JANUARY 2021

CONVERTIBLE BOND ARBITRAGE
A POTENTIAL SOURCE OF UNCORRELATED RETURNS

THREE KEY CHALLENGES INVESTORS FACE

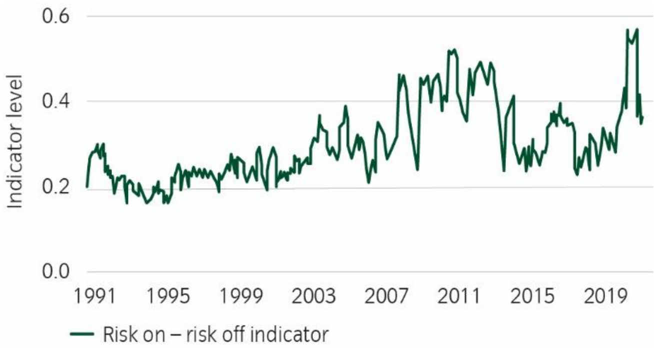
2020 was characterised by extraordinary turbulence, with the severe economic impact of COVID-19 being met with an unprecedented policy response. Market dynamics reflected that, with the speed of the sell-off and subsequent rebound in risk assets both remarkable in a historical context. Recent positive news on the deployment of vaccines has increased optimism on the growth outlook from mid-2021 providing a further boost to risk assets. The key issue for markets is whether they can look through near-term economic weakness as western developed world governments tighten restrictions to manage 2nd wave infection rates and focus on the improving growth story later in the year. Risk assets will be highly attuned to the progression of vaccine roll-outs and how that interplays with growth expectations. Meanwhile, central bank policy is likely to remain easy for some time, anchoring government bond yields at low levels.

Against that background, investors face three key challenges in our view:

1. **Search for uncorrelated returns:** As the COVID crisis emerged we saw a big increase in correlations between asset classes, with most assets behaving as either 'risk-on' or 'risk-off'. While that has subsided to some degree, this "RoRo" behaviour remains elevated in an historical context which is presenting a challenge in terms of finding sources of uncorrelated returns to help portfolio diversification (Figure 1).
2. **Making money in choppy range-trading markets**: Arguably the re-bound in risk assets has priced in quite a lot of good news and we may see episodic setbacks or bouts of volatility as the recovery story progresses.
3. **Generating positive returns if risk assets relapse**: Government bonds have historically been the go-to risk-off asset. However, with yields at very low levels, they appear to offer limited return potential in a scenario where risk assets sell-off. Investors are being forced to search for other assets or strategies that could be downside diversifiers in a broad portfolio context.

In this paper we describe how Insight's Absolute Return Global Convertible strategy, managed by highly skilled and experienced portfolio managers, can potentially help meet these challenges.

Figure 1: Risk On – Risk Off (RoRo) Indicator



Source: HSBC, December 2020. The correlation indicator measures the strength of the correlations between a wide range of assets. An increase in the indicator implies rising correlations, with a value of 1 corresponding to perfect correlations between all assets.

ADDRESSING THESE CHALLENGES

Insight's Absolute Return Global Convertible strategy: a potential solution

Insight's Absolute Return Global Convertible strategy is designed to deliver returns in a wide range of market environments, which demonstrate low correlation with major asset classes, while also offering downside protection.

How does the strategy achieve this?

Long convertible bonds with short equity hedges

The strategy seeks to generate returns predominantly through long investments in convertibles paired with dynamically managed short hedges in the corresponding equities. Insight believes that the defensive characteristics of convertibles, combined with robust credit due diligence and return-seeking equity analysis, can help deliver strong risk-adjusted returns, exhibiting low correlation and low beta characteristics.

Capitalising on market inefficiencies

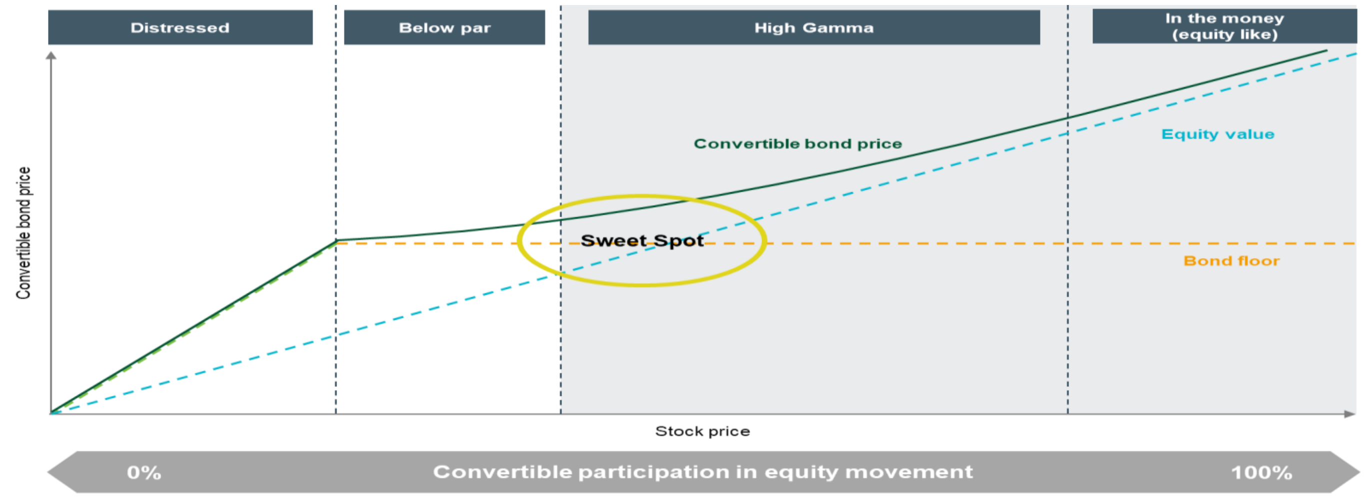
There are four key components of convertible bond returns: movements in equities, volatility, credit and rates. The management team aims to capitalise on market inefficiencies which can exist in the pricing of some of these components.

Figure 2 presents a stylised view of the influences on convertible bond pricing. It shows that at the extremes, a convertible bond price will tend to reflect equity characteristics on the upside, or credit dynamics and a theoretical bond floor on the downside.

The strategy focuses on convertibles trading in the grey shaded areas – 'high gamma' and 'in the money' – as the managers believe these tend to present the best return potential for their approach.

We explain this in more detail in the section that follows.

Figure 2: Stylised view of convertible structure



Source: Insight.

CHALLENGE 1: SEARCH FOR UNCORRELATED RETURNS

Strategy has demonstrated low correlation and beta

Figure 3 details the cumulative returns performance of the strategy since its inception on the 1 January 2019. The strategy is managed by a highly experienced team comprising two portfolio managers that have navigated multiple economic cycles, as well as spikes in volatility, while managing convertible arbitrage in a Cayman structure for nearly 20 years[1]. Now at Insight, they also draw on the firm's wider resources including a deep pool of credit research, specialist equity input, as well as global macro specialists.

The risk statistics presented in Table 1 demonstrate how the strategy can serve as an effective diversifier. Since inception, the strategy's realised beta and correlation to global equities has been low, at 0.06 and 0.34 respectively. Relative to global bonds, the strategy's beta and correlation statistics have even been negative at -0.08 and -0.09, demonstrating just how successful the strategy has been in delivering low correlation returns and its potential to serve as an effective portfolio diversifier.

Figure 3: Cumulative returns (since inception)[2]

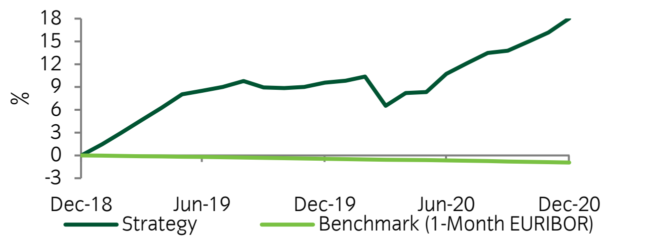


Table 1: Risk statistics (since inception)[3]

Risk statistic	Value
Volatility (pa)	3.95%
Maximum drawdown	-4.91%
Realised beta to global equities[4]	0.06
Correlation to global equities[4]	0.34
Realised beta to global bonds	-0.08
Correlation to bonds[5]	-0.09
Positive months	87.5%

Source: Insight, December 2020.

[1] Including tenure at predecessor company.

[2] Please refer to the risk disclosures at the back of this document. Returns are shown in EUR on a net basis (with a 0.75% annual management charge and performance related fee applied). From strategy inception on 1 January 2019 to 3 June 2019, performance relates to a model portfolio. From 3 June 2019 to date performance relates to a representative portfolio which closely follows the investment objective of the strategy.

[3] All risk statistics are calculated using daily data points. For beta and correlation calculations we have used the rolling 5-day average of the daily returns of both portfolios and the indices in order to smooth out the volatility related to securities being priced at different times in the portfolio and the indices. As at 31 December 2020.

[4] Equities relative to MSCI World 100% Hedged to EUR; Bonds relative to J.P. Morgan GBI-EM Global Europe Hedged EUR.

CHALLENGE 2: MAKING MONEY IN CHOPPY RANGE-TRADING MARKETS

Monetising volatility

As alluded to already, 2020 was a year of dramatic market moves – with one of the fastest market selloffs and rebounds in history. A lot of good news has been priced into risk assets and we may see episodic setbacks or bouts of volatility as the post-COVID recovery story plays out. The strategy is well positioned to capitalise and generate returns in choppy markets.

High gamma (change in delta) opportunities

Referring to Figure 4, the strategy aims to take long positions in convertible bonds that are trading close to par, where our analysis suggests that the bond floor is sound and where volatility is likely to emerge. The bond floor is the theoretical minimum convertible price, or 'safety net', assigned by bond markets (assuming no distressed events: the present value of future cash flows, accounting for credit worthiness and spreads).

This long position in the convertible bond is paired with an initial delta-neutral short equity hedge. The portfolio managers aim to generate returns by maximising the convertible's sensitivity to any underlying equity move.

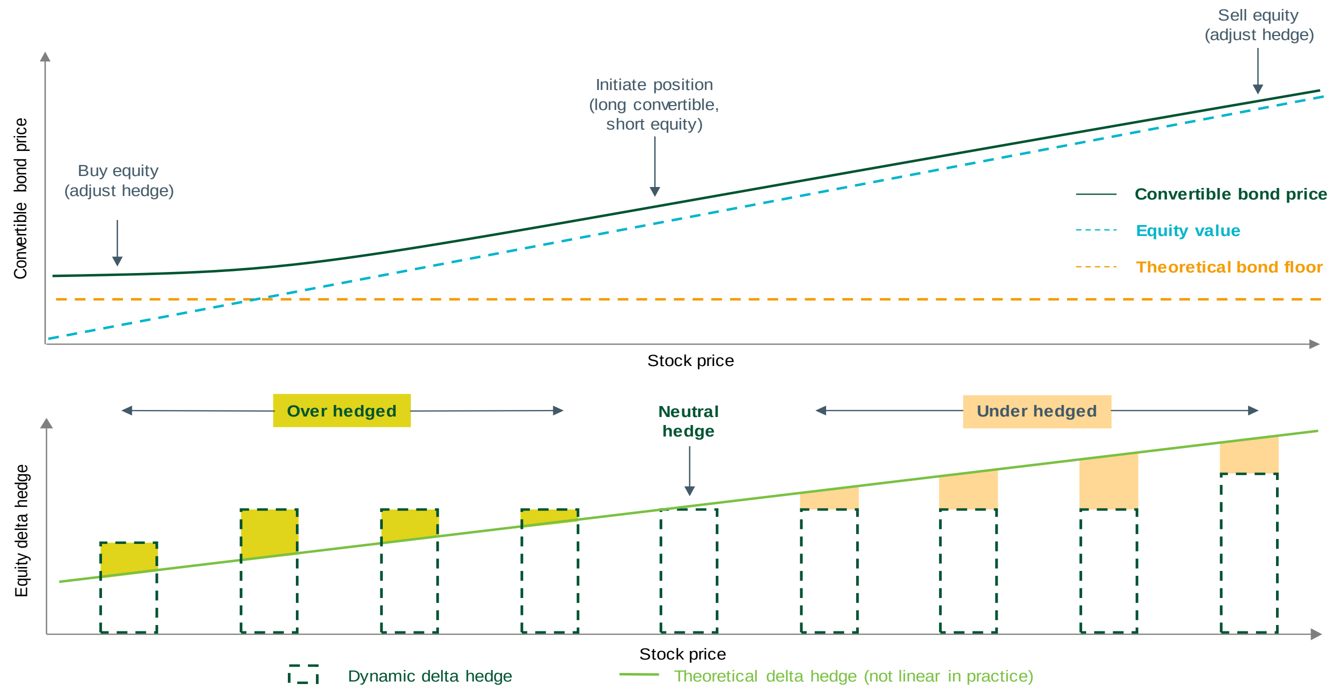
Scenario 1: equity price moves higher

Where the equity moves higher, the delta (or sensitivity) of the convertible bond to further upward moves in the underlying equity typically increases. This is illustrated in the lower-right segment of Figure 4. The managers aim to capitalise on this by dynamically managing the short equity hedge – typically increasing it (by selling more equity) with a lag – and thereby generating a profit from being under-hedged for a short period.

Scenario 2: equity price moves lower

Conversely, in a downside equity move scenario, the delta of the convertible bond price to further downside equity moves would typically fade, providing the bond floor is sound. Again, the managers can capitalise on this gamma/delta by dynamically adjusting the equity hedge. As the shares fall more than the bond, the short position in the stock becomes more profitable. This is illustrated in the lower left-hand side of Figure 4. The managers typically reduce the hedge (buying equity) with a lag and generate profit from being over-hedged for a period.

Figure 4: Stylised view of targeted payoff



Source: Insight.

CHALLENGE 3: GENERATING POSITIVE RETURNS IF RISK ASSETS RELAPSE

Government bonds have tended to offer reasonable carry and produce positive returns when risk-assets sell off. While they retain diversifying characteristics, return potential in a risk-off scenario seems limited given how low yields are now.

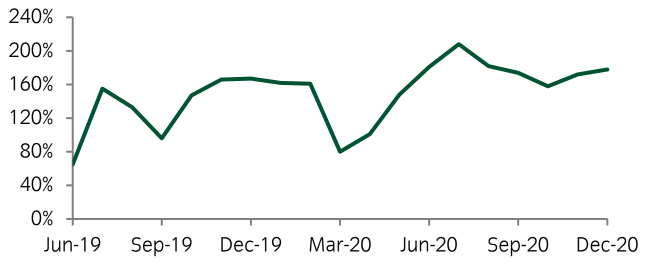
Using convexity to generate positive returns in risk-off environments

Where the equity is trading below the conversion price – the effective price that would be paid per share should the convertible be exercised – then the convertible will tend to be dominated by the market's view of the credit. Further, if the market is convinced that the credit is sound and unlikely to default, the convertible price delta to the underlying equity will fade. Convertibles also benefit from an imbedded call option, the value of which tends to rise if stock volatility picks up. Thus, in a risk off scenario where the equity sells off, the convertible should hold up comparatively better. This convexity gives the strategy the potential for positive returns when equities move lower.

Flexibility to go net short in periods of stress

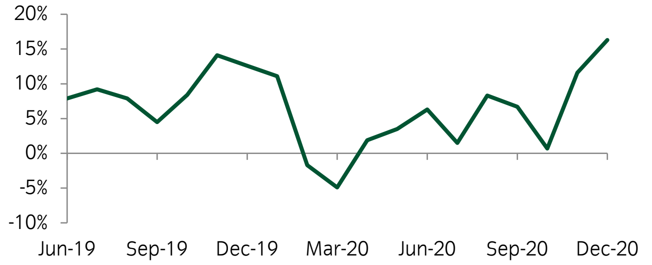
In addition to managing the individual exposures, the portfolio managers actively manage the overall exposure that the fund has. This can be seen in Figure 5, where the strategy's gross exposures have moved around quite aggressively during the most challenging periods of the COVID-19 crisis. There have also been periods where the strategy has been net short (Figure 6). Having the ability to go net short ensures that the strategy can generate a return in declining markets.

Figure 5: Gross leverage (long MV % NAV)



Source: Insight, December 2020.

Figure 6: Net equity exposure[5] (% NAV)



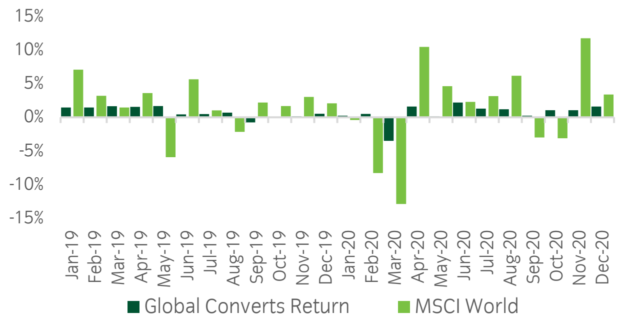
Source: Insight, December 2020.Net delta adjusted exposure of convertibles incorporating hedge and portfolio overlays.

A track record demonstrates ability to deliver positive returns in risk off periods

Figure 7 shows the historical monthly returns series for the strategy and the MSCI World Equity Index since its inception in January 2019. This track record shows how the strategy can provide a positive decorrelated return in risk-off periods.

Looking at the 7 months where the index return was negative, in 6 of those months the strategy has generated a positive return. The other month was March 2020, a period of acute market stress. While the strategy also generated a negative return for this month, the magnitude of drawdown was considerably below that of the global equity index.

Figure 7: Monthly performance history



Source: Insight, December 2020.

How could the strategy perform if risk assets move higher?

In this paper we have focused on how the strategy's attributes could help investors with some of the major challenges they face today.

However, the strategy has also demonstrated its ability to make money in rising markets. Referring back to Figure 2, we have already described how exploiting convexity in the 'high gamma' zone can generate returns from upward moves. We would also highlight the 'in the money' zone where the convertible bonds are more equity sensitive, typically driven by growth factors. The managers actively participate in this area often taking long positions in convertibles linked to 'themes' which can be related to structural industry change or macro factors. In this area, baskets of convertibles with partial equity hedges can be used to capture upside moves.

Over the long-run we expect c50% of the strategy's returns to come from high gamma opportunities, with the remainder split between thematic plays and tactical opportunities – the latter can be idiosyncratic company-specific or new issues.

A CONDUCIVE ENVIRONMENT FOR CONVERTIBLE ARBITRAGE

Looking forward, we anticipate a number of dynamics evolving in the market that should prove supportive for the strategy:

- **Macro environment:** The economic growth shock from the COVID-19 pandemic and uncertainty around the recovery profile will likely create periods of choppy markets or bouts of volatility which should be conducive for the strategy. The post-pandemic environment is accelerating structural change as well as presenting operational challenges. This should present relative winners and losers, expanding investment selection opportunities at the thematic level or the individual company level which our managers can exploit.
- **Bigger opportunity set and better liquidity:** Post COVID-19, corporate refinancing needs, together with the unique characteristics of convertible bonds, is leading to record issuance. Furthermore, the convertible market is now dominated by equity and credit investors with diverse investment expectations and mandates, providing enhanced liquidity.

[5] Net delta adjusted exposure of convertibles incorporating hedge and portfolio overlays.

CONTRIBUTORS

Matthew McKelvey, ASIP
Head of Product Management, Multi-Asset and Specialist Equities

Derek Traynor, CFA
Senior Investment Content Specialist

PROFILE OF INSIGHT'S CONVERTIBLE ARBITRAGE PORTFOLIO MANAGERS

Frank Campana

Senior Portfolio Manager

Frank joined Insight in October 2018 as a senior portfolio manager leading the development of the firm's convertibles capability. Frank brings over 25 years of experience in financial services. Prior to Insight, he spent over 15 years at Quest Global Advisors during which time he co-managed their convertible hedge fund and their absolute return UCITS fund. He has also managed convertible bond portfolios at Forest Investment Management and ING Barings Furman Selz. Frank holds a BA in Economics from City University of New York.

James Doolin

Senior Portfolio Manager

James joined Insight in October 2018 as a senior portfolio manager leading the development of the firm's convertibles capability. James brings over 25 years of experience in financial services. Prior to Insight, he spent over 15 years at Quest Global Advisors during which time he co-managed their convertible hedge fund and their absolute return UCITS fund. He also focussed on convertible securities investment at ING Barings Furman Selz, where he was a portfolio manager for seven years. James holds a BS in Finance and Economics from Northeastern University and an MBA from Rider School of Management.

IMPORTANT INFORMATION

FIVE-YEAR PERFORMANCE RECORD TO 31 DECEMBER 2020

	Calendar year returns					12-month rolling returns				
	2020	2019	2018	2017	2016	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
Representative portfolio	7.72	9.58	--	--	--	7.72	--	--	--	--
1-Month EURIBOR	-0.50	-0.41	--	--	--	-0.50	--	--	--	--

Please refer to the following risk disclosures. Returns are shown in EUR on a net basis (with a 0.75% annual management charge and performance related fee applied). Performance is shown for representative portfolios. The representative portfolio is an account we believe most closely reflects current portfolio management style for the Insight's Absolute Return Global Convertible strategy. The characteristics of the representative portfolio shown may differ from those of other accounts in the strategy. Information regarding the representative portfolio and the other accounts in the strategy is available upon request. From strategy inception on 1 January 2019 to 3 June 2019, performance relates to a model portfolio. From 3 June 2019 to date performance relates to a UCITS pooled vehicle that employs the absolute return global convertible strategy.

RISK DISCLOSURES

Past performance is not indicative of future results. Investment in any strategy involves a risk of loss which may partly be due to exchange rate fluctuations.

Portfolio holdings are subject to change, for information only and are not investment recommendations.

The specific securities identified and described are subject to change, for information only. No assumptions should be made that the securities identified and discussed were or will be profitable. A complete list of contributors/detractors for the period covered is available upon request.

ASSOCIATED INVESTMENT RISKS

Convertible bonds and equities

Currency hedging techniques aim to eliminate the effects of changes in the exchange rate between the currency of the underlying investments and the base currency (i.e. the reporting currency) of the portfolio. These techniques may not eliminate all the currency risk.

Derivatives may be used to generate returns as well as to reduce costs and/or the overall risk of the portfolio. Using derivatives can involve a higher level of risk. A small movement in the price of an underlying investment may result in a disproportionately large movement in the price of the derivative investment.

Investments in bonds are affected by interest rates and inflation trends which may affect the value of the portfolio.

Where high yield instruments are held, their low credit rating indicates a greater risk of default, which would affect the value of the portfolio.

Where leverage is used through the use of swaps and other derivative instruments, this can increase the overall volatility. Any event that adversely affects the value of an investment would be magnified if leverage is employed by the portfolio and losses would be greater than if leverage were not employed.

FIND OUT MORE

Institutional Business Development
businessdevelopment@insightinvestment.com
+44 20 7321 1552

European Business Development
europe@insightinvestment.com
+49 69 12014 2650
+44 20 7321 1928

Consultant Relationship Management
consultantrelations@insightinvestment.com
+44 20 7321 1023

@InsightInvestIM
company/insight-investment
www.insightinvestment.com