2019 Market Outlook: Convertibles

It’s All Relative
When investors make asset allocation decisions, they need to look at a potential asset class relative to others. The appeal of each asset class story depends not just on its own merit but whether it looks more attractive than other themes in the portfolio, and of course how it might affect the remaining holdings based on correlation of returns and risk.

When looking at convertible bonds for this purpose, we must first recognize that the risk and return is comprised of both underlying equity and credit inputs. Because stocks are typically more volatile than bonds, we have found historically that convertible bond performance can sensibly be compared to a balanced portfolio of approximately 60% equity and 40% fixed income.

Despite all the vagaries of convertible bonds where we consider delta, gamma and other complex-sounding characteristics, the relative argument for convertibles compared to stocks and bonds can be often boiled down to two expected conditions:

A. Convertibles are expected to outperform stocks when volatility is high – convertibles contain an embedded “equity option” that becomes more valuable in volatile stock markets.

B. Convertibles are expected to outperform bonds when interest rates rise – rates typically rise when the economy is strong and inflation creeps in, so the embedded option in a convertible provides some equity upside potential not found in other bond instruments.

As we look ahead to 2019, we consider below the merits of convertible bonds in this context.

1. CONVERTIBLES PERFORMANCE AS VOLATILITY RISES

In the past three years, some investors have wondered if “convertibles are dead.” We observe in Display 1 where this concern comes from. If we look at the period from January 1, 2016, through October 31, 2018, equity as measured by the MSCI All Country World Index, has delivered a return of 8.26% while fixed income as measured by the Bloomberg Barclays Global Aggregate Total Return Index, has provided a return of 3.17%. So, a 60% equity/40% fixed income mix of these indices achieved a return of 6.22%. In this same period, convertibles as measured by the Thompson Reuters Global Convertibles Focus Index, have delivered a return of only 2.93%, underperforming not only the 60/40 mix by a material 3.29%, but also both the equity and fixed income components that comprise convertibles risk. It is intuitive that if convertibles comprise both equity and credit risk then the return and risk should be somewhere in between, but over this period convertibles unusually underperformed both constituent parts.

Thankfully, the picture improves if we look to the decade preceding this period. We see in Display 1 that from January 1, 2006, through December 31, 2015, the 60% equity/40% fixed income mix delivered a return of 5.25% while convertible bonds returned 6.10%, an outperformance of 85 basis points (bps). In fact, over this decade, convertible bonds outperformed both the equity and fixed income component parts.

Of course, we must appreciate that an investor in global convertibles does not own the same mix of individual equity and fixed income securities as the indices, but nevertheless, the period is sufficiently long enough that it raises questions as to why convertibles have outperformed and then underperformed equities and fixed income over different time horizons. In our view, the answer lies primarily in the level of equity volatility. A convertible bond, of course, is comprised of a regular corporate bond and an “equity option”— an option to convert to a specified number of equity shares. The more volatility there is in the equity market, the greater the value of the option. Looking back at Display 1, volatility as measured by the VIX Index was very low in the period from January 1, 2016, to October 31, 2018, with an average level of just 14.39%. We can compare that to the decade from January 1, 2006, to December 31, 2016, where we see that the VIX was 20.29%. Simply put, in a period of higher volatility, convertibles outperformed both equities and fixed income due to the value of the option, while the opposite occurred in the period of relative calm and low volatility.

### DISPLAY 1

Convertibles Returns vs 60% Equity/40% Fixed Income Mix

<table>
<thead>
<tr>
<th></th>
<th>EQUITY</th>
<th>FIXED INCOME</th>
<th>CONVERTIBLE BONDS</th>
<th>60% EQUITY/40% FIXED INCOME MIX</th>
<th>DIFFERENCE BETWEEN CONVERTIBLE BONDS AND A 60% EQUITY/40% FIXED INCOME MIX</th>
<th>MARKET VOLATILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.1.06 – Dec.31.15</td>
<td>5.76%</td>
<td>4.49%</td>
<td>6.10%</td>
<td>5.25%</td>
<td>0.85%</td>
<td>20.29</td>
</tr>
<tr>
<td>Jan.1.16 – Oct.31.18</td>
<td>8.26%</td>
<td>3.17%</td>
<td>2.93%</td>
<td>6.22%</td>
<td>-3.29%</td>
<td>14.39</td>
</tr>
</tbody>
</table>

Equity is represented by the MSCI All Country World Index. Fixed Income is represented by the Bloomberg Barclays Global Aggregate Total Return Index Unhedged. Convertible bonds are represented by the Thomson Reuters Global Convertibles Focus Index. Market volatility is represented by the VIX Index. In general, equity securities’ values also fluctuate in response to activities specific to a company. Fixed-income securities are subject to credit risk (the ability of an issuer to make timely payments of interest and principal) and interest-rate risk (fluctuations in the value of a fixed-income security resulting from changes in the general level of interest rates). In addition to the risks associated with common stocks, investments in convertible securities are subject to the risks associated with fixed-income securities, namely credit, price and interest-rate risks.

The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. Past performance is no guarantee of future results. See Index Definitions section for index definitions.
If we now aim to look at an even longer term, Display 2 shows the plotted history of the VIX since inception. The VIX takes a forward-looking approach to volatility by measuring the prices of options to the next three months expiry. As such, the VIX is widely known as the market’s “fear gauge” and can spike very quickly on negative market news. In order to view a smoother picture, we show in Display 2 a 90-day rolling average of VIX levels going back to 1990. Overall, we observe that the average level of VIX since inception is 19.26%. In the past three years, stocks benefitted from the slow and steady recovery in the global economy, where economic data and corporate earnings rose consistently. Volatility was accordingly low (as we see above, the average VIX of 14.39% is far below the long-term average of 19.26%) and so convertibles were soundly beaten by directional, equity investments. However, in the decade before that, which of course included the credit crisis of 2008, average volatility was higher than the long term at 20.26%, making convertibles a better investment than equities as downside was protected in choppy markets.

Looking further at Display 2, we update work from our forecast at this time last year, where we gather VIX data into 4%-wide regimes to make it easier to observe. We note the following:

A. In the very low volatility regime of <13% for the VIX, both equities (+274 bps per month return on average) and convertibles (+219 bps) perform well, but, as expected, equities are better due to implied strong equity markets and a drag from the cost of the embedded option in convertibles.

B. Equities continue to outperform until the VIX regime rises above 17 and then convertibles outperformed thereafter. VIX above 17 occurred 50% of the time in the sample since VIX inception in 1990.

C. The historical average for VIX of 19.26 sits in the middle of the 17-21 regime shown in the table. Here, convertibles outperformed equities with an average historical monthly return of 57 bps vs 28 bps for equities.

For us, the punchline is that convertibles are not dead; we believe they have just been sleeping. While equity markets have enjoyed an easy ride since 2016, volatility has been low and it has made sense to be overweight pure equities. But if we look to the decade before and indeed even use the long-run average for equity market volatility, convertibles have outperformed equities. As we have seen in the latter stages of 2018, equity volatility looks to be back, and on that basis we see convertibles as a better bet than equities looking forward to 2019.

2. CONVERTIBLES PERFORMANCE AS RATES RISE

For convertibles, a look at equity volatility is incomplete without considering interest rates because, as mentioned above, convertibles are clearly a hybrid investment of bond plus “equity option.” The interplay of volatility and rising rates therefore has more relevance for convertible than even equities.

Convertibles offer a hedge against rising rates for two reasons: (i) They are relatively short duration because issuers do not like giving long-term “conversion options” on their stock, and (ii) the asset class historically has typically provided positive returns when rates go up, simply because the return profile is driven more from the embedded “equity option.” Usually, when rates are going up it is because the economy is performing well and central banks raise rates to manage inflation. In this context, equity markets often rise and convertibles benefit too.

**DISPLAY 2**

| Analysis of U.S. Equity and Convertible Bond Returns in Different Volatility Regimes |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| VIX LEVEL                           | <13             | 13-17           | 17-21           | 21-25           | 25-29           | >29             |
| Converts                            | 2.19            | 1.35            | 0.57            | 0.33            | -2.41           | -1.59           |
| S&P 500                             | 2.74            | 1.86            | 0.28            | -0.18           | -3.24           | -3.56           |
| Difference between S&P 500 and Converts | -0.55          | -0.50           | 0.29            | 0.52            | 0.83            | 1.97            |
| % of occurrences                    | 23%             | 27%             | 19%             | 13%             | 8%              | 10%             |

Source: Bloomberg. Data from January 1990 through October 2018. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. Past performance is no guarantee of future results. See Index Definitions section for index definitions.
To test this, in Display 3 we also update work we did in an earlier article. Here, we analyze all of the months over the past 20 years when U.S. 10-year Treasury rates rose 25 bps or more and observe that U.S. convertibles rose an average of 3.05%. Conversely, in months when the U.S. 10-year rate fell 25 bps or more, average U.S. convertibles returns were -1.89%.

Intuitively this makes sense, as convertibles losses in these times from rising rates on the bond side are more than offset by rising optionality on the equity side. Therefore, convertibles offer diversification benefits to fixed income investors as rates are poised to rise further into 2019.

3. CONVERTIBLE MARKET VALUATIONS
In our view, the table is set for convertibles to recover from underperformance versus stocks and bonds since 2016 as both volatility and rates are clearly on the rise. The next consideration is to evaluate the health of the market in terms of both valuations and supply.

In Display 4, we observe that valuations are right around what we consider to be “fair value” where the U.S. trades 75 bps cheap, Asia is 38 bps cheap and Europe is 2 bps cheap. This means that using current market levels for credit spread and volatility for each bond in the universe, the average theoretical price is very close to the price where the bonds trade in the market. Investors may query the accuracy of a “fair value” measure that uses current market inputs that may themselves be mispriced. To this end, we would agree that credit spreads look tight but volatility inputs are low given the quiet in markets until recent times, so in our view these effects net off, and the “fair-value” measure is a good gauge of where bonds should trade.

If the market trades at “fair value”, that implies that supply and demand are therefore in line, which makes sense as both metrics have picked up in the current year. As at October 31, 2018, supply for the year was $78 billion USD, which exceeded all of 2017 and was the highest pace in five years. When supply is higher, we often see the market cheapen, but it has maintained a level around “fair value” as demand has risen to meet supply. Throughout 2018, we saw inflows to the asset class as investors likely saw the merits of the scenario around rising rates and volatility.

Another important technical observation is that currently the market is trading right around par. In Display 4, we see that all three major regions are trading between 99.5% and 100% of par. It is rare to see the global convertible market

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1 Source: Bloomberg.
looking like the “day it was born,” trading both at our estimation of “fair value” and at par. This has appeal to investors as they can participate in the asset class without the biases of expensive valuations and/or at in-the-money prices.

4. GLOBAL VERSUS REGIONAL APPROACH

If we dig deeper and look at the data per region, however, we do observe some important differences. Again looking at Display 4, we observe that both equity risk and credit risk are higher in the U.S. than other markets. As of October 31, 2018, U.S. regional equity delta (i.e., sensitivity to the underlying stock price) was 52%, around 20 points higher than Europe (32%) and Asia (31%). This makes sense as equities have performed better in the U.S. in recent years so the convertibles universe is now deeper in-the-money. On the credit side, we observe a key difference between the U.S. and Rest of World where credit spreads in the U.S. approximate the high-yield market due to the fact that far more issuers are smaller-cap, growth companies. In Display 4, we observe a U.S. regional credit spread of 577 bps, far above Europe (256 bps) and Asia (125 bps). This can be very appealing in a strong bull market as the investor doubles down on both equity and credit risk, but of course it comes at the cost of less bond-feature in more uncertain times.

In addition to regional disparities on delta and spread, investors should also be aware that the U.S. only represents half of a small market. As we always tell our clients, why look at 500 securities for best ideas when you can look at 1,000? In an asset class where we need to optimize on three metrics (equity, credit and technicals) we typically like around 15% of the market. If we buy U.S. only, that only gives us 50-75 ideas, and these are concentrated in a few sectors.

Summary

We must acknowledge that we also made the case for convertibles relative to both stocks (as volatility rises) and credit (as rates rise) at the beginning of 2018. And convertibles have indeed provided reduced downside participation: Through October 31, 2018, the 60 equity/40 fixed income mix delivered a loss year-to-date of (3.79%) while convertibles returned (1.17%), an outperformance of 262 bps.

Heading into 2019, we still maintain some optimism for equities as we believe markets became oversold in Q4 2018, while earnings and profits are still growing, particularly in sectors such as technology, biotech and consumer, where the convertibles market is concentrated. We do, however, acknowledge that all equity and credit markets face more headwinds than a year ago, so our absolute return expectations are more muted in the mid-single digits.

But as they say, “It’s all relative,” so in 2019 convertibles certainly are lined up to be one of the more appealing asset classes and therefore offer an additional useful tool for asset allocators.

Risk Considerations

Diversification does not eliminate the risk of loss.

There is no assurance that a Portfolio will achieve its investment objective. Portfolios are subject to market risk, which is the possibility that the market values of securities owned by the Portfolio will decline and may therefore be less than what you paid for them. Accordingly, you can lose money investing in this Portfolio. Please be aware that this Portfolio may be subject to certain additional risks.

Fixed income securities are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In the current rising interest rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. Longer-term securities may be more sensitive to interest rate changes. In a declining interest rate environment, the Portfolio may generate less income. Convertibles The value of convertible securities tends to decline as interest rates rise and, because of the conversion feature, tends to vary with fluctuations in the market value of the underlying securities. Convertible securities ordinarily provide a stream of income with generally higher yields than those of common stock of the same or similar issuers. Convertible securities generally rank senior to common stock in a corporation’s capital structure but are usually subordinated to comparable nonconvertible securities. Convertible securities generally do not participate directly in any dividend increases or decreases of the underlying securities although the market prices of convertible securities may be affected by any dividend changes or other changes in the underlying securities. Foreign securities are subject to currency, political, economic and market risks. The risks of investing in emerging market countries are greater than risks associated with investments in foreign developed countries. Sovereign debt securities are subject to default risk. Derivative instruments may disproportionately increase losses and have a significant impact on performance. They also may be subject to counterparty, liquidity, valuation, correlation and market risks.
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The Bloomberg Barclays Global Aggregate Total Return Index provides a broad-based measure of the global investment grade fixed-rate debt markets. Total Returns shown in unhedged USD.

Bloomberg Barclays U.S. Generic Government 10 Year Yield Index rates are comprised of Generic United States on-the-run government bill/note/ bond indices. Yields are yield to maturity and pre-tax.

The MSCI All Country World Index (ACWI) is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of developed and emerging markets. The term “free float” represents the portion of shares outstanding that are deemed to be available for purchase in the public equity markets by investors. The performance of the Index is listed in U.S. dollars and assumes reinvestment of net dividends.

The S&P 500® Index (U.S. & S&P 500) measures the performance of the large-cap segment of the U.S. equities market, covering approximately 75 percent of the U.S. equities market. The index includes 500 leading companies in leading industries of the U.S. economy.

Thomson Reuters U.S. Convertible Index is a subset of the Thomson Reuters Global Convertible Index and is a market weighted index with a minimum size for inclusion of $500 million of Convertible Bonds with an equity link.

Thomson Reuters Convertible Global Focus (USD Hedged Index) is designed to provide a broad measure of performance of the investable, global convertible bond market, hedged back to USD.

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