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Hold on to the Winners

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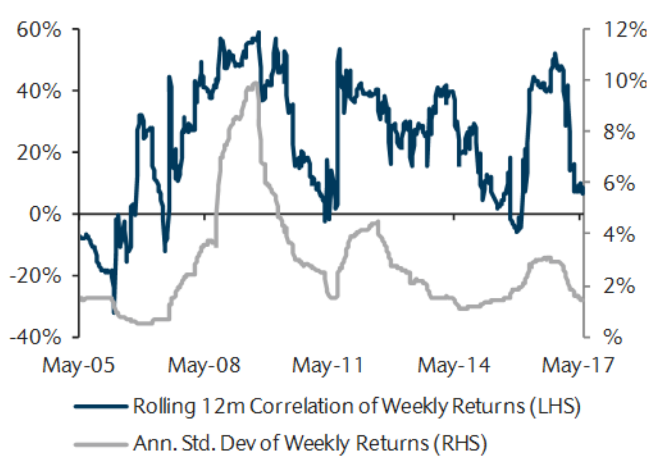
The tightening in spreads this year – the Bloomberg Barclays Corporate Index has rallied nearly 20bp year-to-date and is now within a few basis points of its post-crisis tights – has been accompanied by a substantial decline in volatility. The annualized standard deviation of weekly index excess returns is near post-crisis lows. A consequence of the decline in volatility has been a decrease in momentum in credit returns – week-over-week index returns are highly correlated when spreads are volatile, but the correlation drops meaningfully in more stable periods (Figure 1).

In our view, momentum in returns is likely to vary by trading volume, with less-liquid bonds likely to have higher momentum. The limited ability to trade these bonds means that any trading and, consequently, performance spills over multiple days. Conversely, the returns of more-liquid securities should exhibit lower momentum. In order to test this hypothesis, we look at the cohort of bonds with high volumes (>$25mn[1]) in a week and regress that week's excess returns with the return one week forward. We then repeat the analysis for bonds with more moderate volumes ($5-25mn). On average, the high and moderate volume buckets each constitute about 25% (by market value) of the non-financial corporate universe. Note that because financials (specifically banks) tend to have higher turnover rates than non-financials, we exclude them from the analysis to keep the composition of the two liquidity buckets consistent.

Figure 2 shows the R-squared and beta of forward returns for these two cohorts and for the overall index since 2014, a period encompassing a significant sell-off (from September 2014 to February 2016) and a rally (February 2016 to the present). For the overall index, the R-squared of the regression between one-week-forward and prior week's returns is about 10% and the beta is about 0.3. Bonds with higher volumes exhibit substantially lower momentum – both the R-squared and slope are lower for bonds when the initial excess returns are based on weekly volumes greater than $25mn.

FIGURE 1
Excess Returns Have Been Less Correlated Week over Week as Volatility Has Declined



Source: Bloomberg Barclays Index, Barclays Research

FIGURE 2
Forward Returns of Bonds with Higher Volumes Exhibit Lower Momentum

		Weekly Volume	
	IG Index	$5-25mn	>$25mn
R-Squared	10%	15%	4%
Beta	0.32	0.38	0.19

Source: Bloomberg Barclays Index, Barclays Research

[1] Here and in rest of the report, we use adjusted (not reported) TRACE volumes, which are adjusted for the average size of a block trade.

Although the overall liquidity environment remains challenging in our view (see *Trading Behavior Part II: The Pre-crisis Perspective*), the fraction of bonds trading more than $25mn in any week has increased since 2014 (from 20% to about 25% in 2016-17), contributing to the declining momentum in returns.

Be Positive

While overall correlation has declined, breaking down the relationship between periods of spread widening and tightening produces interesting results. Figure 3 plots weekly excess returns as a function of the prior week's excess returns since 2014. Weeks following positive excess returns exhibit significantly stronger momentum than those after negative return periods. Both the R-squared and the slope of the regression are significantly higher in positive return periods. We believe that there are a few drivers of higher momentum during rallying periods:

- The primary dealer inventory data for investment grade corporate bonds suggest that dealers are rarely net short. Essentially, the inventory appears to be floored at zero, but dealers have historically shown more ability to expand balance sheets on the positive side. Indeed, over the past 4+ years (around 220 weeks of data), the investment grade 13-month+ inventory has been negative for only one week, in October 2015 (Figure 4). Dealers necessarily have not been long risk over the entire period – the data capture only cash exposures, and at least part of this risk is likely hedged with derivatives. However, it appears that dealers are more willing to run a negative basis position (long cash bonds, long CDX protection) than a positive basis position. The cost of carrying short positions, combined with the negative cash CDX basis, likely biases dealers to be generally net long cash.

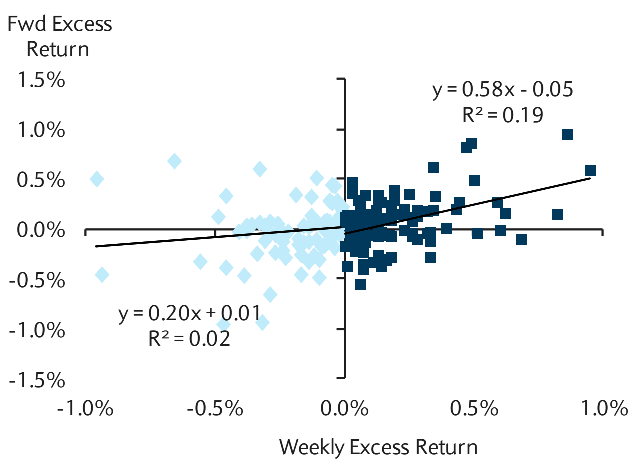
  With dealer inventory effectively floored at zero, client buying demand is more likely to spill over multiple days once inventory starts running low. This would explain the higher positive momentum in rallying markets.

- A key driver of the rally since early 2016 has been strong international demand for US investment grade corporates. Steady inflows to the asset class from both Asia and Europe have likely driven momentum higher in rallying weeks.

- Widening events are more often idiosyncratic and therefore should have less momentum (although we are looking at index level moves, so this is arguably less important)

FIGURE 3

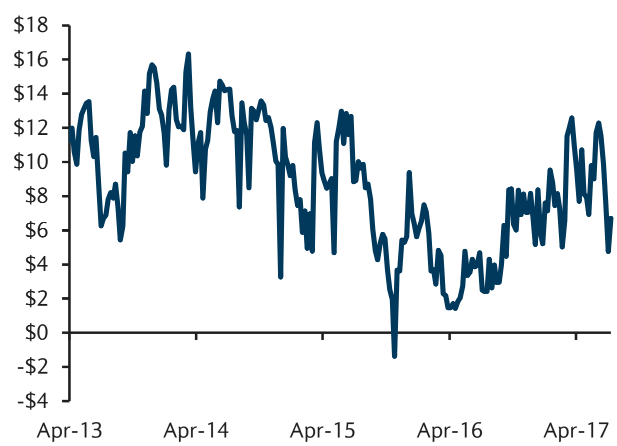
Momentum in Returns Is Significantly Higher in Positive Excess Return Weeks



Source: Bloomberg Barclays Index, Barclays Research

FIGURE 4

Primary Dealer Net Inventory for Investment Grade Debt of More Than 13 Months ($bn)



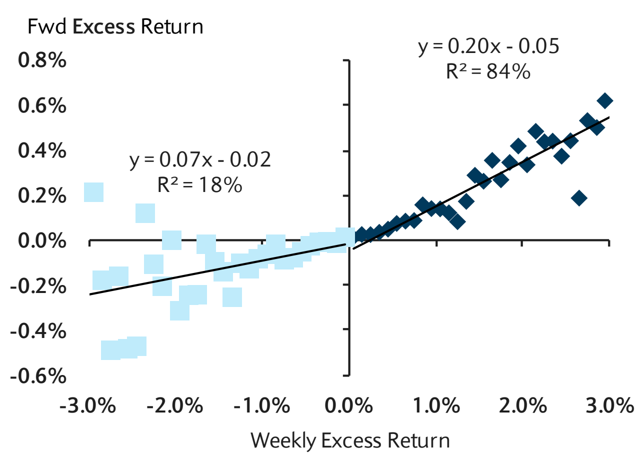
Source: NY Fed, Barclays Research

We repeat the above analysis for moderate- and high-volume bonds (as defined above). Figures 5 and 6 show the relationship between one-week-forward excess returns and the prior week's return for the two cohorts. Consistent with the above result, weeks with positive returns have significantly higher momentum than those with negative returns – for both cohorts, the R-squared is significantly higher in the positive return weeks. Similar to Figure 2, momentum is higher for bonds in the $5-25mn bucket than for the more liquid securities. While part of the momentum at a bond level is driven by index returns, bond returns in excess of the index are also positively correlated during rallying periods.

The strong positive momentum in $5-25mn buckets, including a relative high slope of 0.2x, suggests that investors should buy or hold bonds that move up meaningfully on moderate volumes. After a week of positive returns, the return the next week is positive on average, and these securities tend to outperform the index.

FIGURE 5

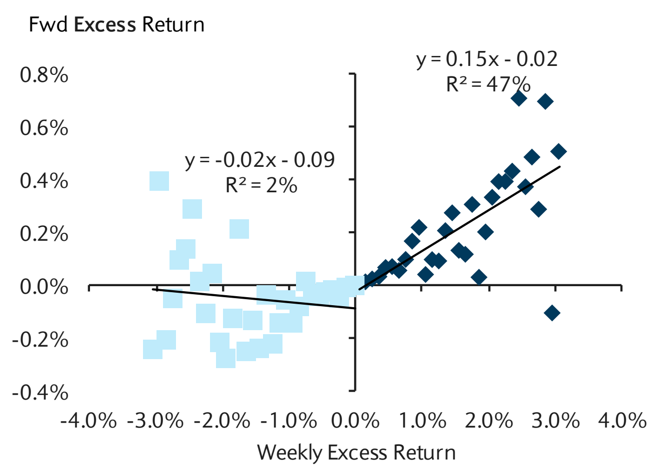
Momentum in Bonds with Weekly Volume of $5-25mn



Bonds are bucketed in 0.1% return cohorts based on the return generated in the first week. The forward return is the average return of that bucket one week forward. Source: TRACE, Bloomberg Barclays Index, Barclays Research

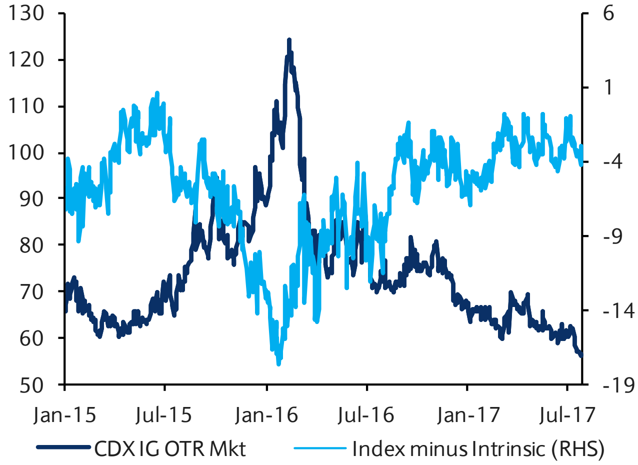
FIGURE 6

Momentum in Bonds with Weekly Volume of More Than $25mn



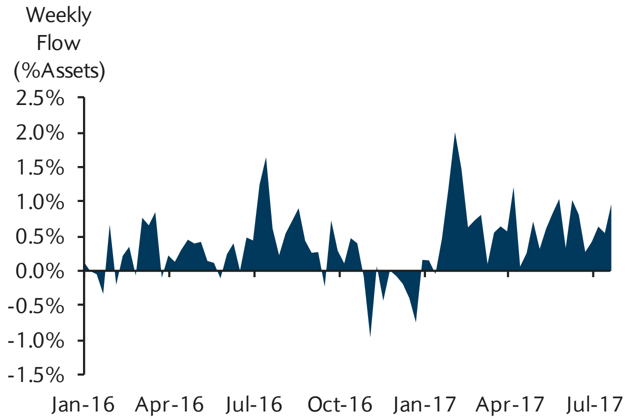
Bonds are bucketed in 0.1% return cohorts based on the return generated in the week. The forward return is the average return of that bucket one week forward. Source: TRACE, Bloomberg Barclays Index, Barclays Research

CDX.IG OTR Market versus Intrinsic (bp)



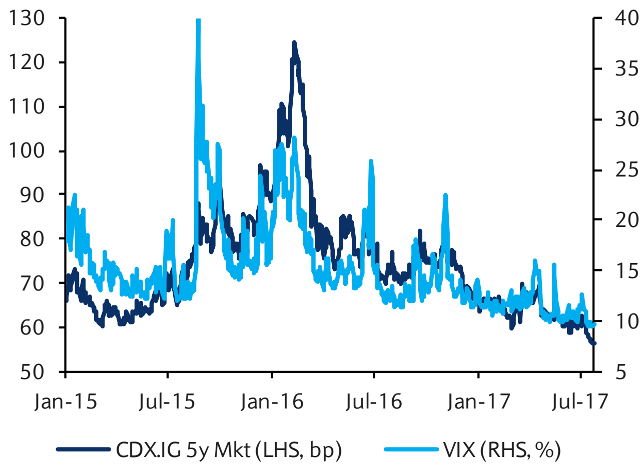
Source: Barclays Research

EPFR Weekly Investment Grade Corporate Fund Flows



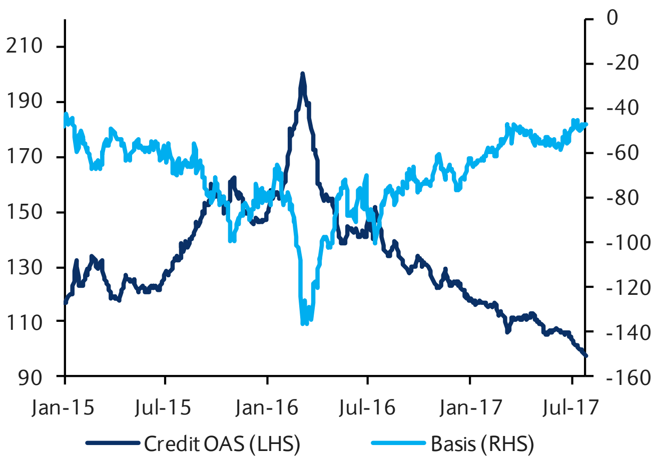
Source: EPFR, Barclays Research

CDX.IG versus VIX



Source: Markit, Barclays Research

CDS-Cash Basis (bp)



Note: Basis defined as CDX.IG spread – Corporate Libor OAS.
Source: Bloomberg Barclays Indices, Barclays Research

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