Rocaton

INSIGHTS

Playing Defense: Investing in Convertible Bonds

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EXECUTIVE SUMMARY

Diversified investors often hold a mix of public stocks and bonds alongside alternatives such as real estate, private equity and hedge funds. Although convertible bonds are infrequently used by institutional investors, they may help improve a portfolio's return and risk profile. As developed equity markets have risen to record levels, investors have started considering equity substitutes to reduce equity beta such as long/short equity and low volatility equity as well as options-based strategies (i.e. covered calls). Convertibles, however, remain largely overlooked despite their potential to keep pace during rising equity markets while also protecting against downside events.

Rocaton highlighted the benefits of a convertibles allocation in 2006 (*Rocaton Insights – The Case for Convertibles*, August 2006). Over the past eight years, convertibles have outperformed U.S. equities by 62 basis points annually with 16% less volatility. We continue to believe that investors should consider an actively managed allocation to convertibles while also understanding the following:

* The goal of convertibles is to outperform equities over a full market cycle with lower volatility
* Actively managed strategies are intentionally not benchmark aware and will have high tracking error
* Convertibles typically have lower fees compared to other defensive equity approaches

The balance of this paper will revisit our research from 2006, review convertibles' performance in recent years and outline various active management approaches.

The Case for Convertibles Revisited

When we first introduced the topic of convertible bonds, we concluded that (1) the optionality of convertible bonds created an asymmetric return profile not common in the investment industry and (2) that active management could add value above a passive benchmark. We believe that both points are still valid in today's environment.

Importantly, we believe that long-only, active management in convertibles has the ability to produce attractive risk-adjusted returns through meaningful upside participation in rising equity markets and less downside participation in falling markets. Generally speaking, passive unmanaged exposures to convertibles likely will not achieve this return profile as higher equity sensitive positions ideally should be exited in favor of less equity sensitive positions as equity markets rise and, in falling markets, less equity sensitive positions should be sold in favor of greater equity sensitivity names. Despite the inferiority of a passive approach, risk-adjusted performance for a passive convertibles index still compares favorably to equity markets over recent time periods.

Figure 1:
Trailing Performance (Periods ending March 31, 2014)

	Annualized Return			Annualized Standard Deviation			Sharpe Ratio		
	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years
BofA ML All U.S. Convertibles Index	19.2	7.1	7.0	10.7	12.5	13.4	1.78	0.44	0.35
S&P 500 Index	21.2	7.4	4.5	13.9	14.6	15.4	1.52	0.39	0.14
Difference/Volatility Reduction	*-2.0*	*-0.3*	*2.5*	*-23%*	*-15%*	*-13%*	$\boxed{\textit{0.27}}$	$\boxed{\textit{0.05}}$	$\boxed{\textit{0.21}}$

Source: Bank of America Merrill Lynch; Standard & Poors. Based on monthly data.

Before discussing the prospects for active management, we will first focus on the case for a strategic allocation to convertibles. As we highlighted at the outset, many investors already hold traditional stocks and bonds and, therefore, believe it is not beneficial to allocate to an asset class that combines the features of both stocks and bonds. However, convertibles represent an opportunity different than a simple combination of stocks and bonds. The uniqueness of convertibles comes in the form of the bonds' optionality and price support due to the "bond floor" which leads to an asymmetric return profile. The primary sources of return for convertible bonds are coupon income, spread tightening (or widening), movement in the underlying stock and changes in implied stock volatility (which affect the value of the option). Notably, the current yield of 2.6% for the broad convertibles index is higher than both bonds (2.4% yield-to-worst for the Barclays Aggregate) and stocks (1.9% dividend yield for the S&P 500) currently offer. In addition to the current income advantage, convertible bonds generally rank senior in the capital structure to both common and preferred stock. Convertible bonds also can take many forms ranging from traditional cash-pay bonds, zero coupon bonds and convertible preferred stock. Given that there are very few passive convertible vehicles available, we believe investors should give careful attention to the various types of active management.

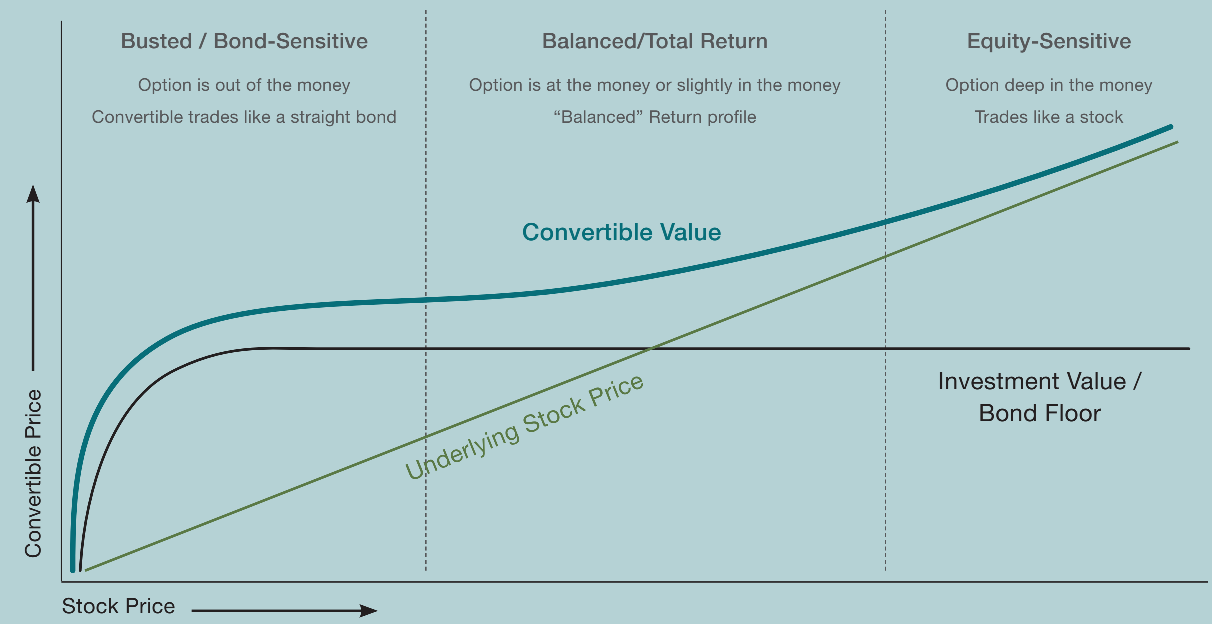
Opportunities for Active Management

A key attribute of an inefficient market includes having an investor base with differing economic objectives. In the convertibles asset class a number of investor types exist including long-only "rebalancing", long-only equity surrogate, long-only busted, equity income, balanced and hedge fund strategies. As such, Rocaton continues to believe that if investors want to gain exposure to this asset class, they should do so through active management. As mentioned, standard convertibles indexes are often flawed, further supporting the use of active management. Notably, primary convertibles benchmarks can often experience meaningful shifts in delta (i.e. the convertible's sensitivity to equity movements), may have high issuer and/or sector concentrations and will generally hold bonds regardless of price. To highlight the last point, the current average price of the BofA Merrill Lynch All Convertible Index (VXA0) is approximately $151, suggesting that the convertibles are a long way from their inherent bond floor and could ultimately fall significantly in price should the equity market experience a correction.[1] In the figure shown on the next page, the average bond is squarely in the "equity-sensitive" category.

[1] The inherent floor for a convertible bond is par value (or $100). With the average price on the convertible index trading at $151, an investor passively holding convertibles could potentially lose 51 points at maturity assuming there is no payoff from the equity optionality.

While the index must hold bonds as they appreciate (or depreciate) in value, active managers have the flexibility to sell names that have risen in price and buy names that have fallen in price in order to maintain a portfolio with a more favorable upside/downside risk profile.

Figure 2:
Convertible Bond Return Profile



Rebalancing Convertibles

The strategy described in the prior paragraph is known as a "rebalancing" convertibles strategy (sometimes referred to as a "total return" strategy). These approaches typically invest in convertible bonds that exhibit asymmetric return characteristics in that they capture a significant amount of the upside of the underlying stock; however, their downside is capped, to some degree, by their proximity to the bond floor (see Figure 2). As the name of this approach implies, these strategies actively rebalance back into total return bonds by selling bonds that become too equity-sensitive (i.e. high delta) or too bond-sensitive (i.e. low delta). Balanced strategies are often appropriate as an equity substitute in a diversified portfolio.

Busted Convertibles

Although not the focus of this paper, another convertible management style investors should be aware of and may consider for their portfolios is "busted" convertibles investing. In this strategy, managers buy convertibles that trade close to their theoretical bond floors and have little equity sensitivity remaining. Busted bonds are typically overlooked by total return investors and convertible arbitrageurs, who together control most of the convertibles market. As a result, they are subject to occasional periodic mispricing and dislocations, creating opportunities for active management. While these bonds can be thought of as a high yield substitute, unlike traditional high yield these bonds are exposed not just to negative event risk (i.e. default) but also to positive event risk (i.e. the underlying stock trading up and the option trading into the money). Busted strategies could be considered as a replacement for high yield or non-investment grade fixed income exposures, particularly in stressed credit environments when the volume of busted securities overwhelms the natural buyer universe ultimately creating mispricing.

Comparisons to Other Defensive Equity Strategies

As we stated at the outset, convertibles can be examined alongside other equity substitutes. A detailed discussion of the advantages and disadvantages of these strategies is outside the scope of this paper. However, the drawdowns experienced in 2008-2009 and subsequent recovery of these asset classes provides some insight into the relative benefits of convertibles.

Figure 3:
Cumulative Returns Pre- and Post-Global Financial Crisis

Event	Time Period	Convertibles	U.S. Equity	Long/Short Equity	Low Volatility Equity	Buy-Write
Credit Crisis Drawdown	Nov. 2007–Feb. 2009	-40%	-51%	-22%	-41%	-36%
# of Months to Recover		*20*	*49*	*21*	*34*	*34*
Post-Crisis Return	Mar. 2009–Mar. 2014	154%	184%	59%	158%	91%
Total Pre-/Post-Crisis Return	Nov. 2007–Mar. 2014	51%	39%	24%	53%	23%

Sources: BofA Merrill Lynch; Standard & Poors; Credit Suisse; MSCI; CBOE. Based on monthly data. Returns are cumulative and based on index data.

As can be seen from the table above, as did all other equity-substitutes, convertibles declined meaningfully during the global financial crisis. Convertibles, however, were the first asset class to recover from their drawdown, getting above their high-water mark in only 20 months. U.S. equities, meanwhile, took more than 4 years to recoup losses experienced during the crisis. Over the entire time period (pre- and post-crisis), convertibles generated one of the best cumulative returns among equity substitutes. It is also worth pointing out that, while low volatility equity had similar returns over the three time periods, the time to recovery was significantly longer than that of convertibles. Investors should keep in mind that this is historical performance and future performance may not be similar.

Risks of Convertible Investing

Historical returns data provides a compelling case for allocating to convertible bonds. Investors should, of course, be aware of the potential risks that exist for the asset class and understand how these risks differ from traditional equity and fixed income risk. To begin, the convertible market remains significantly smaller and less liquid than both public equity and corporate bond markets. Worldwide, the total market value of all outstanding convertibles is approximately $350 billion with slightly more than half of that total in the United States. This could lead to periods of higher than normal volatility due to liquidity shocks which occasionally ripple across financial markets. It should be noted that this risk has been mitigated somewhat by the fact that leveraged investors make up a much smaller part of the convertibles universe today than they have historically.

A driving force behind the size of the market is the sporadic supply of convertibles. Companies, for instance, may find straight debt or equity issuance more attractive at various stages of an economic cycle, particularly when equity volatility is relatively subdued (low levels of volatility lessen the value of the convertible bond's embedded call option and thus reduce the proceeds an issuer can realize from a convertible sale). Continued low interest rates, driven in part by central bank policies, have made straight debt particularly attractive for companies to issue. Prior to an uptick in issuance in 2013, the convertibles market experienced five consecutive year-over-year declines in issuance, ultimately leading to a contraction in market size in recent years. Investors should also consider the credit risk of convertibles, which are typically junior in the capital structure to straight bonds and bank debt, especially in light of the fact that approximately 75% of the convertible universe is either below investment grade or not-rated.

Conclusion

Following five-plus years of gains in developed equity markets, investors may want to turn their attention towards protecting against potential downside events. We recognize that many investors might not want to sell equities for fears that they might miss the next leg up in the equity bull market. Convertibles should have the ability to participate in future equity market rallies while also limiting losses during a correction. Investors seeking to moderately increase expected returns without taking straight equity exposure are good candidates for an allocation to convertibles. For investors looking for a high yield or below investment grade fixed income substitute, busted convertibles can offer a modest yield in addition to equity market participation. Regardless of the investor type or the specific strategy, convertibles can play a role in most portfolios given their ability to participate in equity market rallies and limit downside outcomes.

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Disclosures

Performance Information and Return Expectations

The analysis contained in this document may include projections of long-term return and risk expectations. There is no guarantee that the projected returns or risk will be realized. The projections are based in part on historical performance of various asset classes, and past performance is no guarantee of future performance. The projections include assumptions, including those regarding risk and return. These assumptions are used for modeling purposes only and may not be realized. Because the analysis is based on assumptions and projections, there can be no warranties or guarantees.

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