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Convertibles Primer

Scott Lange | November 2020

The convertible asset class has a long history in the U.S. financial markets dating back more than a century. Nevertheless, because of its relatively small size and inherent complexity, it generally receives little attention from both the financial press and the investment community. Yet it is precisely because of its nature as a complex and niche asset class that it has historically offered such interesting investment opportunities. These opportunities are as present today as ever, and in this paper, we will provide a brief introduction of the basics of U.S. convertibles.

Convertible Securities

Convertible bonds are hybrid securities. In their most common form, they are much like regular corporate bonds: they are issued in unit sizes of \$1,000 per bond; they are quoted and traded in the market using standard bond convention, meaning in units equal to the dollar price divided by 10 (e.g., a new convertible would be issued at 100); they pay a fixed coupon semi-annually; they typically mature in five years; and they are ranked senior unsecured in the capital structure. What differentiates convertibles from regular corporate bonds is that they are convertible, which is to say they have an embedded call option that allows a holder to convert them into a fixed number of shares of the issuing company's stock. This number of shares is set at issuance and remains constant for the life of the bond.

The two components of a convertible, the corporate bond and the call option, are depicted in Figure 1. At issuance, the equity option is set with an out-of-the-money strike price, in today's market often 30%-55% above the current stock price. Depending on several factors, such as the expected volatility of the underlying stock, the value of this option component might be 20 out of the total 100 issue price, for example. Since the corporate bond component need only have a value of 80 to make the two parts together equal the 100 issue price, the convertible can be priced with a coupon significantly lower than what an issuer would have to pay to issue non-convertible debt. Convertible bond coupons depend on a variety of factors, such as the credit quality of the issuer, but often range from 0%-4% in the current market environment. The corporate bond and call option components of a convertible cannot be separated from each other.



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Scott joined Camden in May 2007 as a Portfolio Manager. Prior to Camden he spent twelve years at Goldman Sachs in New York, where he was a Managing Director and head of the U.S. Convertible Trading Desk and co-head of the U.S. Convertible Business. Prior to that he was responsible, along with others, for building the Capital Structure Investments Group, a proprietary trading initiative at Goldman, where he focused on convertible and capital structure arbitrage and directional investments. Earlier at Goldman, he led the U.S. Convertible Research and Strategy groups. Scott holds a BA in Engineering and Economics, Magna Cum Laude from Brown University.

Figure 1. Composition of a Convertible Security



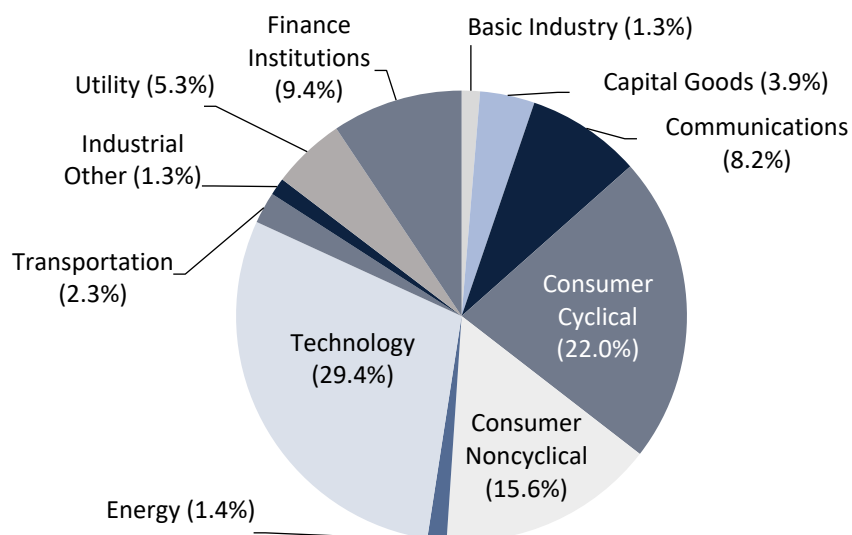
The convertible market today includes not just bonds, but convertible preferred stock and mandatory convertibles as well. For ease of discussion, this paper will focus on just convertible bonds, which currently represent approximately 80% of the outstanding market value of all U.S. convertibles.

Who Issues Convertibles?¹

Issuers of convertibles in the U.S. tend to be more heavily weighted toward growth industries. Convertibles appeal to growth-oriented companies for a number of reasons: 1) the lower coupons in convertibles are particularly compelling for companies needing to allocate cash to fund their growth initiatives, 2) these issuers are able to monetize the typically higher volatility in their stocks through a convertible, using it in a sense to subsidize a lower coupon on the embedded corporate bond, 3) these issuers' financials may not be viewed as favorably by straight debt investors that are more concerned about credit metrics than growth, 4) the convertible market is extremely flexible and securities can be structured in a variety of ways to suit specific circumstances, and 5) certain tax and accounting benefits may be attractive to particular issuers.

Given the economic backdrop of the past two decades in the U.S., this growth focus has meant that technology and healthcare have typically been the dominant sectors for convertible issuance. That said, many features of convertibles appeal to less growth-oriented issuers as well. In 2020, "impaired" issuers also returned to the convertible market in a broad-based way for the first time since the 2008 crisis, attracted by the structural flexibility and diversified investor base which is well-suited to these need-based companies. Figure 2 shows the distribution by industry of outstanding convertibles in the U.S. market as of September 30, 2020. At this time, the total outstanding U.S convertible market value was about \$337 billion, comprised of roughly 550 issues. Looking at the equity market capitalization of issuers, about 17% of the market comes from small-cap companies, 16% from mid-cap, and 67% from large cap.

Figure 2. Breakdown of Outstanding U.S. Convertible Market by Industry Sector²



¹Barclays Capital Research. Data shown for the Barclays U.S. Convertible Composite which is an aggregate index for U.S. convertible securities. It includes all four major classes of USD equity-linked securities including: convertible cash coupon bonds, zero-coupon bonds, preferred convertibles with fixed par amounts and mandatory equity-linked securities.

²Ibid.

Credit quality is an aspect of the convertible market that can be difficult to readily discern. Approximately 70% of the U.S. convertible market is unrated by Moody's or Standard & Poor's. Moreover, only about 11% of the market is rated investment grade. We estimate the average credit quality of the overall market is approximately BB. Importantly, the majority of convertible issuers have no other actively traded public debt or credit default swaps outstanding, making the convertible market the only place where credit price discovery occurs for these companies. On top of which, convertibles are generally difficult instruments in which to price or gain exposure to credit given that their structuring includes below-market coupons and exposure to equity-sensitive options.

Last but not least, the universe of convertible issuers is mostly distinct from the universe of issuers that compose standard credit benchmarks. As of September 30, 2020, issuers whose convertibles are part of the BofA Merrill Lynch All U.S. Convertibles Index represented only 9.7% of the Bloomberg Barclays U.S. Corporate Investment Grade Credit benchmark and 6.4% of the Bloomberg Barclays U.S. Corporate High Yield benchmark, respectively. As a result, convertible portfolios tend to have lower exposures to those issuers in which ETFs and large active credit managers hold structurally high allocations and are less impacted by flows in and out of these investment vehicles.

Convertible Trading Behavior

Before we discuss who buys convertibles, it is helpful to first understand the trading behavior of a convertible bond. At maturity, the holder of a convertible has the option to either turn the security into the issuer for its redemption value of \$1,000, or alternatively turn the security into the issuer for conversion into a fixed number of shares. To the extent the conversion value (i.e., the current market value of this fixed number of shares) is greater than \$1,000, the security is said to be in the money and one would choose conversion into stock. If the conversion value is less than \$1,000, the security is said to be out of the money and one would choose redemption for cash.

The trading behavior of a convertible over its life reflects the varying probabilities of these two different outcomes (see Figure 3). A deep in the money convertible (shown on the right side of Figure 3) is highly likely to be converted, and thus will behave very much like stock. A deep out of the money convertible (shown on the left side of Figure 3) is highly likely to be redeemed for cash, and thus will behave very much like a straight corporate bond. In between, a convertible will behave in a balanced fashion that reflects elements of each.

Figure 3. Hybrid Behavior of a Convertible Bond



The two components of a convertible are sensitive to different factors. The embedded corporate bond is sensitive to the same things as straight corporate bonds, principally credit quality and interest rates. The embedded call option is sensitive to the same things as listed equity options, principally stock price and stock volatility (in addition to stock dividends, the cost of shorting the stock, and interest rates). As a result, a convertible in total will be sensitive to these underlying factors in a manner reflecting the relative importance of the bond versus option at any given point in time. Otherwise said, a deeper in the money convertible will be more sensitive to stock price and stock volatility,

while a deeper out of the money convertible will be more sensitive to credit quality and interest rates; a balanced convertible will to some degree have meaningful sensitivities to all of these underlying factors.

Who Buys Convertibles?

At the highest level, holders of U.S. convertibles can be divided into two groups based on their different approaches to managing risk, long-only investors and hedged investors. Long only (often called outright) convertible holders dominate the market today and buy convertibles to access the directional exposures available in these securities. Alternatively, hedged investors seek to reduce or eliminate certain of these underlying exposures to isolate and access just the cheaper parts of the capital structure.

Long-Only Investors

Starting with long-only investors, given the wide range of exposures possible in a convertible depending on its trading profile, this group includes a wide range of different investor types.

- Equity investors (e.g., equity income funds) tend to favor convertibles that are either balanced or in the money. With high equity sensitivities and current yields that often exceed the underlying stocks' dividend yields, these convertibles may be viewed as providing slightly defensive and yield-enhanced exposure to the issuers' stocks.
- Dedicated convertible investors (e.g., convertible mutual funds) tend to favor balanced convertibles. With an asymmetric profile that offers increasing exposure to the upside of the underlying shares as they rise and decreasing exposure to the downside as they fall, convertibles may be appealing to more risk averse equity investors.
- Fixed income investors (e.g., high yield funds) tend to stay away from most convertible bonds as they generate much less interest income than straight bonds and bring unwelcome equity volatility to their portfolios. They generally favor convertibles that are out of the money as they offer higher yields and less sensitivity to the stock price of the issuer. At even lower dollar prices, convertibles may also attract interest from distressed investors.

Importantly, for both equity investors and dedicated convertible investors, stock performance generally drives the bulk of expected convertible returns. Not surprisingly, these investors thus seem to prioritize picking underlying stocks in their convertible selection. This is in direct contrast to hedged convertible investors who actively seek to eliminate this stock exposure by selling short the underlying shares.

Hedged Investors

Hedged convertible investors, often referred to in the past as convertible arbitrageurs, have an interesting history in the U.S. market. They existed for years as relatively smaller market participants, but really came into prominence in the late 1990s and even more so in the early 2000s as major early recipients of the large allocations of money directed into alternative strategies more broadly. With these sizable fund inflows, amplified by meaningful leverage, hedged convertible investors grew to dominate trading flows and holdings in those years.

This situation unwound in essentially two key steps. The first step was in 2005 when a period of softer returns seemed to confirm a concern among funds-of-hedge-funds that convertible arbitrageurs had been overfunded. Major withdrawals from convertible hedge funds followed, leading to a significant number of managers closing. The second step was in 2008 when in addition to the fire sale of Lehman Brothers' convertible bond trading inventory, many of the remaining convertible hedge funds were forced to deleverage into the ongoing vicious selloff across credit markets. For a number of funds, the resulting losses and end-investors' subsequent aversion to risk and leverage proved unrecoverable. On top of this, regulatory changes coming out of the global financial crisis also resulted in the dramatic downsizing of broker-dealer holdings of hedged convertible positions, which at times had been quite sizable.

Although they are more than a decade in the past, given the lack of day to day visibility of the asset class, these two market disruptions in 2005 and 2008 are what stick in the mind of many investors about the U.S. convertible market. Similar disruptions seem highly unlikely to repeat today given the current makeup of the convertible investor base.

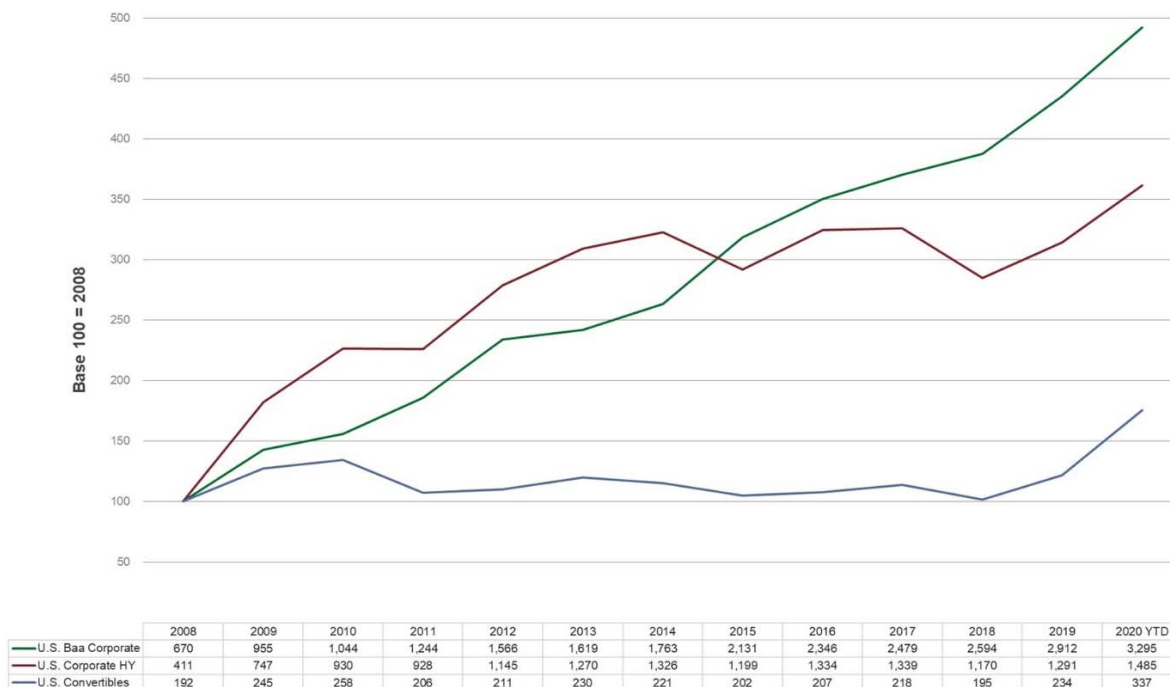
Today's U.S. Convertible Market

In the current convertible market, there are significantly fewer hedged investors than prior to the global financial crisis. Those that remain tend to reside within larger multi-strategy hedge funds, or within firms doing specialized implementations of hedged convertible strategies. Moreover, leverage levels across the market are far lower than pre-2008, and broker-dealer holdings remain relatively small.

We believe the modest level of hedged investment in the asset class is likely to persist, at least over the near to medium term. This is due to 1) an issuer base that often has no other actively traded public debt or credit default swaps outstanding, and thus requires holders to either own the embedded credit risk or incur significant basis risk in attempting to hedge it out with other instruments, and 2) a lack of appetite among end investors and prime brokers for the high levels of leverage necessary to produce returns comparable to those of more directional strategies, particularly in light of the credit exposures discussed in point #1. As a result, the U.S. convertible market of the past decade has seen a stable balance between a larger and diverse group of long only investors, and a smaller group of hedged investors.

Similar to the stability seen on the demand side of the convertible market, the supply side of the market had shown similar consistency post 2008, up until the pandemic in the spring of 2020. As shown in Figure 4, the U.S. convertible market had remained within a fairly tight size range over the past decade, and had not suffered the excesses, potentially attributable to quantitative easing and low interest rates, that had been seen in the investment-grade and high-yield bond markets. In 2020 YTD, the U.S. convertible market again experienced organic growth (i.e., new issuance exceeding retirements), but at a rate that was significantly elevated relative to history, similar to the growth trends experienced in straight debt markets. For convertibles, the appeal for both need-based financings from businesses impaired by Covid-related slowdowns, and also opportunistic financings from businesses which benefited from their relative appeal in the pandemic, drove the outsized issuance.

Figure 4. Historical U.S. Fixed Income Sector Market Value in USD Billions³



³Barclays Capital Research.

Hedged Convertible Portfolios as a Source of Cushioned Credit Alpha

The convertible market has been a relatively stable and productive source of alpha over the past decade. This favorable performance stems from it being one of the credit markets least traveled by credit investors, from credit pricing made opaque by limited comparable straight debt and infrequent credit ratings, and from pricing driven mostly by outright investors more focused on stock price than credit.

With patience and discipline, hedged convertible investors use fundamental credit research and their convertible valuation expertise to identify pricing inefficiencies and idiosyncratic opportunities, seeking to generate consistent and repeatable excess returns. While providing exposure to the undervalued and differentiated credits that are prevalent in the convertible universe, hedged investors simultaneously benefit from the volatility exposure inherent in convertible securities. Because this volatility exposure tends to be negatively correlated to credit (i.e., widening credit spreads and higher stock volatility are often concurrent), it acts as a powerful performance cushion, or a credit airbag of sorts. The result is an attractive return profile for hedged convertible portfolios that has a low correlation with other credit managers.

We think a reasonably diversified hedged convertible portfolio could include 80 to 140 convertible investments, with corresponding short-stock positions. We believe an appropriate investment objective of these portfolios would be to generate 2% to 3% of annualized excess return above short-term funding rates on an unlevered basis over a full economic cycle.

Conclusion

Convertibles occupy an under-trafficked niche within the financial markets, garnering little broader attention but offering a variety of interesting investment opportunities. When their equity component is hedged, convertible bonds provide differentiated and cushioned credit exposure. This combination of a distinct universe of corporate issuers within the convertible bond space and the convexity of returns observed when credit spreads widen makes hedged convertibles an interesting diversifier within a credit allocation. We believe that the same factors that helped produce this dynamic in the decade following the global financial crisis will persist in the coming years, making convertibles a compelling asset class from which to source excess returns.

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