24	-50	95	-21
RMBS Agy*	113	368	1,300	47	175-200	1,221	176
RMBS NonAgy	2	16	67	0	-17	59	-19
IG Corp**	52	662	1,258	393	600	1,238	687
HY Corp**	22	118	200	108	175	254	228

*Gross issuance as of May 14. 2016, Net issuance as of April 2016, **Wells Fargo Credit Strategy

Key Economic Releases

Week of Jun 27 - Jul 1				Week of Jun 20 - Jun 25		
Economic Releases	Date	Survey	Prior	Economic Releases	Survey	Actual
GDP Annualized QoQ	Jun-28	1.0%	0.8%	FHFA Home Px MoM	0.6%	0.2%
Personal Consumption	Jun-28	2.0%	1.9%	Existing Home Sales	1.8%	1.8%
Core PCE QoQ	Jun-28	2.1%	2.1%	New Home Sales	1.6%	-6.0%
Personal Spending	Jun-29	0.4%	1.0%	Durable Goods Orders	-0.5%	-2.2%

Source: Bloomberg, L.P., SIFMA, Yield Book,Wells Fargo Securities

Please see page 13 important disclosures analyst certifications.
All estimates/forecasts are as of 6/24/16 unless otherwise stated.

Structured Products Hold Up on Brexit News

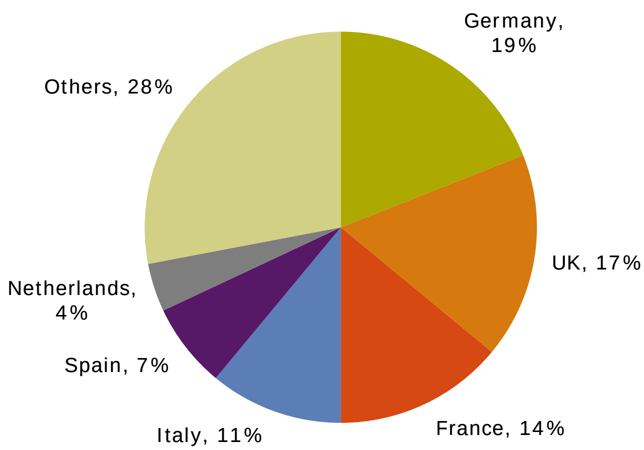
Marielle Jan de Beur 212-214-8047 marielle.jandebeur@wellsfargo.com
Gary Zhu 212-214-8183 gary.zhu@wellsfargo.com

The vote by British citizens to leave the European Union (EU), or "Brexit" took many market participants by surprise. The immediate response was increased market volatility and a flight to quality. Our rates strategists held the view that a positive Brexit vote would cause the two-year Treasury rate to rally to 0.50% and the 10-year to rally to 1.30%. The two-year reached its target level quickly, while today the 10-year closed 18 bps tighter at 1.57%. Our rates strategists believe most investors will seek to add duration now that the news is out. (Rates Express)

Generally, credit spreads on U.S.-based assets suffered; however, the response was fairly muted in light of the significant surprise. Spreads on IG corporate bonds were 6 bps wider while HY spreads were 33 bps wider. Within structured products, AAA spreads were about 5 bps wider while BBB spreads were 20–30 bps wider across most sectors.

Our economists took on the task of assessing the long-term effects of the vote. Overall, the U.K. accounts for a fairly small portion of Global GDP (4%). However, the U.K. is the second-largest economy in the EU, accounting for 17% of the EU's GDP. Germany's GDP accounts for slightly more at 19% of the EU's GDP.

Exhibit 1: European Union GDP Contribution by Member Countries



Source: IMF, EuroState, WorldBank, Wells Fargo Securities

The process of the U.K. exiting the EU will be a long one, up to two years. Our economists believe a weaker sterling and a strong dollar will benefit U.K. exports while placing a drag on those of the U.S. The U.S. exports to the U.K. account for only 0.4% of U.S. GDP; so, even a significant decline will have a minimal effect. U.S. bank exposure to the U.K. is also minimal at 3% of total bank assets.

Although the exposure seems manageable, our economists note that Brexit could dampen economic activity due to the immediate tightening in financial conditions. As the near-term economic growth in the U.K. is fairly weak, 1.6% for 2016, the possibility of a mild recession in the U.K. is a possibility based on our economist's view. (Brexit - Now What?)

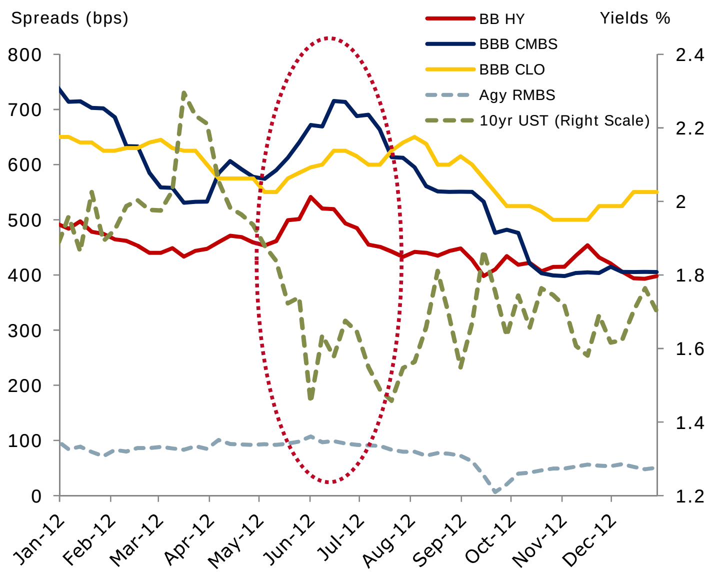
In our view, the Brexit vote points to continued market uncertainty with the risk off trade/up and quality trade intact. The vote is symbolic of a move away from globalization and evidence that discontented voters are looking for change from the status quo. We believe the market will be running more on "fear" than "greed" in the near term. We see few catalysts for a change in market sentiment, particularly in a U.S. election year. Additional rumblings by other nations to exit the EU may further dampen financial conditions in Europe.

We have examined events since the financial crisis to assess market conditions similar to the Brexit vote. The Greece exit, or "Grexit" in the summer of 2012 when the market feared Greece leaving the EU, maybe a good proxy for a market response to Brexit. Although Greece's GDP accounts for only 1.2% of the EU's GDP, it was a turning point in the market. The concept of an EU exit was new to the markets at that time and resulted in a significant "risk off" sentiment. In the summer of 2012, the global equity markets tumbled, credit spreads widened, and a flight to quality occurred.

Exhibit 2 compares the spread movements of more "risk on" sectors BB HY and BBB structured products to more "risk off" sectors such as Agency RMBS and treasuries. Treasuries rallied during the summer of 2012, and credit spreads generally widened. Mortgages benefited from the flight to quality with a spread tightening trend during that period. In our view, mortgages may underperform slightly the short term, but we believe longer term the sector will continue to benefit from a flight to quality.

Exhibit 2: Spread Performance in 2012 and Initial Brexit Reaction

Performance in 2012



Initial Brexit Reaction

Asset Class	Spread Movements 2012 May to Jun	2012 Wide minus Tight	Day 1 Post Brexit
BB HY	67	108	25
BBB CMBS	95	184	30
BBB CLO	50	100	25
Agy RMBS	4	35	6
10yr US	-0.24	-0.84	-0.18

Note: Indicative Spreads; BB HY spreads change on Day 1 Post Brexit is an approximation based on broader HY index movement.

Source: Bloomberg, Wells Fargo Securities

A buffer to the effects of a market running on fear is the intervention of the central banks into the global financial system. Exhibit 3 shows the size of the central bank's balance sheets. Since 2012, the U.S. has increased its holdings by about 60% and Japan has increased its holdings 170%. In aggregate, the central bank's holdings have increased 40% since 2012.

Market participants argue the merits of central bank intervention, and we agree that, longer term, it likely hinders growth. However, in the short term, the central bank intervention will likely provide bumpers to market volatility during events such as "Brexit." In our view, the longer-term volatility from "Brexit" will be more muted than the correction we experienced in the summer of 2012.

Exhibit 3: Central Bank Asset Holdings and Monetary Easing Continues

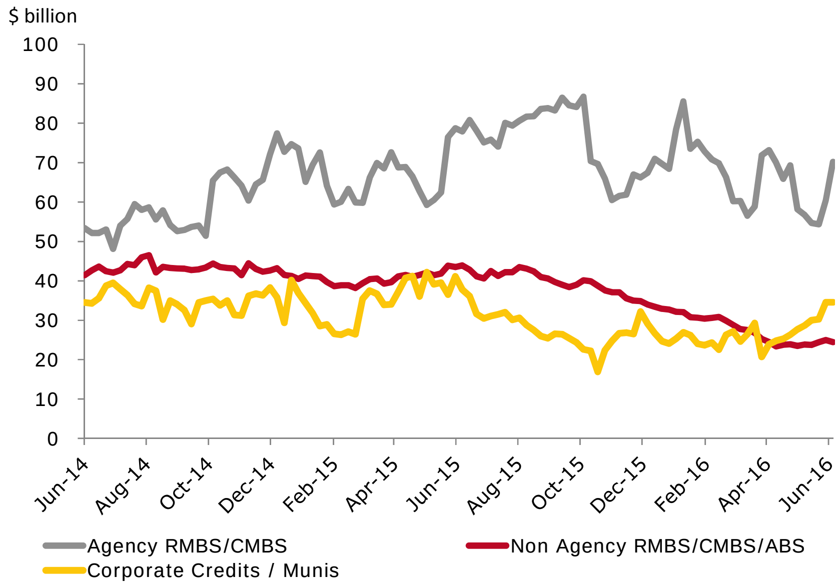
Global Central Banks	Holdings in $bn 2012	Holdings in $bn 2016	Total Assets to GDP	Comments
U.S.	2,649	4,233	24.0%	U.S. Fed on hold of rate hike in June 2016
U.K.	424	549	18.4%	After Referendum, BOE said they have liquidity to add
ECB	3,349	3,443	19.5%	Accommodative, QE Continues, Bonds Buying Program
Japan	1,541	4,164	61.6%	Accommodative, QE Continues; Negative rates
China	4,447	4,987	53.2%	Accommodative, Lowering Rates and Bank Reserve

Source: Bloomberg, IMF, WorldBank, EuroStat, Wells Fargo Securities

Agency mortgages provide significant liquidity during periods of market volatility. Heading into the Brexit vote, primary dealers significantly increased their exposure to Agency mortgages while reducing exposure to the Non-Agency space. Inventories in corporate bonds have increased modestly over the past several weeks.

In the near term, the mortgage market will likely benefit from the flight to quality due to lower historical volatility, significant liquidity and a concentrated pure play on U.S.-based assets. Convexity concerns resurfaced amid the rally in rates. The degree of faster Agency RMBS prepayments will largely depend on the path of interest rates going forward. (Bremain In MBS)

Exhibit 4: Primary Dealers Increased Agency Products Inventory Ahead of Brexit



Source: Bloomberg, NY Fed, Wells Fargo Securities Data as of 6/15/2016

Conclusion: The British vote to exit the EU caught many market participants by surprise. The process will take several years to play out. According to our economists, the move increases the likelihood of a U.K. recession. General sentiment will be toward higher-quality assets and away from more credit-oriented sectors. The short-term effects include a sell-off in risk assets while the longer-term effects include tightening of financial conditions. In our view, current market conditions will contribute to better price stability than the conditions present in the summer of 2012. Mortgages should benefit in this environment. U.S.-based investments should benefit because, globally, U.S. GDP growth is strong.

Our Top Picks or Key Themes for Non-RMBS Sectors

Any updates or changes to our views since last week are boxed in

Sectors	Top Picks or Key Themes	Recommendation Date	Comments On Current Condition
ABS	We recommend an increased allocation to nonbenchmark sectors such as auto lease, fleet lease, floorplan, and rental car to increase diversification and yield.	4/12/2016	Benchmark issuers have seen more improvement in pricing. Tiering remains wide in the primary market.
	For portfolios that can take credit risk, take advantage of the growing credit component in ABS. Provide liquidity in the ABS portion of the portfolio and pick up yield in shorter average-life assets. Buy nonbenchmark subprime auto senior bonds.	4/28/2016	New issue volume has been slow to gain traction, and is well behind last year's pace. The mix of issuers and sectors suggests a fundamental readjustment at work. A high concentration in autos and growing credit component means liquidity may remain challenged.
	Buy new issue bonds based on wider pricing spreads to secondary, and more available bonds. Subordinated bonds seem to offer particularly good value.	5/23/2016	Demand for new issue ABS has improved as spreads have tightened and supply has increased.
CLO	Our base case is for spreads to tighten (at a slower pace) on strong technicals and increased demand, especially in low mezz and equity.	May Outlook	The rally could be fragile (driven by central banks, dollar /commodity moves, and fund flows).
	We believe that BB and BBB tranches offer the best value, but recommend that investors stay up in quality	May Outlook	We would be cautious of buying tranches from stressed portfolios at tighter spreads (driven by a technical rally), as those tranches could fall in price quickly if the loan market reverses or if CCC downgrades increase.
	Overseas QE should continue to drive demand for CLOs	May Outlook	HG Corporate OAS and CMBS AAA spreads have seen significant tightening from the widest levels in mid-February , which may make CLO secondary AAA's more compelling.
	We believe that Euro mezz CLO is poised to tighten on a "stay" Brexit vote, but prefer U.S. mezz as better value for buy and hold investors.	5/9/2016	Euro CLO Mezz is one of the only sectors to not tighten back to YE 2015 levels; however, U.S. mezz bond levels reflect current credit conditions.
CMBS - Non Agency	Property fundamentals remain healthy overall, but over the next year credit growth may slow given recent regulatory guidance to banks, tightening credit according to the senior loan officer survey, and the countdown to risk retention for CMBS.	Q2 2016 Outlook	Property prices declined 0.3% in January after flattening out in December, according to the Moody's/RCA CPPI measure. Additionally, property transaction volume data from RCA showed a 46% year over year slowdown in trades in February transactions, extending a 3% decline reported for January.
	The risk-return proposition has improved significantly for CMBS over the quarter as spreads widened while collateral metrics improved. Dislocation in capital markets has made investment in new issue CMBS AA- and A- classes an attractive vehicle for taking commercial real estate risk. We see limited tightening potential for for BBB- spreads.	Q2 2016 Outlook	A confluence of fresh central bank support, higher oil prices, and accelerated flows into fixed income funds have reenergized risk appetite, leading corporate spreads tighter with CMBS following along. Over time, we see tightening credit conditions becoming more significant in setting the path of debt costs, cap rates, and property values.

Source: Wells Fargo Securities

Our Top Picks or Key Themes for RMBS Sectors

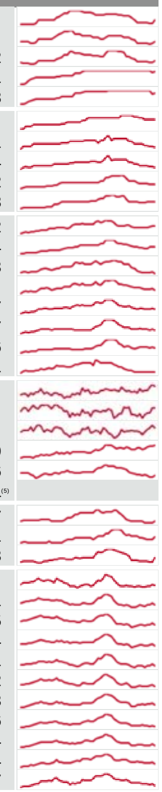
Any updates or changes to our views since last week are boxed in

Sectors	Top Picks or Key Themes	Recommendation Date	Comments On Current Condition
RMBS - Agency	15 & 30-Year Mortgage Basis: Neutral. MBS have performed well recently and valuations are somewhat on the richer side. But global central banks remain accommodative.	April 29, 2016 Agency MBS Weekly	Despite low rates, prepays are demonstrating burnout leading MBS to hold in during rallies and outperform in selloffs
	30-Year Coupon Stack: In conventionals, favor 4%s on the coupon stack ahead of the prepay report. In GNMAs, favor GNMA II 3.5s as that coupon has the best hedge adjusted carry as well.	April 14, 2016, RMBS Weekly	Continue to favor 4s on the coupon stack as the 4 fly is cheap
	15-Year Coupon Stack: Sticking with production coupons to allocate capital.	April 29, 2016 Agency MBS Weekly	15y should continue to benefit from strong bank buying.
	Specified Pools: We remain constructive on specified pools as their valuations look cheap and carry is attractive as well. We recommend investors explore opportunities in 30-year 3.5s and 15-year 3s. We would start with New York (NY) paper where available. Outside of that, we would look to loan balance paper to round out our specified pool recommendation where we would start with $175,000 max (SHLB) paper and work backward, up the convexity frontier toward $85,000 max (LLB) paper.	2016 Q2 Outlook	Even though carry on 4s is attractive, valuations look full given their elevated even OAS profiles, so we would look to monetize any gains there in favor of 3.5s.
	Agency CMO: The recent widening in the belly of the CMO curve has presented investors with an attractive entry level. Also, the long end of the CMO curve should be well supported, given the dearth of long-duration, high-quality assets globally. We would continue to add in those parts of the CMO curve and add floaters as necessary to modify the duration exposure.	2016 Q2 Outlook	Trepidation around adding front and belly cash flows persists in the face of renewed concerns around changes in monetary policy. Some clarity could give investors confidence to re-engage the CMO market as absolute rate levels have come off their lows. As we head into a new month, we may see an increased bank bid for belly and front cash flows with the long end of the CMO curve better bid by international as well as domestic duration buyers.
	Hybrid ARMs: Favor 7/1s over 5/1s as they offer spread pickup with little duration extension.	2016 Outlook	Z-spreads have tightened meaningfully and at this juncture we would fade 5/1s in favor of owning 7/1s or 10/1s if they are available.
	Derivatives: Fixed rate IO collateralized by newer production 3.5%s/4%s look like a relative value play here as model projections are underestimating the burnout in these coupons/cohorts. On the IIO front, valuations are not unreasonable and prepays are mild, but the Fed remains a concern.	2016 Outlook	Convexity concerns remain given the outsized print last month, but we continue to believe that burnout should keep speeds from rising materially even in the context of current rates. We continue to recommend that investors look under the hood to find bonds where model dislocation persists as actual speeds are generally falling short of projected speeds, enhancing carry potential.
RMBS - Non Agency	Subordinate classes of seasoned credit risk transfer (CRT) bonds	2016 Outlook	Investors are overpaying for marginally higher seasoning and credit scores, especially in the subordinate classes of these deals.
	Double-A and Single-A rated Prime 2.0	2016 Q2 Outlook	Subordinated Prime 2.0 bonds have seen very little spread tightening during the past 6 weeks when compared to other Non-Agency sectors. A-rated bonds pick ~150 bps to similarly rated CRT and collateral performance in Prime 2.0 has been pristine during the years since the crisis.
	A rated single family rental (SFR) from larger single-borrower issuers	2016 Outlook	A rated SFR picks up almost 200 bps of spread compared to A rated CRT, and more than 100 bps compared to BBB rated legacy RMBS.

Source: Wells Fargo Securities

Cross-Sector Spread Report

All Levels are Indicative (in bps)

Select Bond Sectors	Bench mark	WAL	Current Level[1]	Changes From: 1 Wk Ago	4 Wks Ago	12 Wks Ago	52 Wks Ago	YTD	52 Week: Max	Median	Min	Avg	Std	Trend Line
ABS - AAA CreditCards	SWAP	3	35	5	4	-7	6	-13	50	42	29	40	7	
ABS - AAA Prime Auto	SWAP	3	35	3	3	-7	0	-10	55	42	30	41	6	
ABS - AAA SubPrime Auto	SWAP	3	68	3	1	-12	4	-17	97	80	60	78	12	
ABS - AAA Student Loan 3yr	DM	3	115	5	-5	-5	65	-5	120	118	50	103	21	
ABS - AAA Student Loan 5yr	DM	5	135	5	-15	-15	70	-10	150	143	65	125	28	
CLO 2.0 Primary AAA	DM	7	153	0	0	-5	11	-2	158	153	142	151	4	
CLO 2.0 Primary AA	DM	8	205	-5	-10	-35	5	-30	255	225	205	226	11	
CLO 2.0 Primary A	DM	8	280	-10	-20	-70	10	-55	385	315	280	317	24	
CLO 2.0 Primary BBB	DM	8	450	-5	-10	-90	60	-25	585	473	405	473	52	
CLO 2.0 Primary BB	DM	9	800	0	20	-75	175	-15	975	795	640	787	98	
CMBS - Agy Freddie A2	SWAP	10	78	-1	7	-2	26	-7	99	76	54	76	12	
CMBS - Agy Freddie K B[4]	SWAP	10	330	0	35	-60	170	-37	505	324	165	317	94	
CMBS - Non Agy AAA 3yr	SWAP	3	42	-4	-2	-28	-1	-29	83	61	42	61	13	
CMBS - Non Agy AAA 5yr	SWAP	5	72	-4	-2	-13	9	-12	98	80	67	81	9	
CMBS - Non Agy AAA LCF	SWAP	10	118	-4	0	-11	23	-16	164	123	99	127	17	
CMBS - Non Agy AA	SWAP	10	190	-8	-5	-30	40	-1	308	197	160	209	37	
CMBS - Non Agy A	SWAP	10	328	-12	-7	-22	108	20	495	308	235	327	66	
CMBS - Legacy Super Sr.	SWAP	2	91	-1	-2	-8	1	-28	129	106	91	105	11	
RMBS - Agy FNMA 30yr CC	Tsy	10	83	-3	6	6	11	10	86	76	68	76	4	
RMBS - Agy FNMA 15yr CC	Tsy	5	69	0	12	1	6	13	73	63	52	63	6	
RMBS - Mortgage Index[2]	Tsy	5	21	-2	5	3	4	5	24	18	11	18	3	
RMBS - Non Agy Jumbo 2.0	Tsy	10	168	4	16	9	60	38	174	138	107	140	19	
RMBS - CRT STACR M2	DM	5	205	5	-5	-30	-15	-20	260	220	195	223	16	
RMBS - CRT CAS M2 2015	DM	6	485	10	30	5	n/a[5]	-35	n/a[5]	n/a[5]	n/a[5]	n/a[5]	n/a[5]	
RMBS - Non Agy Legacy Prime / AltA IG	DM	5	165	5	5	-10	0	-35	215	175	160	181	17	
RMBS - Non Agy Legacy Prime / AltA BIG	DM	7	280	15	10	-10	30	5	320	275	250	273	21	
RMBS - Non Agy Legacy Subprime	DM	7	315	25	20	-20	25	0	365	308	285	314	23	
AAA / AA 1-3yr Corp	Tsy	3	39	-2	4	0	-6	0	66	45	34	45	8	
AAA / AA 3-7yr Corp	Tsy	5	58	-7	4	-1	-11	-5	97	65	50	68	11	
AAA / AA 7-10yr Corp	Tsy	10	81	-6	5	-2	-17	-13	128	97	70	98	15	
AAA / AA 10+yr Corp	Tsy	15	141	-8	3	-6	-8	-13	195	155	133	156	14	
A 3-7yr Corp	Tsy	5	91	-7	3	-8	-3	-7	136	100	87	103	11	
A 7-10yr Corp	Tsy	10	118	-7	1	-12	-6	-9	165	130	116	133	12	
A 10+yr Corp	Tsy	15	178	-7	0	-9	11	-6	222	183	167	185	13	
BBB 3-7yr Corp	Tsy	5	166	-9	-5	-30	5	-44	272	195	161	197	26	
BBB 7-10yr Corp	Tsy	10	205	-11	-1	-24	12	-35	301	228	192	230	24	
HY Corp	Tsy	10	590	-42	-24	-118	107	-137	901	645	508	663	94	
EM	Tsy	10	370	-20	-23	-66	15	-62	509	419	362	420	37	

Notes: (1) Spreads to respective benchmark; (2) Citi Yield Book - Mortgage Sub-Index Tsy OAS; (3) Data start from 11/11/2015; (4) Subordinates bonds are not guaranteed by Freddie

Source: Bloomberg L.P. Citi Yield Book, Wells Fargo Securities.

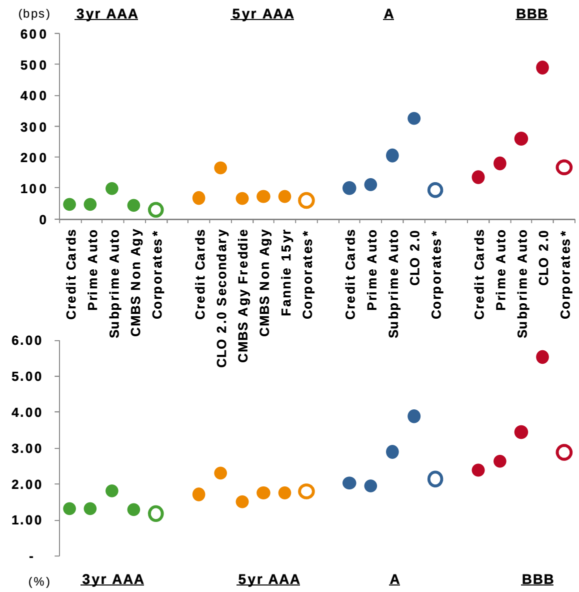
Cross-Sector Relative Value – By Avg Life, Asset Sector and Rating

All Levels are Indicative (Spreads in bps, Yields in %)

Weighted Average Life Between 3 - 5 Yrs

< 5 Yrs	Rating / Spreads (bps)			
Asset Class	**3yr AAA**	**5yr AAA**	**A**	**BBB**
ABS - Credit Cards 3yr	44			
ABS - Credit Cards 5yr		68	100	135
ABS - Prime Auto 3yr	45		110	180
ABS - SubPrime Auto 3yr	95		205	260
CLO 2.0 Secondary		166	325	490
CMBS - Agy Freddie		67		
CMBS - New Issue 3yr	42			
CMBS - New Issue 5yr		72		
RMBS - Agy Fannie 15yr CC		73		
*Corporates**	29	60	94	168

< 5 Yrs	Rating / Yield (%)			
Asset Class	**3yr AAA**	**5yr AAA**	**A**	**BBB**
ABS - Credit Cards 3yr	1.28			
ABS - Credit Cards 5yr		1.71	2.03	2.38
ABS - Prime Auto 3yr	1.29		1.94	2.64
ABS - SubPrime Auto 3yr	1.79		2.89	3.44
CLO 2.0 Secondary		2.30	3.89	5.54
CMBS - Agy Freddie		1.51		
CMBS - New Issue 3yr	1.26			
CMBS - New Issue 5yr		1.75		
RMBS - Agy Fannie 15yr CC		1.76		
*Corporates**	1.18	1.80	2.14	2.89

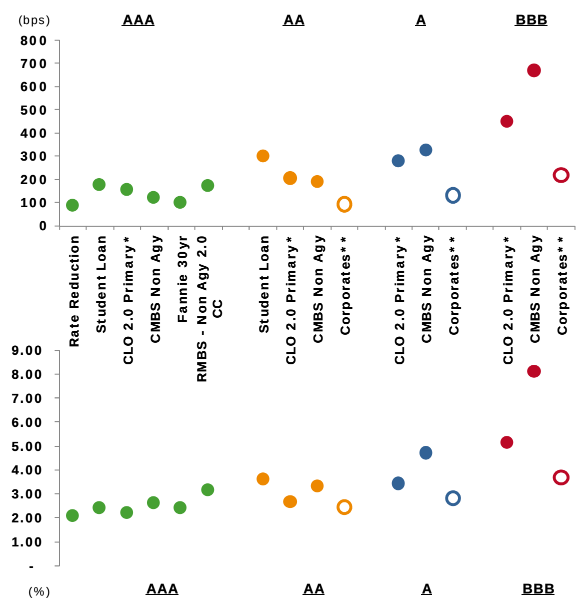


Notes: Spreads to Swap, Except CLO Spreads to LIBOR; *Corp 3year AAA – blended AAA/AA 1-3year Citi Index, 5year AAA – blended AAA/AA 3-7year Citi Index, Corp A and BBB – blended 3-7year A and BBB Citi Index respectively; CLO-Yield based on 3mL, forward curve not used; Table and Charts excluded AA rating bucket due to limited supplies.

Weighted Average Life Approximately 10yrs*

~10yr	Rating / Spreads (bps)			
Asset Class	**AAA**	**AA**	**A**	**BBB**
ABS - Rate Reduction	85			
ABS - Student Loan	175	300		
*CLO 2.0 Primary**	153	205	280	450
CMBS - Non Agy	118	190	328	670
RMBS - Agy Fannie 30yr CC	96			
RMBS - Non Agy 2.0 CC	168			
*Corporates***		93	131	217

~10yr	Rating / Yield (%)			
Asset Class	**AAA**	**AA**	**A**	**BBB**
ABS - Rate Reduction	2.07			
ABS - Student Loan	2.39	3.64		
*CLO 2.0 Primary**	2.17	2.69	3.44	5.14
CMBS - Non Agy	2.62	3.34	4.72	8.14
RMBS - Agy Fannie 30yr CC	2.40			
RMBS - Non Agy 2.0 CC	3.12			
*Corporates***		2.45	2.83	3.68



Empty Circles Represent Generic Corporate Levels

Notes: Spreads to Swap, Except ABS-Student Loan and CLO Spreads to LIBOR; *Except CLO 2.0, AAA WAL is 6-7year, rest are 7-9years; 2.0 CLO AAA is non-Volcker; CLO yield based on 3mL; **Corp AA – blended AAA/AA 7-10year Citi Index, Corp A and BBB – blended 7-10year A and BBB Citi Index respectively.

All tables and charts source: Yieldbook, Bloomberg, Wells Fargo Securities

Cross-Sector Relative Value – By Rating, Asset Sector and Avg Life

All Levels are Indicative (Spreads in bps, Yields in %)

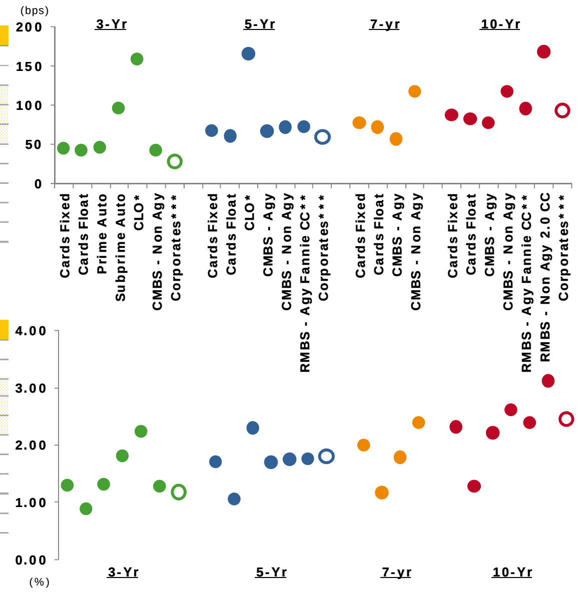
Weighted Average Rating - AAA

WAL / Spreads (bps)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed	44	68	78	88
ABS - Credit Cards Float	41	61	72	83
ABS - Prime Auto	45			
ABS - SubPrime Auto	95			
CLO*	158	166		
CMBS - Agy		67	57	78
CMBS - Non Agy	42	72	118	118
RMBS - Agy Fannie CC**		73		96
RMBS - Non Agy 2.0 CC				168
Corporates***	29	60		93

WAL / Yield (%)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed	1.28	1.71	2.00	2.32
ABS - Credit Cards Float	0.86	1.06	1.17	1.28
ABS - Prime Auto	1.29			
ABS - SubPrime Auto	1.79			
CLO*	2.22	2.30		
CMBS - Agy		1.70	1.79	2.22
CMBS - Non Agy	1.26	1.75	2.40	2.62
RMBS - Agy Fannie CC**		1.76		2.40
RMBS - Non Agy 2.0 CC				3.12
Corporates***	1.18	1.80		2.45



Empty Circles Represent Generic Corporate Levels

Notes: Spreads to Swap, Except CLO Spreads to LIBOR; * CLO 3year 1.0 AAA, where WAL is 1-2year, 5year is 2.0 AAA;, 2.0 CLO AAA is non-Volcker; CLO yield based on 3mL; **RMBS – Agy Fannie 15year CC for 5year WAL, 30year CC for 10year WAL; ***5year Corps - Citi Blended 3-7year Index, 10year Corps – Citi blended 7-10year Index.

All tables and charts source: Yieldbook, Bloomberg, Wells Fargo Securities

Cross-Sector Relative Value – By Rating, Asset Sector and Avg Life

All Levels are Indicative (Spreads in bps, Yields in %)

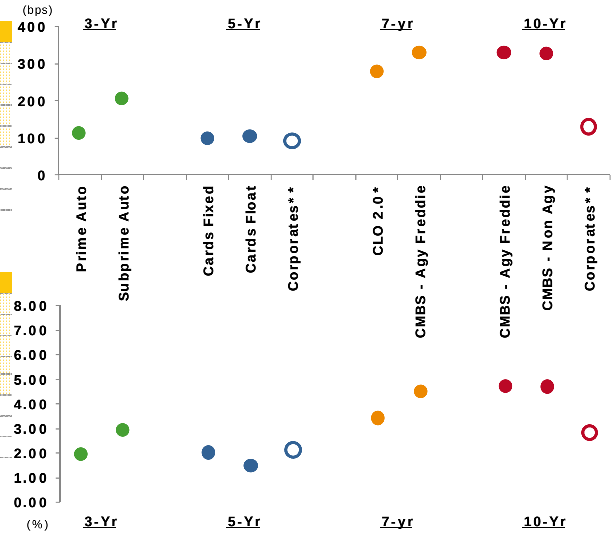
Weighted Average Rating - A

WAL / Spreads (bps)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed		100		
ABS - Credit Cards Float		105		
ABS - Prime Auto	110			
ABS - SubPrime Auto	205			
CLO 2.0*			280	
CMBS - Agy Freddie			330	330
CMBS - Non Agy				328
Corporates**		94		131

WAL / Yield (%)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed		2.03		
ABS - Credit Cards Float		1.50		
ABS - Prime Auto	1.94			
ABS - SubPrime Auto	2.89			
CLO 2.0*			3.44	
CMBS - Agy Freddie			4.52	4.74
CMBS - Non Agy				4.72
Corporates**		2.14		2.83



Notes: Spreads to Swap, Except CLO Spreads to LIBOR; *A CLO WAL is ~8-9years, CLO-Yield based on 3mL, forward curve not used; **5year Corp – Citi Blended 3-7year Index, 10year Corp – Citi blended 7-10year Index.

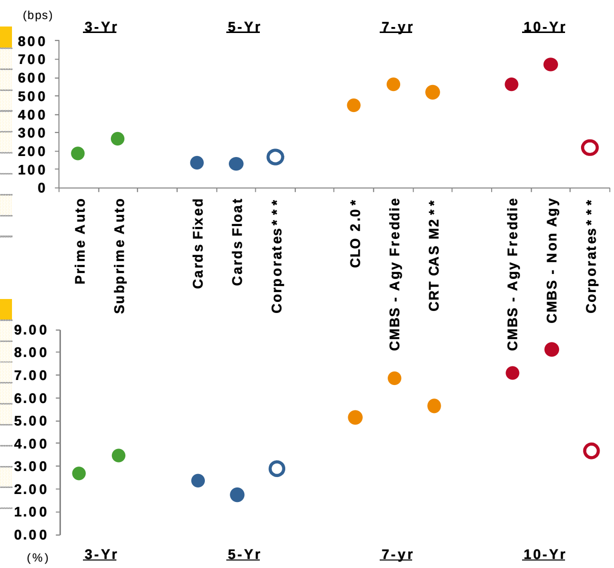
Weighted Average Rating - BBB

WAL / Spreads (bps)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed		135		
ABS - Credit Cards Float		130		
ABS - Prime Auto	180			
ABS - SubPrime Auto	260			
CLO 2.0*			450	
CMBS - Agy Freddie			565	565
CMBS - Non Agy				670
RMBS - Non Agy CRT - CAS M2**			520	
Corporates***		168		218

WAL / Yield (%)

Asset Class	3yrs	5yrs	7yrs	10yrs
ABS - Credit Cards Fixed		2.38		
ABS - Credit Cards Float		1.75		
ABS - Prime Auto	2.64			
ABS - SubPrime Auto	3.44			
CLO 2.0*			5.14	
CMBS - Agy Freddie			6.87	7.09
CMBS - Non Agy				8.14
RMBS - Non Agy CRT - CAS M2**			5.65	
Corporates***		2.89		3.68



Empty Circles Represent Generic Corporate Levels

Notes: Spreads to Swap, Except CLO Spreads

to LIBOR; *BBB CLO WAL is ~8-9years, CLO-Yield based on 3mL, forward curve not used; **CAS M2 Unrated; ***5year Corp – Citi Blended 3-7year Index, 10year Corp – Citi blended 7-10year Index.

All tables and charts source: Yieldbook, Bloomberg, Wells Fargo Securities

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Credit Card Surveillance Report: June 2016

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CMBS Brief: Loan Recon

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WELLS FARGO SECURITIES, LLC
FIXED INCOME RESEARCH

Diane Schumaker-Krieg, Managing Director, Global Head of Research, Economics & Strategy		diane.schumaker@wellsfargo.com	(704) 410-1801 (212) 214-5070
Paul Jeanne, Managing Director	**Associate Director of Research**	paul.jeanne@wellsfargo.com	(443) 263-6534 (704) 410-2130

Structured Products Research

Marielle Jan de Beur, Managing Director	**Head of Structured Products Research**	marielle.jandebeur@wellsfargo.com	(212) 214-8047 (704) 410-3084
Vipul Jain, Ph.D., CFA, Managing Director	**Head of Residential Mortgage Research**	vipul.jain@wellsfargo.com	(212) 214-5738
John McElravey, CFA, Managing Director	**Head of Consumer ABS Research**	john.mcelravey@wellsfargo.com	(704) 410-3081
David Preston, CFA, Managing Director	**Head of CLO and Commercial ABS Research**	david.preston@wellsfargo.com	(704) 410-3080
Anish Lohokare, Director	**Residential Mortgage Research**	anish.lohokare@wellsfargo.com	(212) 214-5739
Chris van Heerden, CFA, Director	**Head of CMBS and Real Estate Research**	chris.vanheerden@wellsfargo.com	(704) 410-3079
Randy Ahlgren, CFA, Vice President	**Residential Mortgage Research**	randy.ahlgren@wellsfargo.com	(704) 410-3086
Landon Frerich, Vice President	**CMBS and Real Estate Research**	landon.frerich@wellsfargo.com	(704) 410-3083
Gary Zhu, CFA, Vice President	**Cross Sector Structured Products Research**	gary.zhu@wellsfargo.com	(212) 214-8183
Ryan Brinkoetter, CFA, Associate	**Consumer ABS Research**	ryan.brinkoetter@wellsfargo.com	(704) 410-3089
Neil Delap, CFA, Associate	**Residential Mortgage Research**	neil.e.delap@wellsfargo.com	(704) 410-3172
Geoffrey Horton, CFA, Associate	**CLO and Commercial ABS Research**	geoffrey.horton@wellsfargo.com	(704) 410-3352
Mackenzie Miller, Associate	**CLO and Commercial ABS Research**	mackenzie.miller@wellsfargo.com	(704) 410-3358
Michael Nunn, Associate	**CMBS and Real Estate Research**	michael.nunn@wellsfargo.com	(704) 410-3088

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