

When the Option Presents Itself

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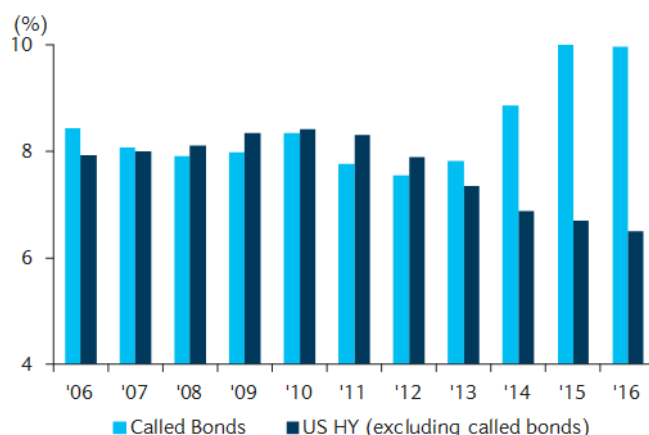
With yields testing multi-year lows and call constraints near 2014 levels, the associated pickup in refinancing activity has helped support the widely accepted belief that issuers make rational decisions and exercise their embedded options when they are in the money. That said, even though refinancing activity has picked up as secondary yields have declined, there is more to the story of whether issuers behave rationally with respect to calls. Indeed, we believe that the aggregate picture obscures situations in which issuers fail to exercise in-the-money call options.

Tracking call events for all bonds in the Bloomberg Barclays US High Yield Index over the past 20 years, we examined issuer behavior with respect to call options. For simplicity, we included only bonds with a call structure once they were callable (ie, excluding make-whole calls) and excluded calls that were related to equity claws. First, we note that issuers have tended to refinance the more expensive debt. Indeed, the average coupon of bonds that were called in 2016 was nearly 3.5% higher than the coupon of other bonds in the index, on average (Figure 1). Admittedly, this reflects not only a desire to keep interest expense low, but also the fact that higher-coupon debt will, all else equal, have a higher price, increasing the likelihood that call options are in the money.

Another comforting statistic is the probability of being called as a function of the degree of moneyness of the call option. We would expect that the deeper in the money the option, the higher the probability of being called. Indeed, examining bonds that had passed their non-call periods, we find that the higher the bond's price relative to its call price, the higher the probability of being called (Figure 2). Approximately 73% of bonds trading 25 cents or more above the current call price were eventually called, while only 44% of the bonds trading at a discount to current call price by more than \$1.5 were eventually called.

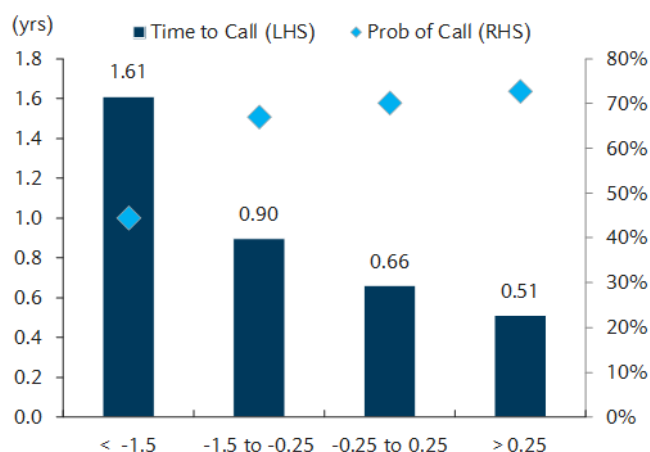
Perhaps most interestingly, the average time to call for bonds trading above the call price by at least \$0.25 was a little over six months; for those right around the call price (-\$0.25 to \$0.25 difference), it took an average of eight months for issuers to exercise the call option. It is admittedly possible for an issuer to be rational and not call these in-the-money bonds. Transaction costs are one consideration, as there are fees involved in refinancing. Another

FIGURE 1
Average Coupon of Called Bonds versus Index (Ex-Call)



Source: Bloomberg Barclays Indices, Bloomberg

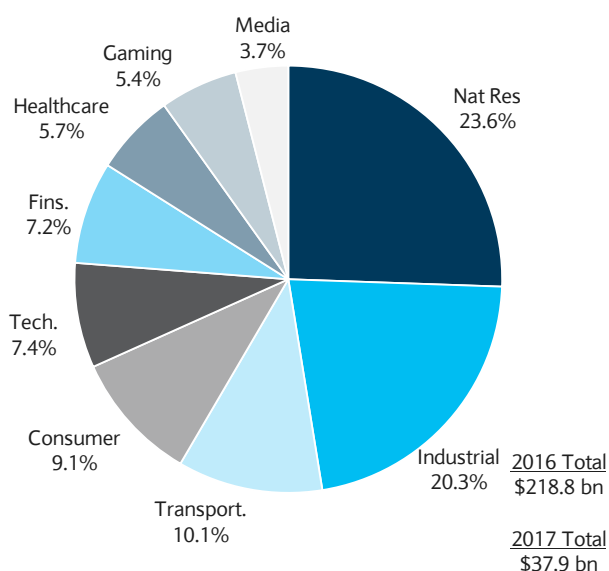
FIGURE 2
Percent of Bonds Called by Premium Relative to the Call Price



Source: Bloomberg Barclays Indices, Bloomberg

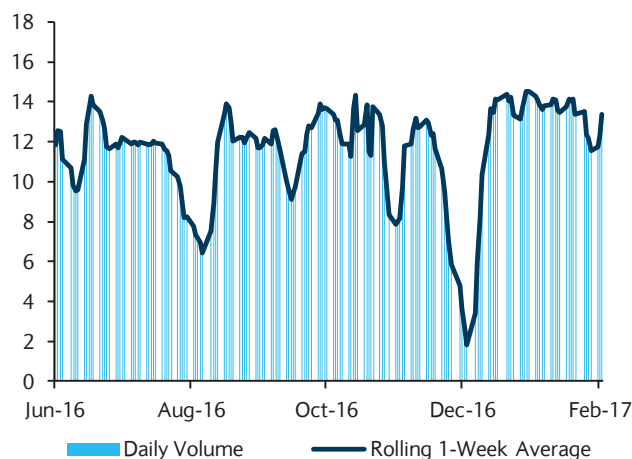
consideration is that leaving certain bonds outstanding might, in some instances, provide the issuer with certain real options in M&A and other future transactions. However, anecdotal evidence and the fact that it takes an average of 6-8 months to call bonds with in-the-money options suggest that some issuers are not quick to act, while others may be unwilling to redeem their debt at a premium to par. Although almost half of the callable universe is trading at or above its next call price, our analysis suggests that refinancing volumes may come with more of a lag than implied by purely rational issuer behavior.

High Yield Supply by Sector



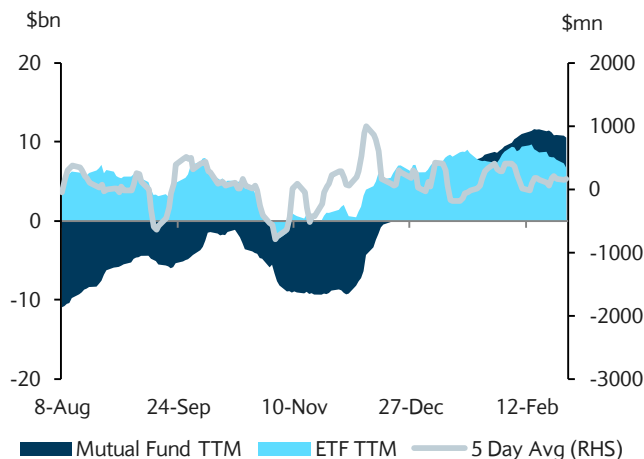
Source: Barclays Research.

High Yield Average Institutional Trade Volume (\$bn)



Note: Includes both registered and 144A volumes. Source: FINRA TRACE

Flows to High Yield Mutual Funds and ETFs



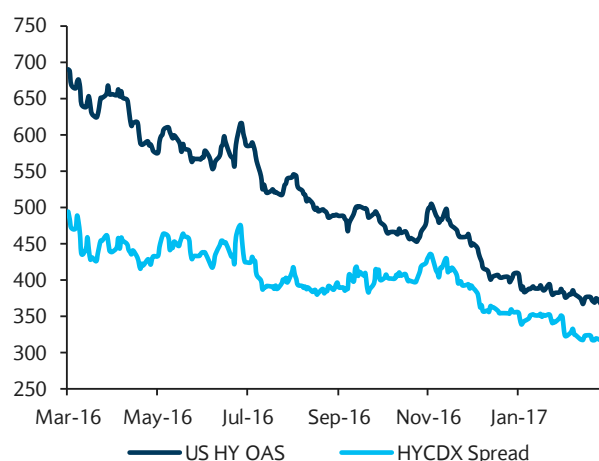
Note: Daily reporters only. Source: EPFR

Top On-the-Run CDX Index Names by Weekly CDS Volume

	Notional Outstanding (\$bn)		Volume – Week Ending 2/17/17 (\$mn)
	Gross	Net	Gross
MBIA Insurance	13.5	0.4	235.0
Genworth	6.8	0.5	186.2
Hertz	3.8	0.6	135.0
U.S. Steel	5.7	0.8	131.7
Centurylink	6.7	0.6	96.8
Goodyear	3.2	0.5	94.7
Avon	7.8	0.5	93.3
AK Steel	3.0	0.4	91.2
Chesapeake	6.2	0.6	73.0
Radian Group	10.6	0.6	66.3

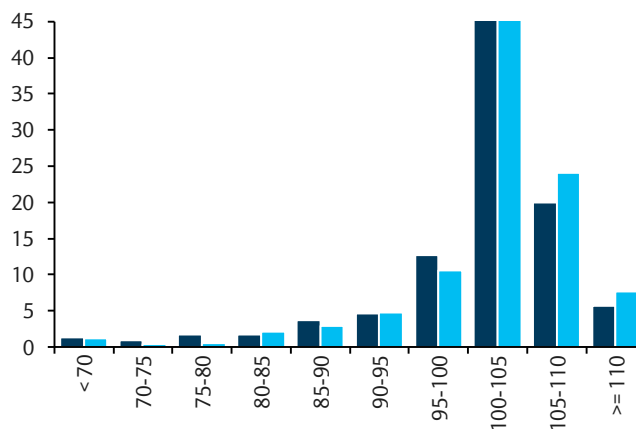
Source: DTCC

On-the-Run HYCDX versus US High Yield Index (bp)



Source: Barclays Research

High Yield Index Price Distribution by Par (%)



Source: Barclays Research

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