



# Tactical tools for a rising interest rate environment

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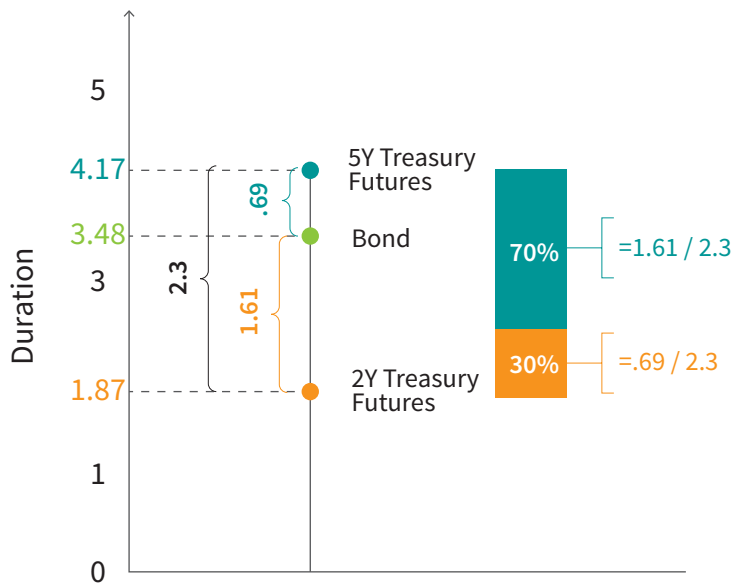
In a rising interest rate environment, corporate interest rate hedged indices can be attractive tactical instruments to manage duration risk and earn credit yield, alongside short duration and floating rate note products.

- Markit iBoxx \$ Liquid High Yield Interest Rate Hedged Index (“LQHYH”) provided a return of 3.7% vs. 1.4% for the unhedged index in Q4 2016. For 2016, the hedged index returned 14.6% vs 15.3% for the unhedged index.
- Markit iBoxx \$ Liquid Investment Grade Interest Rate Hedged Index (“LQIGH”) provided a return of 2.2% vs. -3.7% for the unhedged index in Q4 2016. For 2016, the hedged index returned 5.9% vs. 6.4% for the unhedged index.
- High correlation observed between the hedged index and corresponding CDX indices. For example, the 3 year rolling correlation of LQIGH and Markit CDX Investment Grade is 79%; the correlation of LQHYH and Markit CDX High Yield is 81% as of end of December 2016.
- ETFs based on LQIGH and LQHYH indices are available.

As widely anticipated, the Fed raised its key interest rate in December 2016. Expectations of a further tightening cycle this year could negatively impact the performance of fixed rate coupon bond indices. In such an environment, interest rate hedged indices can be attractive tactical solutions to mitigate the impact of rising rates, alongside short duration or floating rate note products. The Markit iBoxx \$ Liquid Investment

Grade Interest Rate Hedged Index (“LQIGH”) and Markit iBoxx \$ Liquid High Yield Interest Rate Hedged Index (“LQHYH”), hedge the duration risk of the fixed income Markit iBoxx \$ Liquid Investment Grade (“LQIG”) and Liquid High Yield (“LQHY”) corporate bond indices.

The LQIGH and LQHYH indices consist of long positions in the liquid corporate investment grade and high yield indices and hedge their duration through the use of derivatives. Each corporate bond in the long index is matched with the two adjacent U.S. futures contracts in order to capture movements at specific points of the curve<sup>1</sup>. Specifically, the hedge ratio for each adjacent contract is determined as the duration distance between the contract and the bond in relation to the duration distance of the two contracts. The notional of each contract is updated monthly to neutralize the duration of the corporate bond indices. The figure below illustrates this process for a bond. The duration of the bond is 3.48 years and the adjacent contracts have duration of 1.87 years and 4.17 years, respectively. This results in a hedge ratio of 30% for the 2 year contract and 70% exposure to the 5 year contract.



“Interest rate hedged indices can be attractive tactical solutions to mitigate the impact of rising rates”

Why consider the use of interest rate hedged products?

- Corporate interest rate hedged indices can provide “pure” exposure towards credit risk component of a bond.
- The interest rate hedged indices can be combined with other duration indices to shorten the duration of the overall product.
- Interest rate hedged products may be used as an alternative to other low duration products, e.g. leveraged loans, floating rate notes or short duration corporate bonds.

<sup>1</sup> The eligible front month contracts for the futures position include the 2-Year T-Note, 5-Year T-Note, 10-Year T-Note, T-Bond and Ultra T-Bond Futures. Markit also offers the LQIGH and LQHYH indices based on interest rate swaps.

The table below compares the performance of the interest rate hedged indices with their unhedged counterparts during selected historical credit and interest rate environments<sup>2</sup>.

Performance during Credit and Interest Rate Environments													
Environment	Dates	U.S.	CDX.	CDX.	LQIG	LQIGH	SLQIG	FRN	LQHY	LQHYH	SLQHY	LOANS	
		Treasury*	NA.IG	NA.HY	Index Total Return Performance (%)								
		Change (bps)											
<b>Treasury Yield Curve</b>													
Parallel Shift Up	Dec 05, 2006 - Feb 26, 2007	22	-4	-54	0.33	3.30	0.57		3.17	4.35		2.04	
Curve Steepens, Yields Up	Sep 30, 2010 - Dec 31, 2010	57	-22	-132	-2.34	2.06	-0.54		3.01	4.85		3.81	
Curve Flattens, Yields Up	Mar 19, 2008 - Jun 03, 2008	77	-52	-131	0.68	1.81	-0.23		5.48	5.60		6.13	
Parallel Shift Down	Sep 30, 2008 - Dec 31, 2008	-142	29	345	9.78	-1.40	1.58		-15.65	-22.45		-24.77	
Curve Flattens, Yields Down	Jun 30, 2011 - Sep 30, 2011	-75	52	369	2.84	-6.47	-0.30		-6.23	-9.56		-4.47	
<b>CDX Spreads</b>													
Spreads Narrowed	Feb 08, 2016 - Dec 30, 2016	67	-53	-217	5.82	10.46	1.99	2.52	19.92	22.22	15.71	11.34	
Spreads Widened	Mar 16, 2015 - Feb 08, 2016	-25	55	246	-1.50	-5.97	0.86	0.02	-10.09	-12.65	-7.09	-3.91	

\* Average of 2Y, 5Y and 10Y U.S. Treasury Yields

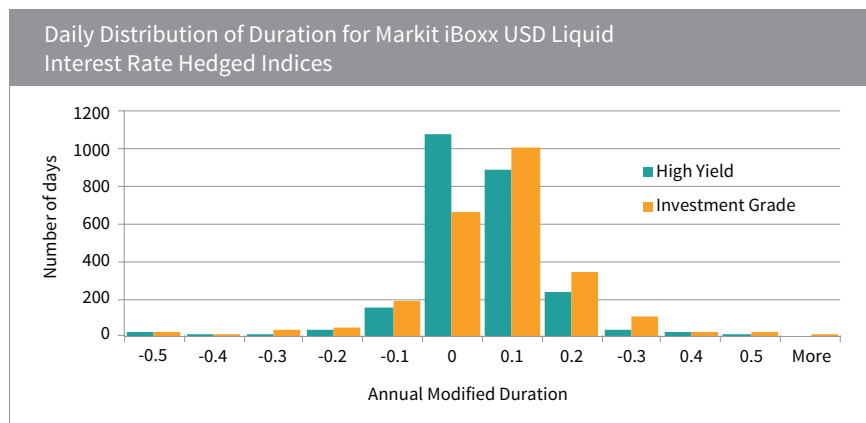
CDX.NA.IG	5-year on-the-run Markit CDX Investment Grade contract
CDX.NA.HY	5-year on-the-run Markit CDX High Yield contract
LQIG	Markit iBoxx USD Liquid Investment Grade Index
LQIGH	Markit iBoxx USD Liquid Investment Grade Interest Rate Hedged Index
SLQIG	Markit iBoxx USD Liquid Investment Grade 0-5 Index
FRN	Markit iBoxx USD Liquid FRN Investment Grade Corporates 100
LQHY	Markit iBoxx USD Liquid High Yield Index
LQHYH	Markit iBoxx USD Liquid High Yield Interest Rate Hedged Index
SLQHY	Markit iBoxx USD Liquid High Yield 0-5 Index
LOANS	Markit iBoxx USD Leveraged Loans Index



<sup>2</sup> The periods for analysis were selected for illustrative purposes only, and are not to be considered an indicator for future performance.

What are some of the risks associated with interest rate hedged products?

- Yield movements may not be in line with expectations - interest rates might decline or not increase as much as expected. The parallel shift down in 2008 or the flattening curve in 2011 are examples of such a situation.
- Basis Risk - There may be a basis risk between futures contract prices and interest rate movements.
- Intra-month bond duration increases causing duration mismatch - the hedged positions are determined on a monthly basis on the rebalancing of the index. This can result in a potential duration mismatch between the long bond positions and the short futures positions in the days between rebalancings. Since index inception in 2006, drifts in duration tended to be around 0.1 years, with less than 2% of historical observations exceeding 0.5 years.



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**CLICK HERE**  
for additional insights on fixed income analysis  
[www.markit.com/Commentary/Indices](http://www.markit.com/Commentary/Indices)

More information on Markit iBoxx indices can be found at [www.markit.com/product/iBoxx](http://www.markit.com/product/iBoxx) under the 'Documentation' section.

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