

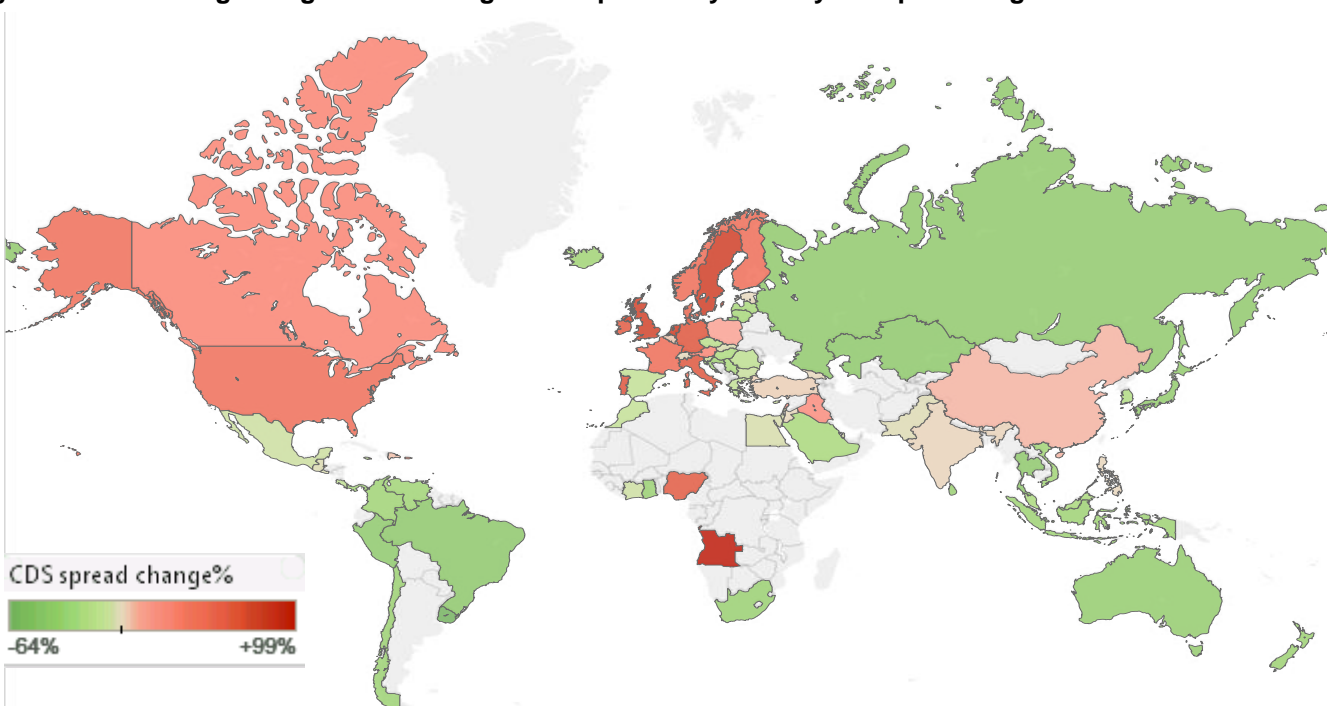
# Global fixed income monthly focus – December 2016

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

Financial markets activity in December was muted by normal year-end seasonal factors. These were exacerbated by uncertainties over the Italian banking sector, particularly relating to Banca Monte dei Paschi, which failed to achieve a private sector recapitalization, and needed state rescue. The strong US dollar and the upward trend in US interest rates also worsened sentiment regarding emerging markets, with Turkey and Mexico underperforming within the asset class, while Russia enjoyed improvement on the back of expectations of a potentially easier sanctions regime under President Trump. **Figure 1** shows countries' sovereign CDS spread changes in percent over the course of 2016, with improvements highlighted in green and deterioration highlighted in red. The data indicates that best performer was Uruguay, which tightened 64% to end the year at a spread of 180bps.

- This month's special report reveals how prolonged strength or weakness in a company's CDS during 2016 translated into their short term equity performance.
- North American energy sector spreads tightened over 40bps across the entire credit curve in December, largely due to the late-November rally in crude oil prices driven by OPEC's final agreement to implement production cuts.
- The [Markit iTraxx Europe](#) started the month at 79.4bps and by late-December it had dipped below 70bps, though it gave up some gains and ended the year at 72bps. It was a similar story in North America, with the [Markit CDX.NA.IG](#) index tightening by 5bps to close 2016 at almost 68bps.
- The [Markit iBoxx £ Liquid Investment Grade Index](#) returned 2.24% in December, and a whopping 11.83% over the full year. This far outpaces the performance of the [Markit iBoxx € Liquid Investment Grade Index](#) and [Markit iBoxx \\$ Liquid Investment Grade Index](#), which returned a still respectable 4.72% and 5.52%, respectively.
- November's post-election sell off in municipal bonds reversed course slightly in late December, with 10yr AAA municipal bond yields ending the month 33bps lower from their 2016 peak of 2.64% set on December 1.
- Securitised products spreads were generally flat in December, with most of the activity taking place during the first two weeks of the month. Issuance dropped sharply across most non-residential mortgage sectors, with the exception of US consumer ABS, which exceeded 2015 by almost \$10bn and ending the year at almost \$190bn in total issuance.

**Figure 1: 2016 changes in global sovereign CDS spreads by country on a percentage basis**



## 2016 CDS spread trends versus select US equity performance

### Equity investors often use CDS when making investment decisions

Credit default swaps (CDS) have traditionally been an integral part of the broader fixed income markets for both hedging and speculating on credit. The most liquid CDS names are traded and quoted very frequently during any given month, so there is a fair amount of transparency on how the markets perceive a given issuer's credit worthiness. Quite often, an issuer's CDS has acted as a canary in the coal mine for price action on its equity, as sudden changes in an issuer's credit outlook often have dire downstream consequences for their balance sheet.

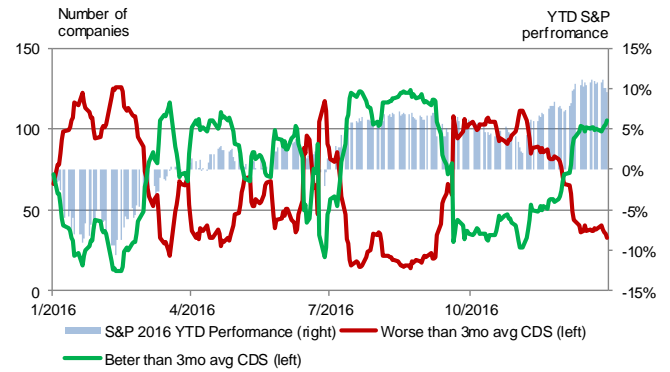
Institutional investors have used CDS to guide some of their equity investment decisions for quite some time, but the number of equity issues with actively traded CDS is relatively limited. Quantitative investment strategies often include signals from CDS spreads alongside a plethora of other data points when determining relative value across the broader equity universe.

### Data indicates better or weaker than average CDS spreads can potentially provide predictive power for equity

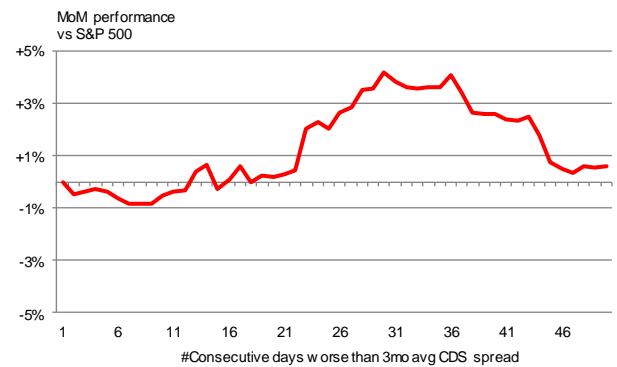
We reviewed the 2016 performance of 138 US equities that also have CDS on the issuers' debt. The sample included companies across every major sector, and was limited to equity issues with more than one million shares traded daily and only highly liquid CDS (1 or 2 Markit Liquidity Score). The data in **Figure 2** clearly shows the relationship of CDS spread trends and performance in the S&P 500, as the stress in credit spreads during the first two months of the year was also apparent in the US equity markets. There were several inflection points (equal number of best/worst performers) in the CDS portion of the data, with most lagging large scale events, like the bottoming out of the US equity markets and the US election results by a few weeks, except for the Brexit vote outcome where CDS spreads widened very rapidly.

2016 CDS data does indicate that there are apparent patterns in short term equity performance when an issuer's CDS spreads remain above or below the three month average. **Figure 3** compares the number of consecutive days issuers' CDS remained worse than average and the average equity performance versus the S&P one month forward, highlighting that there is some marginal underperformance for CDS that remain worse than average for 10 or less consecutive days. However, for issuers that remain below average for more than 19 days appear to outperform the S&P, with the prolonged distress in the issue's credit potentially signalling a buying opportunity. **Figure 4** is a similar

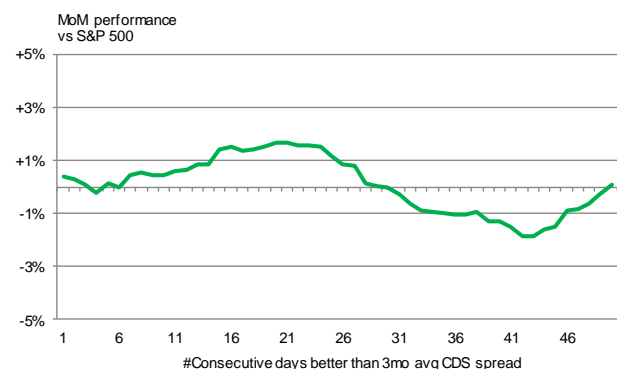
**Figure 2: Count of issues performing better or worse than 3mo average CDS spread**



**Figure 3: 2016 month-over-month average equity performance vs S&P 500 based on consecutive days CDS spreads are worse than 3mo average spread**



**Figure 4: 2016 month-over-month average equity performance vs S&P 500 based on consecutive days CDS spreads are better than 3mo average spread**



Source: IHS Markit



analysis, but includes data on the number of days a CDS issuers' spreads were better than the three month average. The data indicates that issues with 7-28 consecutive days of better than average spreads outperformed the S&P, while prolonged periods (greater than 29 days) of outperformance in the CDS market resulted in underperformance versus the S&P.

**The analysis needs to be expanded pre-2016 to further validate the results**

In conclusion, the data does indicate that CDS data has some potential for use in analysing equity market trends. The most surprising result was the superior performance of issues with prolonged periods of worse than average CDS spreads, which in itself could present a risky trading strategy as further deterioration in an issuer's credit can have a dire outcome for the equity investors.

However, the analysis does have to be expanded to improve the accuracy of its predictive power. The combination of only focusing on 2016 data and the relatively small sample size would need to be expanded to a wider array of market environments and issuers to get a better picture of the usefulness of the CDS data. It was not in the scope of this report, but the data did indicate some sector specific trends that need to be explored further.

## Leveraged loans

### North American energy sector the best performer during the month

North American energy sector spreads tightened over 40bps across the entire credit curve in December (Table 3), largely due to the late-November rally in crude oil prices driven by OPEC's final agreement to implement production cuts. In fact, North American BBB- through B- energy sector spreads ended 2016 at the tightest levels of the year. The CCC+ cohort was only 106bps away from its best level of L+835bps reported last January (Figure 5).

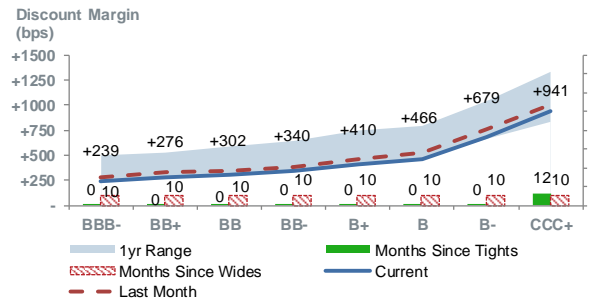
The European telecommunication services sector was the worst performer during the month, with BBB- through B widening across rating cohorts (Figure 6) and B-/CCC+ tightening much less than comparably rated sectors. It is worth noting the sector's BBB-, BB+, and CCC+ cohorts were at their tightest levels within the first two months of 2016.

The BBB-/BB+ segment of the North American credit curve continued to flatten in December, ending the year with a 37bps basis after being as wide as 57bps in early November (Figure 7). This tightening of the concession at the inflection point between investment grade and high yield has been moving in lock-step with increasing rates and more optimistic growth expectations.

### Energy companies dominate best performers list globally

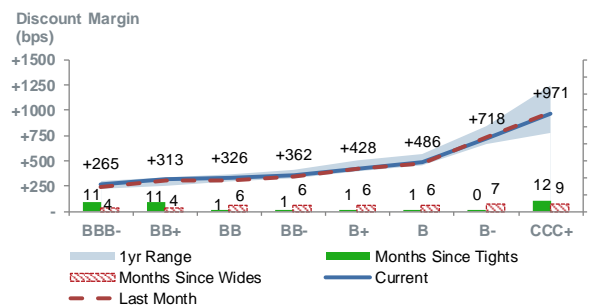
There were seven energy companies globally, across the par and distressed categories, which were among the best performers during the month. C&J Energy's 3/15 TLB1 issue was the best performing par loan in December, increasing 22% to end the month at a 113.31 price (Table 1). The company announced on January 6 2017 that it completed its financial restructuring, which included eliminating \$1.4bn of debt and more than \$80mn in interest expense, and has exited Chapter 11 bankruptcy. Seadrill Partners' 2/14 TL issue was the best performer in the European distressed category, increasing 20% to end the month at a 68.10 price.

Figure 5: North American energy sector spreads to LIBOR



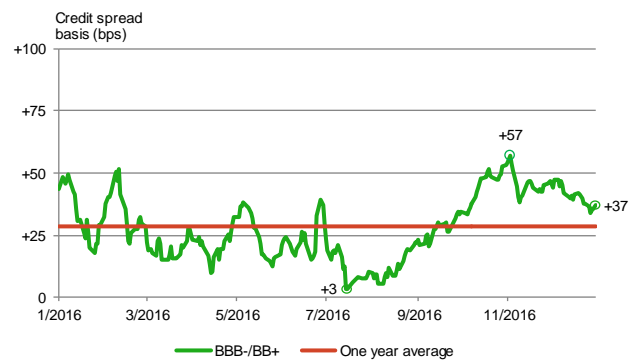
Source: IHS Markit

Figure 6: European telecom sector spreads to LIBOR



Source: IHS Markit

Figure 7: BBB-/BB+ average sector spread basis



Source: IHS Markit

**Table 1: December North American loans best and worst price performance<sup>1</sup>**
**North America**

LXID	Loan Name	Sector	Country	Liq score	12/30 price	% change	One year low	Date	One year high	Date	
<b>Best performers</b>											
<b>Par</b>											
1	LX143606	C&J Energy 3/15 TLB1	Energy	USA	5	113.31	+22.3%	37.63	3/2/16	113.31	12/30/16
2	LX137951	Healogics 7/14 Cov-Lite TL	Healthcare	USA	4	90.83	+15.2%	77.00	10/17/16	94.17	5/30/16
3	LX137137	UTEX Industries 5/14 Cov-Lite TL	Industrials	USA	5	92.38	+9.4%	54.50	3/3/16	92.38	12/30/16
4	LX120521	Autoparts Holdings 7/11 2nd Lien TL	Consumer Goods	USA	5	98.34	+9.1%	46.67	1/1/16	98.34	12/30/16
5	LX137857	Chesapeake Oilfield (77 Energy) 6/14 Cov-Lite TLB	Energy	USA	3	98.63	+9.1%	57.00	2/18/16	99.38	12/14/16
<b>Distressed</b>											
1	LX137138	UTEX Industries 5/14 2nd Lien TL	Industrials	USA	4	69.83	+33.4%	38.00	3/3/16	69.83	12/30/16
2	LX134252	Cumulus Media 12/13 TLB	Consumer Services	USA	1	67.83	+12.8%	59.44	11/28/16	76.20	1/11/16
3	LX134515	Samson 12/13 Cov-Lite 2nd Lien TL	Energy	USA	4	25.25	+10.6%	14.75	7/28/16	29.25	9/14/16
4	LX128907	Weight Watchers 4/13 Cov-Lite TLB2	Consumer Services	USA	3	82.50	+8.2%	63.22	2/26/16	83.75	12/19/16
5	LX130275	Harvey Gulf 6/13 Cov-Lite TLB	Industrials	USA	4	77.42	+6.1%	45.00	3/1/16	77.42	12/30/16
<b>Worst performers</b>											
<b>Par</b>											
1	LX141526	Toys 'R' Us 10/14 Cov-Lite TLB4	Consumer Services	USA	3	87.25	-4.5%	71.44	1/4/16	91.92	11/2/16
2	LX135908	Neiman Marcus 3/14 Cov-Lite TL	Consumer Services	USA	2	86.68	-4.5%	83.29	2/19/16	95.38	4/25/16
3	LX148858	Belk 12/15 Cov-Lite TL	Consumer Services	USA	3	85.92	-3.3%	78.75	6/29/16	91.93	9/15/16
4	LX123795	Syniverse (4/12) TL	Technology	USA	4	87.15	-3.3%	68.00	1/29/16	92.75	11/1/16
5	LX135930	Talbots 3/14 Cov-Lite 2nd Lien TL	Consumer Services	USA	5	90.17	-2.4%	90.17	12/30/16	93.67	1/7/16
<b>Distressed</b>											
1	LX131132	True Religion Apparel 7/13 Cov-Lite TL	Consumer Goods	USA	4	20.40	-21.2%	19.67	12/21/16	55.33	1/1/16
2	LX135658	Payless ShoeSource 3/14 TL	Consumer Services	USA	4	51.58	-16.6%	44.17	1/26/16	63.17	10/26/16
3	LX117989	Gymboree (Cov-Lite 2/11) TL	Consumer Services	USA	3	52.40	-12.8%	50.07	1/6/16	79.85	9/23/16
4	LX135737	J. Crew 2/14 Cov-Lite TL	Consumer Services	USA	3	56.38	-12.1%	54.88	12/28/16	80.44	5/4/16
5	LX149955	Millennium Laboratories 12/15 TL	Healthcare	USA	4	50.00	-11.5%	43.50	9/14/16	95.20	4/25/16

Source: IHS Markit

<sup>1</sup> 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: December European loans best and worst price performance<sup>1</sup>

## Europe

	LXID	Loan Name	Sector	Country	Liq score	12/30 price	% change	One year low	Date	One year high	Date
<b>Best performers</b>											
<b>Par</b>											
1	LX129905	CSM Bakery Supplies 5/13 Cov-Lite TL	Consumer Goods	NLD	4	89.90	+7.2%	82.25	11/17/16	100.13	8/3/16
2	LX133563	Crosby Worldwide 11/13 Cov-Lite TL	Energy	GBR	4	89.31	+5.7%	67.00	1/14/16	89.44	12/27/16
3	LX135505	Stena 2/14 Cov-Lite TLB	Industrials	LUX	2	87.50	+5.1%	79.38	3/8/16	87.50	12/30/16
4	LX132212	Consolis 8/13 Restructured PIK TL	Consumer Goods	FRA	4	102.33	+3.9%	80.00	3/4/16	102.33	12/30/16
5	LX137173	KCA 5/14 TLB	Energy	GBR	3	88.46	+3.4%	51.50	3/4/16	88.75	10/27/16
<b>Distressed</b>											
1	LX135384	Seadrill Partners 2/14 TL	Energy	GBR	2	68.10	+20.4%	35.13	1/20/16	68.50	12/27/16
2	LX139578	Vivarte 10/14 Super Senior TL	Consumer Goods	FRA	4	81.14	+15.8%	55.50	10/28/16	101.75	5/12/16
3	LX137914	PagesJaunes 6/14 (EUR) A7 TL	Technology	FRA	2	61.83	+15.0%	49.40	3/11/16	62.70	1/29/16
4	LX129817	Pacific Drilling 5/13 TL	Energy	LUX	3	35.10	+13.9%	19.19	2/29/16	43.83	1/1/16
5	LX133515	Saur 10/13 PIK TLB	Utilities	FRA	5	75.00	+9.8%	55.00	2/9/16	75.00	12/30/16
<b>Worst performers</b>											
<b>Par</b>											
1	LX152521	Kuoni Group 5/16 Cov-Lite TLB	Consumer Services	LUX	4	94.75	-3.0%	94.67	12/16/16	98.60	9/28/16
2	LX142051	Aenova 9/14 SCH TL	Healthcare	LUX	3	92.20	-2.9%	83.25	2/22/16	97.70	9/16/16
3	LX155222	Keter 10/16 (EUR) Cov-Lite TLB	Consumer Goods	NLD	5	97.19	-2.0%	97.19	12/30/16	99.82	10/10/16
4	LX136501	SkillSoft 4/14 Cov-Lite TL	Technology	LUX	3	91.00	-1.5%	71.13	2/3/16	93.09	12/7/16
5	LX133020	Tunstall 9/13 (EUR) TLB2	Telecom Services	GBR	3	87.75	-1.2%	87.70	12/13/16	94.89	1/7/16
<b>Distressed</b>											
1	LX139193	Aenova 8/14 Cov-Lite 2nd Lien TL	Healthcare	DEU	4	81.00	-7.0%	69.92	3/31/16	89.11	1/13/16
2	LX137596	Agrokor 5/14 PIK Toggle (PIK 10.50%) TL	Consumer Goods	HRV	4	77.50	-6.8%	77.50	12/30/16	98.85	1/4/16
3	LX141989	Vivarte 10/14 Reinstated TL (ORA/Pref + Equity Stapled) TL	Consumer Goods	FRA	3	15.04	-3.0%	10.31	11/4/16	72.70	3/14/16
4	LX124812	Paradigm 7/12 Cov-Lite TL	Technology	LUX	4	79.25	-1.6%	70.33	5/13/16	80.83	12/21/16
5	LX134586	Prisa 12/13 Disposal TL3	Consumer Services	ESP	5	84.25	-1.5%	79.00	3/1/16	89.80	11/7/16

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+
<b>Basic Materials</b>	NA	+1	-9	+1	+5	-13	-9	-39	-26
	EU	+11	+2	+10	+14	-3	+0	-29	-14
	Change NA-EU	-9.8	-10.6	-9.2	-9.6	-9.9	-9.6	-9.6	-12.0
<b>Consumer Goods</b>	NA	-9	-19	-9	-5	-23	-19	-49	-35
	EU	+1	-8	+0	+4	-13	-10	-39	-23
	Current NA-EU	-9.7	-10.5	-9.1	-9.5	-9.8	-9.5	-9.5	-11.9
<b>Consumer Services</b>	NA	-2	-12	-2	+1	-16	-13	-42	-29
	EU	+7	-2	+7	+11	-7	-3	-33	-17
	Current NA-EU	-9.5	-10.3	-8.8	-9.3	-9.6	-9.3	-9.3	-11.7
<b>Energy</b>	NA	-44	-54	-44	-40	-58	-54	-84	-70
	EU	-35	-43	-35	-31	-49	-45	-75	-59
	Current NA-EU	-9.3	-10.1	-8.6	-9.1	-9.4	-9.1	-9.1	-11.5
<b>Financials</b>	NA	-28	-37	-27	-24	-42	-38	-67	-54
	EU	-18	-27	-18	-14	-32	-28	-58	-42
	Current NA-EU	-9.5	-10.3	-8.9	-9.4	-9.6	-9.3	-9.3	-11.7
<b>Healthcare</b>	NA	-15	-24	-14	-11	-29	-25	-54	-41
	EU	-5	-13	-5	-1	-19	-15	-45	-29
	Current NA-EU	-10.0	-10.8	-9.3	-9.8	-10.0	-9.8	-9.7	-12.1
<b>Industrials</b>	NA	-7	-17	-7	-3	-21	-17	-47	-33
	EU	+2	-6	+2	+6	-12	-8	-38	-22
	Current NA-EU	-9.4	-10.1	-8.7	-9.2	-9.4	-9.1	-9.1	-11.5
<b>Technology</b>	NA	+4	-5	+4	+8	-10	-6	-35	-22
	EU	+14	+5	+14	+18	-0	+4	-26	-10
	Current NA-EU	-9.7	-10.5	-9.0	-9.5	-9.8	-9.5	-9.5	-11.9
<b>Telecommunication Services</b>	NA	+10	+0	+10	+13	-4	-1	-30	-17
	EU	+19	+10	+19	+23	+5	+9	-21	-5
	Current NA-EU	-9.6	-10.3	-8.9	-9.4	-9.6	-9.3	-9.3	-11.7
<b>Utilities</b>	NA	-30	-39	-29	-26	-44	-40	-69	-56
	EU	-18	-27	-18	-14	-32	-28	-58	-42
	Current NA-EU	-11.7	-12.5	-11.1	-11.5	-11.8	-11.5	-11.5	-13.9

Source: IHS Markit

## Credit default swaps

Many market participants expected 2017 to end with a bang, rather than a whimper. Political risk was omnipresent; the market was still digesting the implications of a Donald Trump presidency and the Italian referendum was looming. It is an old cliché that markets hate uncertainty, but like many platitudes it contains more than a grain for truth.

### Credit ended the year on a positive note

One look at how the CDS markets performed in December, however, shows that investors were more sanguine than might be expected. The [Markit iTraxx Europe](#) started the month at 79.4bps and by late-December it had dipped below 70bps, though it gave up some gains and ended the year at 72bps. It was a similar story in North America, with the [Markit CDX.NA.IG](#) index tightening by 5bps to close 2016 at 67.75bps.

The latter movement is perhaps less surprising. Trump has promised to cut taxes and massively increase infrastructure spending, presumably financed by higher deficits. This should increase growth, though we don't know how his isolationist foreign policy and protectionist trade positions will affect the US and global economies. History suggests negatively.

The rally in European CDS spreads was maybe more unexpected. Italy's Prime Minister Matteo Renzi lost the referendum – and his job – when the electorate rejected his constitutional reforms. The consequent political instability might have triggered a material widening in spreads, particularly as the stabilisation plan for the banking system depends on government support. But Italy is no stranger to political turmoil, and the markets took the news in its stride. This story is far from over, however, and has the potential to be a catalyst for change in 2017.

If we examine the improving single names, we can see that US energy firms enjoyed a strong end to the year. The price of oil continued to rise, and Brent crude hit \$56 a barrel in late December. This helped the likes of ConocoPhillips and Transocean to rally by 22% and 21% respectively ([Table 4](#)). In Europe, banks were among the most robust performers, no doubt assisted by the repricing of risk after the Italian referendum and expectations of solid fourth-quarter results.

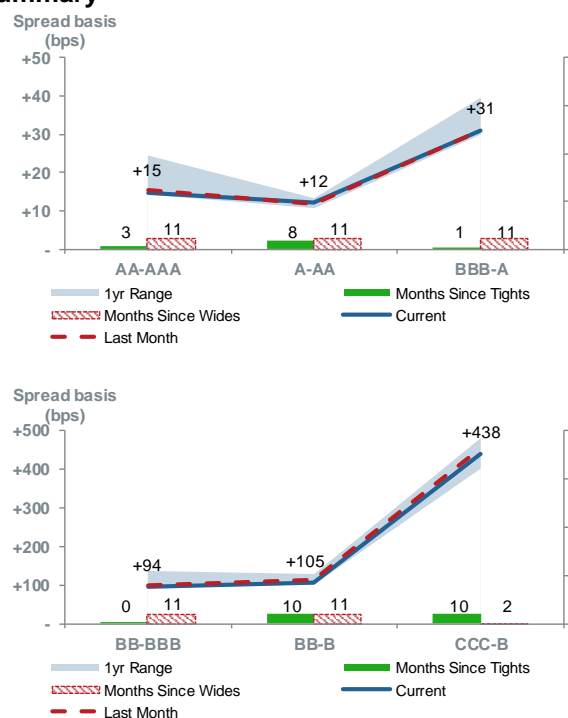
One name stands out among the worst performers: iHeart Communications ([Table 5](#)). The US radio broadcaster became the last name to default in 2016 after a failure to pay credit event was triggered. This was somewhat controversial, as it involved a payment between two entities within the iHeart organisation. After some deliberation ISDA determined that this was still a credit event, and the auction will be held on February 2 2017.

### CDS credit curve noticeably flatter

The AAA/AA CDS spread basis tightened in 1bp to 15bps during the month ([Figure 8](#)). The lowest end of the curve flattened the most, with BBB/BB 3bps tighter to a 94bp basis, BB/B 7bps tighter to a 105bps basis, and B/CCC tightened 15bps to a 438bps basis.

Global CDS sector below investment grade spreads were all tighter, with CCC tightening the most at 22bps, ending the month at a spread of 720bps ([Figure 9](#)).

**Figure 8: Global CDS sector ratings spread basis summary**

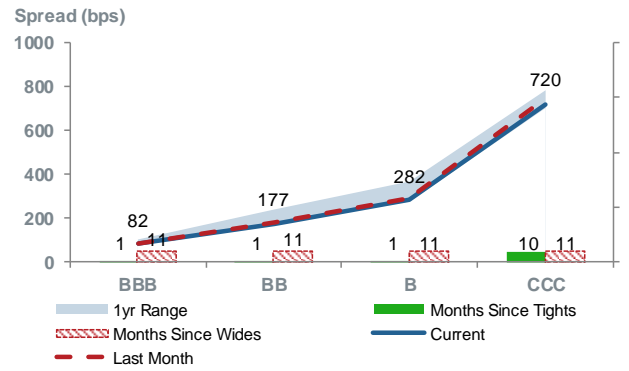
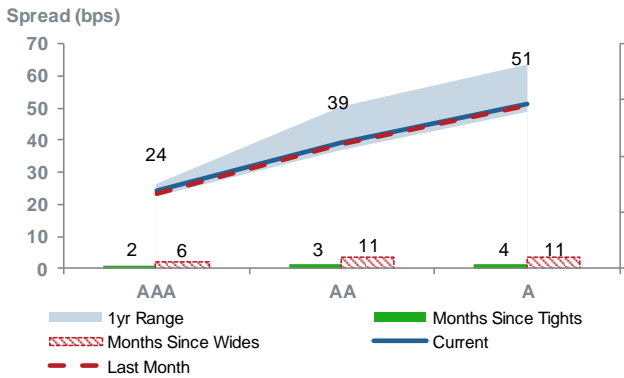


Source: IHS Markit

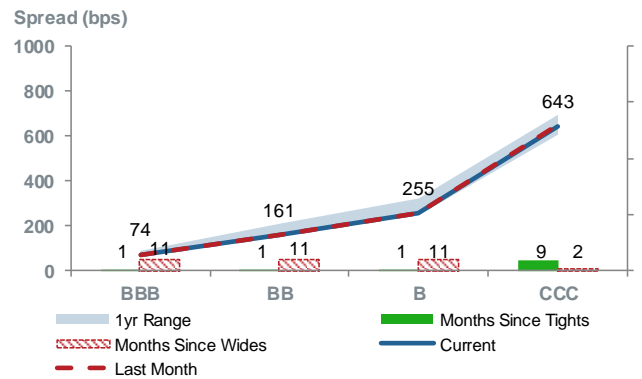
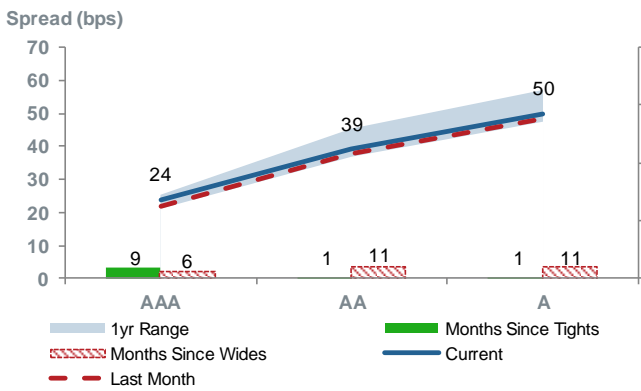


**Figure 9: December regional CDS sector spread summary**

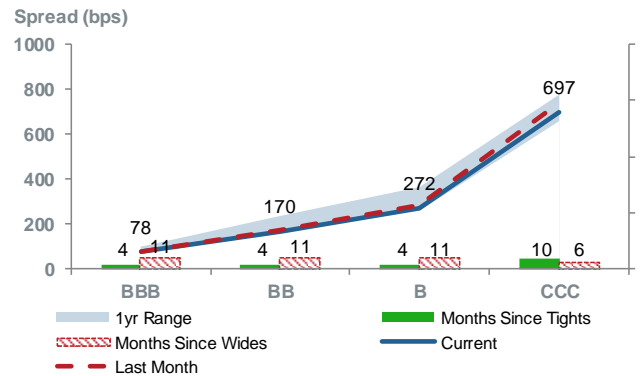
**Global**



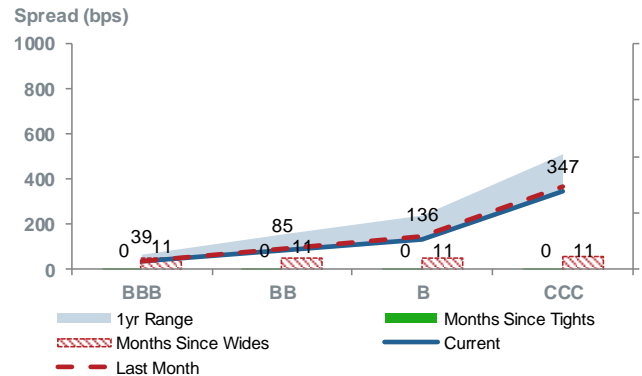
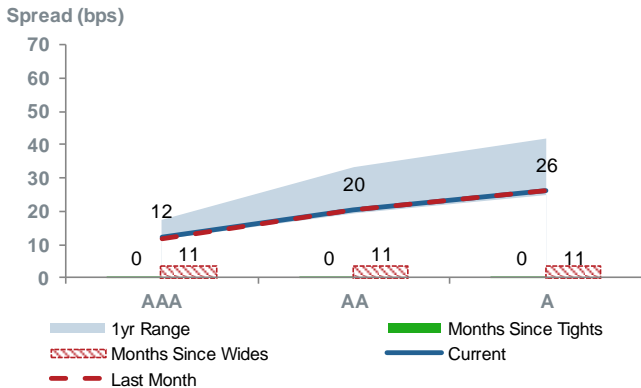
**North America**



**Europe**



**Japan**



Source: IHS Markit

Table 4: December liquid 5yr corporate CDS best spread performance<sup>2</sup>

## Best performers

	Ticker	Company	Sector	Country	Liq score	12/30 spread	Change	% change	One year tight	Date	One year wide	Date
<b>Americas</b>												
1	HOV-K	K Hovnanian Entpers Inc	Consumer Goods	USA	2	1454	-418	-22.3%	1395	4/21/16	2318	10/25/16
2	COP	Conocophillips	Energy	USA	2	97	-28	-22.1%	97	12/13/16	387	2/19/16
3	RIG	Transocean Inc	Energy	CYM	2	516	-137	-21.0%	443	12/13/16	2080	2/24/16
4	F	Ford Mtr Co	Consumer Goods	USA	2	146	-33	-18.5%	119	1/1/16	211	2/11/16
5	IP	Intl Paper Co	Basic Materials	USA	1	64	-13	-16.8%	64	12/30/16	146	2/2/16
<b>EMEA</b>												
1	HEMABON	Hema Bondco I Bv	Consumer Services	NLD	2	713	-344	-32.6%	696	12/13/16	1768	9/19/16
2	ASTL	Astaldi S Per Azioni	Industrials	ITA	2	743	-307	-29.2%	743	12/30/16	1515	8/30/16
3	DB	Deutsche Bk Ag	Financials	DEU	2	165	-56	-25.3%	95	1/1/16	269	2/11/16
4	USPA	Unicredit Spa	Financials	ITA	1	174	-52	-22.8%	131	1/1/16	252	2/11/16
5	ALZSE	Allianz Se	Financials	DEU	1	42	-11	-20.9%	33	3/11/16	68	2/9/16
<b>APAC</b>												
1	JFEHLD	Jfe Hldgs Inc	Basic Materials	JPN	2	49	-9	-15.7%	49	12/28/16	171	2/15/16
2	ANAHOL	Ana Hldgs Inc	Industrials	JPN	2	33	-6	-15.4%	32	12/23/16	84	2/26/16
3	SNE	Sony Corp	Consumer Goods	JPN	2	41	-7	-14.0%	41	12/30/16	84	2/12/16
4	WESAU	Wesfarmers Ltd	Consumer Services	AUS	2	69	-11	-13.4%	68	12/22/16	124	2/11/16
5	PC	Panasonic Corp	Consumer Goods	JPN	2	28	-4	-12.9%	28	12/14/16	74	2/12/16

Source: IHS Markit

<sup>2</sup> 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: December liquid 5yr corporate CDS worst spread performance<sup>2</sup>

## Worst performers

Ticker	Company	Sector	Country	Liq score	12/30 spread	Change	% change	One year tight	Date	One year wide	Date	
<b>Americas</b>												
1	IHEAINC	IHeart Communications Inc	Consumer Services	USA	2	10927	+7072	+183.5%	3249	8/1/16	34697	12/23/16
2	VIAINC	Viacom	Consumer Services	USA	2	140	+50	+55.2%	84	10/26/16	238	1/20/16
3	FREEPIN	Freeportmcmoran Inc	Basic Materials	USA	1	373	+79	+26.9%	294	12/5/16	2221	1/25/16
4	JWN	Nordstrom Inc	Consumer Services	USA	2	158	+32	+24.9%	80	1/1/16	226	6/27/16
5	M	Macy S Inc	Consumer Services	USA	1	180	+30	+20.1%	126	3/14/16	268	6/14/16
<b>EMEA</b>												
1	SANFI	Sanofi	Healthcare	FRA	2	41	+2	+6.4%	28	8/17/16	46	2/12/16
2	AZN	Astrazeneca Plc	Healthcare	GBR	2	54	+3	+5.1%	35	3/15/16	57	6/27/16
3	ENGIEAA	Engie	Utilities	FRA	1	56	+2	+4.4%	40	9/8/16	111	2/11/16
4	EDF	Electricite De France	Utilities	FRA	1	92	+4	+4.4%	66	9/8/16	139	2/11/16
5	VEOLIA	Veolia Environnement	Utilities	FRA	1	59	+2	+3.2%	50	9/8/16	93	2/11/16
<b>APAC</b>												
1	MARUB	Marubeni Corp	Energy	JPN	2	46	-1	-1.3%	40	12/15/16	196	1/21/16
2	SUMICH	Sumitomo Chem Co Ltd	Basic Materials	JPN	2	28	-1	-3.1%	26	12/23/16	76	2/15/16
3	NSANY	Nissan Mtr Co Ltd	Consumer Goods	JPN	2	23	-1	-3.3%	22	12/21/16	78	2/12/16
4	TELECO	Telstra Corp Ltd	Telecom Services	AUS	2	51	-2	-4.2%	49	12/21/16	83	2/11/16
5	MITHI	Mitsubishi Heavy Inds Ltd	Industrials	JPN	2	24	-1	-5.4%	23	9/16/16	75	2/12/16

Source: IHS Markit

## Global corporate bonds

### Corporate bonds ended the year on a high with a particularly strong showing from sterling issues

The [Markit iBoxx £ Liquid Investment Grade Index](#) returned 2.24% in December, and a whopping 11.83% over the full year (**Table 6**). This far outpaces the performance of the [Markit iBoxx € Liquid Investment Grade Index](#) and [Markit iBoxx \\$ Liquid Investment Grade Index](#) indices, which returned a still reputable 4.72% and 5.52% respectively. US dollar bond yields have spiked upwards on the prospect of inflationary policies instigated by the new administration. The USD index is yielding 3.98%, compared to 1.17% and 2.94% in the EUR and GBP indices respectively. Telecommunications was the highest yielding sector in the USD investment grade universe at 4.52%.

Sterling yields fell in December, driving the strong performance. Basic Materials and Healthcare enjoyed another solid month, returning 24.36% and 18.67% respectively over the year. Consumer Goods lagged behind, returning 1.29% in December and 8.44% in 2016. That sector has struggled with the effects of Brexit, in particular the inflationary effects of sterling's depreciation and the dampening impact on demand. This has weighed on the sector's credit spreads.

High yield debt had a strong month across all three major currencies. Sterling again outperformed, with the [Markit iBoxx £ Liquid High Yield Index](#) returning 1.9%. But USD and EUR were close behind – the [Markit iBoxx \\$ Liquid High Yield Index](#) was up 1.86% and the [Markit iBoxx € Liquid High Yield Index](#) up 1.74%. Over the year, USD high yield debt has comfortably outpaced its investment grade counterpart, returning 15.31% compared to 5.52%. The recovery in the price of oil and other commodities has no doubt contributed to this trend. The US high yield universe has a relatively high weighting of energy names in comparison to investment grade, and indeed the GBP and EUR high yield universes.

### Pemex issues new bonds despite volatility in Mexican markets

On the capital markets front, Pemex attracted some \$30bn of demand for a \$5.5bn two-tranche long five and 10-year bond package, with the two tranches priced at 5.5% and 6.625% respectively. This deal was largely a success, as it avoided the strong headwinds from the US presidential election outcome and that had a negative impact across many of Mexico's financial markets.

**Table 6: December corporate bond US and European iBoxx indices performance**

	Total Return						Yield						Duration		
	Month			YTD			Current			Month			\$	€	£
	\$	€	£	\$	€	£	\$	€	£	\$	€	£			
Corporates	+0.53%	+0.65%	+2.24%	+5.52%	+4.72%	+11.83%	3.98%	1.17%	2.94%	-0.05%	-0.11%	-0.23%	6.7	5.3	8.4
Corporates AAA	+0.33%	+0.62%	+2.75%	+3.01%	+5.17%	+17.08%	3.68%	0.96%	2.05%	+0.00%	-0.06%	-0.17%	9.7	8.2	14.9
Corporates AA	+0.32%	+0.39%	+2.07%	+3.51%	+4.21%	+12.07%	3.41%	0.67%	2.30%	-0.00%	-0.06%	-0.20%	6.0	5.4	9.0
Corporates A	+0.33%	+0.49%	+2.38%	+4.01%	+4.15%	+11.82%	3.69%	0.95%	2.85%	-0.01%	-0.09%	-0.22%	6.4	5.3	9.2
Corporates BBB	+0.79%	+0.86%	+2.15%	+7.79%	+5.38%	+11.70%	4.36%	1.50%	3.23%	-0.12%	-0.18%	-0.27%	7.0	5.2	7.5
Banks	+0.35%	+0.62%	+2.11%	+3.43%	+3.32%	+8.13%	3.66%	1.01%	3.03%	-0.00%	-0.11%	-0.27%	4.8	4.5	6.5
Basic Materials	+0.75%	+0.69%	+2.55%	+11.89%	+10.09%	+24.36%	4.44%	1.00%	2.75%	-0.05%	-0.11%	-0.31%	7.2	5.6	7.5
Consumer Goods	+0.29%	+0.57%	+1.29%	+4.43%	+4.94%	+8.44%	3.78%	1.05%	2.19%	-0.00%	-0.10%	-0.30%	6.3	5.6	5.8
Consumer Services	+0.50%	+0.52%	+2.54%	+6.25%	+5.89%	+14.32%	4.15%	1.04%	2.67%	-0.02%	-0.08%	-0.24%	8.3	5.5	9.9
Financials	+0.32%	+0.73%	+2.17%	+3.72%	+3.82%	+9.01%	3.76%	1.30%	3.21%	+0.00%	-0.11%	-0.26%	5.2	4.8	7.0
Health Care	+0.34%	+0.52%	+3.27%	+4.16%	+3.96%	+18.67%	3.91%	1.11%	2.56%	+0.01%	-0.00%	-0.25%	7.7	6.1	12.5
Industrials	+0.49%	+0.51%	+2.16%	+5.29%	+4.62%	+12.40%	3.80%	0.88%	2.62%	-0.01%	-0.06%	-0.21%	7.5	5.3	9.1
Insurance	+0.31%	+1.68%	+2.58%	+4.71%	+5.67%	+8.36%	4.34%	2.80%	4.28%	+0.08%	-0.10%	-0.32%	7.4	6.1	7.0
Non-Financials	+0.66%	+0.60%	+2.28%	+6.58%	+5.42%	+13.70%	4.06%	1.10%	2.81%	-0.07%	-0.10%	-0.22%	7.5	5.7	9.3
Oil & Gas	+1.60%	+1.02%	+1.58%	+11.08%	+6.94%	+9.26%	4.27%	1.19%	2.40%	-0.34%	-0.34%	-0.28%	7.2	5.9	6.5
Technology	+0.62%	+0.55%	N/A	+5.31%	+6.09%	N/A	3.75%	0.75%	N/A	-0.03%	-0.05%	N/A	7.2	6.6	N/A
Telecommunications	+0.54%	+0.54%	+2.62%	+6.18%	+5.20%	+12.26%	4.52%	1.28%	3.25%	-0.02%	-0.07%	-0.25%	8.5	5.9	9.6
Utilities	+0.56%	+0.58%	+2.36%	+6.14%	+4.83%	+15.17%	4.19%	1.22%	2.95%	-0.02%	-0.08%	-0.21%	8.6	5.5	10.1
High Yield Liquid High Yield	+1.86%	+1.74%	+1.90%	+15.31%	+8.64%	+9.99%	6.09%	3.55%	5.22%	-0.29%	-0.36%	-0.51%	3.7	3.2	2.9
Contingent Convertible	+2.56%	+3.68%	+1.29%	+7.72%	+5.88%	+2.76%	7.08%	6.06%	7.62%	-0.49%	-0.88%	-0.13%	4.1	3.6	5.6

Source: IHS Markit

Table 7: December global corporate bond best price performance

## Best performers

Ticker	Issue	Sector	Country	CCY	Liq score	12/30 price	Change	% change	One year low	Date	One year high	Date	
<b>Americas</b>													
1	MEMORPR	Memorial Production Partners Lp 6.875 8/2022	Energy	USA	USD	1	47.63	+13.46	+39.4%	19.82	2/22/16	53.05	7/7/16
2	HRNBEC	Hornbeck Offshore Services, Inc. 5 3/2021	Industrials	USA	USD	1	67.00	+13.38	+24.9%	41.00	2/24/16	68.50	1/5/16
3	JACKCOO	Jack Cooper Holdings Corporation 9.25 6/2020	Financials	USA	USD	3	42.44	+7.69	+22.1%	34.33	12/1/16	73.25	8/29/16
4	SVRHLDINC	Syniverse Holdings, Inc. 9.125 1/2019	Technology	USA	USD	2	87.12	+14.62	+20.2%	35.50	3/9/16	88.00	12/26/16
5	NE-Int	Noble Holding International Limited 4.625 3/2021	Energy	USA	USD	1	96.13	+16.13	+20.2%	50.38	2/11/16	98.25	12/13/16
<b>EMEA</b>													
1	HEMABO	Hema Bondco li B.V. 8.5 12/2019	Consumer Services	NLD	EUR	2	75.42	+17.67	+30.6%	37.91	2/25/16	75.42	12/30/16
2	TAKKLUX	Takko Luxembourg 2 S.C.A. 9.875 4/2019	Consumer Services	DEU	EUR	2	80.55	+16.66	+26.1%	52.75	2/17/16	81.57	12/22/16
3	BANCPODI	Banca Popolare Di Vicenza Societa Per Azioni. 2.75 3/2020	Financials	ITA	EUR	2	87.21	+13.99	+19.1%	72.94	1/20/16	90.95	9/6/16
4	COOPMUR	Cooperativa Muratori & Cementisti - C.M.C. Di Ravenna Societa' Cooperativa 7.5 8/2021	Industrials	ITA	EUR	3	89.22	+13.51	+17.8%	69.19	8/5/16	93.78	4/7/16
5	BANCPODI	Banca Popolare Di Vicenza Societa Per Azioni. 5 10/2018	Financials	ITA	EUR	1	93.71	+13.55	+16.9%	78.00	1/25/16	97.94	5/2/16
<b>APAC</b>													
1	HONGGRO	Honghua Group Limited 7.45 9/2019	Energy	CHN	USD	1	92.75	+19.29	+26.3%	34.00	2/12/16	93.15	12/22/16
2	EZRAHOL	Ezra Holdings Limited 4.875 4/2018	Energy	SGP	SGD	3	50.59	+9.25	+22.4%	39.86	11/8/16	84.50	3/16/16
3	ANTOOIL	Anton Oilfield Services Group 7.5 11/2018	Energy	CHN	USD	1	86.50	+9.95	+13.0%	26.50	1/21/16	87.17	12/22/16
4	ZHAILLP	Zhaikmunai Llp 6.375 2/2019	Energy	KAZ	USD	2	98.00	+6.00	+6.5%	73.00	2/2/16	98.00	12/30/16
5	PERBTAB	Perbadanan Tabung Pendidikan Tinggi Nasional 4.85 7/2041	Financials	MYS	MYR	4	97.16	+5.34	+5.8%	91.82	12/1/16	104.84	9/6/16

Source: IHS Markit

Table 8: December global corporate bond worst price performance

## Worst performers

Ticker	Issue	Sector	Country	CCY	Liq score	12/30 price	Change	% change	One year low	Date	One year high	Date
<b>Americas</b>												
1 CONCHEA	Concordia Healthcare Corp. 9.5 10/2022	Healthcare	BRB	USD	2	34.75	-9.25	-21.0%	33.00	12/13/16	101.75	4/25/16
2 VIAINC	Viacom Inc. 4.375 3/2043	Consumer Services	USA	USD	2	79.57	-8.05	-9.2%	65.72	2/17/16	94.04	10/20/16
3 AV	Avaya Inc. 10.5 3/2021	Technology	USA	USD	1	43.00	-3.53	-7.6%	20.00	5/17/16	48.50	12/5/16
4 CFELEC	Comision Federal De Electricidad 5 9/2036	Utilities	MEX	USD	5	93.50	-7.00	-7.0%	93.50	12/30/16	100.50	12/19/16
5 ATTINC	At&T Inc. 4.7 11/2044	Telecom Services	USA	USD	4	92.40	-6.60	-6.7%	86.96	2/1/16	108.54	7/8/16
<b>EMEA</b>												
1 MONTE	Banca Monte Dei Paschi Di Siena S.P.A. 11/2017	Financials	ITA	EUR	1	45.20	-18.80	-29.4%	45.20	12/30/16	92.00	6/30/16
2 VENETBA	Veneto Banca Societa Per Azioni 6.411 12/2099	Financials		EUR	3	17.00	-7.00	-29.2%	11.38	12/21/16	77.00	3/30/16
3 INTSAT-Lux	Intelsat (Luxembourg) S.A. 8.125 6/2023	Telecom Services	LUX	USD	1	30.38	-4.00	-11.6%	21.50	7/15/16	48.25	1/12/16
4 NOVOBAN	Novo Banco, S.A. 3.5 1/2043	Financials	PRT	EUR	3	50.54	-6.01	-10.6%	47.61	10/12/16	68.00	1/1/16
5 ITPFP	International Personal Finance Plc 5.75 4/2021	Financials	GBR	EUR	2	78.79	-9.36	-10.6%	74.20	2/15/16	92.70	6/10/16
<b>APAC</b>												
1 YINGDGA	Yingde Gases Investment Limited 7.25 2/2020	Basic Materials	CHN	USD	1	78.50	-18.87	-19.4%	63.14	3/2/16	97.90	11/7/16
2 EZIOHOL	Ezion Holdings Limited 4.875 6/2021	Energy	SGP	SGD	4	50.00	-9.25	-15.6%	50.00	12/30/16	97.45	4/19/16
3 MTRCOR	Mtr Corporation (C.I) Limited 3 1/2046	Industrials	HKG	HKD	4	85.49	-8.73	-9.3%	83.32	12/27/16	108.86	8/16/16
4 HKGCHN-Fin	Hkcg (Finance) Limited 3.925 7/2042	Utilities	HKG	HKD	4	92.88	-8.01	-7.9%	90.86	12/27/16	111.61	8/18/16
5 WSTP	Westpac Banking Corporation 2.28 8/2028	Financials	AUS	HKD	4	87.34	-5.62	-6.0%	86.27	12/27/16	99.82	9/8/16

Source: IHS Markit

## Sovereigns

### CDS appeared to be generally optimistic on sovereign credit in December

The best and worst sovereign CDS spreads performance list (**Table 10**) showed that sovereign debt was among the many asset classes that finished the year strongly. This is demonstrated clearly by worst performers table – just four of the sovereign CDS names widened during December, and all by insignificant amounts.

### Russia best CDS performer on strength in oil

Russia was the standout performer, tightening by almost 20% to close the year at 179bps. The rising oil price - Russia is heavily dependent on oil exports - no doubt contributed to its recovery, and the advent of Donald Trump as US president may also have played its part. Trump has been emollient towards the Putin regime, increasing the possibility that the US will take a more lenient stance on sanctions.

The UK's credit standing also improved in December, as perceived by the CDS markets (**Table 9**). It closed the year at 33bps, 14% tighter over the month and almost 18bps tighter than its widest level of the year. That was reached immediately after the Brexit referendum, and the recent rally appears to have been partly triggered by the Supreme Court ruling that gave parliament a vote on triggering Article 50. If this was indeed one of the drivers behind the rally, then there is scope for a reversal in sentiment as MPs are likely to vote in favour of triggering Article 50.

Italy's spreads rallied in the early part of the month as the political chaos from the government failing to win a referendum didn't materialise – yet. The sovereign's spreads stabilised after the result and ended the year at 158bps. Though an improvement from November, it was still over 60bps wider than where it started 2016. Italy's banking system remains in a dire state, and the sovereign will struggle to stay unscathed from the fallout in 2017.

Ecuador attracted \$2.4bn of demand for a \$750mn ten-year new issue, priced at a 9.65% yield (which

was tapped early in 2017 by a further \$1bn at 9.125%). Despite its heavy reliance on lignite coal for its electricity production, Poland launched the first sovereign "Green" bond, with a €750mn five year deal, increased from €500mn after attracting total demand of €1.5bn.

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

			12/30 10yr bond yield	CDS change	12/30 CDS	% change	One year tight	Date	One year wide	Date
1	UKIN	United Kingdom	1.10%	-5.4	32.9	-14.1%	18.5	1/1/16	50.6	6/24/16
2	ITALY	Italy	1.81%	-20.4	158.4	-11.4%	97.3	1/5/16	183.4	11/28/16
3	JAPAN	Japan	0.04%	-3.4	29.6	-10.3%	28.9	12/21/16	56.1	2/12/16
4	FRTR	France	0.65%	-2.8	37.8	-6.9%	25.8	1/4/16	50.6	6/24/16
5	USGB	United States	2.44%	-1.5	27.0	-5.4%	17.6	3/18/16	28.8	11/11/16
6	DBR	Germany	0.21%	-1.1	21.6	-4.9%	13.1	1/5/16	30.8	12/5/16
7	CAN	Canada	1.73%	-0.3	33.2	-0.8%	25.0	1/11/16	34.6	11/17/16

Source: IHS Markit



Table 10: December liquid sovereign 5yr CDS best and worst spread performance<sup>2</sup>

			Liq Score	Change	12/30 spread	% change	One year tight	Date	One year wide	Date
<b>Best performers</b>										
1	RUSSIA	Russia	2	-44	179	-19.6%	176	12/26/16	393	1/20/16
2	UKIN	United Kingdom	1	-5	33	-14.1%	18	1/1/16	51	6/24/16
3	COLOM	Colombia	1	-26	163	-13.7%	154	9/8/16	325	2/11/16
4	MEX	Mexico	1	-25	155	-13.7%	129	9/7/16	231	2/11/16
5	ITALY	Italy	2	-20	158	-11.4%	97	1/5/16	183	11/28/16
6	SPAIN	Spain	1	-10	78	-10.8%	69	10/24/16	137	6/27/16
7	AUST	Austria	2	-3	29	-10.6%	23	1/1/16	38	6/27/16
8	JAPAN	Japan	2	-3	30	-10.3%	29	12/21/16	56	2/12/16
9	VENZ	Venezuela	1	-464	4141	-10.1%	2997	10/4/16	10686	2/15/16
10	KOREA	South Korea	2	-5	45	-10.0%	39	9/22/16	79	2/11/16
<b>Worst performers</b>										
1	NORWAY	Norway	2	+1	21	+3.8%	14	1/14/16	30	6/27/16
2	NETHRS	Netherlands	2	+1	29	+3.6%	16	1/18/16	35	6/28/16
3	PORTUG	Portugal	2	+1	280	+0.5%	168	1/1/16	355	2/12/16
4	FINL	Finland	2	+0	25	+0.3%	17	1/11/16	30	6/24/16
5	CHINA	China	2	-0	117	-0.1%	94	9/8/16	148	2/11/16
6	BELG	Belgium	2	-0	35	-1.1%	27	10/24/16	68	6/27/16
7	AUSTLA	Australia	2	-1	25	-3.2%	20	9/8/16	56	2/11/16
8	ARGENT	Argentina	1	-19	421	-4.3%	360	8/17/16	3694	4/25/16
9	TURKEY	Turkey	1	-12	272	-4.4%	216	7/12/16	311	1/18/16
10	DBR	Germany	1	-1	22	-4.9%	13	1/5/16	31	12/5/16

Source: IHS Markit

Table 11: December sovereign bond best price performance

## Best performers

Ticker	Issue	CCY	Liq score	12/30 price	Change	% change	12/30 yield	One year low	Date	One year high	Date	
<b>Americas</b>												
1	VENZ	Bolivarian Republic of Venezuela 7.75 10/2019	USD	1	55.63	+5.62	+11.2%	37.80%	29.10	2/12/16	63.56	10/4/16
2	ELSALV	Republic of El Salvador 7.65 6/2035	USD	2	92.25	+5.42	+6.2%	9.14%	75.50	2/10/16	108.27	9/8/16
3	ARGENT	Argentine Republic 6.625 7/2028	USD	2	97.93	+4.55	+4.9%	7.49%	91.32	12/2/16	107.26	9/7/16
4	BRAZIL	Federative Republic of Brazil 6 8/2050	BRL	3	3121.47	+134.76	+4.5%		2348.04	1/25/16	3179.91	10/20/16
5	ECUA	Republic of Ecuador 7.95 6/2024	USD	2	95.25	+3.55	+3.9%	9.51%	62.42	1/18/16	95.31	12/28/16
<b>EMEA</b>												
1	ITALY	Republic of Italy 2.55 9/2041	EUR	3	125.59	+7.94	+6.7%		113.17	11/14/16	139.58	8/15/16
2	GREP	Gabonese Republic 6.375 12/2024	USD	2	93.45	+5.79	+6.6%	4.42%	68.75	1/20/16	94.77	8/24/16
3	RPGANA	Republic of Ghana 8.125 1/2026	USD	2	98.42	+5.70	+6.1%	9.55%	63.00	1/20/16	98.45	12/28/16
4	SPAIN	Kingdom of Spain 4 10/2064	EUR	2	128.31	+7.39	+6.1%	3.15%	119.00	12/13/16	162.54	9/28/16
5	LEBAN	Lebanese Republic 6.65 2/2030	USD	2	96.07	+5.05	+5.5%	7.74%	90.68	12/1/16	98.50	5/25/16
<b>APAC</b>												
1	CHINA	People's Republic of China 5.05 12/2043	CNY	4	123.60	+11.68	+10.4%	4.30%	102.23	12/13/16	137.70	9/20/16
2	MALAYS	Malaysia 4.736 3/2046	MYR	2	101.66	+5.81	+6.1%	5.01%	95.45	12/1/16	104.96	8/26/16
3	PHILIP	Republic of The Philippines 4.625 9/2040	PHP	4	92.87	+4.44	+5.0%	5.50%	88.14	11/24/16	117.21	8/18/16
4	MONGAA	Mongolia 5.125 12/2022	USD	1	85.23	+3.99	+4.9%	9.27%	68.15	2/24/16	90.66	7/14/16
5	KAZAKS	Republic of Kazakhstan 4.875 10/2044	USD	2	95.65	+3.62	+3.9%	5.43%	78.50	1/18/16	106.14	9/7/16

Source: IHS Markit

Table 12: December sovereign bond worst price performance

## Worst performers

Ticker	Issue	CCY	Liq score	12/30 price	Change	% change	12/30 yield	One year low	Date	One year high	Date	
<b>Americas</b>												
1	CAN	Canada 1.25 12/2047	CAD	4	119.53	-7.74	-6.1%		113.47	1/25/16	133.01	10/3/16
2	DOMREP	Dominican Republic 6.875 1/2026	USD	3	103.75	-6.50	-5.9%	5.44%	98.50	2/11/16	117.04	8/15/16
3	BLZE	Belize 5 2/2038	USD	3	41.00	-2.50	-5.7%	15.94%	34.88	11/18/16	69.63	1/4/16
4	MEX	United Mexican States 8.5 11/2038	MXN	2	105.60	-2.98	-2.7%	7.68%	105.22	12/29/16	126.11	8/19/16
5	BRAZIL	Federative Republic of Brazil 12.5 1/2022	USD	2	104.13	-2.62	-2.5%	10.74%	93.90	3/3/16	112.00	10/24/16
<b>EMEA</b>												
1	GREECE	Hellenic Republic 3 2/2036	EUR	2	63.45	-4.33	-6.4%	7.00%	47.05	2/11/16	68.13	12/1/16
2	ITALY	Republic of Italy 5.375 6/2033	USD	2	107.16	-4.21	-3.8%	4.40%	106.16	12/20/16	124.31	7/8/16
3	BELG	Kingdom of Belgium 2.15 6/2066	EUR	2	108.14	-2.62	-2.4%	1.82%	91.33	5/12/16	130.42	7/29/16
4	ICELND	Republic of Iceland 5.875 5/2022	USD	2	111.60	-2.51	-2.2%	3.04%	110.88	12/29/16	117.58	7/11/16
5	SWISS	Swiss Confederation 2 6/2064	CHF	4	165.71	-3.49	-2.1%	0.40%	151.44	1/4/16	199.49	7/11/16
<b>APAC</b>												
1	CHINA	People's Republic of China 3.27 8/2046	CNY	3	92.00	-8.56	-8.5%	3.24%	88.17	12/20/16	103.04	10/26/16
2	IGB	Republic of India 7.72 10/2055	INR	3	106.51	-6.95	-6.1%	6.74%	92.80	2/3/16	114.46	12/5/16
3	MALAYS	Malaysia 4.935 9/2043	MYR	4	98.86	-5.62	-5.4%	4.64%	97.26	12/2/16	109.96	8/2/16
4	JAPAN	Japan .4 3/2056	JPY	1	87.02	-4.46	-4.9%	0.65%	84.07	12/12/16	113.12	7/6/16
5	NZ	New Zealand 2.75 4/2037	NZD	3	82.40	-3.43	-4.0%	3.75%	80.58	12/27/16	98.49	9/30/16

Source: IHS Markit

## Municipal bonds

Municipal bond issuance during the beginning of the 2016 appeared to indicate a somewhat subdued pipeline, but the tides turned in August, with the year ending 12% higher than 2015 with a total of \$424bn in issuance (**Figure 12**). General obligations grew over 14% on the year, with last month adding over \$8bn for a total of \$176bn in 2016. Revenue bond issuance totalled \$248bn or 11% year on year growth, with almost \$14bn added in December.

### Yield basis between 10yr AAA corporate bonds and municipal bonds compresses

November's post-election sell off in municipal bonds reversed course slightly in late December, with 10yr AAA municipal bond yields ending the month 33bps lower from their 2016 peak of 2.64% set on December 1. **Figure 11** shows that the spread between 10-yr AAA corporate and municipal bond yields has remained below the 1.54% 2016 average since November 14. A tighter differential between the two sectors favours municipal bonds, given the additional yield from the potential tax benefits of munis.

### All of this month's best performers started the month with new 2016 lows

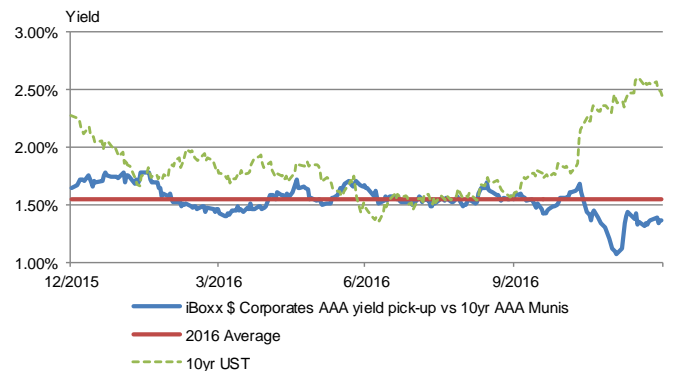
It was more duration than credit improvement that created significant volatility in this month's best performers list, with only two issues shorter than 20-years (**Table 13**). Each of the best performers reported 2016 lows in price within the first five days of the month, but the rally in yields later in the month resulted in the bonds being the best performing revenue bonds in December.

Figure 10: 10yr AAA municipal bond yields



Source: IHS Markit

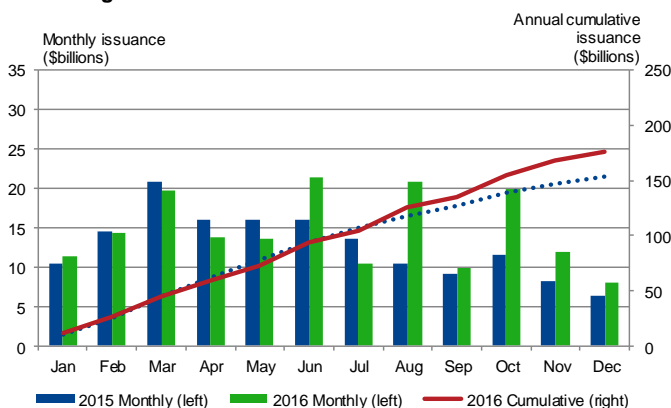
Figure 11: iBoxx \$ Corporates AAA Index and 10yr AAA municipal bond yield basis



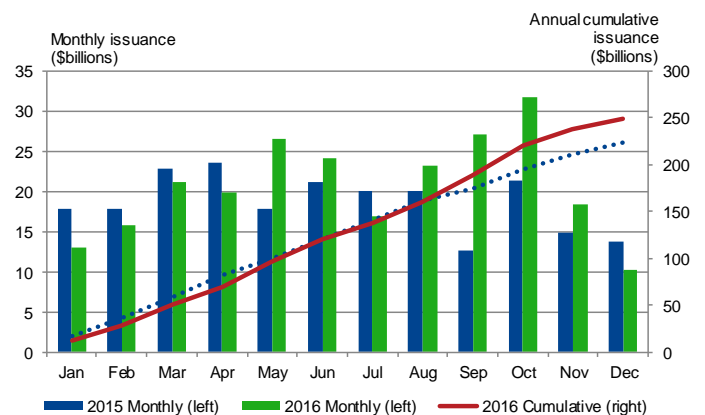
Source: IHS Markit

Figure 12: Municipal bond issuance

### General obligation



### Revenue



Source: SIFMA

**Table 13: December municipal revenue bond best price performance****Best performers**

	Issuer	Issue	Liq score	12/30 price	Change	% change	One year low	Date	One year high	Date
1	California Edl Facs Auth Rev	Revenue JJ - Stanford University 2016 U-7 5 6/2046	1	128.27	+5.78	+4.7%	119.87	12/2/16	158.13	7/6/16
2	Tobacco Settlement Auth Iowa Tob Settlement Rev	Tobacco Settlement Asset-Backed - 2005-C 5.625 6/2046	2	95.45	+4.21	+4.6%	90.25	12/5/16	100.40	8/31/16
3	Martin Cnty Fla Health Facs Auth Hosp Rev	Hospital Revenue - Martin Memorial Medical Center 2015 4.25 11/2041	2	97.26	+3.66	+3.9%	91.80	12/2/16	107.19	7/6/16
4	Lower Ala Gas Dist Gas Proj Rev	Gas Project Revenue - 2016-A 5 9/2046	2	110.23	+3.96	+3.7%	104.12	12/2/16	140.24	7/6/16
5	Modesto Calif Irr Dist Elec Rev	Electric System Refunding Revenue - 2016 5 10/2030	3	116.44	+3.70	+3.3%	112.11	12/1/16	126.48	9/28/16
6	New Hampshire St Business Fin Auth Wtr Fac Rev	Water Facility Revenue - Pennichuck Water Works Inc Project 2014 4.125 1/2045	2	99.90	+3.11	+3.2%	94.77	12/2/16	108.33	7/6/16
7	Illinois Fin Auth Rev	Revenue - Advocate Health Care Network 2015 4.125 5/2045	2	98.30	+3.05	+3.2%	93.26	12/2/16	107.76	7/6/16
8	California Edl Facs Auth Rev	Revenue - Stanford University 2010 U-1 5.25 4/2040	2	126.78	+3.41	+2.8%	121.08	12/2/16	155.62	7/6/16
9	Liberty N Y Dev Corp Rev	Revenue - Goldman Sachs Headquarters Issue 2005 5.25 10/2035	1	119.62	+3.16	+2.7%	115.30	12/1/16	136.93	7/11/16
10	Maryland St Health & Higher Edl Facs Auth Rev	Revenue - Medlantic/Helix Issue 1998-A 5.25 8/2038	2	117.14	+3.06	+2.7%	112.11	12/2/16	136.27	7/6/16

Source: IHS Markit

**Table 14: December municipal revenue bond worst price performance****Worst performers**

	Issuer	Issue	Liq score	12/30 price	Change	% change	One year low	Date	One year high	Date
1	Virgin Islands Pub Fin Auth Rev	Revenue And Refunding Virgin Island Matching - 2009-B Senior Li 5 10/2025	2	86.25	-9.88	-10.3%	85.56	12/16/16	111.51	2/11/16
2	New Hope Cultural Ed Facs Fin Corp Tex Sr Living Rev	Senior Living Revenue - Glen Hope Harbor Inc Project 2015-A 4.25 8/2033	2	97.21	-6.15	-5.9%	95.17	12/15/16	111.37	8/24/16
3	District Columbia Rev	Revenue - Friendship Public Charter School Inc Issue 2016-A 5 6/2046	2	101.80	-5.74	-5.3%	100.75	12/20/16	115.96	7/6/16
4	New York St Dorm Auth Revs Non St Supported Debt	Pace University Revenue - 2013-A 5 5/2027	3	105.05	-5.36	-4.9%	103.48	12/5/16	114.77	8/19/16
5	Colorado Health Facs Auth Rev	Health Faci - The Evangelical Lutheran Good Samaritan Society 20 5 12/2033	2	101.72	-4.47	-4.2%	101.34	12/27/16	112.72	7/6/16
6	Jefferson Cnty Ala Swr Rev	Senior Lien Sewer Revenue Warrants - 2013-A 5.25 10/2048	2	109.28	-4.47	-3.9%	108.26	12/16/16	117.61	8/30/16
7	New Jersey St Transn Tr Fd Auth	Transportation System - 2006-A 5.5 12/2023	2	107.86	-4.37	-3.9%	107.05	12/16/16	122.55	10/11/16
8	Denver Colo City & Cnty Arpt Rev	Airport Systems Revenue - 2012-B 5 11/2043	3	109.17	-4.27	-3.8%	108.28	12/16/16	120.36	10/3/16
9	New York Liberty Dev Corp Liberty Rev	Liberty Revenue - 4 World Trade Center Project 2011 5 11/2044	2	108.46	-4.19	-3.7%	107.93	12/21/16	117.00	10/25/16
10	Puerto Rico Pub Bldgs Auth Rev Gtd	Government Facilities Revenue - 2007 M-1 6.25 7/2023	2	59.43	-2.07	-3.4%	55.41	3/30/16	63.00	11/11/16

Source: IHS Markit

## Securitised products

Securitised products spreads were generally flat in December, with most of the activity taking place during the first two weeks of the month. Issuance dropped sharply across most non-residential mortgage sectors, with the exception of US consumer ABS, which exceeded 2015 by almost \$10bn and ending the year at almost \$190bn in total issuance. During the early part of the month, credit card ABS spreads came under some pressure due to an influx of new deals, but 2-3yr AAA floating rate spreads ended the month flat at L+27bps and 4-5yr paper actually tightened by 1bp to L+43bps (Table 16).

### CMBS ended the year on a high note

CMBS spreads were significantly tighter again across the entire credit curve this month, despite a surge in new supply during the early part of the month (Figure 14). AAA and A spreads were the best performers, tightening 33bps to Swap +77bps and 25bps to Swaps +242bps, respectively on the month. Every cohort but BBBs ended the year at their tightest levels.

### Loan balance pay-ups decline sharply again

Loan balance stories declined significantly across most of the Fannie Mae, Freddie Mac, and Ginnie Mae cohorts in December (Table 15), as the month's slower prepayments showed the first indication of the impact of the higher mortgage rates had on borrowers' incentive to refinance. Fannie Mae and Freddie Mac LLB and MLB loan balance stories declined the most, with MHA <105 3% and 5% coupon cohorts among the few stories that ended the month higher.

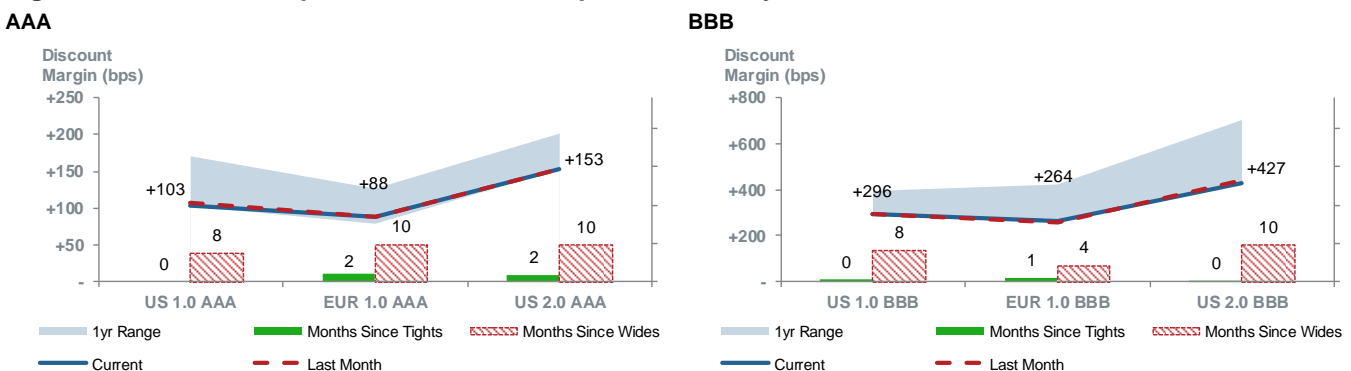
### 2.0 US BBB CLOs best performers on the month

CLO spreads were mixed across the credit curve and both regions in December, with US 2.0 BBB bonds the best performer, ending the month 16bps tighter at L+427bps (Figure 13). US 1.0 AAA tightened the most among the AAAs, ending the month 4bps tighter to a spread of L+103bps. December marked the second highest month of CLO issuance in 2016, with approximately \$20bn in new supply entering the market, albeit largely driven by refinancing/calls of existing deals. Tighter leveraged loan and CLO bond spreads have incentivised CLO equity holders to call and refinance deals at a record pace the last few months of this year, as the economics of holding equity at current spreads became less favourable.

### Non-agency spreads tighter

Non-agency MBS spreads tightened slightly during the month, with the prospects of lower agency and non-agency residential mortgage supply seeming ever more likely as a result of the drop off in refinancing activity due to the higher mortgage rates. The higher rates may be a drag on home prices as affordability will decrease, but legacy non-agency may still provide more upside on prepayments than newer production given how the remainder of the legacy borrowers have been in their homes for over 10 years now and have likely rebuild some (or all) of their home values back near pre-crisis levels. On a positive note in the non-agency sector, the Citibank settlements payments have already begun making their way to the current bond holders, as the timing of the payments are now dependant on the deals' respective trustee.

Figure 13: US and European CLO AAA/BBB spread summary



**Table 15: December 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)	0-16	0-21	1-05	1-20	1-30
MLB (110K)	0-12	0-18	0-32	1-12	1-18
HLB (150K)	0-08	0-14	0-25	1-01	1-06
New Prod	0-01	0-02	0-04	0-08	N/A
Low FICO	0-01	0-03	0-05	0-09	0-17
Investor	0-08	0-06	0-08	0-14	0-19
MHA <90	0-06	0-06	0-09	0-12	0-17
MHA <95	0-07	0-07	0-12	0-16	0-21
MHA <100	0-02	0-08	0-09	0-21	0-19
MHA <105	0-13	0-13	0-18	0-27	1-29
<125 LTV	0-06	0-07	1-11	1-13	2-02
125+ LTV	0-06	0-12	0-23	1-08	2-08

Source: IHS Markit

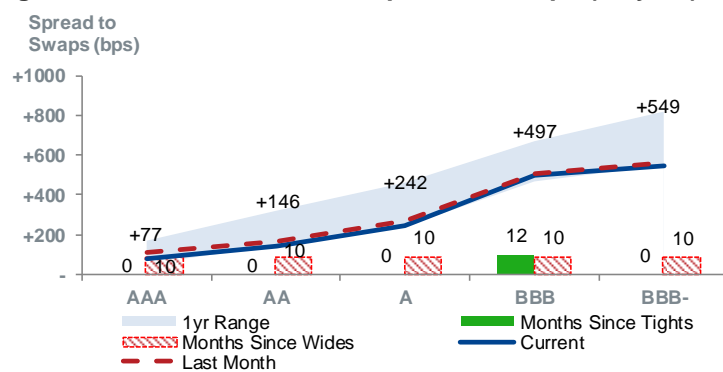
MoM Change				
3	3.5	4	4.5	5
-0-03	-0-18	-0-18	-0-19	-0-04
-0-04	-0-15	-0-17	-0-16	-0-09
-0-03	-0-09	-0-12	-0-11	-0-01
0-00	0-00	-0-04	-0-03	N/A
-0-02	-0-04	-0-04	-0-01	-0-11
+0-02	-0-03	-0-02	+0-02	+0-02
-0-01	-0-04	-0-02	+0-01	-0-02
+0-01	-0-03	-0-04	-0-06	-0-01
-0-03	-0-04	-0-06	-0-03	-0-02
+0-03	-0-04	-0-10	-0-11	+0-15
+0-02	-0-09	-0-28	-0-22	-0-01
-0-10	-0-11	-0-25	-0-24	0-00

GNMA 30Y Specified Pools Pay-ups					
Coupon	3	3.5	4	4.5	5
LLB <sub>1</sub> (85K)	0-10	0-25	1-16	2-04	1-01
LLB <sub>2</sub> (110K)	0-07	0-23	1-11	1-20	2-27
MLB (125K)	0-07	0-18	1-02	1-21	1-17
HLB <sub>1</sub> (150K)	0-07	0-18	1-00	1-08	1-28
HLB <sub>2</sub> (175K)	0-11	0-21	0-23	0-26	0-28
New Prod	0-01	0-03	0-12	0-14	0-13
PR Geo	0-11	0-29	1-13	1-29	2-12

Source: IHS Markit

MoM Change				
3	3.5	4	4.5	5
-0-02	-0-26	-1-08	-0-04	0-00
-0-04	-0-18	-0-25	-0-27	+0-14
-0-10	-0-09	-0-15	-0-09	0-00
-0-04	-0-11	-0-16	-0-12	-0-27
0-00	-0-03	-0-07	-0-14	0-00
+0-01	+0-01	-0-01	0-00	0-00
-0-02	-0-14	-0-15	-0-12	0-00

**Figure 14: 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
<b>US Credit Cards - Fixed-Rate</b>						
2-3yr AAA US Swaps	+24	-2	+24	12/30/16	+58	3/11/16
4-5yr AAA US Swaps	+36	-2	+32	9/6/16	+71	4/18/16
<b>US Credit Card - Floating-Rate</b>						
2-3yr AAA US LIBOR DM	+27	-	+26	10/12/16	+40	3/16/16
4-5yr AAA US LIBOR DM	+43	-1	+43	12/29/16	+96	5/16/16
<b>US Prime Auto - Fixed-Rate</b>						
0-2yr AAA EDSF	+12	-	+11	12/13/16	+45	3/29/16
2+-yr AAA US Swaps	+23	-2	+21	9/8/16	+60	3/29/16
<b>European Prime Auto Loan - Floating-Rate</b>						
AAA EUR LIBOR DM	+30	+6	+21	12/5/16	+54	2/5/16
<b>US Subprime Auto - Fixed-Rate</b>						
1-2-yr AAA EDSF	+39	+2	+36	11/16/16	+84	5/12/16
2+yr AAA US Swaps	+52	-2	+46	12/27/16	+96	3/22/16
<b>US Equipment - Fixed-Rate</b>						
2+yr AAA US Swaps	+30	-	+29	12/15/16	+85	6/14/16
<b>European Equipment - Floating-Rate</b>						
A EUR LIBOR DM	+104	-4	+83	11/8/16	+160	2/29/16
<b>US FFELP Student Loans - Floating-Rate</b>						
2-4yr AAA 3mo US LIBOR DM	+100	-2	+68	7/29/16	+151	3/25/16
10+yr AAA 3mo US LIBOR DM	+132	+1	+128	7/29/16	+191	3/21/16

Source: IHS Markit

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