Convertible Arbitrage's Quiet Evolution: A Fit and Leaner Strategy for Volatile Markets

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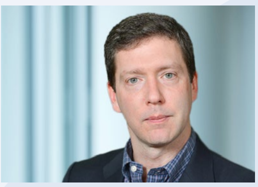
Why we believe convertible arbitrage stands to benefit from a potential new era of increased volatility and significant macroeconomic uncertainty.

Authors

Gil Song
Portfolio Manager,
Man GLG



Eamon Heavey
Managing Director,
Man GLG

Introduction

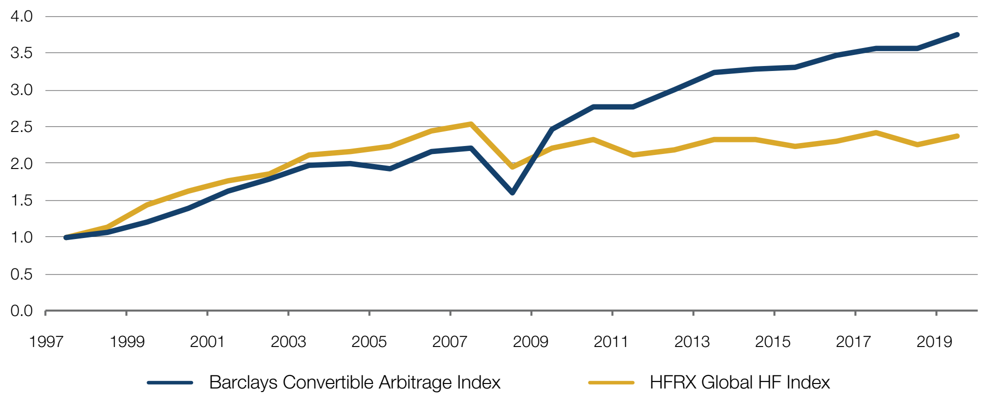
In the past decade, convertible arbitrage has endured considerable infamy. Due to the near 40% drawdown experienced by managers in the 2008 global financial crisis (Figure 1), assets under management in the strategy declined (Figure 2) and numerous arbitrage funds closed. In addition, the ensuing post-crisis era of zero rates and repressed volatility did little to help convertible arbitrage (and indeed, most other discretionary strategies) replicate pre-crisis investment performance.

However, we believe convertible arbitrage strategies deserve renewed consideration from asset allocators. With the global economy stagnating, convert arb stands to benefit from a potential new era of increased volatility and significant macroeconomic uncertainty due to trade wars, negative yields and increasingly ineffective central bank intervention. While the basic principles of convertible arbitrage remain unchanged from 2008, the convertible bond market today has evolved, in some respects quite dramatically.

This article will provide a primer on convertible arbitrage, examine the changes to the market over the last decade and discuss the opportunities we believe it now presents.

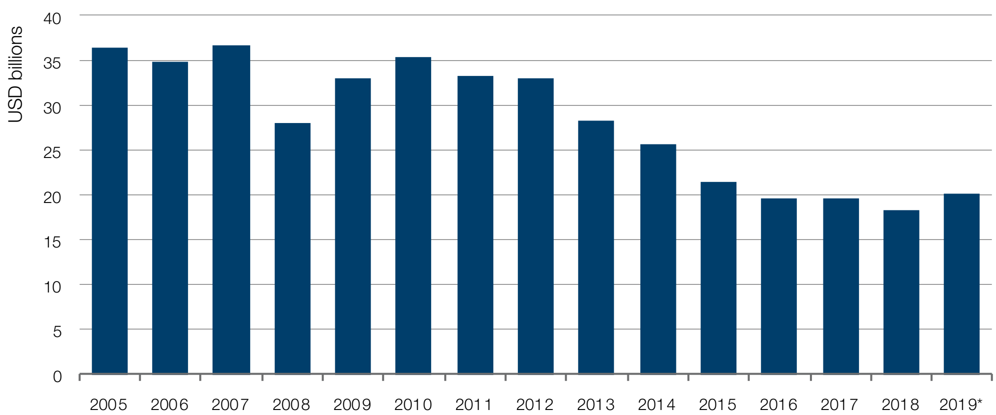
> "With the global economy stagnating, convert arb stands to benefit from a potential new era of increased volatility and significant macroeconomic uncertainty due to trade wars, negative yields and increasingly ineffective central bank intervention."

Figure 1. Convertible Arbitrage Drawdowns



Source: Barclays, Hedge Fund Research; as of July 2019.

Figure 2. AuM Decline in Convertible Arbitrage Funds



Source: Barclay Hedge; as of July 2019. *2019 AuM to end-July.

The Basics of Convertible Bonds

A convertible bond is a debt security with a fixed or floating coupon, sometimes as low as 0%, that may be converted into a specified number of common shares (typically of the issuing company). Bonds may include features such as puts, calls, soft calls, dividend protection and takeover protection. In its simplest form, a convertible bond can be thought of as a bond plus an equity call option.

Companies often issue convertible bonds instead of high-yield bonds to achieve lower interest payments in exchange for selling a call option on its equity to the investor. In addition, small, high-growth companies, and companies unable to access the high-yield market may also issue convertible debt.

The Basics of Convertible Bond Arbitrage

Convertible bond arbitrage is typically a delta-neutral strategy in which the investor purchases a convertible bond and simultaneously sells short the underlying stock in an amount equivalent to the theoretical equity delta of the bond (calculated using a convertible bond pricing model). The trade creates a long bond/short stock position that is delta neutral and long equity volatility and long credit of the issuer.

The strategy was originally conceived to exploit mispricing between the implied volatility of the convertible arbitrage position and the listed equity options, or historical realised volatility.

In practice, a convertible arbitrage position is truly dynamic in that a number of different exposures can be replicated depending on where the underlying equity trades relative to the conversion price (call option strike) of the bond. At lower conversion values, the position exhibits more bond-like qualities, with higher credit sensitivity. Conversely, at higher conversion values, positions have more equity option-like characteristics and higher equity price volatility sensitivity.

The position may profit (and conversely lose) through any combination of:

- Improvement in credit;
- Higher implied volatility;
- Gamma trading (large stock moves where changes in delta are captured and/or systematic re-hedging of realised volatility);
- Tightening interest rates;
- Event-based outcomes (M&A, induced conversion, changes in common stock dividend and other corporate actions).

In addition, managers today may overlay various hedging or directional strategies, including: interest-rate hedges; credit hedges (credit default swap or straight bond); selling the equivalent listed call option (to capture a volatility differential); and adjusting the delta hedge to take more or less equity exposure. As the stock hedge is directly correlated to the bond value, convertible arbitrage strategies employ greater gross leverage compared to long/short equity or credit strategies.

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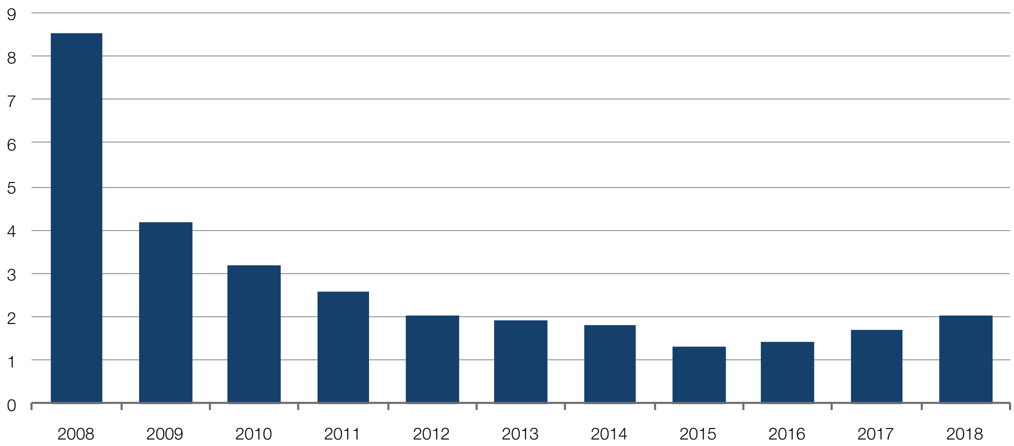
That Was Then, This Is Now

Three factors have contributed to the decline in convertible bond arbitrage in the past decade, in our view: a reduction in leverage; continual decline of a hedged implementation; and decreasing primary issuance.

In 2008, the leverage applied to the long side of convertible arbitrage positions approached eight times underlying capital (Figure 3). Given the delta-neutral arbitrage implementation, short stock positions were also proportionally inflated. When credit facilities from banks were unceremoniously terminated, calamity ensued. Bonds traded below their conversion value, while prime brokers called for liquidation of client accounts.

Fast forward to 2019 and long side leverage is down substantially to roughly two to three times underlying capital, with the size of the short stock position therefore being proportionally reduced.

Figure 3. Convertible Bond Long-Market Value Leverage



Source: Barclays, Hedge Fund Research; as of end-2018.

Secondly, where once 75% of all convertibles was held in arbitrage hands, today their share is 45%. In comparison, long-only and indexed funds hold 55% (Figure 4). While the majority of bonds now in relatively more 'stable' hands, regulations such as the Volcker Rule and Frank-Dodd reforms have also rendered multi-billion-dollar dealer flow/proprietary trading books obsolete.

Figure 4. Convertible Bond Holders

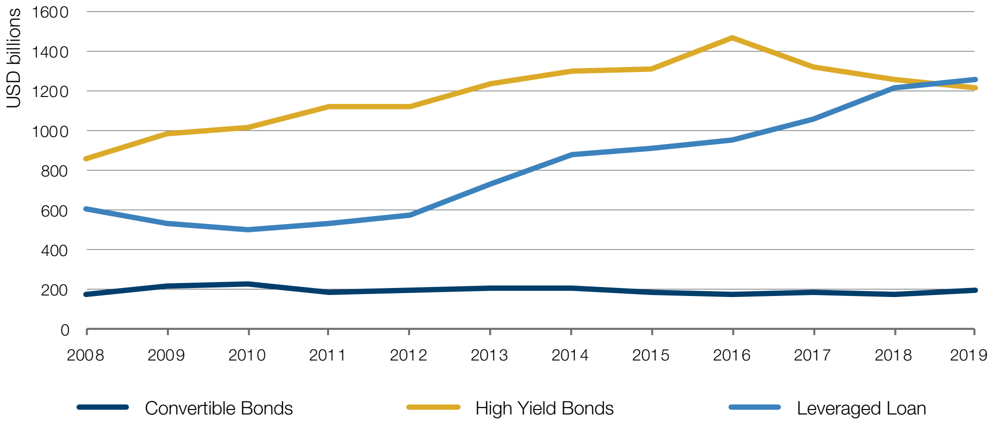
	2019 Q2	2019 Q1	2008 Q4	2008 Q3	2008 Q2
Outright	54.64%	58.42%	33.45%	26.80%	25.87%
Hedge Funds	45.36%	41.58%	66.55%	73.20%	74.13%

Source: Barclays; as of the 2Q 2019.

Third, the rate of primary convertible issuance has been declining over the past 10 years. By and large, most of the decline can be attributed to issuers opting for high-yield debt in lieu of convertibles; high-yield and leveraged loan markets have grown significantly since 2008, while the convertible market stagnated (Figure 5). A number of factors can be attributed to the deterioration in convertible issuance, including: the diminished coupon advantage of convertibles in a zero-rate world; low implied volatility level (higher volatility allow issuers to command greater premiums); and the ceaseless passive and active strategy demand for vanilla fixed income products over the past decade.

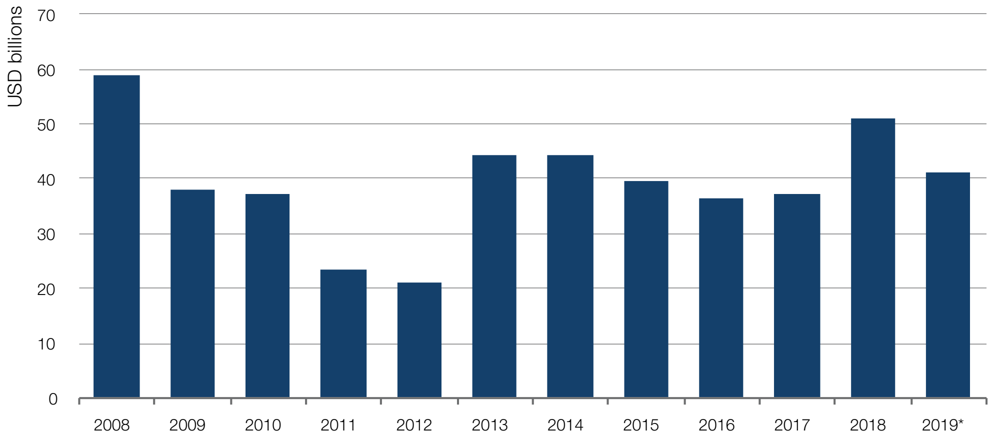
As US Treasuries eclipsed 3%, 2018 marked a turning point in this trend, with USD51 billion of US convertible issuance – the highest since 2008 (Figure 6). This year through 9 September, issuance at USD41.2 billion looks to be at least on par with 2018 as higher implied volatilities have offset the retracement of Treasuries, notwithstanding the massive pivot in rates. For issuers, borrowing at sub-1% interest rates and high conversion to equity premiums – i.e. sufficiently out of the money, of 35-40% – is perhaps too tempting to pass up, particularly this late in the credit cycle.

Figure 5. High Yield and Leveraged Loan Market Size Versus Convertible Bonds



Source: Bank of America-Merrill Lynch, JPMorgan; as of 31 July 2019. Note: 2019 values to 31 July.

Figure 6. Convertible Bond Issuance



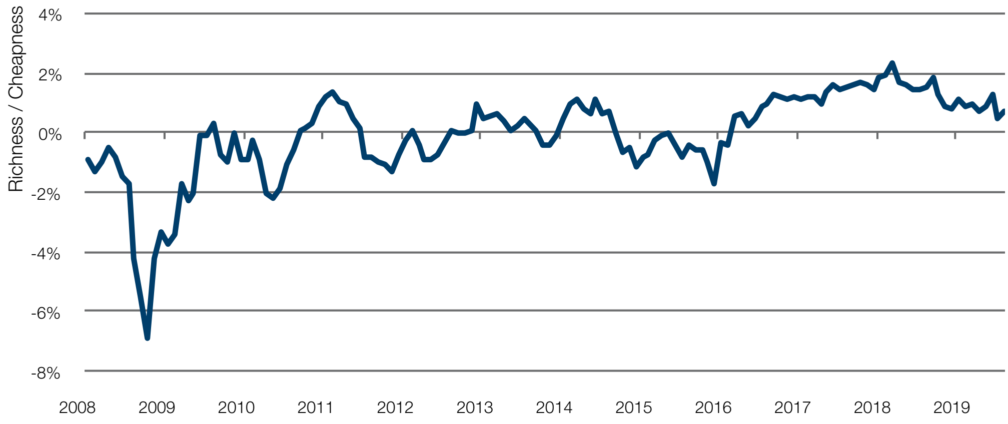
Source: Bank of America-Merrill Lynch; as of 9 September 2019. * 2019 issuance to 9 September.

The Opportunities

The continuation of healthy issuance is the first reason we believe investors should consider convertible bond arbitrage. Issuance this year has promoted a steady turnover of names as holders rotate into new paper and create technical trading opportunities. Additionally, new issue pricing has been reasonably attractive this year, in our view, creating incremental investment returns for buyers.

Secondly, convertible 'cheapness' has historically exhibited relatively constant cyclicality. While this still holds to an extent, the predominance of long-only funds in the asset class today has created numerous eddies in the broader current. Essentially, long-only stock picking and index benchmarking behavior has greatly increased dispersion in theoretical value, whereas traditionally the cheapness of a security was highly correlated to the cheapness of the overall asset class. Consequently, we do not believe 'average' convertible cheapness to be as reliable an indicator of expected convertible arbitrage returns as in the past. Managers who simply chase the cheapness cycle may be overlooking many promising investment opportunities (Figures 7, 8).

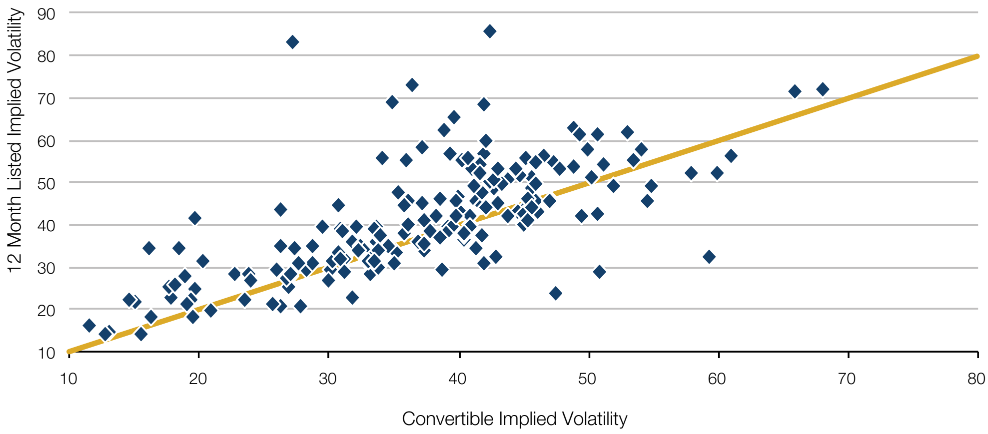
Figure 7. Convertible Richness, Cheapness



Source: Barclays; as of 5 September 2019.

"The current volatile environment is favourable for convertible arbitrage investing."

Figure 8. Listed Implied Volatility Versus Convertible Bond Implied Volatility

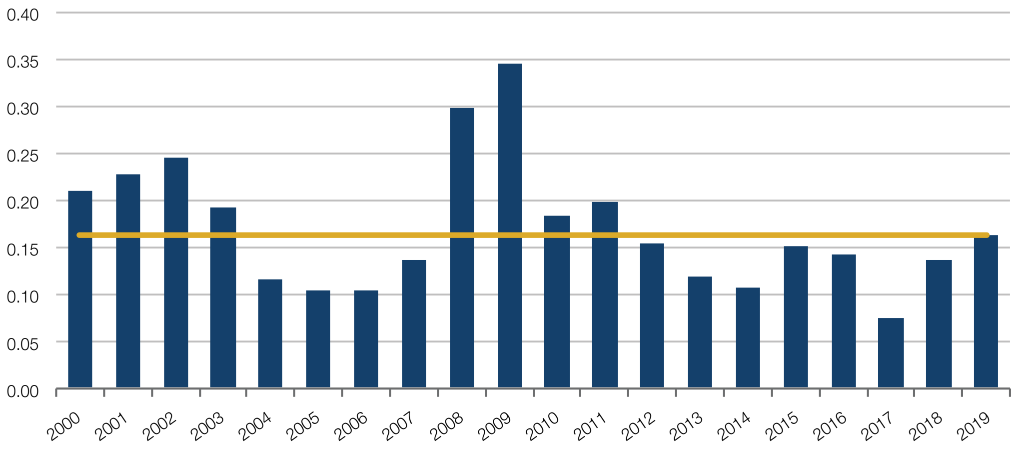


Source: Barclays; as of 9 April 2019.

Thirdly, and more importantly, the current volatile environment is favourable for convertible arbitrage investing. Credit spreads remain stubbornly tight while both implied and realised volatility has steadily increased since 2017. This year through 11 September, 3-month realised volatility for the S&P 500 Index is at 16.2%, the highest level since 2011 (Figure 9). Indeed, it is not uncommon to setup a convertible arbitrage position at a 10-15% implied volatility discount to realised volatility. This is particularly true in the technology sector, which encompasses more than 35% of the convertible bond market. Given the highly uncertain macroeconomic picture, we remain optimistic that volatility will probably continue for the foreseeable future.

Last but not least, the dramatic reversal of rates in 2019 has been a constant tailwind for valuations: fixed-rate instruments tend to increase in value as benchmark rates decline, while the sudden decline in rates in a risk-off environment has led to increased volatility.

Figure 9. Average 3-Month Realised Volatility for the S&P 500 Index



Source: Bank of America-Merrill Lynch; as of 30 August 2019.

The Risks

We recognise credit can't stay tight forever and are vigilant of any potential unwind/liquidity crisis, potentially precipitated by passive investment products. To this end, we would advocate a highly disciplined approach with limited credit duration exposure.

We are also somewhat wary of the recently issued convertibles in Chinese American depositary receipts ('ADRs'), as the possibility that the US may restrict pension investments in China, while remote, would dramatically reprice those assets.

Finally, convertible arbitrage investing has always confronted a myriad of idiosyncratic risk, whether it be deteriorating stock borrow, unfavorable corporate action, or issuer credit deterioration.

In our view, these risks are best managed through diversification and regimented risk size management.

> "We are optimistic for the prospects of this once-maligned corner of the asset management industry."

Conclusion

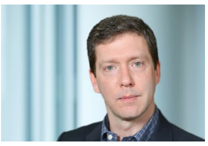
The convertible arbitrage market is a different beast than before the last crisis, in our view. With lower leverage, increasing dispersion and a dearth of arbitrageurs, opportunities for convertible bond arbitrage are more plentiful than they have been for some time. Indeed, when coupled with the recent upturn in issuance and the current volatile environment, we are optimistic for the prospects of this once-maligned corner of the asset management industry.

Authors

Gil Song
Portfolio Manager, Man GLG

Gil Song is a portfolio manager at Man GLG, responsible for convertible bond arbitrage. Gil joined Man GLG in 2017 from Paloma Partners, where he was a convertible bond portfolio manager since 2006. Prior to Paloma Partners, Gil was a trader at Severn River Capital and a senior M&A and Restructuring analyst at Jefferies – Broadview Technology Group. Gil graduated with a BA in History from Yale University in 2000.

Eamon Heavey
Managing Director, Man GLG



Eamon Heavey is a Managing Director at Man GLG. Based in New York, he is focused on the development of Man Group's global credit business, which includes corporate, structured and private credit strategies. Prior to joining Man GLG in January 2016, Eamon was responsible for development of the US business of Cairn Capital, a UK-based credit asset manager focused on European corporate and structured credit opportunities. Before that, he worked at Ellington Management Group. Eamon graduated with an MBA from Columbia University and an M.E. and B.E. in Chemical Engineering from Cooper Union. He is a former board member of the Connecticut Hedge Fund Association.

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