

September HY Decomposition

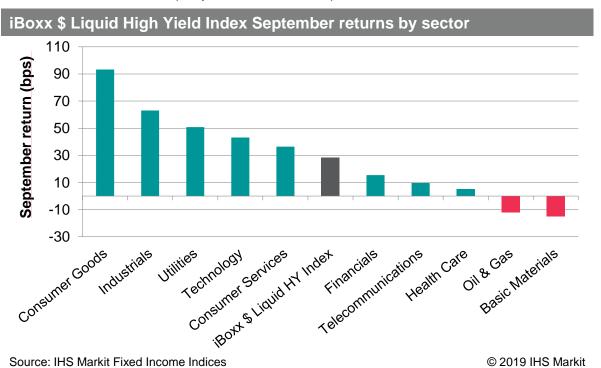
Thursday, October 10th, 2019

iBoxx \$ Liquid High Yield Index returned 28 basis points in September

- Consumer Goods sector has largest positive return
- \$23B in face value on loan across index constituents
- Mallinckrodt largest negative contribution issuer

The iBoxx \$ Liquid High Yield Index returned 28 basis points in September, with the strongest returns coming from Consumer Goods (+93bps) and Industrials (+63bps). There were 28 issuers whose bonds had a negative return for September, which combined to contribute -40bps to the index return.

Oil & Gas and Basic Materials were the only two sectors in the red, however it's interesting to note that five sectors underperformed the index in September compared to only two in August, reflecting a greater dispersion of returns across sectors. Short positioning in constituent issues, using the face value of borrowed bonds as a proxy, declined 1.8% in September to \$23.7bn.



Top 10 Issuers by Return Contribution

The ten best performing issuers contributed 23bps to September returns. Return contributions were led by Community Health Systems Inc., who have been following a prescription of asset divestiture to improve their balance sheet. Looking at their CYH 6.875% 2/1/2022 bond, the bond began the year priced at \$45.34 and an annual yield of 42.5% and has returned 76.5% YTD.

iBoxx \$ Liquid High Yield Index - Issuers with largest positive contribution to September returns

Ticker	Issuer		% weight	Sept	Sept Contrib	Face Value on	% Chg on Loan	% Issue Value
			(8/30)	Return	bps	Loan (9/30)	in Sept	on Loan
СҮН	CHS/Community Health Systems Inc	Health Care	1.3%	4.7%	6.04	\$320	9%	2.7%
INTEL	Intelsat Luxembourg SA	Telecommunications	1.2%	2.6%	3.19	\$252	2%	2.6%
DISH	DISH DBS Corp	Consumer Services	1.1%	2.5%	2.75	\$683	1%	7.2%
BBDBCN	Bombardier Inc	Industrials	1.0%	2.2%	2.18	\$209	-35%	2.4%
BHCCN	Bausch Health Cos Inc	Health Care	2.1%	1.0%	2.03	\$340	12%	2.3%
THC	Tenet Healthcare Corp	Health Care	1.7%	0.9%	1.60	\$423	5%	3.0%
APXSEC	APX Group Inc	Consumer Goods	0.2%	7.5%	1.41	\$55	-47%	3.7%
POWSOL	Panther BF Aggregator 2 LP	Consumer Goods	0.3%	3.5%	1.23	\$97	-8%	3.3%
ATCNA	Altice SA	Telecommunications	0.5%	2.5%	1.16	\$123	54%	2.1%
RLGY	Realogy Group LLC	Financials	0.2%	6.4%	1.09	\$164	-8%	12.2%

Source: IHS Markit Indices & Securities Finance

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Realogy is the only issuer among the top with more than 10% of the issue value of their bonds on loan. However, short sellers may be heading for the exits amid strong returns, with the face value of bonds on loan down 8% from the start of September.

Bottom 10 Issuers by Return Contribution

The ten worst performers contributed -25bps to index returns in September. As noted in the opening, there were 28 issuers with negative returns in September, which contributed -40bps return to the index.

iBoxx \$ Liquid High Yield Index - Issuers with largest negative contribution to September returns

Ticker	Issuer		% weight (8/30)	Sept Return	Contribution	Face Value on Loan (9/30)	% Chg on Loan in Sept	% Issue Value on Loan
MNK	Mallinckrodt International Finance SA	Health Care	0.1%	-34.0%	-4.74	\$136	-58%	4.6%
FTR	Frontier Communications Corp	Telecommunications	0.9%	-4.3%	-4.03	\$263	32%	2.3%
TEVA	Teva Pharmaceutical Finance	Health Care	1.2%	-3.3%	-3.93	\$616	8%	5.1%
S	Sprint Corp	Telecommunications	2.0%	-1.2%	-2.37	\$270	-7%	1.9%
NFLX	Netflix Inc	Consumer Services	1.1%	-1.8%	-2.00	\$258	59%	3.0%
CHK	Chesapeake Energy Corp	Oil & Gas	0.5%	-3.7%	-1.69	\$488	7%	7.8%
CRC	California Resources Corp	Oil & Gas	0.1%	-11.5%	-1.60	\$307	-17%	13.7%
ENDP	Par Pharmaceutical Inc	Health Care	0.4%	-4.2%	-1.54	\$116	55%	2.7%
HCA	HCA Inc	Health Care	1.5%	-1.0%	-1.51	\$264	10%	2.8%
NAVI	Navient Corp	Financials	0.9%	-1.6%	-1.49	\$185	16%	2.6%

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Mallinckrodt International Finance SA had by far the worst performance, returning -34% with a contribution of -5bps. Mallinckrodt has struggled under legal pressures for their role in the opioid crisis. Taking their largest bond in the index by notional, MNK 5.625 10/15/2023 which has a face value of \$680.2m, the bond has returned -53.2% YTD. The equity hasn't fared any better, down 84% YTD.

There have been varying short positions in the MNK equity and credits over the last few years. The recent trend is short covering in the bonds and increasing short positions in the equity, however on both fronts the notional positions are far below their peaks due to a declining price. The borrow cost for the MNK bonds reached a new high in September, which may have been part of the motivation for

credit shorts to move on. It is also worth noting that the third largest detractor from September HY returns was Teva Pharmaceutical, another firm with exposure to the opioid crisis.



Netflix also contributed -2bps to on a -1.83% return. The NFLX bonds included in the index saw a 59% increase in bonds on loan during September. The total face value on loan in NFLX bonds peaked at \$492m in March 2019 and ended September at \$305m. It is worth noting that Netflix was added to CDX HY during the September index roll.

Wrap-up

September added to the positive returns for the HY index in the prior months of 2019, putting the total return at 11.56% YTD. The Oil & Gas sector had another month of challenging returns, contributing -11.8bps to the index in September, after having been the worst performing sector in August. Basic Materials was the worst performing sector in September, contributing -14.8bps to the index.

iBoxx \$ Liquid High Yield Index - September return contributions by sector and short positioning

Name	% weight (8/30)	Sept Return bps	Sept Contribution bps	Face Value on Loan (9/30)	% Chg on Loan in Sept	% Issue Value on Loan
iBoxx \$ Liquid HY Consumer Goods Index	8%	93.3	7.0	\$2.4	-3.5%	4.1%
iBoxx \$ Liquid HY Industrials Index	13%	63.1	8.0	\$2.1	-12.3%	2.0%
iBoxx \$ Liquid HY Utilities Index	3%	50.8	1.4	\$0.6	-11.0%	2.7%
iBoxx \$ Liquid HY Technology Index	6%	43.1	2.7	\$1.5	-4.7%	2.9%
iBoxx \$ Liquid HY Consumer Services Index	24%	36.7	8.6	\$5.4	0.0%	3.0%
iBoxx \$ Liquid High Yield Index		28.4		\$23.7	-1.8%	2.9%
iBoxx \$ Liquid HY Financials Index	8%	15.4	1.3	\$1.3	-5.4%	2.1%
iBoxx \$ Liquid HY Telecommunications Index	10%	9.7	1.0	\$1.9	-1.0%	2.1%
iBoxx \$ Liquid HY Health Care Index	12%	4.9	0.6	\$2.9	0.6%	3.2%
iBoxx \$ Liquid HY Oil & Gas Index	12%	-11.8	-1.4	\$4.3	2.6%	3.8%
iBoxx \$ Liquid HY Basic Materials Index	5%	-14.8	-0.7	\$1.3	4.6%	3.1%

Source: IHS Markit Indices & Securities Finance

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