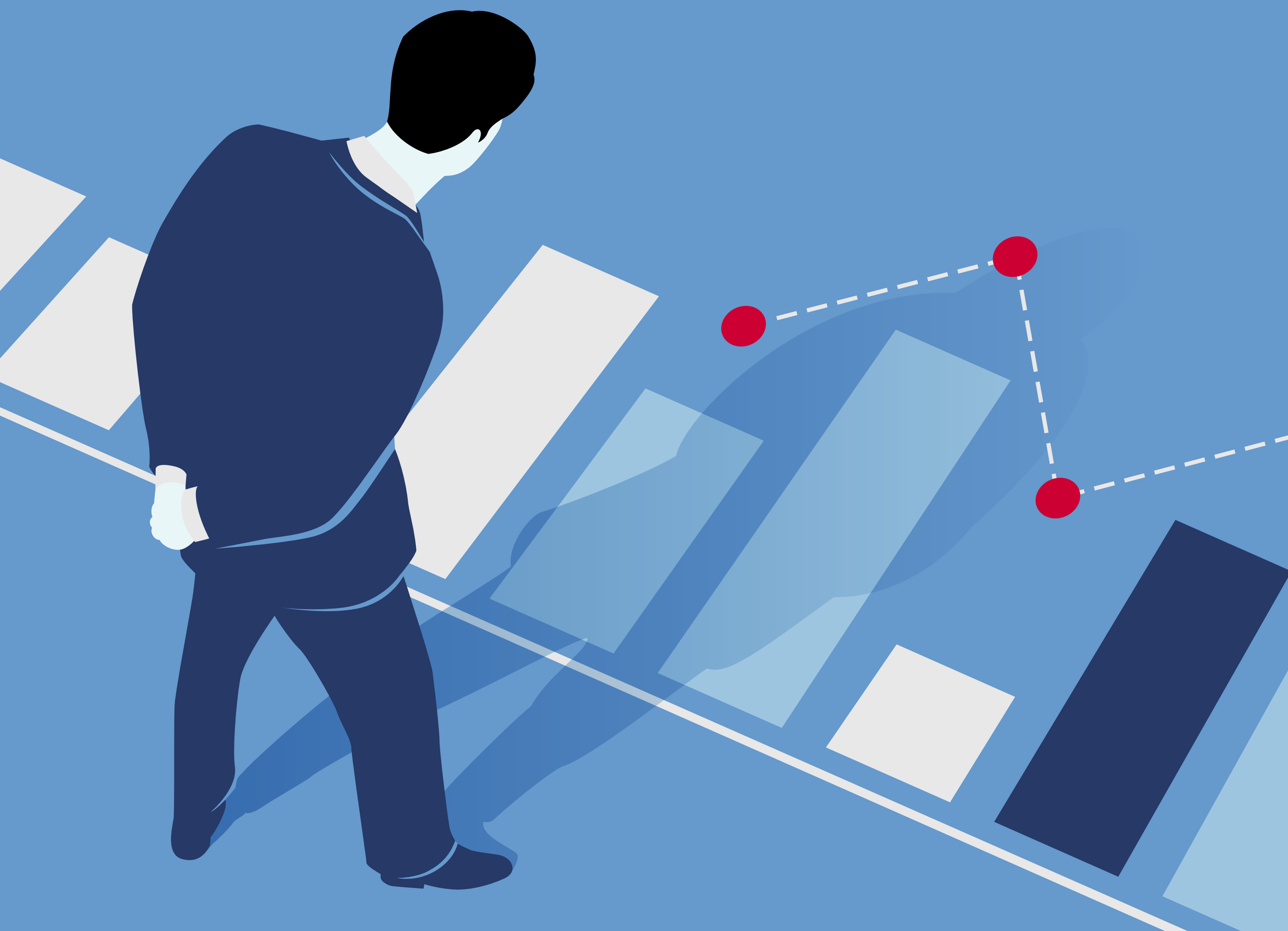
quantifi

Newsletter | Spring 2022

IN SIGHT

TAKE ADVANTAGE OF

RELATIVE VALUE CREDIT OPPORTUNITIES



Message from the CEO

This year marks the 20th anniversary of Quantifi. The journey began in an attic in New Jersey with the vision of delivering the same sophisticated risk management and analytics used by tier 1 banks to other market participants. The first few months were spent looking for a foundation client and I was fortunate enough to find CIBC, a Canadian bank, that at the time was one of the largest participants on the global credit markets. Quantifi has come a long way since then, expanding our foot-print in EMEA, NA and AsiaPac.

The key to Quantifi's success is the hardworking, smart and amazing individuals we have been lucky enough to hire. I would like to congratulate them on their accomplishments, commitment and continued passion in our business. A second component that I think is very important is corporate sustainability. I believe that Quantifi has a responsibility not only to our clients and employees, but also to the communities in which we operate as well as the health and sustainability of the planet. Quantifi donating 3% of profits to charity is something that's important to me.

As we celebrate 20 years, it is a great time to highlight some of our most recent success. Last year we announced strong growth for the third consecutive year. Despite the unprecedented environment caused by the global pandemic, we saw broad growth across our entire product range and have continued to scale our team globally. This is a testament to our ongoing commitment to reinvest in our business to better serve our clients. This issue of InSight provides more detail on how we have been able to continue our growth momentum.

This issue also includes two articles on key industry topics. The first looks at what drives the convertible bond market, and the other explores why relative value trading is a popular investment strategy. Also included is an interview with Nick Greenwood, Founder & CIO at Haven Cove.

Celebrating a 20-year anniversary milestone is a big achievement. I would like to thank everyone who has been directly or indirectly involved in the success of Quantifi and I hope to meet many of you in person at one of our 20th anniversary events planned for this year.

Rohan Douglas, CEO, Quantifi

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QUANTIFI CONTINUES STRONG GROWTH MOMENTUM

Despite the unprecedented environment caused by the global pandemic, Quantifi saw broad growth across its entire product range covering the sell-side, buy-side and corporate markets.

Quantifi's strong growth momentum has been driven by a succession of significant business wins with successful onboarding of twice the number of clients as the previous year. Last year marked with a strong uptick in extended usage and upgrade projects from existing clients. To support client-focused initiatives and future growth, Quantifi increased its global staff headcount by 26 percent across client support, product development, research and sales. The partner programme was also expanded with a goal to create long-term value for clients and strengthen its distribution with a network of trusted partners.

In 2021 Quantifi released Version 19 of its software designed to help clients optimise capital and resources. This release included next-generation VaR, cloud-based live risk and high-performance integration with artificial intelligence and machine learning algorithms based on the data science technologies. Further testimony to Quantifi's success are the industry awards received, including Best Analytics Portfolio System by Bobsguide, Best Integrated Middle-office Platform, and Best Pricing and Analytics by Risk.net.

"During a volatile and unpredictable year, the Quantifi team have gone above and beyond to support our clients and each other. The strength of these results is a testament to this hard work and to our long-term focus on clients, employees and our products," comments Rohan Douglas, CEO, Quantifi. "We begin 2022 in a strong position as we continue to leverage the significant reinvestment in our products and the early adoption of new technologies that will help our clients," continues Rohan.

QUANTIFI'S 20TH ANNIVERSARY

An Interview with CEO Rohan Douglas

We sat down with Quantifi CEO, Rohan Douglas to learn about how Quantifi has grown over the last 20 years and what the future holds for the company. Rohan started Quantifi in his attic in New Jersey in 2002. The company has come a long way since then, having expanded its footprint in EMEA, NA and Asia. Quantifi's goal however remains the same – to deliver the most advanced risk management and analytics available to all market participants and provide clients with intuitive, flexible solutions that match their needs.

> **I started Quantifi in my attic in New Jersey in the US with the vision of providing the same sophisticated risk management and analytics used by tier 1 banks to other market participants.**

How did it all start?

I founded Quantifi back in 2002 after working at Citigroup and Salomon Brothers running their global credit derivative and emerging market research groups. I started Quantifi in my attic in New Jersey in the US with the vision of providing the same sophisticated risk management and analytics used by tier 1 banks to other market participants. I spent the first few months looking for a foundation client. I was very lucky to find CIBC, a Canadian bank, which then was one of the largest players in the global credit markets. They agreed to license a product that was yet to be built, and with their backing, I hired my first employee and haven't looked back since then.

Quantifi is now a global business with four offices across three different countries. Can you tell me about the journey to where you are now?

It's been quite a journey. Growing Quantifi is very much like growing any small business. You've got to get the basics right, but as the company grows there are new challenges and you have to adapt. My role, for example, has constantly evolved along the way. I started out as the main developer. Over time, I had to learn everything from tax law, to human resources law, to IP law, to company leasing. These days I focus on the management of the company and the direction of the company, but I still try to program whenever I can.

> **I think the key to Quantifi's success is really its employees. We have a great team of very hard-working, dedicated professionals.**

Do you still program?

I do. It's something that I enjoy, although, I don't get to do it very often these days. Since technology and the markets change so rapidly, I think it's crucial for me to stay in touch so I can make the right decisions about the direction the company's going in.

Would you say that your programming is the key to Quantifi's success?

I would definitely not say that. I think if you asked my management team, they would say Quantifi is successful despite my programming at this point. I think the key to Quantifi's success is really its employees. We have a great team of very hard-working, dedicated professionals. I think that's really the key. A second piece that I think is very important is our view on corporate sustainability. I believe that the purpose of a company goes beyond financial results. Sustainability, for me, means not only financial sustainability but also being there for our clients, our staff, and for our broader community. Quantifi has a philosophy around sustainability that involves long-term profitability, but also being there for our clients, our employees, and the broader community. Quantifi donating 3% of profits to charity is something that's important to me and a good example of how the company uses sustainability.

What are some of the main highlights from the last 20 years?

There have been a lot. There are milestones around opening new offices, corporate growth, winning key new big clients, releasing key products, awards, plus other things. One of the things I find most satisfying is receiving feedback from clients that they really love a particular feature of the product or what we do. That, to me, is really what I remember the most.

What do the next 20 years hold for Quantifi?

That's a difficult prediction to make but there's a lot of exciting stuff going on right now. There are tremendous changes going on in the markets in terms of structure, how things are valued, more sophisticated risk management and new regulations. In the technology space there's even bigger changes going on relating to machine learning, to data science, to changes in CPU and memory architecture. All of these changes are a great opportunity for Quantifi. We're big enough to be able to put in the needed resources and investment from an R&D perspective, but small enough to be able to adapt and be nimble. I think Quantifi's in a position that we can lead our industry in taking advantages of all of these exciting changes.

Any final thoughts you'd like to share?

I think we're doing a lot of hard work at Quantifi at the moment. I'm really looking forward to seeing the results of that hard work benefitting our clients. So I'm very excited to see what the next 20 years brings.

One of the things I find most satisfying is receiving feedback from clients that they really love a particular feature of the product or what we do. That, to me, is really what I remember the most.

INTERVIEW WITH NICK GREENWOOD

FOUNDER & CIO, HAVEN COVE

What led you to found Haven Cove?

Myself and Ashley Hudd (CEO) have worked together in financial markets in different guises since 2008, and we had always shared an entrepreneurial spirit & ambition to set up our own investment management firm & fund. The key driver for taking that step in January 2018 was the opportunity we believe there is in the Credit Derivatives market.

The sector is approximately 20 years old and has undergone dramatic change since its arrival into mainstream financial markets in the early 2000s. We currently see a confluence of two factors:

1. Continued high barriers to entry into the market and lack of crowding on the risk-demand side (due to a number of factors including inability for investment banks to hold this risk since regulatory change post-GFC).

2. Significant progress and developments in the last 10 years in terms of depth and consistency of liquidity (across single names, index, tranche & options), standardisation of contracts and instruments across the industry, plus major progress in trading and clearing architecture. This means the "left-tail" or negative skew risks that many market participants failed to manage during the GFC can now be controlled very robustly.

Combining these two features gives an asset class which has significant and persistent pricing dislocations (value, technical, term, capital structure, volatility), but also a market infrastructure in which these can be capitalised upon (with the correct expertise) to produce extremely attractive risk-adjusted returns.

How has the fund performed?

The Haven Cove Absolute Return Fund was set up with a target of producing attractive, consistent returns through all market conditions with low volatility and low drawdowns.

In numerical terms, one could define this in many ways. For simplicity, we label this as a net annualised average return of 10% and an annualised Sharpe ratio of 2. We have other more nuanced risk-adjusted and correlation measures that we track, but we find the above to be a useful and simple objective.

Since inception the Fund has averaged 7.1% p.a. with an annualised Sharpe of 2.25, (in addition the max drawdown since inception is -3.6% from monthly NAVs, which occurred during March 2020). So we have slightly underperformed in terms of returns and slightly over-performed in terms of volatility and drawdown control.

The simple practical reasons for this are two-fold:

1. New funds and emerging managers rarely get a 2nd chance after drawdowns! For the first few years of the Fund we concentrated first and foremost on volatility and drawdown control, and I think it is fair to reflect we did not use our full risk envelope at times, preferring to concentrate on absolute consistency, building up trust from our clients.

2. A genuinely robust CDS trading infrastructure takes a long time to set up (getting sufficient CDS ISDAs in place, risk management tools, clearing etc) – far longer than the set-up required for e.g. a long/short equity fund.

The set-up we have now after 4 years of work is mature, robust and road-tested, and has everything we need to utilise our risk envelope to the full. On this basis we are very confident of achieving our targets going forward.

What is your approach to managing risk?

Our Credit Derivatives portfolio is a systematically constructed relative-value strategy, so risk management is very much built into the investment process. We do not have an investment side constructing profit-generating ideas, which then get analysed by a separate risk function to assess whether they fit into the portfolio. The risk management framework is built into the systematic construction by the portfolio managers.

We then have an independent risk oversight function conducted by the non-investment side of the business.

There are four key risk pillars that we focus on:

1. Unencumbered Cash (current live & stressed)
2. CS01 (current live & stressed)
3. Default risk
4. Liquidity risk

Credit Derivatives as a pure long risk asset class does have negative skew properties and the key job of any CDS manager is to manage these unremittingly. This is why the stressed version of 1) and 2) above are so important, and is why Quantifi is so useful as an analytics tool for running CDS portfolios.

As well as knowing at all times the current live (i.e. "at-the-money") risk on the portfolio, it is also necessary to continually measure how the portfolio would look in a stress scenario (roughly defined as: on-the-run spreads double & whole term structure moves in a parallel shift).

Credit Derivatives have quite a useful feature in respect of unencumbered cash in a stress scenario: when trading CDS bilaterally (i.e. under ISDA) the initial margin % on any position is agreed on Day 1 and cannot change during the life of the trade. So unlike long/short equity strategies which are subject to a "portfolio" margining method that can change in market stress at the discretion of the prime broker, the initial margin on bilateral CDS is fixed. This means cash modelling in stress scenarios can be done accurately.

What, if any, are lessons learnt from the COVID-19 pandemic?

Expect the unexpected! In all seriousness, the Fund fared relatively well during the height of the COVID-19 crisis in Feb/March 2020. In the months prior our time-series risk allocation signals were flashing overbought conditions in the Credit Derivatives sector so our Long book was relatively under-powered. Added to this, implied volatility had been relatively cheap so our Short book had a powerful set of tail hedges and very strong positive convexity coming into the market volatility.

We believe it was a good road-test of the risk framework and processes we have put in place to manage risks in the CDS market. We also believe the CDS market itself came through the crisis with distinction, showing strong liquidity throughout (greatly superior to its physical credit cousin), despite the unprecedented conditions.

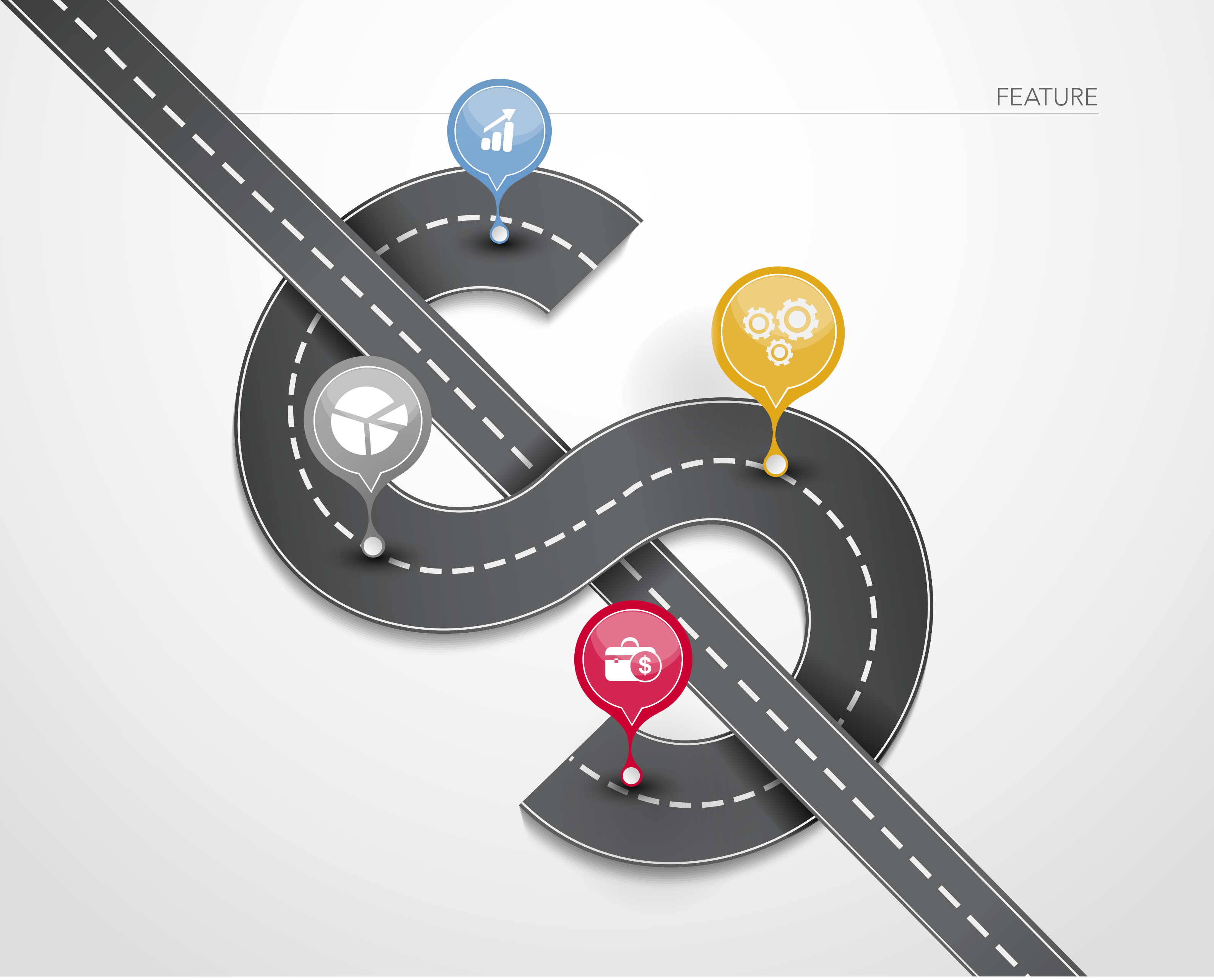
What trends do you foresee in the short/medium term?

Credit Derivatives is such a rich area of opportunity with so many idiosyncratic dislocations that will continue to present themselves over the coming years. We believe the sector will continue to develop in terms of liquidity & infrastructure, attracting more participants as understanding improves and the opportunity set becomes more widely recognised.

We believe the next few years will be very challenging for the more "traditional" risk assets based on current valuations and the inevitable difficulties the markets will face in the next phase of the economic cycle, especially coming into it with inflation where it currently stands.

On this basis we believe alternative assets should form part of any active investor's portfolio. However, we also believe the crowding present in some typical hedge fund strategies (L/S Equity in particular) means this should be a good time to seek something a little different.

We believe our relative-value Credit Derivative strategy will continue to produce consistent & attractive absolute returns in whatever market conditions lie in store.



What Drives the Convertible Bond Market?

The global convertible bond market, which languished in the doldrums since the great financial crisis of 2008/2009, has staged a comeback over the past two years. This article provides an overview of this instrument, modelling aspects, the reasons for its resurgence and whether the trend will continue in light of the current inflationary environment.

Overview

Convertible bonds are one of the more venerable instruments still in use in the global capital markets. Their main feature is that they allow buyer to convert bond into company Equity at specified price. These instruments offer advantages and disadvantages to both borrowers and buyers. The borrower can access capital at a lower coupon than would be the case if it were to issue plain vanilla debt. It is also essentially raising equity on a deferred basis. This means dilution of shareholders is postponed to a later stage.

Recent trends

The convertible makes a lot of sense for a certain class of borrowers, which is why it has been around for so long. However, the market tanked after the financial crisis and issuance dwindled to a trickle. Main reasons for this were that equity values tumbled, and many convertible arbitrage investors collapsed. Both demand and supply dried up.

However, the market picked up dramatically with the onset of COVID-19. The convertible became one of the only ways in which stressed organisations could raise desperately needed capital at a halfway acceptable cost. Issuance boomed in 2020 and continued to do so in 2021. At the end of November 2021, secondary market outstanding in the global convertible market was $509.5bn, according to investment bank calculations. Issuance over the course of the year was $137bn.

There is now high inflation to contend with, and convertibles fare particularly well in an inflationary environment. Over the past two years the convertible market has been dominated by new, high- growth borrowers with limited earnings history. For these sorts of companies inflation is particularly worrisome. Strategists are calling for $100bn of global issuance in 2022, and while this is less than the past two years– it is well above the 2012–2019 yearly average of around $80bn.

What is the right model to use?

As a result of the conversion option, convertibles have three sources of risk: interest rate, credit and equity. To build a model for pricing convertibles, one has to first decide which sources of risk should be considered as random. There are different possible combinations; however, all should include equity because its volatility has much higher effect than that of the other two market factors – rates and credit.

One- and two-factor approaches can be modelled with a numerical solver or a tree. To model all three factors as random, Monte Carlo used to be the best solution. However, the advances in computation efficiency open up the possibility of using three-factor solver/tree as well. As technology continues to develop for pricing convertibles, one could consider using machine learning techniques.

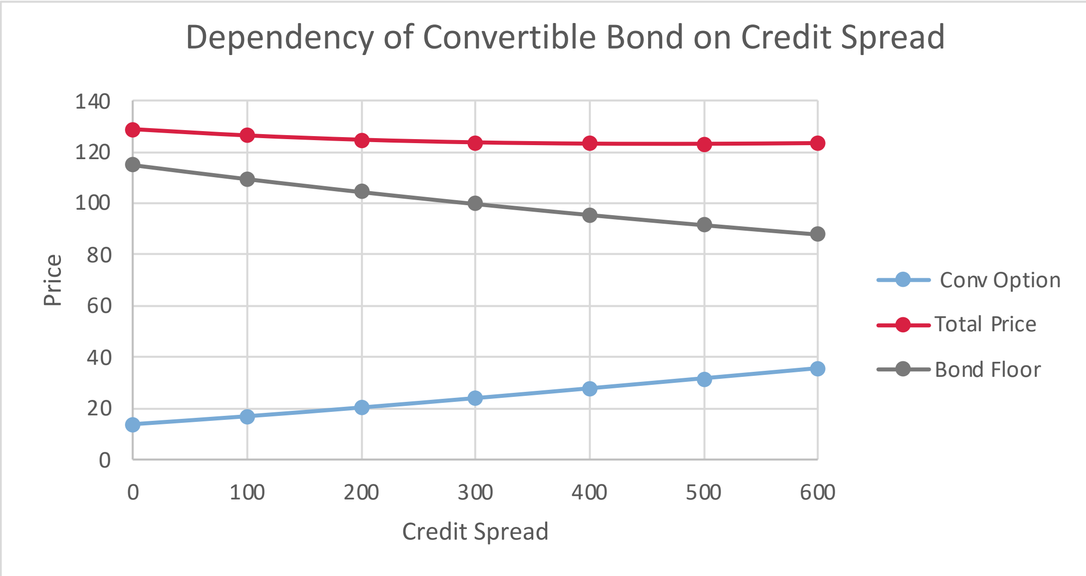
The Treatment of Equity

Equity in convertibles should be modelled as a lognormal process. To model equity forwards properly it's not enough to merely input the spot and the repo rate of the equity. Other factors such as dividends and funding rate also need to be taken into account. The most straightforward way is to separately model equity forward curve, which already has all the information and can project forward for any given time.

One other important factor, which is relatively new in the analytics world, is applying no-default probability to the equity forward. By doing so, equity is considered under a no-default assumption because if a default occurs, the equity goes to zero and the convertible option is worthless.

Treatment of Rates

Interest Rate models for convertibles are usually analogous to callable bonds. This could be some simple short rate model, following either lognormal distribution such as Black–Karasinski or normal such as Hull–White. Alternatively, one can select the forward rate model, which can follow either normal or lognormal distributions. In this type of model, the volatilities and intra-correlations of forward rates can be calibrated to caps or swaptions.



Graph 1: Conversion option, bond floor and total price as a function of credit spread for the no-default approach

Treatment of Credit

Market best practice is to treat credit as a random, especially for high-yield bonds. For a random factor, its volatility and correlation with other factor(s) need to be defined. If a liquid CDS option on bond issuer exists, one should use implied volatility. Alternative approaches are either proxying by indices or using historical data. Correlation with equity should be calibrated to historicals as well, in general it is expected to be negative and large in absolute value.

The new approach of applying no-default probabilities to equity dynamics was mentioned previously. With this, the conversion option increases quickly and almost linearly as the credit spread grows. At the same time, the total convertible bond price, which is the sum of the conversion option and a bond floor, is close to flat when credit spread is growing. This means the convertible bond provides protection against credit volatility. Graph 1 below shows the dependency of both the conversion option and total price on a bond's credit spread.

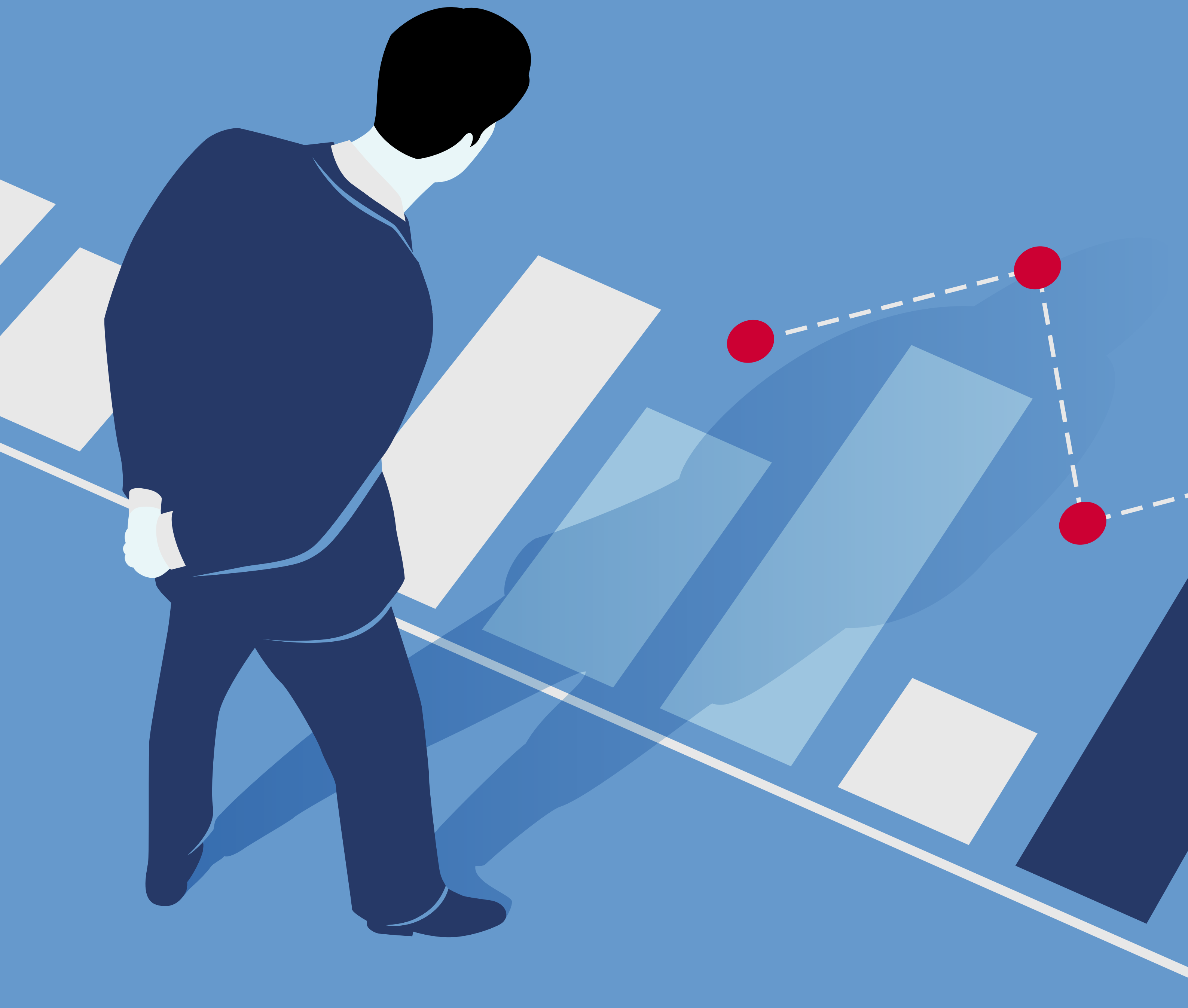
Advanced features

As outlined, convertibles have several advanced call and put features designed to protect both bond issuer and investor. While modelling call and put simultaneously can seem complex, this is not the case in reality. As long as the strike of the put is less than the strike of a call, the valuation of the bond follows a regular min–max relationship and is independent of the order of the two options.

Conclusion

The underlying characteristics of convertible bonds make for interesting and complex pricing and valuation dynamics. To make informed decisions and take advantage of investment opportunities requires sophisticated pricing and risk analytics. In today's fast-paced environment, firms that realise maximum benefit are those with access to powerful modelling, analytical and pricing capabilities – as used by technology providers such as Quantifi.

TAKE ADVANTAGE OF RELATIVE VALUE CREDIT OPPORTUNITIES



Relative value trading is a popular investment strategy for firms looking to achieve high returns while minimising risk. This strategy depends on the isolation of identical or very similar credit instruments where one is assessed to be comparatively under- or overvalued. These might be bonds issued by the same borrower but at different points of the yield curve, or bonds issued by different but similar borrowers.

Although these strategies can differ significantly, they have one thing in common – they require sophisticated bond analytics to take advantage of opportunities. Quantifi's advanced analytics enables firms to take fundamental and relative credit views across the whole spectrum of fixed income and credit asset classes, including bonds, credit default swaps (CDSs), index and basket products, exchange-traded funds and derivatives.

Bond Analytics

One can successfully trade fixed and floating bonds based on yield and discount margin, as well as their first (duration) and second (convexity) derivatives. A more comprehensive take on the bonds' performance and associated risks requires a more complex measure – Z-spread. Z denotes zero volatility and is defined as a flat spread over the discounting curve, which replicates the bond price.

To gain consistency with credit markets, one has to imply a bond-equivalent CDS spread, which is a flat CDS spread of the credit curve used to replicate the bond market price. This requires building IR (interest rate) and credit curves, making this calculation strongly dependent on corresponding modelling assumptions.

Bond Analytics for Callable bonds

Callable bonds create a challenge for yield calculations because the maturity of the bond is not well defined. This requires not only the yield to maturity to be calculated, but also the yield to first, to second, to worst, and so on.

Calculating Z-spread – which, in the case of callables, is referred to as the options adjusted spread (OAS) – requires an interest rate model, ranging from the simple short-rate model to the more comprehensive forward-rate model, to be implemented. Note that the OAS spread is usually assumed to be non-stochastic.

In this environment of high and volatile credit spreads, a one-factor interest rate model is inadequate. The most effective way to improve this is by implementing a two-factor interest rate credit model, where interest rate and credit components are correlated.

Figures 1 and 2 display how rates and credit volatilities affect prices of callable floater and callable fixed bonds. Both the bonds are par, and option is struck at par. It is clear that rates volatilities are not affecting the floater bond call, whereas the credit vols are affecting both the fixed and floater calls. Therefore, implementing credit as stochastic is important not only for floaters but fixed bonds too.

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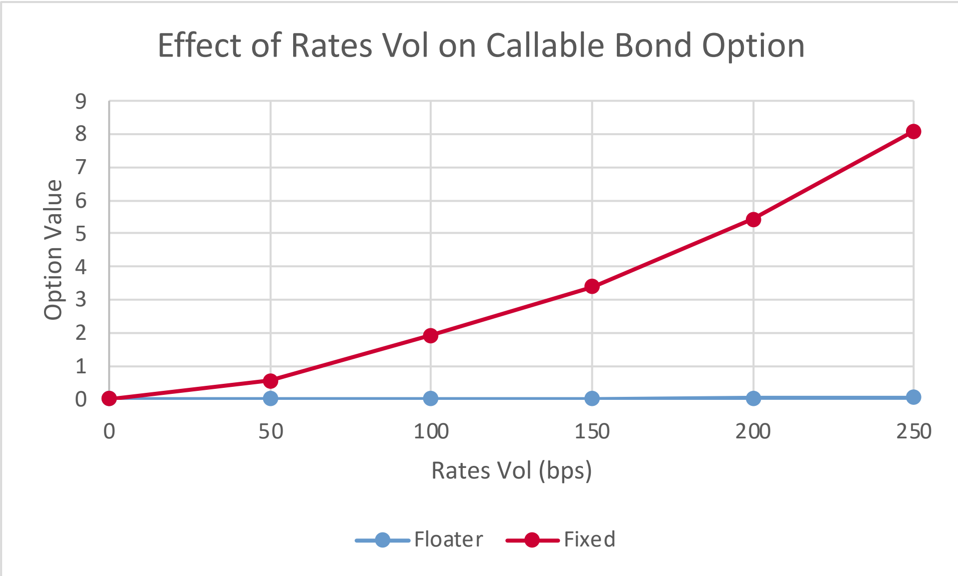

Figure 1: Effect of Rates normal vols (in bps) on a value of a Call option with Strike 100 for par Fixed Bond and par Floater bonds

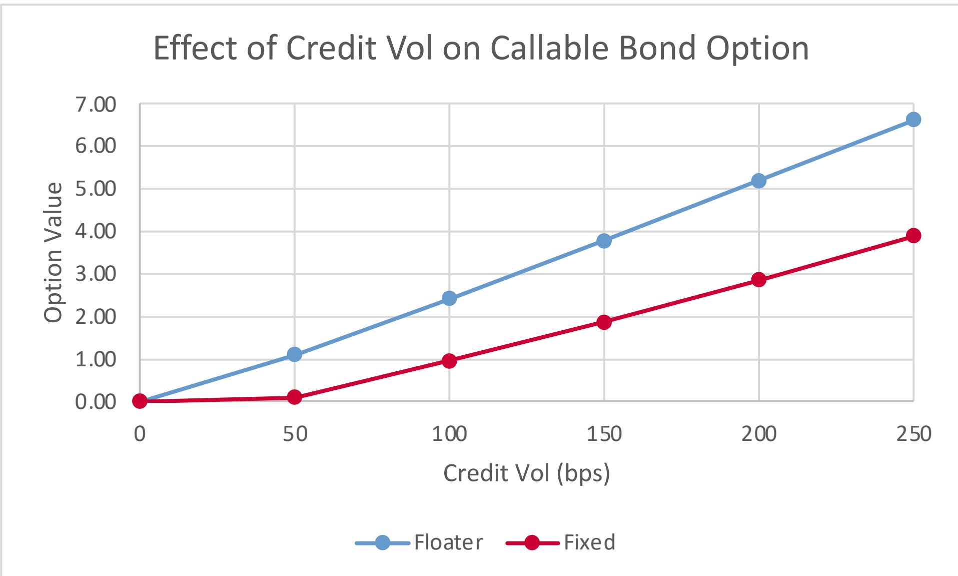

Figure 2: Effect of Credit normal vols (in bps) on a value of a Call option with Strike 100 for par Fixed Bond and par Floater bonds

Calibrating Credit Curve to Bonds

Successfully applying relative strategy across different horizons of a credit curve requires the curve to be built from traded credit instruments – for example, bonds from the same issuer. The best approach is to apply bootstrapping. This involves calibrating the first tenor of the credit curve to the first bond; calibrating the second tenor has to take into account the credit spread of the first tenor, and so on. For this methodology to work, bond maturities should not be too concentrated.

In some cases, bootstrapping is not applicable and optimisation is necessary. This is particularly the case in scenarios where some input bonds are callable because, for callable bonds, the maturity is not easily defined.

Advance Analytics Required for Convertibles

Convertible bonds can be converted into equity shares at specified dates, at specified conversion ratios. Convertibles therefore have three sources of market risk: interest rate, credit and equity. In terms of valuing the bond, a two-factor model would require a two-factor tree or partial differential equation solver – either interest rate equity or equity credit. Three-factor solver/trees are very slow so firms have to decide which components are most important - which volatilities and correlations affect price the most.

Having decided on the important components, one has to consider the treatment of equity. The most direct way is to input the equity forward curve, which already contains all of the information and can provide forwards for any given time. Another important factor, which is also new in the analytics world, is to apply no-default probability to the equity forward.

Credit can be treated as either random or non-random and can be a separate input or calibrated to market quote – this flexibility in the models is necessary to imply credit spreads. The price of a convertible bond is a good indicator of the credit component, so one can imply an OAS or CDS spread from a market quote, and then hedge with a single-name CDS or execute a relative value trade.

LIBOR replacement

One of the most recent challenges for building comprehensive bond libraries is related to the transition from Libor rates. At the end of 2021, all non-US-dollar Libor rates were discontinued, alongside two-week and two-month USD Libor. The remainder of USD Libor rates is scheduled to end by June 30, 2023.

The Alternative Reference Rates Committee (ARRC) recommends using daily secured overnight financing rate (SOFR) rates for floating bonds and loans, and compounding them daily with the payment of a compounded rate in arrears, which for bonds and loans means at the end of accrual period. The issue, though, is that the rate at the end of the accrual period has not been quoted at this point, therefore the coupon cannot be calculated in time for payment. To solve this problem, the ARRC proposes using different methodologies such as lookbacks, lookbacks with observation shifts and lockouts.

It is not only the calculations of coupons from SOFR rates that present difficulties – the same applies to building SOFR interest rate curves for forecasting. More details are available in *Calibrating the SOFR term structure and other modelling challenges,* which Quantifi presented at the World Business Strategies Conference in October 2021.

Adopting New Technology

The use of analytics for debt securities has come into sharper focus and has been the subject of increased investor attention. To be able to spot opportunities, institutional investors need adroit analysis at their disposal.

Leading firms are deploying the latest advancements in technology and the best expertise to assist with the generation and retention of alpha. These firms are adopting technology providers such as Quantifi, which use new technologies including data science and artificial intelligence to provide actionable insights.

SONA ASSET MANAGMENT SELECTS QUANTIFI

To support the launch of its new investment strategy, Sona has chosen to enhance its existing risk infrastructure with Quantifi's sophisticated risk analytics.

"Following a demanding selection process, Quantifi was the only provider with the proven technology, flexibility and expertise that matched the unique needs of our investment strategy."

Quantifi has been selected by Sona Asset Management (Sona), a London and New York based investment manager with $1.8bn in assets under management. To support the launch of its new investment strategy, Sona has chosen to enhance its existing risk infrastructure with Quantifi's sophisticated risk analytics.

As firms search for returns and value-added alpha they face pressure from market volatility, shifts in investor behaviour and intense competition. Sophisticated risk analytics play an important role as investment managers seek to remain competitive and take advantage of opportunities. With the launch of a new strategy, the portfolio management team and trading desk at Sona required a robust risk analytics solution to run risk for complex instruments including stress testing as well as sensitivity and scenario analysis. Quantifi was selected for its rich functionality, modern technology and ability to scale.

"The launch of our new strategy depended on finding a technology provider that could deliver the same quality of analytics used by leading tier-1 banks. Following a demanding selection process, Quantifi was the only provider with the proven technology, flexibility and expertise that matched the unique needs of our investment strategy. It was key for us to find a solution that is scalable and flexible to evolve with our business needs," comments Antonio Di Flumeri, Partner and Portfolio Manager at Sona Asset Management. "The advanced functionality of the solution combined with the expertise of the team demonstrates why Quantifi is the provider of choice for investment managers," continues Antonio.

For investment managers, Quantifi delivers cross-asset trading, front-to-back operations, position management, enterprise risk management and regulatory reporting, all on an integrated platform. As well as supporting the key regulatory requirements, Quantifi applies the latest technology innovations to provide new levels of usability, flexibility and ease of integration. This translates into dramatically lower time to market, lower total cost of ownership and significant improvements in operational efficiency.

"We are excited to be working with Sona to help it achieve its objectives and establish best practices to align its business for future growth. Sona selecting Quantifi is another example of our expertise in helping clients transform their business models to capitalise on opportunities," comments Rohan Douglas, CEO, Quantifi. "We see strong demand from the investment management community because the combination of our institutional quality infrastructure, modelling expertise, and client support is a powerful differentiator. We look forward to a long, successful relationship with Sona," continues Rohan.

About Sona Asset Management

Sona Asset Management is an institutional alternative asset management firm that specialises in investing across the credit spectrum with a primary focus on European markets. Sona seeks to generate positive, uncorrelated returns in all markets and puts emphasis on capital preservation and outperformance at times of stress. The firm was established in 2016 by CIO, John Aylward, and manages capital on behalf of public and corporate pensions, endowments, foundations, insurance companies and family offices.

Take Advantage of Opportunities in Relative Value Credit

Today's credit investors need reliable data and powerful analytics to help them gain actionable insights for better portfolio outcomes. The ability to anticipate and respond to market and portfolio changes are key motivators for investment managers to maintain a strong risk function.

https://www.quantifisolutions.com/take-advantage-of-opportunities-in-relative-value-credit-video/

Whitepapers

- A Primer on the Equity Derivatives Market
- The Growth of Relative Value Credit Strategies
- Intel & Quantifi Accelerate Derivative Valuations by 700x Using AI on Intel Processors
- The IBOR Transition: Challenges and the Road Ahead
- How to Accelerate XVA Performance
- The Impact of COVID-19 on Credit Markets
- Managing Liquidity Risk in Times of Stress

www.quantifisolutions.com/whitepapers

About Quantifi

Quantifi is a provider of risk, analytics and trading solutions. Our award-winning suite of integrated pre and post-trade solutions allow market participants to better value, trade and risk manage their exposures and respond more effectively to changing market conditions.

Quantifi is trusted by the world's most sophisticated financial institutions including five of the six largest global banks, two of the three largest asset managers, leading hedge funds, insurance companies, pension funds and other financial institutions across 40 countries.

Renowned for our client focus, depth of experience and commitment to innovation, Quantifi is consistently first-to-market with intuitive, award-winning solutions.

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