

# European Securitized Products Weekly

## Strategies for QE Withdrawal and Choppy Markets

- **Finding Value in Volatile Markets** — The recent rise in yields relates to market fears around tapering of the Fed's QE program, which will impact all assets that have benefited from central bank liquidity. Since volatility might persist for a while, investors should try to buy thoughtfully but also use the opportunity to rebalance their portfolios.
- **Stay with Shorter Duration** — Short-duration autos and credit card have low yields but should also show resilience; conversely, longer-duration UK prime and CMBS are showing the most volatility, often due to investors switching into new issues. Buying high quality short WAL assets is an effective strategy for combating market volatility
- **Relative Value in Granite and Euro CLO Seniors** — We like GRANM and amortizing Euro CLO seniors as they look relatively cheap for their short duration. Granite is also cheap to year-to-date tight levels and may benefit from UK help-to-buy schemes.
- **Quality Peripheral RMBS Likely to be Resilient** — Peripheral RMBS and other illiquid assets could benefit, as investors wishing to lighten their portfolios will probably prefer to sell more liquid asset classes.

### Global Securitized Products Research

**Mary E Kane**  
+1-212-816-8409  
mary.e.kane@citi.com

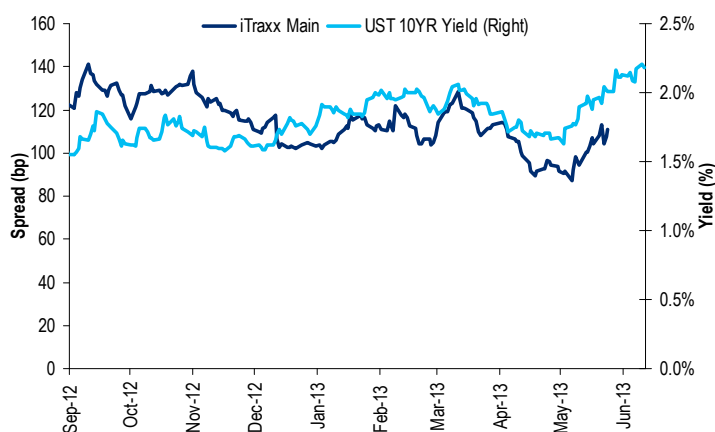
### European Securitized Products

**Ratul Roy**  
+44-20-7986-9003  
ratul.roy@citi.com

**Himanshu Shrimali, CFA**  
+44-20-7986-6151  
himanshu.shrimali@citi.com

**Rajat Deshpande**  
+91-22-4277-5048  
rajat.deshpande@citi.com

Figure 1. US Yield Rises are Having an Impact on European Credit\* Spreads, Sep 2012 – Jun 13



\* We use iTraxx Main spreads with a lag of 2 weeks

Source: Bloomberg, Markit and Citi Research

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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## Survey of Relative Value

### Will QE Easing Lead to Asset Price Drops?

Recent moves in the Euro ABS markets show a strong degree of correlation between rising 10yr UST yields and widening in senior spreads. We see a similar relationship between corporate spreads and yields on the cover page (Figure 1). The relationship between US Treasury yields and credit spreads could last longer than credit investors might like. The theory, see [Too much money, not enough assets to buy](#), is that over the last three years the twin effects of central bank liquidity and regulation have suppressed the natural growth in outstanding volume of securities available for investors to buy to the tune of several trillion dollars per year. The biggest shift has been the drop in net issuance from financials, GSEs, and private-label securitizations. UK mortgages are a good example. Banks are not inclined to lend, borrowers were also not prepared to take on much debt, and, to add to the pressures on RMBS supply, the UK government injected a FLS scheme that made government-sponsored liquidity cheaper compared to other funding sources. Regulatory capital increases (actual or threatened as in the case of Solvency II), together with cheap funding from central banks also reduced the flow of externally-placed securities. On the demand side, investors facing near-zero yields on Government debt have rushed into risky assets which have seen spreads compress.

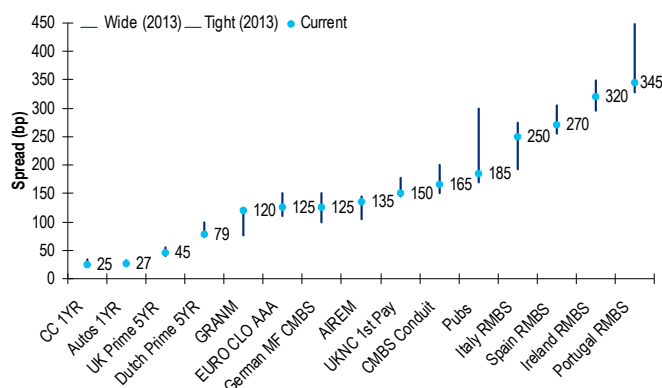
As the Fed starts to taper off its QE program, those assets which gained the most have the most to lose. Additionally, European investors with global mandates may also move into higher-yielding US bonds. Longer-duration assets are the most vulnerable to spread widening. Conversely, we think investing in shorter-dated and in higher-yielding securities are two ways for ABS investors to cope with this development.

### Granite and Amortizing Euro CLO Look Attractive

Granite senior notes and first pay Euro CLOs look attractive at 120bp and 125bp, respectively, following the recent spread widening. A quick comparison of senior spreads across various securitized sectors reveals that Granite seniors are trading at their year-to-date widest levels and Euro CLO spreads have also backed up 15bp from 2013 tights (Figure 2). Granite bonds are amortizing rapidly because the trust's seller share is locked out from receiving principal payments and all the cash is diverted to the funding share after the non-asset trigger breach. Granite senior tranches have a short WAL of about 2YR and pick up roughly 90bp to similar WAL UK prime RMBS. Moreover, Granite notes offer good upside potential from uptick in prepayments if the UK government's "Help-to-Buy" schemes are successful. The new scheme announced in the 2013 budget will increase the availability of high LTV mortgages starting 2014 and will help the so called "mortgage prisoners" in the Granite pool to refinance their loans.

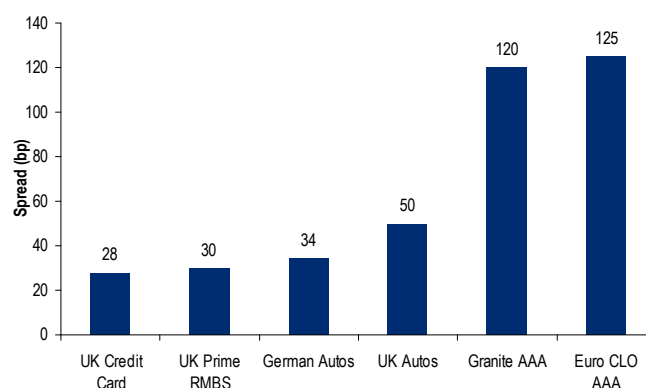
Amortizing short-dated Euro CLOs (less than 2YR WAL) offer EURIBOR +110–125bp, which is significantly higher than spreads on other short-duration assets like autos and credit card ABS and UK prime RMBS (Figure 3). Corporate default rates are ticking up in Europe, but CLO seniors have substantial enhancement to withstand high defaults.

Figure 2. Senior Securitized Current Spreads Compared to 2013 Wide and Tight, 2013YTD (bp)



Source: Citi Research

Figure 3. Spread Comparison of Select 2YR WAL Securitized Sectors, as of 7 June 2013 (bp)



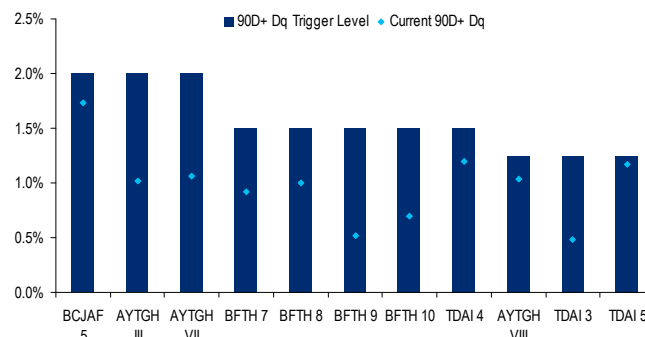
Source: Citi Research

## Opportunities in Spanish RMBS

We recently published a note ([Rain in Spain... But Sunny on Many RMBS](#)) on the Spanish RMBS sector and concluded that many secondary Spanish RMBS bonds, mostly first-pay but more seasoned mezz too, offer good value for risk. RMBS is a good way to benefit from a turning point in Spain's economy, offering attractive relative value to assets such as sovereign, corporate, and covered bonds. We highlight selected opportunities from the sector below:

- **Attractive Return for Negligible Principal Risk.** We find that many senior Spanish RMBS bonds offer good return for risk, offering about 4% yield. Senior tranches of nearly half the deals we examined do not experience any credit loss even if 100% of the pool defaults because the available credit enhancement for these tranches exceeds the estimated pool loss severities. Moreover, a good portion of the remaining deals have senior breakeven defaults higher than five times of current seriously delinquent plus defaulted loans (Figure 4).
- **Convexity Opportunities.** Senior notes of certain Spanish RMBS that are currently paying pro-rata could benefit from the possible switch to sequential amortization. We identify 11 pro-rata amortizing deals that could turn sequential as their 90D+ delinquencies are close to trigger levels (Figure 5). Pro-rata to sequential switch would decrease senior class WALs by about 10%.

**Figure 5. Sequential Trigger Levels and Current 90D+ Delinquency of Pro-Rata Deals that Could Turn Sequential\***



We use a 1pt difference in delinquencies to determine likelihood of switching  
Source: Citi Research

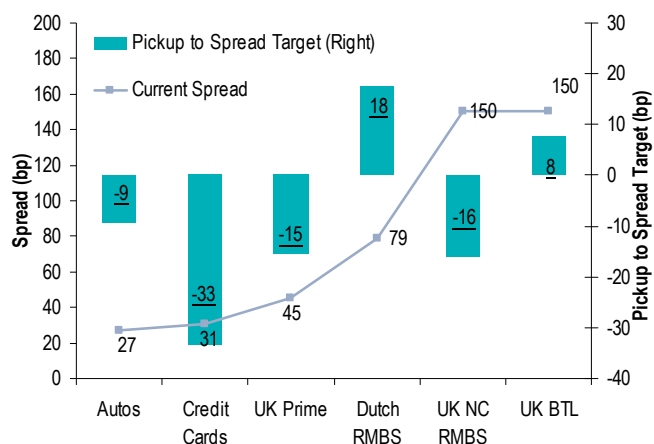
The functioning auto ABS primary market provides abundant opportunities for investors to add exposure to short-duration high quality ABS from core countries. Moreover, chances are high that issuers would offer higher returns on new transactions given the recent bout of spread widening in broader credit markets including ABS. We are already seeing this happen in some auto ABS deals that have been launched earlier this week where first-pays of less than 18 month average life are offered at LIBOR +60bp; we believe the same bonds would have been about 10bp tighter earlier this year.

We compare current spreads across various securitized sectors to their long term averages discarding the period of extreme stress (Sep 2007 – Sep 2008) following the US subprime crisis. We believe such a comparison enables investors to gauge which sectors are relatively cheap or expensive to historical averages. We find that peripheral RMBS sectors remain attractive at EURIBOR +250-345bp, offering pick ups of 70–144bp to long term averages. Dutch RMBS is the only core securitized sector cheap to historical averages where as UK Prime, autos, and credit cards trade at tighter spreads than their historical averages.

- **Dutch RMBS Attractive.** At EURIBOR +79bp, Dutch RMBS picks up 18bp to our long term spread target and spreads widened 4bp over the past couple of weeks from 2013 tight of 75bp. Although Dutch RMBS performance has remained stable so far, Dutch housing market faces several headwinds from rising unemployment and swathe of policy changes. We advise investors to consider these risks before investing in the sector.
- **Peripheral RMBS Pickup to Targets.** Italian, Spanish, Irish, and Portuguese RMBS trade 144bp, 92bp, 70bp, and 96bp wide respectively to historical averages (Figure 7).

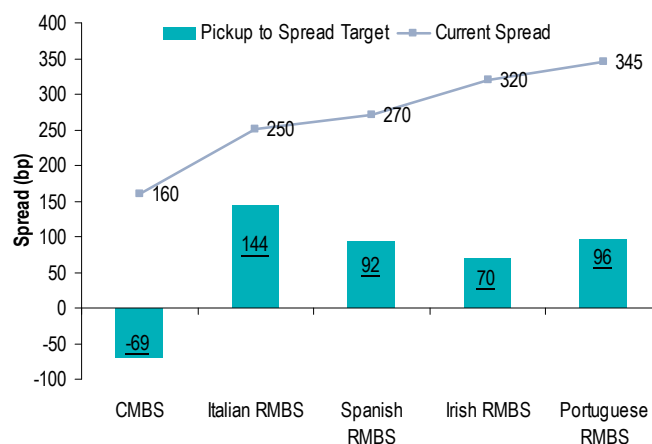
- **CMBS Wider but Still Expensive.** European CMBS widened about 15bp over the past two weeks and currently trades at around EURIBOR +160bp, 69bp expensive to our spread targets. The re-opening of German multi-family CMBS market is providing opportunities for investors to buy better rated bonds with good quality collateral. We expect legacy CMBS spreads may weaken further due to investors switching into new bonds.
- **UK Prime Expensive but Supported.** UK prime RMBS at LIBOR +45bp is around 15bp tighter to our long term spread targets (Figure 6). Spreads are supported at current levels due to positive technicals stemming from rapid amortization and a low level of supply due to the ongoing FLS programme.
- **Autos and Credit Cards Tight to Target.** 3YR UK credit cards and 1YR German autos have remained resilient at LIBOR +31bp and EURIBOR +27bp, respectively, for the past six weeks. These asset classes trade tighter to our long term spread targets (Figure 6) but the scarcity of short duration core assets combined with strong collateral performance support their spreads at these tight levels.

Figure 6. Core Sectors Spread Pickup to Spread Targets, as of 7 June 2013 (bp)



Source: Citi Research

Figure 7. CMBS and Peripheral Sectors Spread Pickup to Spread Targets, as of 7 June 2013 (bp)



Source: Citi Research

## Summary of Recommendations

We outline our recommendations below in Figure 8.

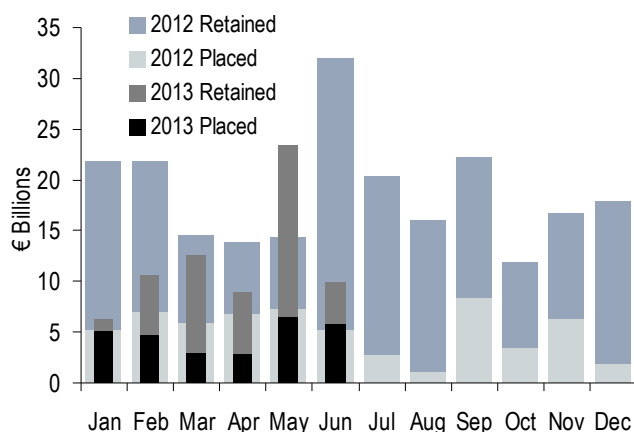
Figure 8. European Securitized Products Sector Recommendations

Category	Sector	Senior	Subordinate	Comments
<b>Top Calls</b>				
	Spanish RMBS	Overweight	Marketweight	Further house price drop likely but low levered mortgages and robust structures benefit senior notes
	Italian RMBS	Overweight	Overweight	Low LTVs, relatively low house price declines, and positive net mortgage lending
	UK Credit Cards	Overweight	Overweight	Short WAL, attractive pickup to comparable US credit cards with equivalent credit performance
	Autos	Overweight	Overweight	Short duration, high quality. Very few comparable short and high quality credit alternatives to this sector
<b>Core</b>				
	UK Prime RMBS	Marketweight	Marketweight	Spreads likely to remain range bound
	UK BTL RMBS	Marketweight	Marketweight	Although fundamentals are strong with rising rents, long duration makes it vulnerable to overall softening
	UK NCRMBS	Marketweight	Underweight	Credit performance likely to deteriorate fast when interest rates rise but we think seniors are well protected
	Dutch RMBS	Marketweight	Underweight	Falling house prices and rising unemployment a concern but strong demand for core RMBS a positive
	Australian RMBS	Overweight	Marketweight	Credit performance better than UK prime RMBS, low doc loans potential concern for subordinates
<b>Peripherals</b>				
	Irish RMBS	Marketweight	Underweight	Very high indexed LTVs to impact subordinate recoveries but tender likelihood to support spreads
	Portuguese RMBS	Marketweight	Underweight	No major housing boom but high unemployment and negative economic growth outlook a concern
	Spanish SME ABS	Overweight	Marketweight	High subordination and low duration for seniors; rapid amortization to benefit mezz
<b>Other</b>				
	Euro CLO	Marketweight	Marketweight	Seniors protected, liquidity will improve with new-issue technicals; mezz prone to portfolio deterioration
	CMBS	Marketweight	Underweight	Seniors are protected but a large maturity pipeline in 2013 and beyond to impact recoveries

Source: Citi Research

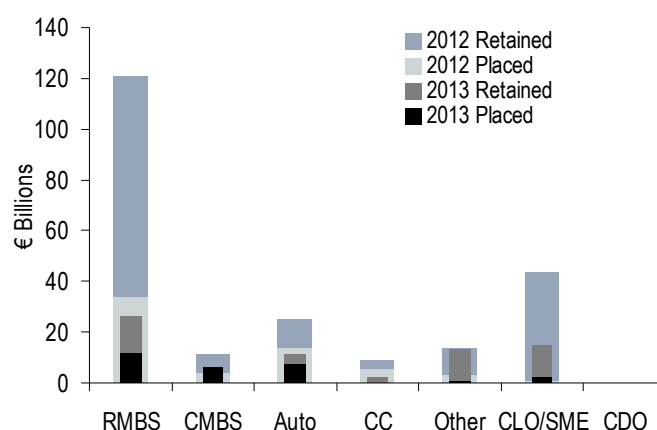
## New Issuance

Figure 9. Placed and Retained Issuance by Month, 2012–2013YTD (€ billions)



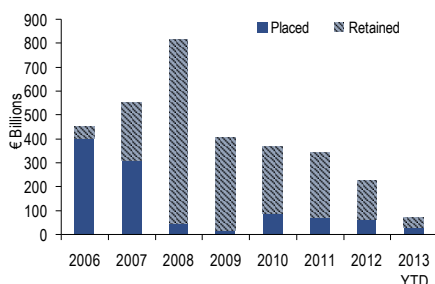
Source: Concept ABS, IFR, Informa and Citi Research

Figure 10. Placed and Retained Issuance by Sector, 2012–2013YTD (€ billions)



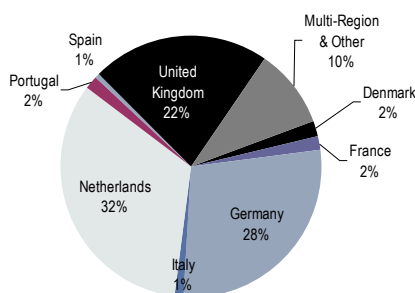
Source: Concept ABS, IFR, Informa and Citi Research

Figure 11. Annual Historical Placed and Retained Issuance, 2006–2013YTD (€ billions)



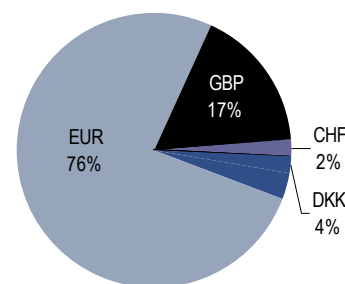
Source: Concept ABS, IFR, Informa and Citi Research

Figure 12. Placed Issuance by Region, 2013YTD (% of Total, € Equivalent)



Source: Concept ABS, IFR, Informa and Citi Research

Figure 13. Placed Issuance by Currency, 2013YTD (% of Total, € Equivalent)



Source: Concept ABS, IFR, Informa and Citi Research

Figure 14. Placed and Retained Issuance by Sector, 2012\* and 2013YTD (€ million)

	RMBS(MM)		CMBS(MM)		Autos(MM)		Credit Card ABS(MM)		CLO/SME(MM)		Other(MM)		Total(MM)	
	2013YTD	2012	2013YTD	2012	2013YTD	2012	2013YTD	2012	2013YTD	2012	2013YTD	2012	2013YTD	2012
Placed	11,767	33,928	5,905	3,936	7,257	13,921	164	5,591	2,446	990	803	3,459	28,342	61,825
Retained	14,230	87,137	248	7,460	3,856	11,364	2,076	3,067	12,385	42,879	12,654	10,145	45,449	162,052
Total	25,997	121,065	6,153	11,395	11,113	25,285	2,240	8,658	14,831	43,869	13,457	13,604	73,791	223,877

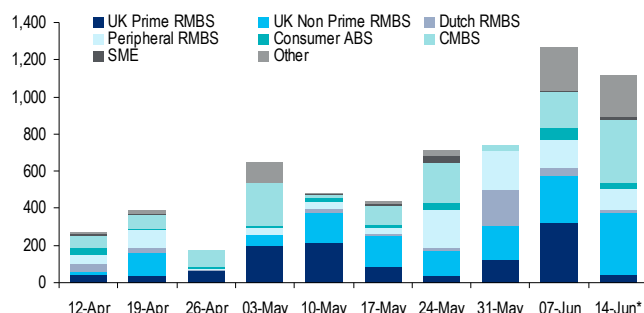
\* 2012 complete year

Source: Concept ABS, IFR, Informa and Citi Research

## BWIC Tracker

### Weekly and Monthly BWIC Volume

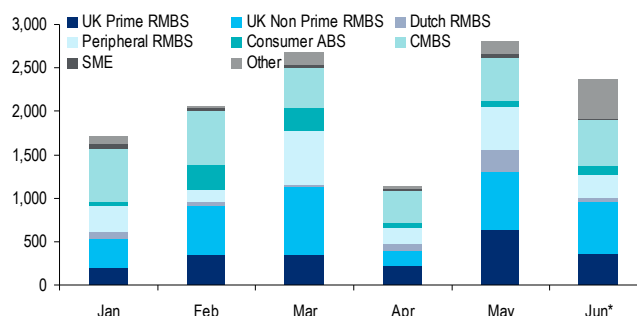
Figure 15. Weekly BWIC Volume by Sector, Apr 13–Jun 13 (\$ eq. million)



\* Data until 14 Jun 2013

Source: Citi Research

Figure 16. Monthly BWIC Volume by Sector, 2013YTD (\$ eq. million)

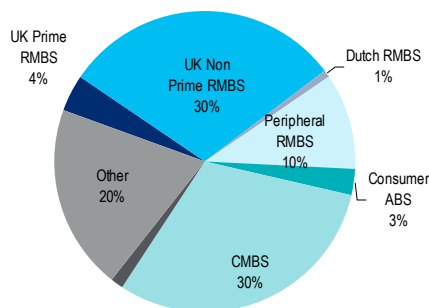


\* Data until 14 Jun 2013

Source: Citi Research

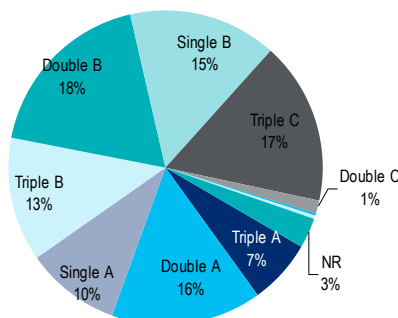
### Last Week's BWIC Distribution by Sector, Rating and Currency

Figure 17. BWIC Volume Distribution by Sector, 07 Jun – 14 Jun 2013 (%)



Source: Citi Research

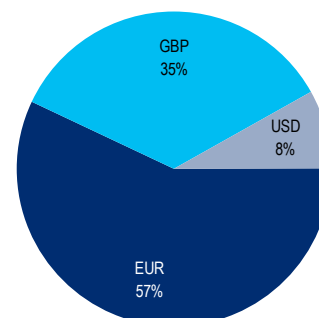
Figure 18. BWIC Volume Distribution by Current Rating\*, 07 Jun – 14 Jun 2013 (%)



\* We use Bloomberg composite ratings

Source: Bloomberg and Citi Research

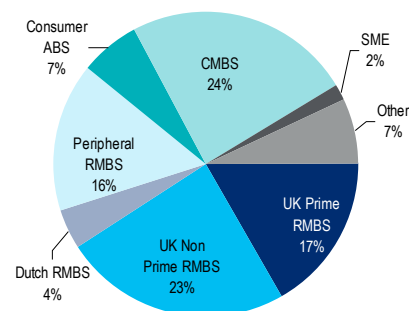
Figure 19. BWIC Volume Distribution by Currency, 07 Jun – 14 Jun 2013 (%)



Source: Citi Research

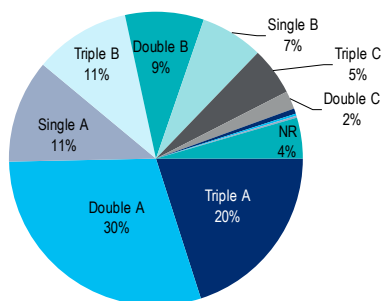
### YTD BWIC Distribution by Sector, Rating and Currency

Figure 20. BWIC Volume Distribution by Sector, 2013YTD (%)



Source: Citi Research

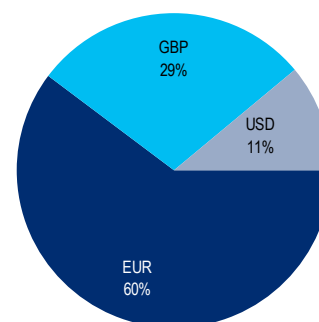
Figure 21. BWIC Volume Distribution by Current Rating\*, 2013YTD (%)



\* We use Bloomberg composite ratings

Source: Bloomberg and Citi Research

Figure 22. BWIC Volume Distribution by Currency, 2013YTD (%)



Source: Citi Research

Figure 23. BWIC Volume and Number of Bonds by Sector and Current Rating\*, 07 Jun – 14 Jun 2013 and 2013 YTD

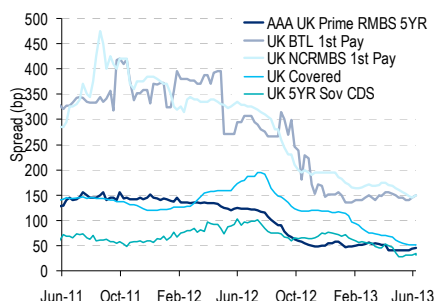
Sector	Rating*	07 Jun – 14 Jun		YTD	
		Volume (MM USD EQ)	Number of Bonds	Volume (MM USD EQ)	Number of Bonds
UK Prime RMBS	Triple A	0.5	1	943.8	207
	Double A	22.6	11	998.7	214
	Single A	8.3	1	53.3	6
	Lower and Not Rated	10.7	1	136.6	30
	<b>Total</b>	<b>42.1</b>	<b>14</b>	<b>2132.4</b>	<b>457</b>
UK Non Prime RMBS	Triple A	63.8	4	250.9	29
	Double A	114.6	27	1422.9	209
	Single A	39.0	12	524.0	72
	Lower and Not Rated	120.7	28	903.7	194
	<b>Total</b>	<b>338.0</b>	<b>71</b>	<b>3101.5</b>	<b>504</b>
Dutch RMBS	Triple A	-	-	344.8	83
	Double A	4.8	1	56.2	6
	Single A	1.9	2	33.1	12
	Lower and Not Rated	2.5	3	91.1	24
	<b>Total</b>	<b>9.2</b>	<b>6</b>	<b>525.3</b>	<b>125</b>
Peripheral RMBS	Double A	20.0	4	597.7	42
	Single A	30.0	7	434.4	83
	Triple B	19.5	11	406.2	80
	Double B	0.5	2	153.4	31
	Single B	5.2	6	100.4	29
	Triple C	29.8	13	117.6	37
	Lower and Not Rated	10.3	5	202.8	77
	<b>Total</b>	<b>115.2</b>	<b>48</b>	<b>2012.6</b>	<b>379</b>
CMBS	Triple A	-	-	43.0	2
	Double A	4.8	4	432.8	44
	Single A	14.4	3	276.3	58
	Lower and Not Rated	319.0	68	2315.2	388
	<b>Total</b>	<b>338.1</b>	<b>75</b>	<b>3067.2</b>	<b>492</b>
Consumer ABS	Triple A	1.7	3	515.4	123
	Double A	-	-	191.1	23
	Single A	1.6	1	37.6	11
	Lower and Not Rated	26.7	9	90.8	43
	<b>Total</b>	<b>30.1</b>	<b>13</b>	<b>835.0</b>	<b>200</b>
SME	Double A	-	-	4.8	1
	Single A	2.1	3	54.2	17
	Triple B	4.6	2	32.3	16
	Double B	4.7	2	24.4	16
	Single B	2.8	2	38.6	16
	Lower and Not Rated	3.2	1	55.5	29
	<b>Total</b>	<b>17.4</b>	<b>10</b>	<b>209.8</b>	<b>95</b>
Other	Triple A	7.8	1	470.9	84
	Double A	6.0	2	73.7	18
	Single A	10.9	3	45.9	9
	Triple B	38.1	5	67.3	11
	Double B	64.1	8	89.9	14
	Single B	18.9	4	26.0	7
	Triple C	75.5	5	88.3	9
	Lower and Not Rated	0.2	1	43.9	14
	<b>Total</b>	<b>221.5</b>	<b>29</b>	<b>905.9</b>	<b>166</b>
<b>Grand Total</b>		<b>1111.7</b>	<b>266</b>	<b>12789.7</b>	<b>2418</b>

\* We use Bloomberg composite ratings

Source: Bloomberg and Citi Research

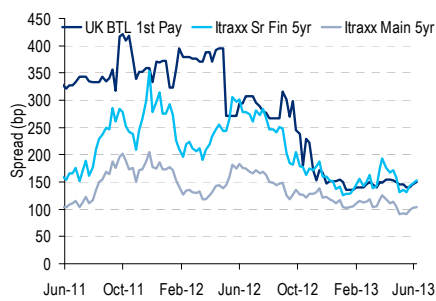
## Core RMBS Spreads and Relative Value

Figure 24. UK RMBS Seniors Versus Indexes, Jun 11 – Jun 13



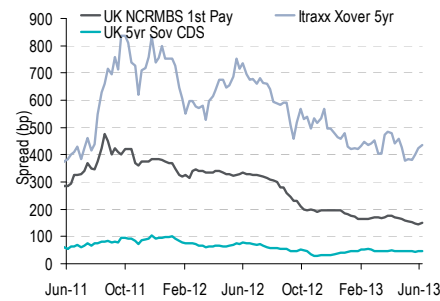
Source: Citi Research

Figure 25. UK BTL RMBS Seniors Versus Indexes, Jun 11 – Jun 13



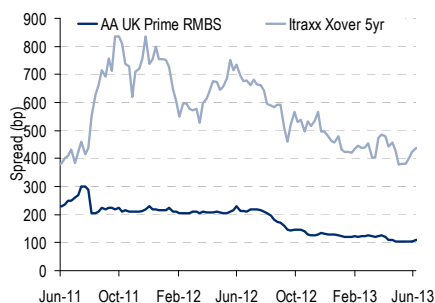
Source: Citi Research

Figure 26. UK NCRMBS Seniors Versus Indexes, Jun 11 – Jun 13



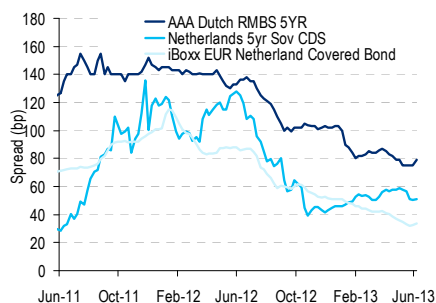
Source: Citi Research

Figure 27. UK Prime RMBS Subordinates Versus Index, Jun 11 – Jun 13



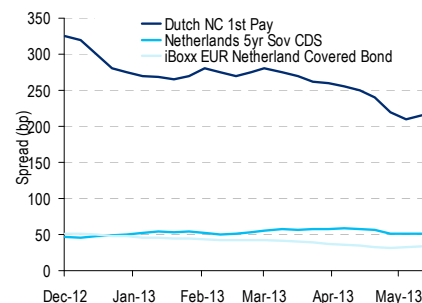
Source: Citi Research

Figure 28. Dutch RMBS Seniors Versus Indexes, Jun 11 – Jun 13



Source: Citi Research

Figure 29. Dutch NC 1st Pay Versus Indexes, Dec 12 – Jun 13



Source: Citi Research

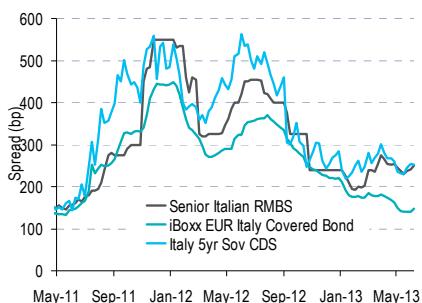
Figure 30. UK Prime, UK NC, UK BTL, Dutch Prime and Dutch NC Spread Changes and Statistics, 2013YTD

Country	Product	Product Detail	Current	Δ1-week	Δ1-month	Δ1-Quarter	Δ1-year	2013 Low	Δ From Low	2013 High	Δ From High
UK	Prime RMBS	AAA 1YR	25	2	-1	-8	-	23	2	36	-11
		AAA 3YR	34	1	2	-6	-	32	2	43	-9
		AAA 5YR	45	2	5	-9	-78	40	5	56	-11
		Mezz	110	5	5	-11	-103	105	5	125	-15
	Buy to Let	PARGN 1st Pay	150	5	5	10	-144	135	15	155	-5
		PARGN 2nd Pay	250	10	15	5	-	230	20	260	-10
		PARGN 3rd Pay	345	15	20	5	-	325	20	370	-25
		AIREM AAA	135	0	20	-8	-	104	31	145	-10
		AIREM AA	220	-10	0	15	-	189	31	230	-10
		AIREM BBB	305	5	10	-19	-	293	12	336	-31
UK	Non Conforming RMBS	NC 1st Pay	150	5	-5	-18	-178	145	5	183	-33
		NC 2nd Pay	235	15	10	-20	-	220	15	315	-80
	Covered Bonds	iBoxx EUR UK	27	2	0	-13	-89	24	3	50	-23
		Sovereign CDS	46	1	-1	1	-29	42	4	53	-8
Netherlands	Prime RMBS	AAA 1YR	39	1	1	3	-	33	6	40	-1
		AAA 3YR	55	1	1	-12	-	54	1	76	-21
		AAA 5YR	79	4	4	-5	-57	75	4	100	-21
		Mezz	195	10	10	15	-	160	35	195	0
	Non Conforming	NC 1st Pay	215	5	-35	-55	-	210	5	320	-105
		NC 2nd Pay	270	5	-25	-45	-	265	5	365	-95
		NC 3rd Pay	485	10	-35	-65	-	475	10	675	-190
	Covered Bonds	iBoxx EUR	34	2	-1	-8	-52	32	2	51	-17
		Netherlands	51	0	-7	1	-74	46	5	59	-8
	Sovereign CDS	Sovereign 5YR	51	0	-7	1	-74	46	5	59	-8

Source: Citi Research

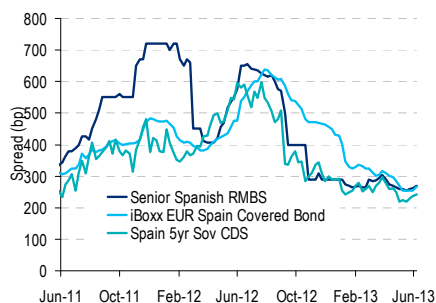
## Peripheral RMBS and Relative Value

Figure 31. Italian RMBS Seniors Versus Indexes, Jun 11 – Jun 13



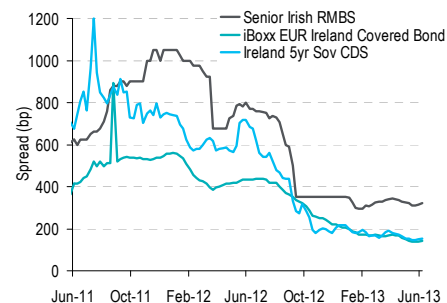
Source: Citi Research

Figure 32. Spanish RMBS Seniors Versus Indexes, Jun 11 – Jun 13



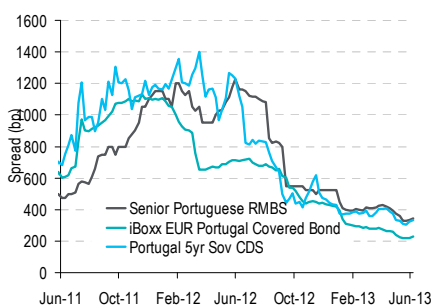
Source: Citi Research

Figure 33. Irish RMBS Seniors Versus Indexes, Jun 11 – Jun 13



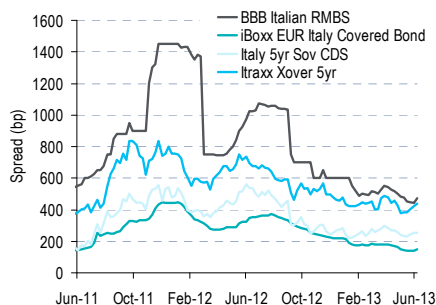
Source: Citi Research

Figure 34. Portuguese RMBS Seniors Versus Indexes, Jun 11 – Jun 13



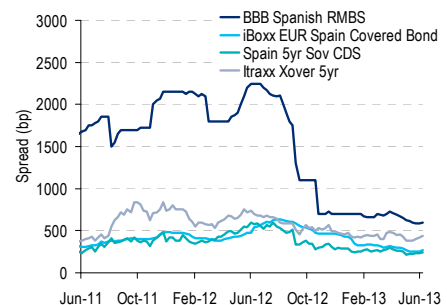
Source: Citi Research

Figure 35. Italian RMBS Subordinates Versus Indexes, Jun 11 – Jun 13



Source: Citi Research

Figure 36. Spanish RMBS Subordinates Versus Indexes, Jun 11 – Jun 13



Source: Citi Research

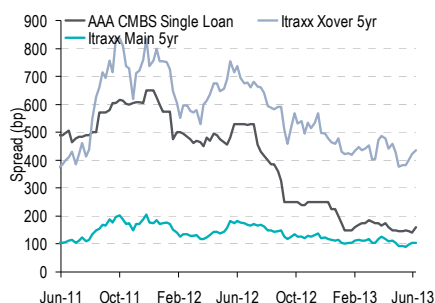
Figure 37. Peripheral RMBS Spread Changes and Statistics, 2013YTD

Country	Product	Product Detail	Current	Δ1-week	Δ1-month	Δ1-Quarter	Δ1-year	2013 Low	Δ from Low	2013 High	Δ from High
Italy	RMBS	AAA Italy	250	8	12	14	-200	193	57	275	-25
		AA Italy	288	14	12	11	-	255	33	320	-32
		A Italy	350	25	10	-15	-	323	27	440	-90
		BBB Italy	470	26	-5	-30	-555	444	26	600	-130
	Covered Bonds	iBoxx EUR Italy	148	7	5	-30	-198	140	8	211	-63
	Sovereign CDS	Italy Sovereign 5YR	252	-3	20	-18	-284	219	32	300	-49
Spain	RMBS	AAA Spain	270	8	12	-16	-380	255	15	305	-35
		AA Spain	375	10	5	5	-	340	35	400	-25
		A Spain	520	15	0	-50	-	505	15	690	-170
		BBB Spain	600	15	-15	-80	-1650	585	15	725	-125
	Covered Bonds	iBoxx EUR Spain	266	10	11	-36	-273	253	13	401	-136
	Sovereign CDS	Spain Sovereign 5YR	241	5	17	-29	-339	218	23	296	-55
Portugal	RMBS	AAA Portugal	345	13	-15	-63	-815	328	17	449	-104
		AA Portugal	443	15	-7	-32	-	428	15	595	-152
		A Portugal	530	18	0	-65	-	512	18	740	-210
		BBB Portugal	615	21	-20	-80	-	594	21	840	-225
	Covered Bonds	iBoxx EUR Portugal	228	8	3	-51	-478	218	10	392	-164
	Sovereign CDS	Portugal Sovereign 5YR	336	14	7	-23	-784	304	33	406	-70
Ireland	RMBS	AAA Ireland	320	6	0	-9	-450	295	25	349	-29
		AA Ireland	570	20	10	40	-	440	130	570	0
		A Ireland	715	20	5	35	-	575	140	720	-5
		BBB Ireland	960	25	0	30	-	750	210	985	-25
	Covered Bonds	iBoxx EUR Ireland	141	3	0	-25	-293	136	5	200	-58
	Sovereign CDS	Ireland Sovereign 5YR	154	4	-1	-15	-530	144	9	197	-44

Source: Citi Research

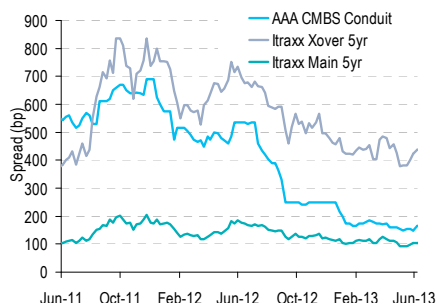
## CMBS and CLO Spreads and Relative Value

Figure 38. AAA CMBS Single Loan Versus Indexes, Jun 11 – Jun 13



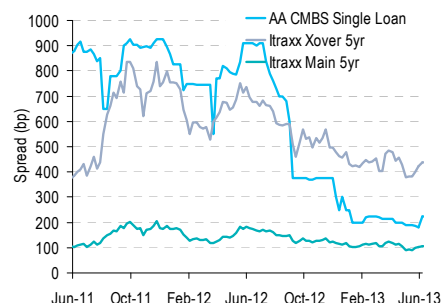
Source: Citi Research

Figure 39. AAA CMBS Conduit Versus Indexes, Jun 11 – Jun 13



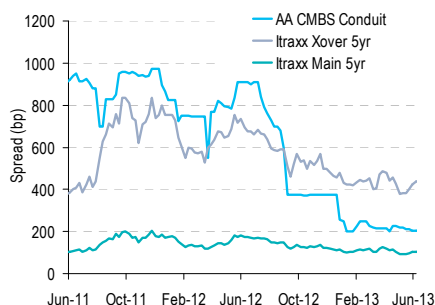
Source: Citi Research

Figure 40. AA CMBS Single Loan Versus Indexes, Jun 11 – Jun 13



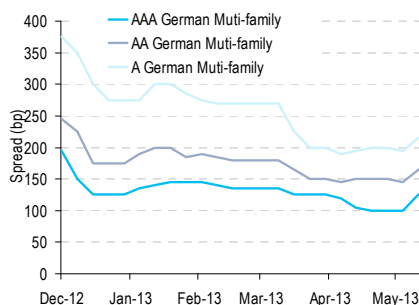
Source: Citi Research

Figure 41. AA CMBS Conduit Versus Indexes, Jun 11 – Jun 13



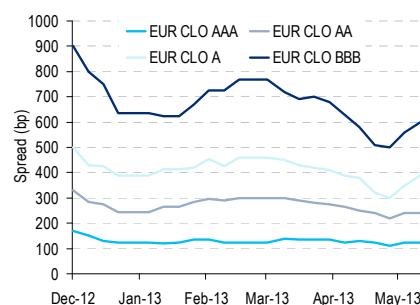
Source: Citi Research

Figure 42. German Multifamily Spreads, Dec 12 – Jun 13



Source: Citi Research

Figure 43. EUR CLO Spreads, Dec 12 – Jun 13



Source: Citi Research

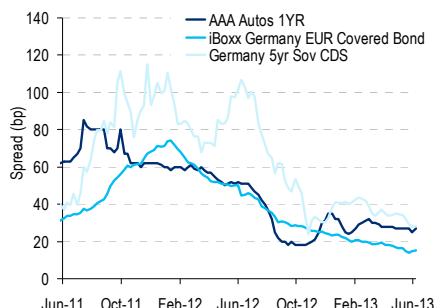
Figure 44. CMBS, WBS and CLO Spread Changes and Statistics, 2013YTD

Country	Product	Product Detail	Current	Δ1-week	Δ1-month	Δ 1-Quarter	Δ1-year	2013 Low	Δ from Low	2013 High	Δ from High
Europe	CMBS	AAA German Multi	125	25	20	-10	-	100	25	150	-25
		AAA Single Loan	160	20	15	-15	-370	140	20	185	-25
		AAA Conduit	165	15	15	-10	-370	150	15	200	-35
		AAA Fixed	125	10	5	-50	-	110	15	225	-100
		AA German Multi	165	20	15	-15	-	145	20	225	-60
		AA Single Loan	225	45	35	10	-685	180	45	250	-25
		AA Conduit	205	0	-15	-10	-705	200	5	250	-45
		AA Fixed	175	15	15	-25	-	155	20	250	-75
		A German Multi	215	20	20	-55	-	190	25	350	-135
		A Single Loan	265	15	0	-45	-1098	250	15	360	-95
		A Conduit	290	20	15	-20	-1073	270	20	365	-75
		A Fixed	230	15	10	-70	-	210	20	495	-265
	CLO	AAA	125	0	-5	0	-	110	15	150	-25
		AA	240	0	-10	-60	-	220	20	300	-60
		A	390	40	10	-70	-	300	90	460	-70
		BBB	600	40	20	-170	-	500	100	800	-200
	WBS	AAA	185	15	5	-25	-	170	15	300	-115
		AA	210	10	-10	-50	-	200	10	350	-140
		A	285	10	-10	-75	-	275	10	425	-140
		BBB	410	20	-10	-80	-	390	20	550	-140

Source: Citi Research

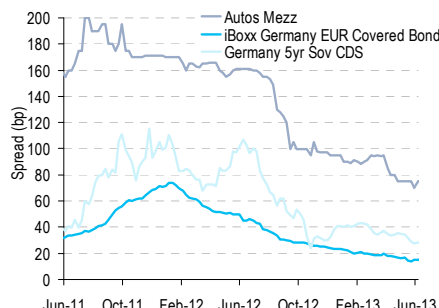
## Auto and Credit Card ABS Spreads and Relative Value

Figure 45. European Auto Seniors Versus Indexes, Jun 11 – Jun 13



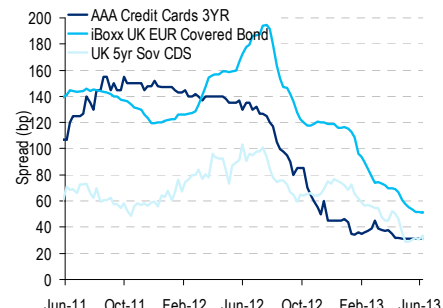
Source: Citi Research

Figure 46. European Auto Mezz Versus Indexes, Jun 11 – Jun 13



Source: Citi Research

Figure 47. UK Credit Card ABS Versus Indexes, Jun 11 – Jun 13



Source: Citi Research

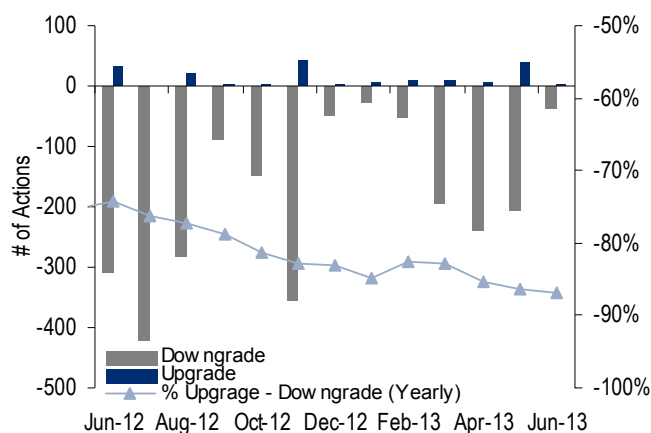
Figure 48. European Autos and UK Credit Card ABS Spread Changes and Statistics, 2013YTD

Country	Product	Product	Current	Δ1-week	Δ1-month	Δ 1-Quarter	Δ1-year	2013 Low	Δ from Low	2013 High	Δ from High
Europe	Autos	1YR	27	2	0	-3	-24	24	3	32	-5
		3YR	41	1	0	-3	-	38	3	45	-4
		5YR	59	1	0	-1	-	56	3	63	-4
		Mezz	75	5	0	-20	-86	70	5	95	-20
Germany	Covered Bonds	iBoxx EUR Automobile and Parts Index	53	-1	-9	-14	-64	53	0	91	-38
		iBoxx EUR Germany	15	1	-1	-3	-30	14	1	23	-7
		Sovereign 5YR	28	1	-6	-6	-78	28	1	43	-15
UK	Credit Cards	1YR	25	0	0	-5	-	25	0	35	-10
		3YR	31	0	0	-7	-104	31	0	45	-14
		5YR	42	0	0	-8	-89	42	0	63	-21
		Mezz	94	0	0	2	-	89	5	127	-33
	Covered Bonds	iBoxx EUR UK	27	2	0	-13	-89	24	3	50	-23
	Sovereign CDS	Sovereign 5YR	46	1	-1	1	-29	42	4	53	-8

Source: Citi Research

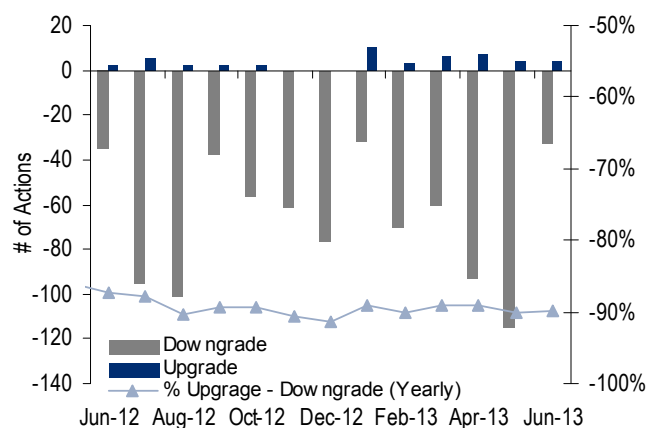
## Rating Actions and Trends

Figure 49. European RMBS Rating Upgrades and Downgrades, Jun 12 – Jun 13



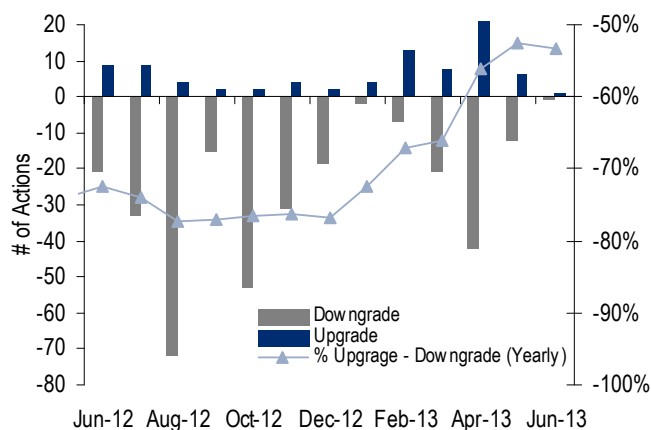
Source: Moody's, S&P and Fitch

Figure 50. European CMBS Rating Upgrades and Downgrades, Jun 12 – Jun 13



Source: Moody's, S&P and Fitch

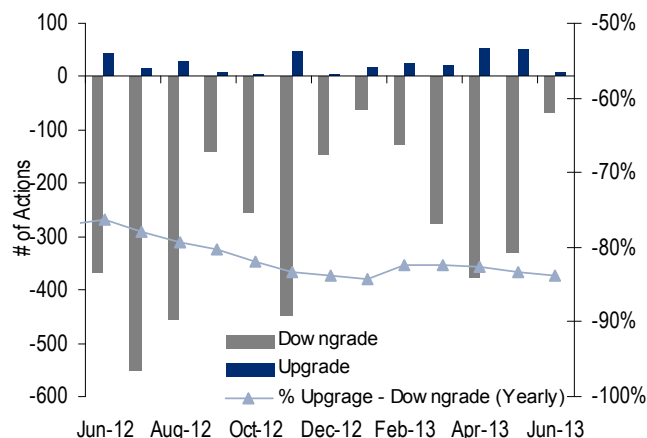
Figure 51. European ABS\* Rating Upgrades and Downgrades, Jun 12 – Jun 13



\* ABS includes – European Lease ABS, European Consumer ABS, SME ABS, Auto ABS, UK Credit Card ABS, NPL ABS

Source: Moody's, S&P and Fitch

Figure 52. European Total Securitized Products Rating Upgrades and Downgrades, Jun 12 – Jun 13



Source: Moody's, S&P and Fitch

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## Appendix A-1

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