

Global fixed income monthly focus – October 2016

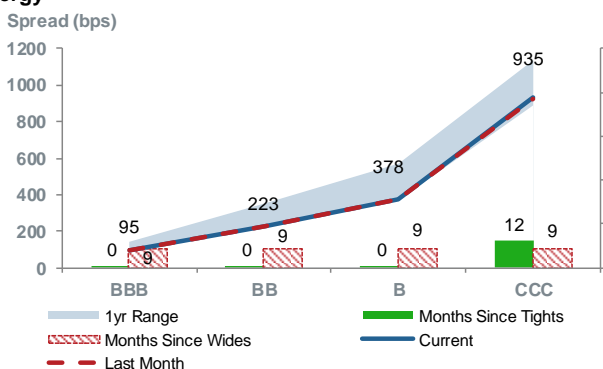
Leveraged loans • Credit default swaps • Global corporate bonds • Sovereigns • Municipal bonds • Securitised products

Global markets remained relatively calm ahead of the US presidential elections in November, while continued signs of strength in US manufacturing and an uneventful US labour report increased overall expectations for a Fed rate increase in December and the US dollar continued to strengthen as the month progressed. Increases in crude oil prices during the month helped to rejuvenate interest in some already battered energy companies' debt as evidenced by tighter spreads in that sector, while the expectations of greater US regulatory scrutiny continues to weigh heavily on healthcare (**Figure 1**).

- Most leveraged loan sectors were wider on the month with the exception of some modest tightening across most of the consumer goods sector and significant tightening across the energy sector
- The global CDS sector credit curve steepened slightly in October, with the AAA/AA and AA/A basis remaining unchanged during the month at +15bps and +12bps respectively, while the A/BBB basis tightened 1bp to a new one year low of +31bps. However, the lower end of the curve steepened modestly, with BB/B 1bp wider to +99bps and B/CCC 7bps wider to +475bps
- Pressure on the pound drove 10-year UK gilts a significant 49bps wider to end the month at a 1.14% yield. Given the sharp sell-off in these UK benchmark government bonds, it was no surprise that the [Markit iBoxx £ Corporate AAA Index](#) was the worst performing index at -5.6% on a total return basis, but it's worth noting that it still has a strong 16.6% total return year to date
- CDS spreads indicated an increased optimism in sovereign credit for developed countries during October, as every G7 country's CDS spread tightened during the month
- Total municipal bond issuance surged to \$52.7bn in October, which was the largest single month of issuance in 30 years. Year to date revenue bond issuance is now 14% higher and general obligation issuance 10% higher than the same period last year
- Securitised products spreads were mixed in October, with spreads tighter for CLOs and modestly wider for some consumer ABS and most non-agency MBS. It was an unusually busy month for US auto ABS issuance, as almost \$12bn in supply entered the market, which makes it the busiest month since last October when almost \$13bn was priced

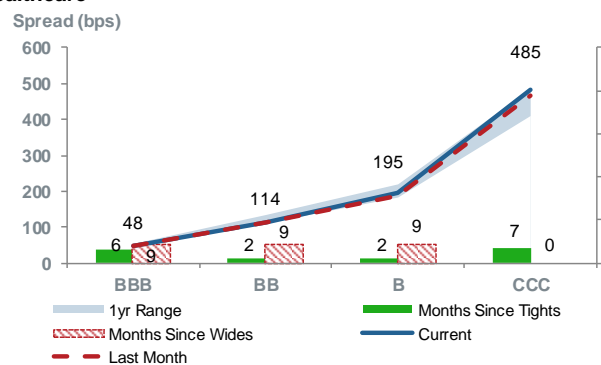
Figure 1: North American energy and healthcare CDS sector spreads

Energy



Source: IHS Markit

Healthcare



Source: IHS Markit

Leveraged loans

North America CCC+ energy loan spread basis to Europe begins to narrow, but still far from pre-Brexit levels

The spread basis between CCC+ North American and European energy loans was 13bps tighter to end the month at a -43bps basis, which is still far from the -23bps basis reported right before the Brexit vote (**Figure 2**). North American and European spreads were tighter across the entire CCC+ rating category for every sector during the month, with energy sector spreads tightening the most (**Table 3**). Most sectors were wider on the month with the exception of some modest tightening across most of the consumer goods sector and significant tightening across the energy sector.

Both regions' energy spreads tightened markedly across all ratings; CCC+ spreads tightening more than 110bps during the month. The B- rating group was the worst performer among the rating categories, with all but the energy sector widening between 32-60bps across both regions. **Figure 3** indicates that BB through B rated North American energy loan spreads hit new 12 month lows in October, while it's been almost a year since the other rating cohorts were at their tightest levels.

The leveraged loan credit curve was flatter at the far end of the curve during the month (**Figure 4**), with the B-/CCC+ flattening below the 12-month average to 208bps.

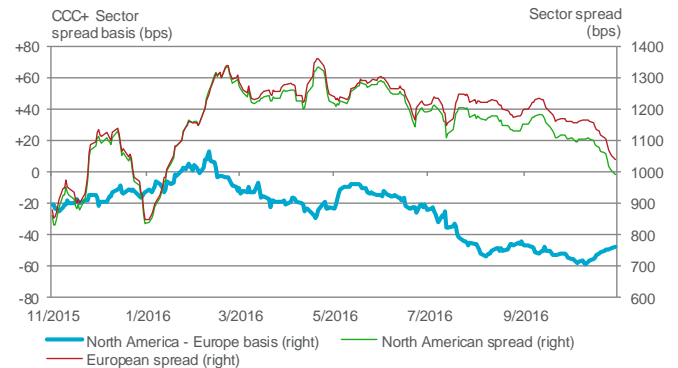
Energy issues dominated the best performers in both regions

North American energy issues made up six of the 10 best performing loans in October (**Table 1**). The Peabody Energy 9/13 Cov-Lite TL issue was the best performing par loan from the energy sector, increasing almost 12%, boosted by strength in coal prices, to end the month at a 88.04 price after being as low as 34.35 on March 1st of this year. The distressed Frac Tech International 4/14 Cov-Lite TL issue, from FTS International (largest private well completion company in North America) was the best performing loan globally, increasing 48% to end the month at a 58.21 price partially driven by the Pennsylvania Supreme Court's recent decision to void certain aspects of recent gas drilling laws.

Healthcare issues dominated North America's worst performers

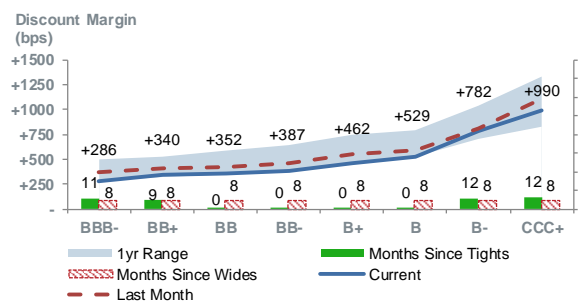
Healthcare issues continue to suffer on the back of the Mylan EpiPen price increase controversy from earlier this fall, with four of the 10 worst performing loan issues in October coming from that sector. The 4/16 TLB issue from hospital operator Quorum Health was the worst performing par loan in North America, which was 4% lower to end the month at a 92.75 as the company sells certain hospital assets. An issue from hospital operator Community Health was the second

Figure 2: North America and Europe CCC+ energy sector spread to LIBOR and basis



Source: IHS Markit

Figure 3: North America energy sector spreads to LIBOR



Source: IHS Markit

Figure 4: North America B-/CCC+ credit spread to LIBOR basis



Source: IHS Markit

worst performer in the par loan category, as it declined almost 4% to end the month at a 94.33 price. We note that retailer Gymboree's Cov-Lite 2/11 TL issue was the worst performing loan globally, ending the month over 20% lower to a 62.88 price after reporting weaker than expected Q3 earnings on October 25th.

The distressed clothing and footwear retailer Vivarte's 10/14 Super Senior TL issue was the worst performing European loan, ending the month 13% lower to a 60.67 price (**Table 2**).

Table 1: October North American loans best and worst price performance¹
North America

LXID	Loan Name	Sector	Country	Liq score	10/31 price	% change	One year low	Date	One year high	Date	
Best performers											
Par											
1	LX135229	Avaya 1/14 B6 TLB	Technology	USA	1	85.00	+12.4%	65.33	2/19/16	88.08	11/12/15
2	LX132557	Peabody Energy 9/13 Cov-Lite TL	Energy	USA	1	88.04	+11.8%	34.35	3/1/16	89.88	10/25/16
3	LX135673	Bauer Performance 4/14 TLB	Consumer Goods	CAN	2	99.33	+10.8%	75.10	4/13/16	99.33	10/31/16
4	LX143607	C&J Energy 3/15 Cov-Lite TLB2	Energy	USA	2	90.65	+9.4%	35.67	2/29/16	91.88	10/17/16
5	LX143728	Murray Energy 3/15 Cov-Lite TLB2	Energy	USA	1	91.41	+7.9%	39.77	2/25/16	92.04	10/27/16
Distressed											
1	LX136541	Frac Tech International 4/14 Cov-Lite TL	Energy	USA	3	58.21	+48.1%	10.20	2/19/16	58.42	10/27/16
2	LX138205	Paragon Offshore 7/14 Cov-Lite TLB	Energy	CYM	2	34.63	+43.5%	15.95	2/12/16	35.45	11/2/15
3	LX137137	UTEX Industries 5/14 Cov-Lite TL	Industrials	USA	2	84.83	+15.0%	54.50	3/3/16	84.83	10/31/16
4	LX126226	Sheridan Production Partners 10/12 6YR (3) TLB1	Energy	USA	4	69.33	+14.9%	38.83	3/17/16	70.33	10/21/16
5	LX137241	Floatel 5/14 Cov-Lite TL	Energy	USA	2	78.44	+14.2%	37.63	1/27/16	79.33	10/25/16
Worst performers											
Par											
1	LX152098	Quorum 4/16 TLB	Healthcare	USA	1	92.75	-4.2%	92.75	10/31/16	101.04	7/26/16
2	LX144540	Community Health 5/15 TLH	Healthcare	USA	1	94.33	-3.9%	93.55	2/16/16	99.79	11/5/15
3	LX152766	Thomson Learning 6/16 TLB	Industrials	USA	1	97.65	-2.2%	97.65	10/31/16	99.96	10/14/16
4	LX126268	GNC 10/12 TL	Consumer Services	USA	2	97.63	-2.1%	96.00	11/19/15	99.70	10/26/16
5	LX130126	CareStream 6/13 2nd Lien Cov-Lite TL	Healthcare	USA	3	88.67	-1.8%	75.80	2/25/16	96.38	8/16/16
Distressed											
1	LX117989	Gymboree (Cov-Lite 2/11) TL	Consumer Services	USA	1	62.88	-20.5%	50.07	1/6/16	79.85	9/23/16
2	LX134515	Samson 12/13 Cov-Lite 2nd Lien TL	Energy	USA	2	24.20	-11.8%	14.75	7/28/16	29.25	9/14/16
3	LX126037	Transtar Industries 10/12 TL	Consumer Services	USA	3	75.38	-5.0%	65.67	4/7/16	86.00	12/11/15
4	LX131817	Rue 21 10/13 TLB	Consumer Services	USA	3	47.40	-4.9%	45.38	10/20/16	86.50	11/6/15
5	LX131401	Trident USA Health 7/13 TLB	Healthcare	USA	4	81.67	-3.9%	81.67	10/31/16	95.94	11/12/15

Source: IHS Markit

¹ Par is defined as a loan with a month end price of 85 or higher and distressed has a price lower than 85.

Table 2: October European loans best and worst price performance¹

Europe

	LXID	Loan Name	Sector	Country	Liq score	10/31 price	% change	One year low	Date	One year high	Date
Best performers											
Par											
1	LX155035	Yell 9/16 (USD) PIK TLB2	Financials	GBR	2	172.60	+9.9%	115.00	9/12/16	172.60	10/31/16
2	LX137173	KCA 5/14 TLB	Energy	GBR	2	88.50	+5.8%	51.50	3/4/16	88.75	10/27/16
3	LX139588	Expro Holdings 8/14 Cov-Lite TL	Energy	LUX	1	86.78	+4.0%	57.91	2/16/16	87.10	10/28/16
4	LX139558	Endemol 8/14 (USD) Cov-Lite TL	Consumer Services	NLD	1	91.31	+3.2%	79.63	5/19/16	95.42	11/4/15
5	LX138624	FCC 6/14 (EUR) TLA1	Industrials	ESP	4	91.25	+2.9%	83.00	11/9/15	91.25	10/31/16
Distressed											
1	LX135963	Petroleum Geo-Services 3/14 Cov-Lite TLB	Energy	NOR	1	77.25	+17.5%	52.00	2/16/16	77.38	10/28/16
2	LX135384	Seadrill Partners 2/14 TL	Energy	GBR	1	55.56	+12.1%	34.88	12/14/15	57.88	11/2/15
3	LX139562	Endemol 8/14 (USD) Cov-Lite 2nd Lien TL	Consumer Services	NLD	4	80.00	+8.4%	63.33	6/27/16	83.50	12/3/15
4	LX116034	AHAB / Ahmad Hamad Algosaiabi & Bros 5/07 TL	Industrials	SAU	5	16.50	+5.0%	10.83	12/30/15	16.50	10/31/16
5	LX130766	SIACL TL	Financials	SAU	4	19.25	+3.1%	17.67	7/29/16	20.38	12/29/15
Worst performers											
Par											
1	LX137596	Agrokor 5/14 PIK Toggle (PIK 10.50%) TL	Consumer Goods	HRV	3	85.00	-6.0%	85.00	10/31/16	100.00	11/12/15
2	LX142370	United Biscuits 12/14 (EUR) TLB2	Consumer Goods	GBR	1	98.28	-2.2%	97.44	2/15/16	100.61	9/14/16
3	LX149830	Euro Garages 1/16 (GBP) Senior TLB	Consumer Services	GBR	4	97.44	-1.9%	97.44	10/31/16	99.90	6/13/16
4	LX139191	Aenova 8/14 (Aenova Holding) Cov-Lite TL	Healthcare	DEU	2	96.10	-1.6%	83.25	2/22/16	97.70	9/16/16
5	LX138200	Jacobs Douwe Egberts (JDE) 7/14 (EUR) Escrow TLB1	Consumer Goods	NLD	1	100.18	-0.9%	97.88	2/15/16	101.39	9/9/16
Distressed											
1	LX139578	Vivarte 10/14 Super Senior TL	Consumer Goods	FRA	3	60.67	-13.3%	55.50	10/28/16	103.56	11/11/15
2	LX137914	PagesJaunes 6/14 (EUR) A7 TL	Technology	FRA	2	55.50	-10.1%	49.40	3/11/16	67.00	11/25/15
3	LX126785	Cortefiel 9/12 Extended PIK TLB2	Consumer Services	ESP	1	60.00	-5.5%	55.50	7/1/16	85.00	12/8/15
4	LX146780	AVR 7/15 Holdco PIK TL	Industrials	NLD	5	39.69	-3.8%	30.20	3/2/16	49.75	7/4/16
5	LX134377	BARTEC 12/13 TLC	Industrials	DEU	3	80.42	-2.8%	75.33	10/6/16	84.29	2/24/16

Source: IHS Markit

Table 3: North American and European loan sector curve monthly discount margin spread change in basis points

		BBB-	BB+	BB	BB-	B+	B	B-	CCC+
Basic Materials	NA	-1	+18	+10	+8	-1	+27	+51	-29
	EU	-5	+12	+5	+3	-6	+22	+45	-36
	Change NA-EU	+4.7	+6.2	+5.1	+4.9	+4.5	+4.7	+5.1	+6.7
Consumer Goods	NA	-14	+5	-3	-5	-14	+14	+38	-42
	EU	-18	-1	-8	-10	-19	+9	+32	-49
	Current NA-EU	+4.7	+6.2	+5.1	+4.9	+4.5	+4.7	+5.1	+6.7
Consumer Services	NA	-7	+11	+4	+1	-8	+20	+44	-36
	EU	-12	+5	-1	-4	-12	+16	+39	-42
	Current NA-EU	+4.7	+6.2	+5.1	+4.9	+4.5	+4.7	+5.1	+6.7
Energy	NA	-86	-67	-75	-77	-86	-58	-34	-114
	EU	-91	-73	-80	-82	-91	-63	-40	-121
	Current NA-EU	+5.0	+6.4	+5.4	+5.1	+4.8	+5.0	+5.4	+6.9
Financials	NA	+9	+28	+20	+17	+8	+36	+60	-20
	EU	+4	+22	+15	+12	+4	+32	+55	-26
	Current NA-EU	+4.7	+6.1	+5.1	+4.8	+4.5	+4.7	+5.1	+6.6
Healthcare	NA	+3	+22	+14	+12	+3	+31	+54	-25
	EU	-2	+15	+9	+6	-2	+26	+49	-32
	Current NA-EU	+5.0	+6.4	+5.4	+5.2	+4.8	+5.0	+5.4	+7.0
Industrials	NA	-6	+13	+6	+3	-6	+22	+46	-34
	EU	-11	+7	+0	-2	-11	+17	+40	-41
	Current NA-EU	+5.0	+6.4	+5.4	+5.2	+4.8	+5.0	+5.4	+6.9
Technology	NA	+3	+22	+14	+12	+2	+31	+54	-25
	EU	-2	+16	+9	+7	-2	+26	+49	-32
	Current NA-EU	+4.6	+6.1	+5.0	+4.8	+4.4	+4.6	+5.0	+6.6
Telecommunication Services	NA	-15	+4	-3	-6	-15	+13	+37	-43
	EU	-19	-2	-8	-11	-19	+9	+32	-49
	Current NA-EU	+4.4	+5.8	+4.8	+4.5	+4.2	+4.4	+4.7	+6.3
Utilities	NA	+0	+19	+11	+9	-0	+28	+51	-28
	EU	-5	+12	+6	+3	-5	+23	+46	-35
	Current NA-EU	+5.3	+6.7	+5.6	+5.4	+5.1	+5.3	+5.6	+7.2

Source: IHS Markit

Credit default swaps

Global CDS sector credit curve steepened slightly in October

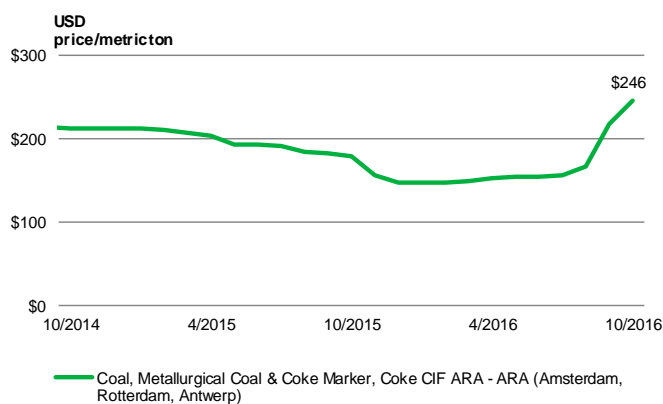
The AAA/AA and AA/A basis remained unchanged during the month at +15bps and +12bps respectively, while the A/BBB basis tightened 1bp to a new one year low of +31bps (Figure 5). However, the lower end of the curve steepened modestly, with BB/B 1bp wider to +99bps and B/CCC 7bps wider to +475bps.

Global CDS sector spreads were close to unchanged through the BB rated cohort, with B rated spreads widening 3bps and CCC 11bps wider on the month (Figure 7). North American spreads widened across most of the rating cohorts, except AAA which tightened 1bp to 22bps and BBB unchanged at a 73bps spread. The remainder of the curve was wider on the month, with AA spreads +1bp to 38bps, A +1bp to 49bps, BB +2bps to 164bps, B 5bps to 265bps, and CCC +16bps to 688bps spread.

Mining company Teck Resources tied for best performing CDS globally

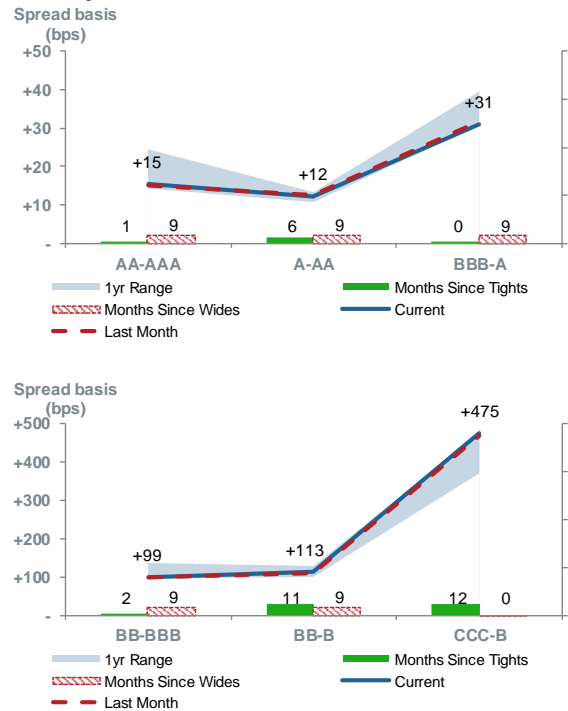
North America's largest producer of steel-making coal Teck Resources was tied with Xerox as the best performing CDS in October on a percentage basis (-23.7%), with the former tightening 90bps to end the month at a spread of 289bps after hitting a new one year low of 281bps on October 28th (Table 4). The mining company reported better than expected earnings on October 27th, driven by significant increases in steel-making coal prices which have been dictated by Chinese restriction on mine operations and global decreases in steel demand. IHS Markit's Energy division's data indicates that metallurgical coal is almost 70% higher this year at \$246/ton (Figure 6).

Figure 6: Metallurgical coal and coke marker prices



Source: IHS Markit

Figure 5: Global CDS sector ratings spread basis summary



Source: IHS Markit

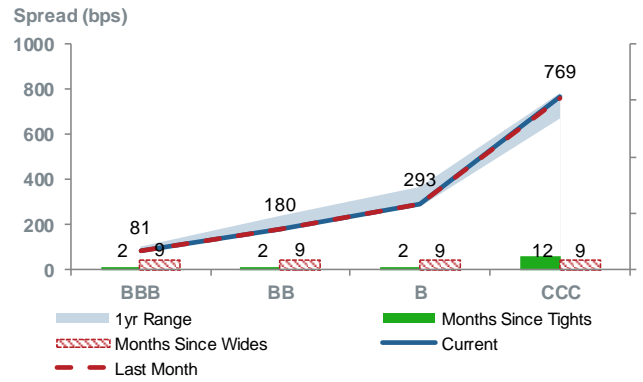
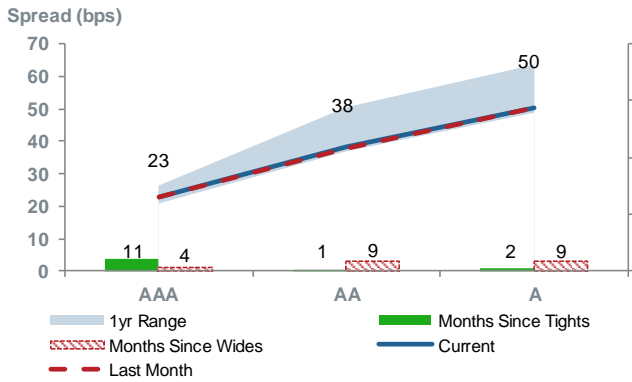
Xerox spreads tightened by the same percentage as Teck Resources, albeit tightening only 50bps to end the month at a spread of 161bps after reaching a new one year low of 152bps on October 14th. The sharp tightening of spreads was likely driven by the company's January announcement that that it will be splitting the printer operations from its outsourcing unit, which appears to be on track after it just settled a lawsuit with an investor looking to block the split. Some of the widening in their CDS spread towards the latter half of the month is likely attributed to the company's quarterly earnings release on October 28th; reporting the seventh consecutive quarterly decline in revenue.

Same theme in leveraged loans, healthcare companies CDS worst performers in North America

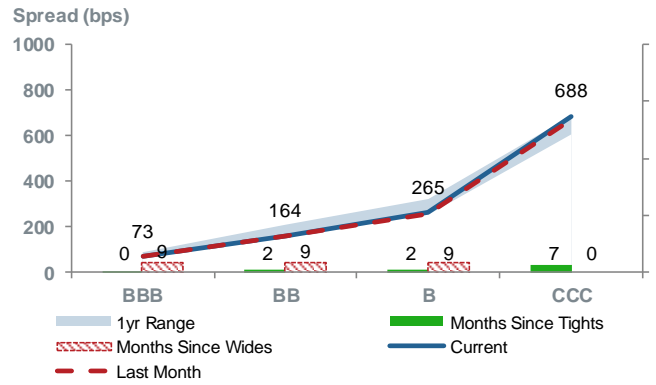
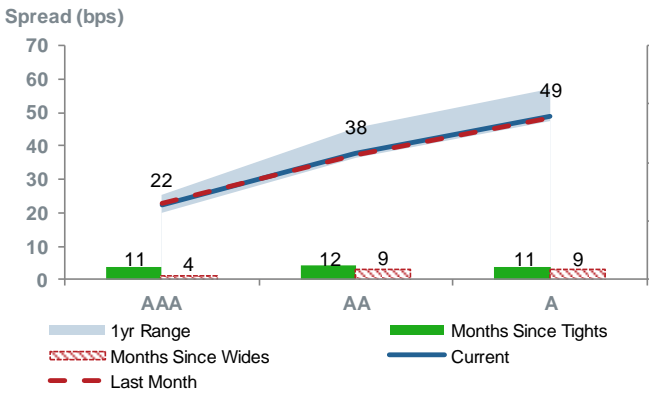
Healthcare companies Cardinal Health, Mckesson, and Bristol Myers Squibb were among the worst performers globally on the slowing pace of name brand drug price increases, and decreases in generic drug prices on the heels of the Mylan's EpiPen price increase controversy (Table 5). CDS spreads for Cardinal Health widened 14bps to 36bps (+67%), Mckesson widened 18bps to 47bps (60%), and Bristol Myers Squibb widened 5bps to 26bps (+26%). On a different note, hospital operator Community Health Systems' spreads widened 353bps to 1193bps (+60%) on weaker than expected earnings driven by decreases in hospital admissions and pricing pressure due to more patients migrating to managed-care plans.

Figure 7: October regional CDS sector spread summary

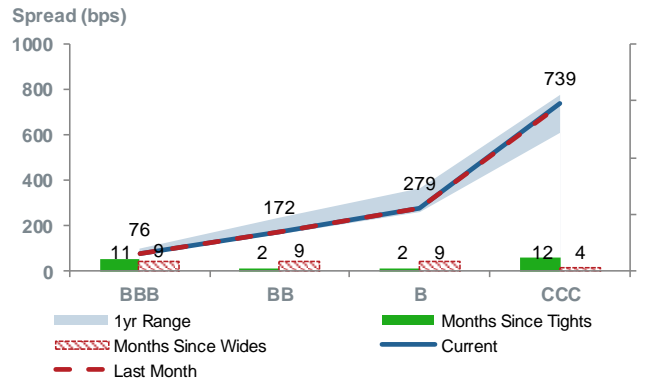
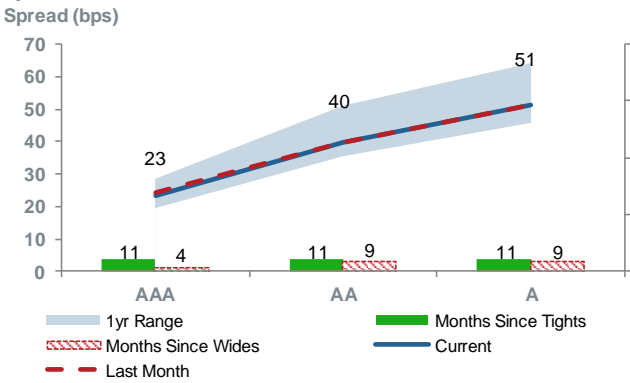
Global



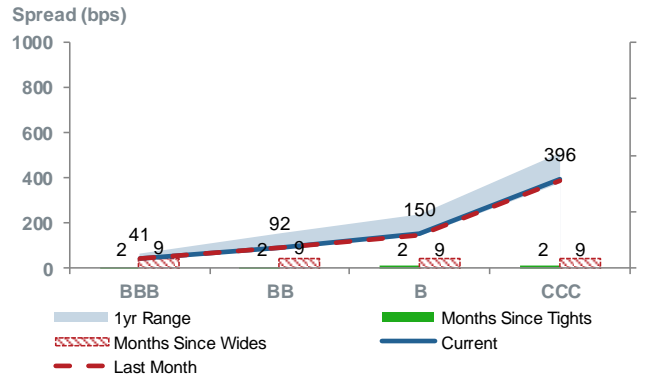
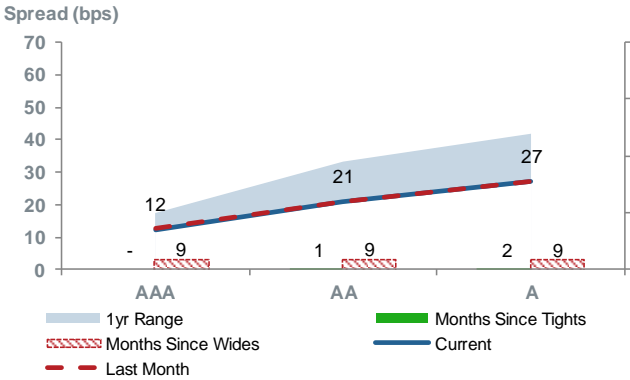
North America



Europe



Japan



Source: IHS Markit

Table 4: October liquid 5yr corporate CDS best spread performance²

Best performers

	Ticker	Company	Sector	Country	Liq score	10/31 spread	Change	% change	One year tight	Date	One year wide	Date
Americas												
1	TECKRS	Teck Res Ltd	Basic Materials	CAN	2	289	-90	-23.7%	281	10/28/16	2215	12/8/15
2	XRX	Xerox Corp	Technology	USA	1	161	-50	-23.7%	152	10/14/16	297	6/27/16
3	ECACN	Encana Corp	Energy	CAN	2	222	-62	-22.0%	210	10/25/16	1180	2/19/16
4	CCL	Carnival Corp	Consumer Services	PAN	1	55	-15	-22.0%	46	12/7/15	84	2/11/16
5	AVP	Avon Prods Inc	Consumer Goods	USA	2	504	-137	-21.4%	485	10/25/16	1249	11/18/15
EMEA												
1	HEMABON	Hema Bondco I Bv	Consumer Services	NLD	1	970	-295	-23.3%	940	10/25/16	1768	9/19/16
2	MONTE	Bca Monte Dei Paschi Di Siena S P A	Financials	ITA	2	350	-97	-21.7%	240	12/2/15	722	2/11/16
3	AAUK	Anglo Amern Plc	Basic Materials	GBR	1	275	-73	-21.0%	275	10/31/16	1387	1/14/16
4	ZIGGOBO	Ziggo Bd Fin Bv	Consumer Services	NLD	2	239	-63	-20.9%	193	3/14/16	324	6/27/16
5	HANNRUE	Hannover Rueck Se	Financials	DEU	1	44	-9	-16.7%	36	9/7/16	79	2/9/16
APAC												
1	MITCO	Mitsubishi Corp	Basic Materials	JPN	2	27	-6	-17.1%	27	10/31/16	82	1/21/16
2	CITOH	Itochu Corp	Industrials	JPN	2	44	-8	-14.9%	40	7/19/16	96	1/21/16
3	MITSOL	Mitsui Osk Lines Ltd	Industrials	JPN	2	125	-20	-13.6%	125	10/31/16	350	1/29/16
4	ANAHOL	Ana Hldgs Inc	Industrials	JPN	2	41	-6	-12.6%	41	10/28/16	84	2/26/16
5	WOWAU	Woolworths Ltd	Consumer Services	AUS	2	120	-17	-12.2%	112	11/5/15	178	3/29/16

Source: IHS Markit

² A liquid CDS is defined as an entity with a current Markit liquidity score of 1 or 2. Markit liquidity scores range from 1-5, with 1 being the most liquid and 5 the least liquid.

Table 5: October liquid 5yr corporate CDS worst spread performance²

Worst performers

Ticker	Company	Sector	Country	Liq score	10/31 spread	Change	% change	One year tight	Date	One year wide	Date	
Americas												
1	CAH	Cardinal Health Inc	Healthcare	USA	1	36	+14	+66.9%	15	12/1/15	36	10/31/16
2	MCK	Mckesson Corp	Healthcare	USA	1	47	+18	+60.2%	20	12/8/15	47	10/31/16
3	CYH	Cmnty Health Sys Inc	Healthcare	USA	2	1193	+353	+42.1%	472	11/9/15	1193	10/31/16
4	SHC- Acceptanc e	Sears Roebuck Accep Corp	Financials	USA	2	2394	+603	+33.6%	1202	11/2/15	2438	10/25/16
5	BMY	Bristol Myers Squibb Co	Healthcare	USA	1	26	+5	+26.2%	11	1/28/16	26	10/17/16
EMEA												
1	LMETEL	Telefonab L M Ericsson	Technology	SWE	2	126	+41	+47.7%	55	12/7/15	126	10/31/16
2	PREMFOO	Premier Foods Fin Plc	Consumer Goods	GBR	2	392	+97	+33.1%	134	4/12/16	585	2/11/16
3	NOKIA	Nokia Oyj	Technology	FIN	2	151	+36	+31.0%	104	9/8/16	183	2/11/16
4	NXT	Next Plc	Consumer Services	GBR	2	132	+27	+25.3%	45	11/6/15	134	10/19/16
5	JAGLAN	Jaguar Ld Rover Automotive Plc	Consumer Goods	GBR	2	269	+41	+17.9%	214	9/8/16	461	2/11/16
APAC												
1	NPG-NPI	Nippon Paper Inds Coltd	Basic Materials	JPN	2	50	+7	+16.0%	34	9/9/16	146	1/21/16
2	SOFTGRO	Softbank Group Corp	Technology	JPN	2	169	+18	+11.9%	121	7/15/16	389	2/12/16
3	THAI	Kdom Thailand	Governme nt	THA	1	95	+7	+7.9%	81	9/7/16	171	2/11/16
4	MITTOA	Mitsui Chems Inc	Basic Materials	JPN	2	44	+3	+7.7%	35	9/9/16	113	11/16/15
5	HUWHY	Hutchison Whampoa Ltd	Consumer Services	HKG	2	103	+3	+3.0%	89	9/8/16	142	2/11/16

Source: IHS Markit

Global corporate bonds

Sterling corporate debt dropped sharply in October, but still remains the best performer this year to date when compared to US dollar and euro denominated bonds.

Sharp decline in British sterling reverberates through the bond market

The concerns associated with the reality of Brexit were evident in the British pound during the month, as it hit its lowest level versus the US dollar in over 30 years (\$1.18/GPB) during a flash crash on October 7. Pressure on the pound also drove 10-year UK gilts a significant 49bps wider to end the month at a 1.14% yield. Given the sharp sell-off in UK benchmark government bonds, it was no surprise that the [Markit iBoxx £ Corporate AAA Index](#) was the worst performing index at -5.6% on a total return basis, but it's worth noting that it still has a strong 16.6% total return year to date (**Table 6**).

Investment grade corporate bonds were lower across all regions. Total returns in the [Markit iBoxx £ Liquid Investment Grade Index](#) were down 3.4%, well behind the weak -0.9% and -0.8% in the [Markit iBoxx \\$ Liquid Investment Grade Index](#) and the [Markit iBoxx € Liquid Investment Grade Index](#), respectively. On a positive note, all three investment grade indices have outperformed their region's equity markets year to date, with [Markit iBoxx £ Liquid Investment Grade Index](#) at +10.9%, [Markit iBoxx \\$ Liquid Investment Grade Index](#) at +7.8%, and [Markit iBoxx € Liquid Investment Grade Index](#) at 5.2%.

High yield best performing sector globally

The [Markit iBoxx € Liquid High Yield Index](#) was the best performer sector globally, increasing 0.8% on the month and was the only non-convertible bond sector that was positive on the month. The [Markit iBoxx \\$ Liquid High Yield Index](#) and [Markit iBoxx £ Liquid High Yield Index](#) were the best performing indices in each respective currency, returning -0.1% and -0.2%, respectively.

Energy issues dominate both the best and worst performers

Surprisingly, six out of the 15 best performing issues came from the energy sector (**Table 7**). The Nigerian Naira denominated Seven Energy Finance Limited's 10.25% 10/2021 issue from the Lagos based oil and gas producer was the best performer from the sector, increasing 38% to end the month at a 42.17 price. However, the aerospace parts manufacturer Sequa's 7% 12/2017 issue was actually the best performer globally, increasing 66% on the month, despite being downgraded in late September from CCC+ to CCC by S&P over concerns with its ability to refinance debt maturing in the near term.

The SGP denominated Ezra Holdings Limited 4.875% 4/2018 issue was the worst performer globally (**Table 8**), decreasing 34% to end the month at a 40.13 price after the offshore oil and gas support provider announced that it is seeking waivers on bond covenants from investors. The Memorial Production Partners LP's 6.875% 8/2022 issue was the second worst performer from the sector after the oil and gas company stated that it may pursue a restructuring, ending the month 17% lower at a 39.53 price.

Table 6: October corporate bond US and European iBoxx indices performance

	Total Return						Yield						Duration		
	Month			YTD			Current			Month			\$	€	£
	\$	€	£	\$	€	£	\$	€	£	\$	€	£			
Corporates	-0.85%	-0.77%	-3.41%	+7.76%	+5.23%	+10.86%	3.60%	1.04%	2.99%	+0.16%	+0.17%	+0.44%	6.8	5.3	8.4
Corporates AAA	-1.72%	-1.95%	-5.60%	+6.29%	+6.42%	+16.60%	3.30%	0.80%	2.05%	+0.19%	+0.23%	+0.39%	9.9	8.3	15.0
Corporates AA	-0.94%	-1.03%	-3.42%	+5.55%	+4.68%	+11.06%	3.00%	0.57%	2.35%	+0.17%	+0.19%	+0.40%	6.1	5.5	8.8
Corporates A	-0.88%	-0.91%	-3.91%	+6.30%	+4.67%	+10.89%	3.27%	0.82%	2.88%	+0.16%	+0.18%	+0.45%	6.5	5.4	9.1
Corporates BBB	-0.75%	-0.56%	-2.93%	+10.00%	+5.89%	+10.71%	4.04%	1.39%	3.31%	+0.15%	+0.14%	+0.44%	7.1	5.1	7.6
Banks	-0.31%	-0.37%	-2.49%	+4.87%	+3.32%	+6.43%	3.25%	0.95%	3.18%	+0.10%	+0.11%	+0.42%	4.9	4.4	6.4
Basic Materials	-0.79%	-0.79%	-2.32%	+14.20%	+10.52%	+22.58%	4.09%	0.91%	2.94%	+0.12%	+0.18%	+0.34%	7.2	5.4	7.6
Consumer Goods	-1.07%	-1.00%	-2.69%	+7.03%	+5.66%	+7.94%	3.32%	0.91%	2.33%	+0.18%	+0.19%	+0.48%	6.5	5.7	6.1
Consumer Services	-1.45%	-1.01%	-3.87%	+9.38%	+6.52%	+13.20%	3.73%	0.91%	2.72%	+0.20%	+0.20%	+0.45%	8.4	5.6	9.8
Financials	-0.37%	-0.40%	-2.64%	+5.42%	+3.92%	+7.56%	3.33%	1.22%	3.32%	+0.11%	+0.13%	+0.43%	5.3	4.8	6.9
Health Care	-1.46%	-1.15%	-5.28%	+6.98%	+4.81%	+18.08%	3.47%	0.88%	2.57%	+0.21%	+0.18%	+0.45%	7.7	6.1	12.5
Industrials	-1.20%	-1.00%	-3.99%	+7.85%	+5.28%	+11.71%	3.39%	0.72%	2.63%	+0.20%	+0.19%	+0.47%	7.4	5.4	9.1
Insurance	-0.45%	-0.12%	-2.31%	+7.39%	+5.66%	+6.94%	3.82%	2.62%	4.37%	+0.10%	+0.10%	+0.40%	7.5	6.4	7.0
Non-Financials	-1.11%	-1.03%	-3.87%	+9.12%	+6.21%	+13.04%	3.70%	0.94%	2.83%	+0.18%	+0.19%	+0.44%	7.6	5.7	9.3
Oil & Gas	-0.30%	-0.84%	-2.32%	+12.75%	+7.79%	+8.58%	4.14%	1.14%	2.50%	+0.10%	+0.16%	+0.39%	7.2	5.8	6.4
Technology	-0.92%	-1.34%	N/A	+7.26%	+6.65%	N/A	3.40%	0.63%	N/A	+0.15%	+0.20%	N/A	7.2	6.8	N/A
Telecommunications	-2.22%	-1.38%	-4.67%	+8.99%	+6.16%	+11.66%	4.14%	1.09%	3.26%	+0.30%	+0.25%	+0.51%	8.7	6.0	9.6
Utilities	-0.99%	-0.95%	-4.04%	+9.48%	+5.81%	+14.69%	3.74%	0.98%	2.95%	+0.15%	+0.19%	+0.43%	8.8	5.4	10.2
Liquid High Yield	-0.05%	+0.84%	-0.15%	+13.69%	+7.63%	+7.18%	6.17%	3.60%	5.67%	+0.14%	-0.18%	+0.23%	3.8	3.4	3.2
Convertible CVBX	-2.02%	+2.67%	+1.29%	+1.03%	+3.45%	+2.76%	0.15%	6.41%	7.62%	+0.87%	-0.57%	-0.13%	5.6	3.7	5.6
Contingent Convertible	+1.64%	+2.67%	+1.29%	+6.81%	+3.45%	+2.76%	7.00%	6.41%	7.62%	-0.24%	-0.57%	-0.13%	4.3	3.7	5.6

Source: IHS Markit

Table 7: October global corporate bond best price performance

Best performers

Ticker	Issue	Sector	Country	CCY	Liq score	10/31 price	Change	% change	One year low	Date	One year high	Date
Americas												
1	SQA	Sequa Corporation 7 12/2017	Industrials	USA	USD	2	53.90	+21.40	+65.8%	13.00	2/26/16	54.00 10/20/16
2	AV	Avaya Inc. 10.5 3/2021	Technology	USA	USD	1	33.04	+10.69	+47.8%	20.00	5/17/16	38.36 11/2/15
3	MEC	Murray Energy Corporation 11.25 4/2021	Energy	USA	USD	1	76.75	+19.25	+33.5%	10.00	3/21/16	77.56 10/27/16
4	ODBR-FIN	Odebrecht Finance Ltd. 5.25 6/2029	Industrials	BRA	USD	2	47.49	+11.49	+31.9%	24.37	5/5/16	60.75 11/23/15
5	SAMRCO	Samarco Mineracao S.A. 4.125 11/2022	Basic Materials	BRA	USD	1	39.74	+6.27	+18.7%	31.96	1/1/16	83.75 11/5/15
EMEA												
1	SEVEENE	Seven Energy Finance Limited 10.25 10/2021	Energy	NGA	USD	2	42.17	+11.63	+38.1%	29.66	9/12/16	62.00 4/19/16
2	MONTE	Banca Monte Dei Paschi Di Siena S.P.A. 11/2017	Financials	ITA	EUR	1	80.35	+13.06	+19.4%	52.70	1/20/16	93.87 11/19/15
3	DELTLO	Delta Lloyd N.V. 4.375 12/2099	Financials	NLD	EUR	2	91.29	+12.87	+16.4%	64.45	2/16/16	92.81 11/30/15
4	NORSSKO	Norske Skog Holding As 8 02/2021	Basic Materials	NOR	EUR	2	48.14	+6.14	+14.6%	23.00	2/17/16	48.14 10/31/16
5	HEMABO	Hema Bondco li B.V. 8.5 12/2019	Consumer Services	NLD	EUR	2	57.60	+7.10	+14.1%	37.91	2/25/16	57.69 10/24/16
APAC												
1	HONGGRO	Honghua Group Limited 7.45 9/2019	Energy	CHN	USD	1	69.99	+13.76	+24.5%	34.00	2/12/16	69.99 10/31/16
2	MIEHOL	Mie Holdings Corporation 7.5 4/2019	Energy	CHN	USD	1	72.75	+10.86	+17.5%	29.00	1/26/16	72.75 10/31/16
3	ANTOOIL	Anton Oilfield Services Group 7.5 11/2018	Energy	CHN	USD	1	76.78	+8.09	+11.8%	26.50	1/21/16	77.12 10/7/16
4	INDOE	Indo Energy Finance li B.V. 6.375 1/2023	Energy	IDN	USD	1	78.04	+8.01	+11.4%	32.11	2/15/16	78.05 10/28/16
5	GJTL	Pt Gajah Tunggal Tbk 7.75 2/2018	Consumer Goods	IDN	USD	1	92.75	+5.80	+6.7%	56.00	11/16/15	92.75 10/31/16

Source: IHS Markit

Table 8: October global corporate bond worst price performance

Worst performers

Ticker	Issue	Sector	Country	CCY	Liq score	10/31 price	Change	% change	One year low	Date	One year high	Date
Americas												
1 MEMORPR	Memorial Production Partners Lp 6.875 8/2022	Energy	USA	USD	2	39.52	-8.35	-17.4%	19.82	2/22/16	63.25	11/2/15
2 PDV	Petroleos De Venezuela, S.A. 8.5 11/2017	Energy	VEN	USD	1	72.23	-13.37	-15.6%	39.10	1/28/16	87.24	10/4/16
3 CFID	Cf Industries, Inc. 5.375 3/2044	Basic Materials	USA	USD	2	85.51	-13.42	-13.6%	81.23	2/4/16	98.93	9/30/16
4 COMMHS	Chs/Community Health Systems, Inc. 7.125 7/2020	Healthcare	USA	USD	1	81.00	-12.25	-13.1%	81.00	10/31/16	103.50	11/6/15
5 PDV	Petroleos De Venezuela, S.A. 5.375 4/2027	Energy	VEN	USD	2	36.20	-5.27	-12.7%	25.59	2/15/16	44.10	10/6/16
EMEA												
1 BATSLN-BATIntF	B.A.T. International Finance P.L.C. 2.25 9/2052	Consumer Goods	GBR	GBP	1	82.49	-11.42	-12.2%	82.24	10/28/16	97.44	9/28/16
2 TAFL	Transport For London 4 4/2064	Industrials	GBR	GBP	1	149.24	-18.63	-11.1%	116.04	11/4/15	176.17	8/30/16
3 HEATFUN	Heathrow Funding Limited 2.75 8/2051	Industrials	GBR	GBP	3	93.58	-11.40	-10.9%	93.15	10/28/16	112.94	8/11/16
4 WELLCO	The Wellcome Trust Limited 4 5/2059	Healthcare	GBR	GBP	2	153.02	-18.22	-10.6%	117.85	11/9/15	182.13	8/30/16
5 VOD	Vodafone Group Public Limited Company 3.375 8/2049	Telecommunications Services	GBR	GBP	1	92.88	-10.62	-10.3%	92.64	10/28/16	111.30	8/11/16
APAC												
1 EZRAHOL	Ezra Holdings Limited 4.875 4/2018	Energy	SGP	SGD	2	40.13	-20.49	-33.8%	40.01	10/27/16	84.50	3/16/16
2 KRISLTD	Krisenergy Ltd. 5.75 8/2018	Energy	THA	SGD	2	64.12	-7.23	-10.1%	63.92	10/25/16	95.90	11/5/15
3 BHP-BilFinLtd	Bhp Billiton Finance Limited 4.3 9/2042	Energy	AUS	GBP	2	119.25	-10.33	-8.0%	86.26	1/22/16	135.55	8/11/16
4 TMSK-TF	Temasek Financial (I) Limited 5.125 7/2040	Financials	SGP	GBP	2	146.38	-12.64	-7.9%	126.02	11/6/15	165.94	8/11/16
5 EJRAIL	East Japan Railway Company 4.875 6/2034	Consumer Services	JPN	GBP	2	132.84	-9.02	-6.4%	116.55	11/9/15	149.07	9/14/16

Source: IHS Markit

Sovereigns

All G7 sovereign CDS tighten in October

CDS spreads indicated an increased optimism in sovereign credit for developed countries October, as every G7 country's CDS spread tightened during the month (**Table 9**). German CDS performed the best among the G7, tightening 3.3bps to end the month at 16.8bps, likely driven by a very strong August manufacturing orders report (+1.0% month over month) earlier in the month and the weaker euro. Canada's sovereign CDS breached a new one year widest spread on October 17th, as various economic forecasts are all pointing to slower GDP growth and a growth of their federal deficit.

Spanish sovereign CDS were the best performer globally and hit a new one year low of 69bps on October 24th despite still only having a caretaker government in place for over nine months due to indecisive elections, ending the month 13.5% tighter at a spread of 72bps (**Table 10**). Belgium CDS were the third best performer during the month after also reaching a new on best level on October 24th, ending the month 2bps tighter to 27bps.

Venezuela swings from best to worst performer this month

Venezuela continues being one of the most volatile sovereign CDS contracts, as it was the worst performer this month based on spread change percentage, widening 699bps or 22% to end the month at the equivalent of a 3,887bps spreads based on the fact that it has been trading with 50 points up front for over two years now. We note that it reached its tightest spread in 12 months on October 4th and was the best

sovereign CDS performer globally last month as a result of the state-owned oil company PdVSA improving the terms of a debt exchange.

Ecuador sovereign bond best performer globally

The Republic of Ecuador 7.95% 6/2024 issue was the best performer globally, increasing 5.5% to end the month at a 94.59 price. IHS Markit's country risk team highlighted that the country's ruling party candidate Lenín Moreno is likely to seek "broad policy continuity" and a "more business-friendly approach" if elected in the February 2017 elections³. Those platforms potentially weighed positively on their sovereign debt.

Mozambique debt worst performer after default risk increases

The USD denominated Republic of Mozambique 10.5% 1/2023 issue was the worst performer globally, decreasing almost 31% to end the month at its new 12 month low price of 56.61 due to the strong possibility that Mozambique will default on the interest rate payment falling due in January 2017⁴. IHS Markit's Economic team reported on October 24th that the Monetary Policy Committee of the Bank of Mozambique increased its key policy rate by 600bps during its October meeting, pushing the deposit rate to 16.25%⁵ as the foreign liquidity shortages persists.

Table 9: October G7 industrialised countries ranked by percent change in CDS spreads

			10/31 10yr bond yield	CDS change	10/31 CDS	% change	One year tight	Date	One year wide	Date
1	DBR	Germany	0.16%	-3.3	16.8	-16.5%	12.6	12/24/15	24.9	6/27/16
2	ITALY	Italy	1.61%	-17.8	135.4	-11.6%	91.6	12/9/15	183.3	6/27/16
3	JAPAN	Japan	-0.05%	-1.9	32.5	-5.6%	31.7	9/5/16	56.1	2/12/16
4	CAN	Canada	1.20%	-1.6	30.1	-5.0%	22.2	11/13/15	32.2	10/17/16
5	FRTR	France	0.47%	-1.1	28.7	-3.6%	25.7	12/24/15	50.6	6/24/16
6	USGB	United States	1.81%	-0.3	26.2	-1.2%	17.6	3/18/16	27.3	9/20/16
7	UKIN	United Kingdom	1.14%	-0.3	33.6	-0.7%	16.4	11/9/15	50.6	6/24/16

Source: IHS Markit

³ Source: IHS Connect, "Ecuador's ruling party presidential candidate likely to seek broad policy continuity coupled with more business-friendly approach" by Arthur Dhont published on October 4th, 2016

⁴ Source: IHS Connect, "Non-payment risk on Mozambique external debt increases" by Thea Fourie published on November 1, 2016.

⁵ Source: IHS Connect, "Bank of Mozambique hikes policy rate by 600 basis points" by Thea Fourie published on October 24, 2016

Table 10: October liquid sovereign 5yr CDS best and worst spread performance²

			Liq Score	Change	10/31 spread	% change	One year tight	Date	One year wide	Date
Best Performers										
1	SPAIN	Spain	1	-11	72	-13.5%	69	10/24/16	137	6/27/16
2	PORTUG	Portugal	2	-34	278	-10.9%	168	11/4/15	355	2/12/16
3	BELG	Belgium	2	-2	27	-8.4%	27	10/24/16	68	6/27/16
4	PANAMA	Panama	1	-10	130	-7.0%	122	9/7/16	225	2/11/16
5	MEX	Mexico	1	-11	154	-6.8%	129	9/7/16	231	2/11/16
6	QATAR	Qatar	2	-6	88	-6.3%	73	11/5/15	140	2/3/16
7	ITALY	Italy	1	-8	146	-4.9%	92	12/9/15	183	6/27/16
8	SOAF	South Africa	1	-12	241	-4.8%	219	8/16/16	387	1/20/16
9	DBR	Germany	1	-1	20	-3.2%	13	12/24/15	25	6/27/16
10	JAPAN	Japan	1	-1	34	-2.6%	32	9/5/16	56	2/12/16
Worst Performers										
1	VENZ	Venezuela	1	+699	3887	+21.9%	2997	10/4/16	10686	2/15/16
2	UKIN	United Kingdom	1	+4	38	+12.9%	16	11/9/15	51	6/24/16
3	THAI	Thailand	1	+7	95	+7.9%	81	9/7/16	171	2/11/16
4	IRELND	Ireland	2	+2	61	+4.1%	38	12/16/15	92	6/27/16
5	FRTR	France	1	+1	31	+3.6%	26	12/24/15	51	6/24/16
6	COLOM	Colombia	1	+6	174	+3.6%	154	9/8/16	325	2/11/16
7	INDON	Indonesia	1	+4	154	+2.7%	135	9/7/16	257	2/11/16
8	CHILE	Chile	1	+2	89	+2.6%	67	8/15/16	148	1/20/16
9	CHINA	China	1	+3	109	+2.6%	94	9/8/16	148	2/11/16
10	VIETNM	Vietnam	2	+5	189	+2.4%	167	9/9/16	297	1/21/16

Source: IHS Markit

Table 11: October sovereign bond best price performance

Best performers

Ticker	Issue	CCY	Liq score	10/31 price	Change	% change	10/31 yield	One year low	Date	One year high	Date	
Americas												
1	ECUA	Republic of Ecuador 7.95 6/2024	USD	2	94.59	+4.97	+5.5%	9.90%	62.42	1/18/16	95.31	10/25/16
2	BRAZIL	Federative Republic of Brazil 8.5 1/2024	USD	2	94.71	+2.05	+2.2%	9.94%	74.33	3/3/16	95.00	10/24/16
3	CHILE	Republic of Chile 6 1/2032	CLP	5	118.95	+1.13	+1.0%	4.38%	114.52	9/20/16	118.95	10/31/16
4	PERU	Republic of Peru 5.2 9/2023	PEN	2	101.04	+0.87	+0.9%	5.17%	87.89	2/1/16	101.20	10/21/16
5	COLOM	Republic of Colombia 5 11/2018	COP	2	97.43	+0.39	+0.4%	6.53%	93.00	2/17/16	97.61	10/24/16
EMEA												
1	RPGANA	Republic of Ghana 8.125 1/2026	USD	2	95.68	+2.69	+2.9%	6.12%	63.00	1/20/16	97.39	10/25/16
2	KENY	Republic of Kenya 6.875 6/2024	USD	2	99.76	+1.79	+1.8%	7.22%	83.64	1/18/16	100.72	10/25/16
3	SWED	Kingdom of Sweden 0.125 6/2032	SEK	5	117.60	+2.02	+1.7%		98.88	12/29/15	120.34	8/17/16
4	GREECE	Hellenic Republic 4.75 4/2019	EUR	1	92.09	+0.75	+0.8%	8.68%	76.06	2/11/16	95.12	11/17/15
5	UKIN	United Kingdom of Great Britain And Northern Ireland 2.5 4/2020	GBP	5	371.42	+2.56	+0.7%		355.00	12/30/15	372.56	8/23/16
APAC												
1	CHINA	People's Republic of China 3.7 5/2066	CNY	4	103.96	+4.87	+4.9%	3.74%	96.80	10/3/16	107.30	8/17/16
2	PAKIS	Islamic Republic of Pakistan 8.25 9/2025	USD	2	113.68	+3.00	+2.7%	6.65%	98.48	2/11/16	114.01	10/26/16
3	IGB	Republic of India 6.83 1/2039	INR	4	97.83	+1.63	+1.7%	7.17%	83.89	2/26/16	98.90	10/6/16
4	BHREIN	Kingdom of Bahrain 6.125 8/2023	USD	1	105.43	+1.19	+1.1%	5.37%	97.50	1/20/16	105.73	10/21/16
5	MONGAA	Mongolia 10.875 4/2021	USD	1	108.24	+1.05	+1.0%	8.90%	98.67	4/8/16	111.10	7/13/16

Source: IHS Markit

Table 12: October sovereign bond worst price performance

Worst performers

Ticker	Issue	CCY	Liq score	10/31 price	Change	% change	10/31 yield	One year low	Date	One year high	Date	
Americas												
1	VENZ	Bolivarian Republic of Venezuela 7.75 10/2019	USD	1	51.05	-10.69	-17.3%	27.05%	29.10	2/12/16	63.56	10/4/16
2	DOMREP	Dominican Republic 6.85 1/2045	USD	2	104.32	-7.82	-7.0%	5.96%	88.20	2/11/16	114.53	8/29/16
3	MEX	United Mexican States 3.375 2/2031	EUR	1	109.80	-7.21	-6.2%	2.00%	99.32	2/25/16	119.03	8/23/16
4	VENZ	Bolivarian Republic of Venezuela 11.75 10/2026	USD	2	55.21	-3.53	-6.0%	22.14%	32.38	2/15/16	63.78	10/4/16
5	COLOM	Republic of Colombia 5 6/2045	USD	2	101.91	-6.33	-5.8%	4.49%	75.00	1/20/16	110.23	9/7/16
EMEA												
1	REPUOFAF	Republic of Mozambique 10.5 1/2023	USD	2	56.61	-25.03	-30.7%	15.08%	56.61	10/31/16	82.21	10/6/16
2	UKIN	United Kingdom of Great Britain And Northern Ireland 2.5 7/2065	GBP	3	126.26	-16.73	-11.7%	1.31%	96.73	11/9/15	155.26	8/30/16
3	ITALY	Republic of Italy 2.7 3/2047	EUR	1	99.63	-10.36	-9.4%	2.24%	96.81	2/12/16	115.58	8/11/16
4	SOAF	Republic of South Africa 2.5 3/2046	ZAR	5	100.25	-9.80	-8.9%		100.25	10/31/16	115.24	1/8/16
5	SPAIN	Kingdom of Spain 3.45 7/2066	EUR	2	115.83	-10.81	-8.5%	2.51%	103.97	5/27/16	127.00	8/26/16
APAC												
1	CHINA	People's Republic of China 4.76 9/2043	CNY	4	112.44	-12.13	-9.7%	3.37%	100.19	1/12/16	132.16	9/20/16
2	NZ	New Zealand 2.75 4/2037	NZD	2	91.80	-6.69	-6.8%	2.85%	91.72	10/28/16	98.49	9/30/16
3	AUSTLA	Commonwealth of Australia 3.25 6/2039	AUD	1	103.77	-6.56	-5.9%	2.64%	93.73	11/12/15	113.87	8/2/16
4	KOREA	Republic of Korea 3 12/2042	KRW	3	124.95	-7.30	-5.5%	1.50%	110.50	11/16/15	133.99	7/29/16
5	INDON	Republic of Indonesia 8.25 5/2036	IDR	1	103.89	-4.90	-4.5%	7.39%	90.84	12/15/15	109.82	8/11/16

Source: IHS Markit

Municipal bonds

Total municipal bond issuance surged to \$52.7bn in October, which was the largest single month of issuance in 30 years. Year to date revenue bond issuance is now 14% higher and general obligation issuance 10% higher than the same period last year (**Figure 8**). Total year to date issuance is a solid 13% versus the same period in 2015, as October's new issues luckily managed to price before the sharp post-election sell-off in treasuries.

US election resulted in an inverse reaction to Brexit

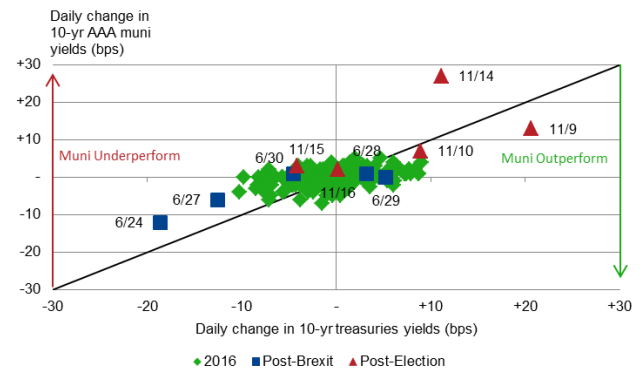
The US election results, and potential changes in tax and infrastructure spending policies, immediately pressured municipal bond yields, with the sell-off in longer rates having the most direct impact on muni prices. **Figure 9** compares daily changes in 10-year US treasury yields to the equivalent AAA municipal bond yields. The graphs show that municipal bonds outperformed treasuries the two days following the election, but underperformed on November 14th. The yield changes are almost an inverted image of the price action after Brexit, with the two days following that vote reporting the largest rally in treasuries and municipal bonds underperformed both days.

Puerto Rico issues make up three of the top five best performers

Three of the top five best performing revenue bonds this month were Puerto Rican issues (**Table 13**), with the Puerto Rico Commonwealth Infrastructure Financing Authority's Special Tax Revenue 2005-A 5.5% 7/2028 issue the best performer during the month, increasing 11% to end the month at a 54.50 price. All three Puerto Rico issues hit a new 12 month high price during the month.

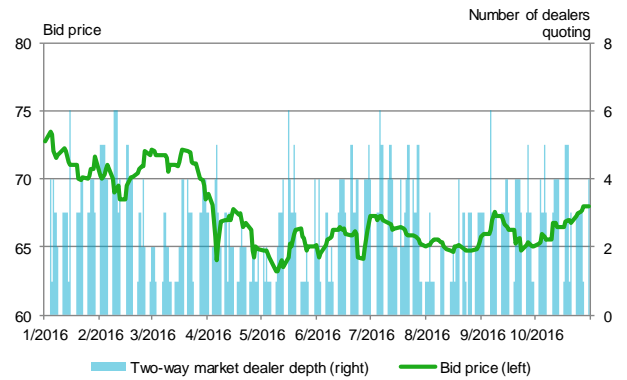
It is worth noting that the benchmark Puerto Rico GO 8.0% 7/2035 increased 4.6% to end the month at a 68.00 price (**Figure 10**). Dealer quote depth data indicates that an average of three dealers daily have made a two-way market on the issue this year.

Figure 9: AAA 10yr municipal bond daily spread changes vs changes in US Treasuries spreads



Source: IHS Markit

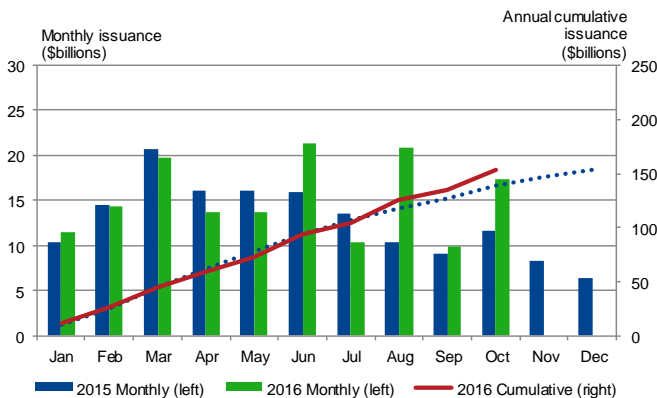
Figure 10: Puerto Rico GO 8.0% 7/2035 daily closing prices versus number of dealers quoting round lot two-way markets



Source: IHS Markit

Figure 8: Municipal bond issuance

General obligation



Source: SIFMA

Revenue

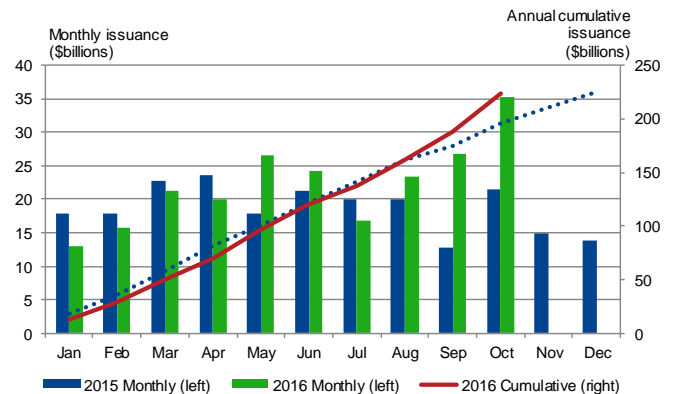


Table 13: October municipal revenue bond best price performance

Best performers

	Issuer	Issue	Liq score	10/31 price	Change	% change	One year low	Date	One year high	Date
1	Puerto Rico Comwth Infrastructure Fing Auth Spl	Special Tax Revenue - 2005-A 5.5 7/2028	1	54.50	+5.54	+11.3%	32.96	1/7/16	54.50	10/31/16
2	Puerto Rico Comwth Hwy & Transn Auth Transn Rev	Transportation Revenue Refunding - 2007-N 5.25 7/2039	1	55.50	+4.29	+8.4%	37.00	1/5/16	55.66	11/2/15
3	Wisconsin Health & Edl Facs Auth Health Facs Rev	Health Facilities Revenue - Unitypoint Health 2014-A 5 12/2025	2	122.40	+3.85	+3.2%	115.23	11/17/15	122.67	10/25/16
4	Prattville Ala Indl Dev Brd Pollutn Ctl Rev	Pollution Control Revenue Re - Union Camp Corporation Project 19 5.3 9/2028	2	116.88	+3.04	+2.7%	109.77	3/9/16	117.25	10/13/16
5	Puerto Rico Elec Pwr Auth Pwr Rev	Power Revenue - 2010-XX 4.875 7/2027	2	67.45	+1.53	+2.3%	56.62	5/10/16	67.45	10/31/16
6	New Jersey St Transn Tr Fd Auth	Transportation System - 2006-A 5.5 12/2021	2	117.48	+2.53	+2.2%	110.30	11/18/15	117.91	10/11/16
7	Rhode Island Clean Wtr Fin Agy Rev	Safe Drinking Water Revolving Fund Reve - Pooled Loan Issue 2012 5 10/2025	2	121.08	+2.38	+2.0%	116.28	11/12/15	121.31	10/25/16
8	Gloucester Cnty N J Impt Auth Rev	Revenue Refunding - Rowan University Project 2015-B 5 7/2027	1	119.91	+2.22	+1.9%	117.00	10/5/16	121.27	10/6/16
9	Charlotte-Mecklenburg Hosp Auth N C Health Care Sys Rev	Health Care Refunding Revenue - Carolinas Healthcare System 2008 5 1/2047	2	105.02	+1.90	+1.8%	102.61	10/27/16	105.02	10/31/16
10	Tennessee Energy Acquisition Corp Gas Rev	Gas Project Revenue - 2006-C 5 2/2022	2	115.28	+2.09	+1.8%	112.67	10/11/16	117.33	5/13/16

Source: IHS Markit

Table 14: October municipal revenue bond worst price performance

Worst performers

	Issuer	Issue	Liq score	10/31 price	Change	% change	One year low	Date	One year high	Date
1	Tompkins Cnty N Y Dev Corp Rev	Tompkins Cortland Community College Foundation Inc 2013-A 5 7/2038	2	102.11	-11.03	-9.7%	102.04	10/27/16	113.56	7/6/16
2	Liberty N Y Dev Corp Rev	Revenue - Goldman Sachs Headquarters Issue 2005 5.25 10/2035	1	125.71	-9.19	-6.8%	116.42	11/10/15	136.93	7/11/16
3	Salt Verde Finl Corp Sr Gas Rev Ariz	Senior Gas Revenue - 2007 5 12/2037	2	119.43	-7.54	-5.9%	109.80	11/12/15	129.20	7/6/16
4	Golden St Tob Securitization Corp Calif Tob Settlement Rev	Enhanced Tobacco Settlement Asset-Backed - 2015-A 5 6/2040	1	115.60	-6.13	-5.0%	110.16	11/11/15	121.86	8/19/16
5	Rochester Minn Health Care Facs Rev	Health Care Facilities Revenue Refunding - Mayo Clinic 2016-B 5 11/2035	2	129.73	-6.62	-4.9%	129.39	10/27/16	136.72	9/28/16
6	Long Beach Calif Bd Fin Auth Nat Gas Pur Rev	Natural Gas Purpose Revenue - 2007-A 5.5 11/2037	2	129.81	-6.23	-4.6%	119.58	11/12/15	139.00	7/6/16
7	Buckeye Ohio Tob Settlement Fing Auth	Tobacco Settlement Asset Backed Senior (Cib) Turbo Term - 2007 A 5.75 6/2034	1	93.20	-4.03	-4.1%	84.97	11/11/15	99.66	8/23/16
8	Truckee Meadows Nev Wtr Auth Wtr Rev	Water Revenue Refunding - 2016 5 7/2031	2	120.82	-5.02	-4.0%	120.64	10/27/16	128.73	7/6/16
9	Ohio St Univ Gen Rcpts	General Receipt - 2010-D 5 12/2031	2	131.15	-5.01	-3.7%	123.60	11/12/15	140.62	7/6/16
10	Nevada St Hwy Impt Rev	Highway Revenue (Motor Vehicle Fuel Tax) Improvement & Refu - 20 5 12/2028	1	124.90	-1.97	-1.6%	123.47	3/15/16	130.14	6/24/16

Source: IHS Markit

Securitised products

Securitised products spreads were mixed in October, with spreads tighter for CLOs and modestly wider for certain consumer ABS and most non-agency MBS. It was an unusually busy month for US auto ABS issuance, as almost \$12bn in supply entered the market, which made it the busiest month since last October when almost \$13bn was priced. US prime auto paper was the best performing consumer ABS sector, with 0-2-yr AAA paper tightening 7bps to EDSF +12bps, which is its tightest level over the past 12 months. Prime 2+yr AAA paper tightened 6bps to swaps +22bps during the month.

CMBS spreads continue to widen ahead of expected deluge in issuance

CMBS spreads were wider across the entire credit curve again this month (**Figure 12**), despite a relatively light \$6bn in new supply entering the market after September's surge in issuance. BBB and BBB- spreads were the worst performers, both widening 11bps and 12bps respectively on the month. The market continues to expect a heavy new issuance calendar going into year-end given the over \$4bn in issuance already priced during the first week in November, as some issuers try to price deals before risk retention rules go into effect in late-December.

Loan balance pay-ups continue to decline

Loan balance stories declined again across most of the Fannie Mae and Freddie Mac cohorts in October (**Table 15**). On-the-run Ginnie Mae loan balance pay-ups continued to rally, with 110K pools increasing a solid 1.25 points for the 4.5% cohort and 6 ticks for the 3.5% cohort

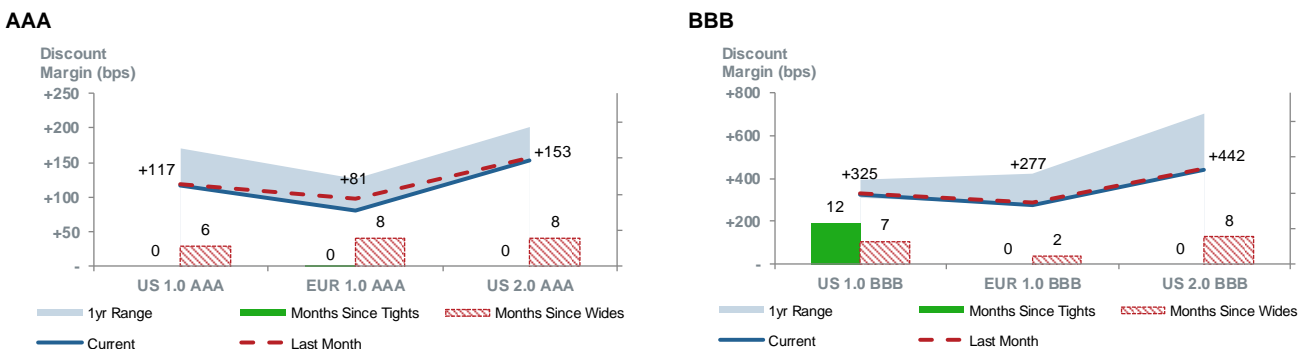
1.0 EUR CLOs outperform the broader sector

CLO spreads tightened across the credit curve and both regions in October, with EUR 1.0 AAA bonds the best performer, ending the month 16bps tighter at L+81bps (**Figure 11**). In fact, every AAA and BBB CLO group reached their tightest spread in 12 month during the month, with the exception of US 1.0 BBB spreads at L+325bps, which ended the month 15bps shy of its best level in early-November 2015. We note that October reported a monthly record of almost \$10bn in CLO refinancings.

Non-agency spreads soften

Non-agency MBS spreads softened during the month, as investors looked to take profits on riskier assets ahead of the US elections and a higher likelihood of a Fed rate increase in December. Legacy subprime returns had been lagging the broader non-agency market this year, but appeared to have stabilized in October and should benefit from higher coupons as LIBOR increases. IHS Markit's non-agency pricing team published a report on October 27th entitled "[The Walking Debt: Zombie RMBS take to the Street](#)" that highlights the principal writing-ups of previous zero balance bonds driven by recent litigation payments to bondholders.

Figure 11: US and European CLO AAA/BBB spread summary



Source: IHS Markit

Table 15: October 2016 agency specified pools pay-ups in ticks (1/32 points)

FNM/FHL 30Y Specified Pools Pay-ups					
Coupon	3	3.5	4	4.5	5
LLB (85K)	0-24	1-29	2-17	2-21	2-19
MLB (110K)	0-22	1-19	2-06	2-05	2-13
HLB (150K)	0-17	1-08	1-19	1-15	1-15
New Prod	0-00	0-03	0-09	0-13	N/A
Low FICO	0-01	0-08	0-10	0-11	0-26
Investor	0-07	0-08	0-11	0-12	0-16
MHA <90	0-06	0-08	0-14	0-09	0-21
MHA <95	0-06	0-08	0-10	0-23	0-21
MHA <100	0-06	0-13	0-20	0-20	0-21
MHA <105	0-10	0-15	1-11	1-15	1-17
<125 LTV	0-05	0-25	2-11	2-14	2-03
125+ LTV	0-18	1-04	1-28	2-11	2-08

Source: IHS Markit

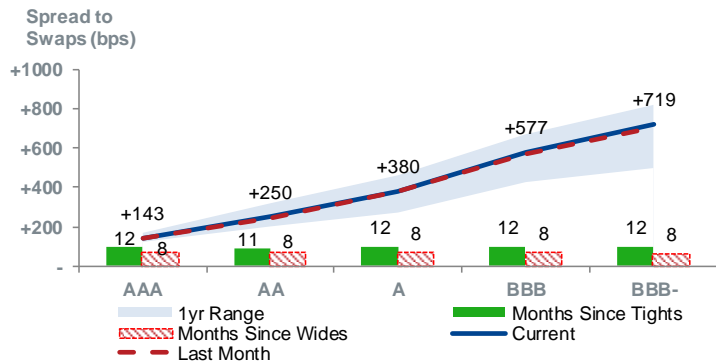
MoM Change					
3	3.5	4	4.5	5	
-0-04	-0-01	-0-05	-0-03	-0-06	
-0-01	-0-03	-0-04	-0-07	+0-01	
-0-02	-0-02	-0-02	-0-04	-0-01	
-0-01	-0-01	-0-01	-0-02	N/A	
0-00	-0-02	-0-01	-0-02	-0-02	
+0-01	+0-01	+0-01	-0-02	-0-04	
0-00	+0-01	+0-02	-0-03	+0-04	
-0-02	0-00	-0-02	-0-04	-0-02	
-0-01	-0-01	-0-03	-0-05	0-00	
0-00	+0-01	-0-06	-0-03	0-00	
-0-01	-0-05	-0-01	+0-03	0-00	
0-00	-0-03	-0-03	-0-01	0-00	

GNMA 30Y Specified Pools Pay-ups					
Coupon	3	3.5	4	4.5	5
LLB ₁ (85K)	0-21	2-02	3-08	3-05	1-31
LLB ₂ (110K)	0-17	1-18	2-18	2-30	3-10
MLB (125K)	0-17	1-05	2-06	2-13	1-17
HLB ₁ (150K)	0-13	1-02	1-27	2-16	2-20
HLB ₂ (175K)	0-16	0-26	1-13	1-06	1-06
New Prod	0-01	0-01	0-14	0-14	0-15
PR Geo	0-18	1-20	2-13	3-06	2-12

Source: IHS Markit

MoM Change					
3	3.5	4	4.5	5	
-0-02	+0-05	0-00	+0-25	0-00	
-0-01	+0-06	+0-02	+1-08	0-00	
0-00	0-00	+0-14	+0-15	-0-08	
0-00	0-00	-0-02	0-00	+0-02	
-0-01	-0-01	+0-07	0-00	0-00	
0-00	0-00	+0-01	+0-02	0-00	
-0-04	+0-02	0-00	0-00	0-00	

Figure 12: CMBS credit curve spread to swaps (10-year)



Source: Trepp

Table 16: Global consumer ABS spread summary

	Current (bps)	MoM change (bps)	1yr tight	Date	1yr wide	Date
US Credit Cards - Fixed-Rate						
2-3yr AAA US Swaps	+29	+1	+25	7/29/16	+58	3/11/16
4-5yr AAA US Swaps	+40	-	+32	9/6/16	+71	4/18/16
US Credit Card - Floating-Rate						
2-3yr AAA US LIBOR DM	+27	-	+26	10/12/16	+40	3/16/16
4-5yr AAA US LIBOR DM	+45	-1	+45	10/31/16	+96	5/16/16
US Prime Auto - Fixed-Rate						
0-2yr AAA EDSF	+12	-7	+12	10/31/16	+45	3/29/16
2+yr AAA US Swaps	+22	-6	+21	9/8/16	+60	3/29/16
European Prime Auto Loan - Floating-Rate						
AAA EUR LIBOR DM	+32	+6	+24	10/4/16	+54	2/5/16
US Subprime Auto - Fixed-Rate						
1-2-yr AAA EDSF	+37	-2	+37	10/31/16	+84	5/12/16
2+yr AAA US Swaps	+52	+3	+48	10/12/16	+97	11/5/15
US Equipment - Fixed-Rate						
2+yr AAA US Swaps	+31	-4	+31	10/31/16	+85	6/14/16
European Equipment - Floating-Rate						
A EUR LIBOR DM	+84	-1	+83	10/17/16	+160	2/29/16
US FFELP Student Loans - Floating-Rate						
2-4yr AAA 3mo US LIBOR DM	+102	-9	+68	7/29/16	+151	3/25/16
10+yr AAA 3mo US LIBOR DM	+147	+6	+128	7/29/16	+191	3/21/16

Source: IHS Markit

Chris Fenske
Co-head of fixed income
pricing research
+1 212-205-7142
chris.fenske@ihsmarkit.com

Gavan Nolan
Co-head of fixed income
pricing research
+44 207-260-2232
gavan.nolan@ihsmarkit.com

The intellectual property rights to this report provided herein are owned by Markit Group limited. Any unauthorised use, including but not limited to copying, distributing, transmitting or otherwise of any data appearing is not permitted without Markit's prior consent. Markit shall not have any liability, duty or obligation for or relating to the content or information ("data") contained herein, any errors, inaccuracies, omission or delays in the data, or for any actions taken in reliance thereon. In no event shall Markit be liable for any special, incidental, consequential damages, arising out of the use of the data. Markit is a trademark owned by the Markit group. This report does not constitute nor shall it be construed as an offer by Markit to buy or sell any particular security, financial instrument or financial service. Markit provides a variety of services and products to various clients, including the issuers of securities that Markit may refer to in this report. Markit receives compensation and fees in connection with these services and products. The analysis provided in this report is of a general and impersonal nature. Such analysis is based on data derived from Markit's proprietary products that are offered for sale by Markit. Data from third party sources may yield different results. This report shall not be construed as investment advice and the data contained herein has not been adapted to, and is not intended for use in, any particular investment strategy or portfolio. Markit makes no representations that the data contained herein is appropriate for any investor or investment strategy. This report does not establish a fiduciary relationship between Markit and any recipient of this report, and Markit disclaims any fiduciary duties in that regard. This report does not and shall not be construed as providing any recommendations as to whether it is appropriate for any person or entity to "buy", "sell" or "hold" a particular investment.