

Our conversations with prominent industry professionals seek to help investors better understand market dynamics, focused on the interaction between economic, monetary, financial and political risks. Because it is both "always and never different this time", we review market history, soliciting the well considered views of guests who have managed risk through high and low volatility cycles. In addition, we invite innovators in the fintech space to share their views on how technology is impacting trading and risk management.

We hope our discussions provide you with valuable perspective on the history of risk as well as a greater appreciation for the change that is afoot in the investment industry.

#### Chris Cole - Founder and CIO of Artemis Capital Management

On behalf of his investors, Chris has developed systematic and quantitative strategies that trade volatility. His long convexity approach enabled his investors to thrive through the 2008 GFC. Through his deep dive research publications, Chris has made a real contribution to the industry's understanding of volatility. Chris was among the small number of investors that saw the instability that lurked beneath the market calm in 2017 and capitalized on it during the XIV meltdown in February 2018. Fundamentally geared investors seeking to understand the sudden bursts of market volatility that occur with greater frequency will benefit from listening to the perspective Chris brings on the reflexive nature of volatility.

### Arthur Kaz - Founder and CIO of Greenbriar Asset Management

Distressed investing is about more than identifying undervalued securities that emerge when the default probability for a company rises. For Arthur Kaz, that's just step one. Using valuable experience gained at a bankruptcy consulting firm, Arthur came to the hedge fund industry with a deep understanding of how to guide a company through the operational and financial challenges that result from default. Our conversation on the auto and airline sectors, illustrates the manner in which distressed investing is about playing a role in crafting the post-bankruptcy capital structure. Pivoting to macro considerations, I solicit Arthur's views on the fragility of credit markets, the risk of higher rates and the impact of ETFs.

#### Vineer Bhansali - Founder and CIO of Long Tail Alpha

Armed with a Ph.D. in Theoretical Physics, Vineer brings a deep understanding of financial mathematics to developing trading strategies in the derivatives market. At the same time, he's learned real lessons over the years about the inherent uncertainties in markets – the surprise Fed tightening in 1994, and the LTCM meltdown in 1998 were formative experiences for Vineer that now guide a risk philosophy that pays careful attention to the tails. Our in-depth discussion on the extremely low level of market volatility in 2017 uncovers Vineer's framework for evaluating the risks that can emerge when volatility collapses.

#### Harry Markopolos - Certified Fraud Examiner and "The Man Who Knew"

In a matter of hours in 1999, Harry Markopolos determined that Bernard Madoff's returns were not real. Over the next 9 years, Harry and his team assembled a trove of evidence supporting this claim. He spoke to investors and market participants, studied the web of feeder funds and built option pricing models that cast doubt that Madoff could achieve anything close to the results he purported to achieve. "45 degree angles exist in Trigonometry. They don't exist in finance", Markopolos stated. Ten years post the collapse of the largest Ponzi scheme ever, I am thankful to have had the opportunity to engage with Harry on the various red flags he spotted, the long arc of his pursuit of Madoff and the degree to which investors remain vulnerable to Ponzi schemes and fraud in the current period.

## Eric Peters - Founder and CIO of One River Asset Management

Beginning his career in Chicago trading corn futures in the late 1980's, Eric Peters moved into the sharp elbowed world of bond futures trading on the CBOT and then went to a bank, prop trading rates and derivatives through the 1990's. His perspectives on the ERM crisis in 1992 and the bond market massacre in 1994 provide significant insight on the way in which policy frameworks invite risk taking that can ultimately lead to instability. Utilizing these lessons, Eric founded One River Asset Management, a firm that delivers bespoke solutions to institutional investors, helping them navigate markets in the post-crisis era. As 2018 comes to a close, Eric sees a long period of adjustment to a higher volatility regime in both risk assets as well as inflation.

#### James Grant - Founder of Grant's Interest Rate Observer

A gunner's mate in the Navy and a graduate of Indiana University, Jim Grant ventured to the financial desk at the Baltimore Sun in the early 1970's. He joined Barron's in 1975 before launching his firm in 1983. For more than 3 decades, Grant's Interest Rate observer has twice monthly landed on the desk top of its readers, providing analysis that is deeply insightful, often skeptical and written in Jim's uniquely compelling writing style. My conversation with Jim covers the bad old inflation days of the early 1980's and the courage of Paul Volcker, the many lessons learned through risk cycles, negative interest rates and his view on the damage done to the price discovery process wrought by the interventionist activities of the modern Central Banker. Jim even shares his views on the National Weather Service in the course of our excellent discussion. Gold enthusiast, Fed critic, entrepreneur, accomplished author and father of 4, Jim Grant is a legendary figure in the markets business.

### Tim Duy - Prominent Fed watcher and University of Oregon Economics professor

Tim Duy, the Professor of Practice in the department of economics at the University of Oregon. After earning a PhD in economics there, Tim worked at the United States Treasury and later with the G7 Group, a political and economic consultancy where he focused on monitoring the Fed for clients and market participants. Tim returned to the University of Oregon in 2002 and is currently the Senior Director of the Oregon Economic Forum. In an environment in which Central Banks have become a substantial presence in markets, Tim has gained prominence as a Fed Watcher and is the author of the highly followed "Fed Watch" blog. My conversation with Tim focuses on the state of the US economy, the thinking of the Fed and its messaging to markets, the outlook for inflation, relevance of the Philips curve and thoughts on the balance sheet.

## David Rogers - Founder and CIO of JDCapital

In the market for global equity volatility, few investors have the magnitude of experience of David Rogers. Starting at Goldman Sachs in 1982, Dave was evaluating option strategies in the nascent period of the US derivatives market. His experience through the '87 crash as well as his time in Asia in the early 1990's, were formative in establishing a risk management philosophy that has proven critical during the many episodes of market turbulence of the past two decades. Our conversation around the Long Term Capital unwind in 1998 and its exposure to short equity volatility, illustrates the importance that Dave puts on patience and position sizing. Founding JD Capital Management in the aftermath of the tech bubble, Dave has managed complex option exposures from both the long and short side through periods of high and low volatility.

#### Michael Aronstein - President and CIO of Marketfield Asset Management

Hitting the Street in the bear market days of the late 70's, Michael Aronstein became quickly engaged in studying the Fed, interest rates and inflation. His perspective, enabled by managing capital through high and low inflation and volatility regimes, reminds us of the old adage "there are no bad securities, only bad prices". A value-oriented investor with a taste for being contrarian, Michael's research process blends an appreciation for market cycles, a respect for the power of Central Banks and a willingness to listen to what's on peoples' minds. Our conversation on the 1987 crash includes his effective use of put options to insure the portfolio and the impact of fast-rising US rates on the trade-off between being in risk. We also cover the formation of Marketfield Asset Management in 2007, where Michael is Chief Investment Officer and how clearly he saw the excess of housing during that period.

#### Christian Hauff - Co-founder, Quantitative Brokers

A native Australian, Christian Hauff capitalized on the financial crisis to co-found Quantitative Brokers with Robert Almgren in 2009. After working together on the development of agency algorithmic technology in equities and equity options, Christian and Rob saw an opportunity to apply some of that IP to the world of fixed income, where no such solutions existed at the time. Christian describes the "trader's dilemma", a challenge that every investor faces in whether to execute a desired trade instantaneously or to work this order over a period of time. He explains how his firm's algorithms help its clients optimize this trade-off to minimize slippage and reduce their implementation short-fall. Our conversation provides insights on the early days of QB, where countless hours were spent in the lab studying the "rule book" of Eurodollar futures to better understand micro-structure mechanics that underpin Algo execution strategies.

### Alex Kazan - Chief Strategy Officer, Eurasia Group

Utilizing a framework built over two decades, Alex Kazan is keenly attuned to today's complex world of geopolitical risks and the implications for markets. Argentina's sovereign default episode two decades ago demonstrated the importance of institutional credibility with respect to managing through an economic and currency crisis. Years later, the Great Financial Crisis would further inform Alex of the interaction between policymaker goals and what markets would and could bear. Today, as a Managing Director at Eurasia Group, Alex and his team bring a rigorous combination of economics and an understanding of country risk to assessing the geopolitical chess game. Our excellent conversation covers European populism, Brexit, the US / China standoff on trade and the hollowing out of Centrism in America's politics. Among the risks that keep Alex up at night is the potential for what he calls an "innovation winter" — a politically underpinned shortfall of the financial and human capital needed to drive the next generation of emerging technologies.

## Gerard Minack - Founder of MinackAdvisors

When your very first day in the investment industry happens to coincide with a 20% plunge in the S&P 500 Index, your ultimate risk philosophy is likely to incorporate a strong appreciation for market psychology. Such is the case for Gerard Minack, who began his career on October 19th, 1987. Plying his trade throughout the 1990's, Gerard would ultimately rise to lead Morgan Stanley's macro strategy effort. In 2013, seeking to increase his PB ratio, he launched his own firm, Minack Advisors, focused on delivering his insights on markets, monetary policy and the global economy to an institutional client base. Our conversation is part retrospective on the history of important risk events, where we delve into both the tech bubble and the Global Financial Crisis and discuss the powerful role of psychology during both episodes.

## Henry Schwartz - President and Founder, Trade Alert, LLC

After a lengthy and successful tenure on the risk-taking side in equity volatility, Henry Schwartz decided the US listed options community would benefit from technology that made reading the tape easier. In 2005, he launched Trade Alert, a fintech innovation that does just that. Nearly 15 years later, Trade Alert is a tool employed by buy-side and sell-side market participants who value the functionality in piecing together the continuous and often complex flow within the US options market. My conversation with Henry is a meaningful retrospective on the changes in the derivatives markets that have resulted from technology. We look back to an era gone by – pre-ETFs, pre-electronic trading and before options were dually listed. Henry shares his perspective on the evolution and growth of the marketplace and the key events that led to the proliferation of exchanges, different fee structures, and new types of investors.

# Ray Iwanowski - Co-Founder and CIO, Secor Asset Management

There's not much natural intersection between the study of mathematics and Russian literature. But for the evercurious mind of Ray Iwanowski, the Wharton School provided exposure to both. Ultimately, Ray's interest in math and physics would lead him to finance where he came upon the Black-Scholes equation and option pricing theory. After a stint in fixed income research focused on modeling mortgage securities, Ray set upon the PhD program at the University of Chicago in the early 1990's, a vibrant time for advancement in the empirical study of asset pricing. Utilizing the toolkit he developed, Ray landed at Goldman Sachs Asset Management where he ultimately co-ran the firm's Global Alpha business. Today, Ray is co-founder and ClO of SECOR Asset Management, a firm that provides customized portfolio solutions to institutional clients around the world. My conversation with Ray considers the current state of factor investing in light of the increasingly competitive search for alpha. In the process, we look back on the 2007 quant crisis, exploring the questions of factor timing, crowding risks and the correlation of momentum and value strategies. We also look forward as Ray shares his views on harnessing data and utilizing artificial intelligence and machine learning.

#### Harley Bassman - The Convexity Maven

There is but one Convexity Maven in the world, a moniker that belongs uniquely to Harley Bassman. A 35 year career in financial markets has left Harley steeped in all things relating to the price of and characteristics of optionality. Our discussion on this episode of the Alpha Exchange starts with the early days of his career, including a position in Treasury option markets in the early 1980s. Juxtapose that experience - when rates and inflation were sky high - with his more recent market presence when rates and rate vol have rarely been lower - and one can appreciate the breadth of experience Harley has had. Our conversation covers the term structure of rate volatility, the variance risk premium and the way in which option sellers convert potential future capital gains to present day income. Along the way, we discuss the MOVE index, a well-followed metric for bond option volatility that Harley designed, as he explains how the MOVE is tied the slope of the yield curve. Lastly, Harley shares his views on global disinflation and what Central Banks are up against.

### Robert Whaley - Valere Blair Potter Professor of Finance, Vanderbilt University

Today's derivatives markets – characterized by a vast array of complex OTC products, options with maturities as short as one day, and an ever increasing pool of non-equity ETFs – bear little resemblance to those of the 1970's. In the earliest days of the listed options market, there were calls but not puts, limited expirations and just a sprinkling of single stock underlyings. It was in this era that Robert Whaley came on the scene and made an immediate impact. Armed with a PhD in finance from the University of Toronto, Professor Whaley quickly dove into the empirical study of derivatives markets, focusing on important topics such as the valuation of American put options, how option markets anticipate quarterly earnings announcements and the impact of program trading on the 1987 stock market crash. It was in 1993 that Professor Whaley published a paper that would fundamentally change the landscape of risk management. His Journal of Derivatives piece "Derivatives on market volatility: Hedging tools long overdue" described a brand new concept that sought to create a standardized metric for the cost of index options. More than 26 years later, the VIX is vastly a part of the language spoken not just by option market participants but by the investment community at large. Now, not merely a calculation, but a tradeable asset used for both speculation and hedging, the VIX index plays an important role in how investors read market risk dynamics and seek to profit from changes in volatility.

#### Benjamin Bowler - Managing Director and Global Head of Equity Derivatives Research, BoA - Merrill Lynch

At first blush, market volatility and fragility would appear to be two sides of the same coin. But for Ben Bowler and his global team at BAML, the last 5 years has uniquely seen muted overall daily volatility punctuated by occasional but extreme market outbursts. In Ben's role as global head of derivative research, he has studied this period - one in which market kurtosis, that pesky 4th moment, has been substantially high. Perhaps owing to the conditioning wrought by the heavy hand of Central Banks, investors have, in Bowler's rendering, increasingly competed for "dip Alpha". Thus, the market's growing tendency to lurch from calm to calamity as crowded positioning is unwound and then ultimately re-established once the Central Bank asserts its desire to see easier financial conditions. The result is a remarkable change in the character of market volatility post crisis. In addition to exploring the notion of market fragility, my conversation with Ben considers the volatility risk premium, the value of signals from the landscape of cross-asset vol, and the impact of vol selling on the market's gamma profile and resulting level of realized index volatility. We also broadly discuss the impact of risk control funds, the speed with which exposures can be de-risked and the greater incidence of flash-crash type events. Ben's insights are excellent.

#### Barry Knapp - Managing Partner, Ironsides Macroeconomics, LLC

A voracious reader and a market professional for more than 30 years, Barry Knapp has seen his share of bubbles and busts. Starting his career in the early 80's, he soon after experienced the crash of '87 and the mini crash of '89. The experience of multi-sigma events like these, overlaid on his careful study economic history, armed Barry early on with an appreciation for the complex ways in which monetary, fiscal and regulatory policy interact with the financial cycle of risk taking. In our conversation, Barry shares his recollections of covering institutional derivatives clients through the tech bubble and the growth of capital structure arbitrage trading in its aftermath. We spend some time on the financial crisis and I gather Barry's perspective as a senior risk taker at Lehman during that time. And lastly, I solicit Barry's views on monetary policy in the post crisis era and just how we arrived at interest rates no one could have ever imagined would clear the market. His unpacking of the sell-off in Q4'18 reveals a fragility that may be present for years as Central Banks try to get off zero.

# Nancy Davis - Founder and CIO, Quadratic Capital Management

Nancy Davis, founder of Quadratic Capital, has spent her entire career trading options of all shapes and sizes and across all of the asset classes. Over the course of nearly 20 years, Nancy has developed important perspective on risk cycles, trading through the dotcom era, the GFC, the 2011 sovereign crisis, the 2016 Brexit referendum and, more recently, the VIX unwind event of early 2018. Over these risk episodes and the quiet periods in between them, Nancy has developed a philosophy on utilizing optionality as a core vehicle to implement long or short directional exposure. Our conversation explores the fundamental question – "are options a good deal or not?" in light of the demonstrated premium of implied to realized volatility over time set against the numerous options blow-ups that have occurred in markets. As a prominent woman in the derivatives space, I also seek Nancy's views on the state of female representation in the finance industry and work she's doing to advance the cause of having more women on the investing side of the business. Lastly, we discuss IVOL, the Quadratic Interest Rate Volatility and Inflation Hedge ETF, an innovative product that Nancy recently launched. In a world in which options on the yield curve cost very little and next to no one sees the potential for appreciably higher inflation, Nancy sees IVOL as a valuable portfolio diversifier.

# Mark Spindel, Founder and CIO, Potomac River Capital

The onslaught of Tweets regularly lobbed at Fed Chairman Powell assumes at least some part of the mosaic of today's unique and vibrant risk climate. But is Trump much different from previous Fed Chairs? In "The Myth of Independence", Sarah Binder and Mark Spindel provide an important account of the political history of the Fed. And in this episode of the Alpha Exchange, it was a pleasure to have Mark, the Founder and CIO of Potomac River Capital, share his expert views on this subject as well as the macro environment in which Central Banks operate today. Our conversation considers historical market stress events including the square off between Soros and the BoE, the Fed's surprise tightening in 1994 and, of course the Great Financial Crisis. Mark also provides valuable perspective on the early days of the Fed, from its post-panic creation in 1912 through the onset of WWI, the high inflation volatility of the 1920's, and then of course the 1929 crash and Great Depression. Our conversation helps frame the chronology of how the Fed got to where it is today and the politics that inevitably influenced this path. We wrap up the discussion with Mark's survey of today's growth, inflation and asset price outlook. His assessment of inflation shortfall and the risks of Japanification, lead him to the conclusion that the Fed must be vigilant and that Central Bank coordination with the fiscal arm is a theme that will likely be subject to growing consideration

#### Glenn Stevens, Former Governor, Reserve Bank of Australia

On this episode of the Alpha Exchange, it was my distinct privilege to be joined by Glenn Stevens who resided over the Reserve Bank of Australia as Governor from 2006 to 2016. Considered one of the most gifted Central Bankers of our time, Glenn successfully navigated Australia's economy through the crisis without a recession. A 36 year career at the RBA has imparted him with an appreciation for the inherent challenges in economic forecasting and in this context, we touch on Glenn's decision to tighten in early 2008 as inflation in Australia rose, only to sharply reverse course a few months later as the Global Financial Crisis began. Our conversation is a retrospective on the fast moving, unnerving time that was the GFC, a period that demanded and benefited from policymaker coordination. In Glenn's view, the interconnected nature of markets and the economy during the crisis also forced Central Banks to view asset prices in a more endogenous light, assigning more weight to the impact of financial conditions on the real economy. I also solicit Glenn's views on how the RBA's goals and considerations may be shaped by unique attributes of the Australian economy. Lastly, we spend time - of course - on the puzzle that is Inflation and the related phenomenon of negative interest rates.

#### Jim Bianco, Founder and President, Bianco Research, LLC

In the mid 1980's, and recently graduated from Marquette University, a young Jim Bianco scored an accidental meeting for a position with First Boston. Most fortuitously, his resume wound up in the wrong pile, leading him to be mistakenly invited in to interview for a spot supporting a senior analyst. As luck would have it, Jim got the job and so was launched a more than 30 year career in markets. In 1998, amidst the chaos that was LTCM, Jim boldly launch his own firm. And more than two decades later, Bianco Research continues to provide differentiated advice on markets, Central Banks and the economy to its clients. My discussion with Jim focuses on monetary policy, global disinflation and the unholy impact of negative rates on the banking system. Jim's perspective on the big picture, slow moving yet powerful forces of demographics illustrates how the excess of global savings leads to greater demand for safe fixed income assets. He points as well to the downward pressure on prices due to technological advancement. In this context, he is skeptical that more of the same easy policy from Central Banks is the right medicine to address inflation and growth shortfall. Lastly, I solicit Jim's views on advancements in research being made possible by Neural Linguistic Processing. Jim and his team have used NLP, for example, to analyze word choices in Fed policy communications to score the degree of focus on growth, inflation, financial stability and other important variables. As data is made more available and at a cheaper price, new techniques like NLP provide exciting opportunities to gain insights on risk. Lastly, we touch on Modern Monetary Theory. While not a fan, Jim acknowledges the momentum of the MMT front, especially as the 2020 election comes into view.

#### Ben Melkman, Founder and CIO, Light Sky Macro, LP

Fascinated by markets at a very young age, Ben Melkman has spent his investing career thinking through the intersection of politics, macroeconomics and the price of options. After earning a degree from the London School of Economics, Ben hit the FX desk at Morgan Stanley, quickly establishing himself as an invaluable resource for the largest macro hedge funds who sought his counsel on how best to structure trades in light of vol surfaces on offer across asset markets. After a highly successful run at Brevan Howard, Ben established Light Sky Macro in 2016. Our conversation is about large vol events. With respect to the Global Financial Crisis, Ben dove into the complexities of credit derivative markets, concluding that the price of insurance was outlandishly cheap relative to the actual risks and the potential for contagion. In our discussion, Ben makes highly insightful points around the inherent risks of over-reliance on modeling, the degree to which correlation assumptions can lead to gross underestimation of risk and the vast interconnectedness of the financial system. Ben's views on the interaction between politics and markets and the manner in which investors sometimes fail to anticipate regime shifts is fascinating. He points to the onset of Abenomics in 2013, a massive campaign that aggressively pushed the yen down, Nikkei up and volatility up. In the period prior to this wholesale shift in policy, option prices were all skewed in the opposite direction. As we finish this excellent discussion, Ben looks forward to the potential that the combination of more aggressive fiscal policy in conjunction with accommodative monetary policy might cause a re-think of the inflation shortfall that has characterized the post-crisis era, at the very time when inflation is a highly unloved asset class. Lastly, Ben offers thoughts on the 2020 US election, excited about the potential market action that may arise from the starkly different views offered by the Democrats and Republicans.

#### Louis-Vincent Gave, CEO and Founding Partner, Gavekal

In 1999, as a new century was nearly upon us, the Euro was born and the US tech bubble was in full sway, Louis Gave hung a shingle to start an independent research firm with his father, Charles. Twenty years later, Louis remains CEO of Gavekal, a firm that has helped institutional clients distill global market risk throughout different cycles. Our conversation focuses a good deal on China, an economy that Gavekal has carefully studied. Calling China the biggest macro story the world has ever seen, Louis and his team have had a front row seat on the economic transformation in China and the manner in which 400 million citizens have been lifted out of poverty. Through our discussion, we learn more about how China interacts with the global economy and specifically the stabilizing role that the country played during the financial crisis, as well as during the growth recessions of 2012 and 2016. Our conversation also focuses a good deal on inflation. Amidst the well-worn narrative that inflation shortfall is a global issue, Louis has interesting insights on the social tension that is resulting from higher inflation. He points to riots in Hong Kong, Chile and the Green Jacket uprising in France, all linked to inflation. In the US, Louis is skeptical that inflation is as hard to come by as commonly reported, noting that core CPI is essentially at a 10-year high. As fiscal and monetary policy are both working in the same direction around the world, is the price of inflation too low? Louis sees recency bias at work and a failure of market participants to appreciate the regime shift that may be in motion. He views the price of crude as critical to watch insofar as the outlook for inflation is concerned. We finish our discussion with Louis' views on portfolio construction, citing caution for the long treasuries / long growth stocks allocation that has rewarded investors during the post-crisis period

## Alberto Gallo, Partner, Portfolio Manager, Algebris Investments

Earning his chops as a macro economist on the sell-side, Alberto Gallo has seen the pendulum of risk swing from extreme fear to euphoria. During his tenure at Goldman Sachs and then at RBS where he ran the Global Macro Credit Research product, Alberto provided buy-side clients with key insights on seminal volatility events like the Global Financial Crisis and the Eurozone Sovereign debt crisis. Now, as a Partner at Algebris Investments, Alberto leads the firm's Macro Strategy effort, a credit oriented portfolio designed to navigate the ever tricky terrain of present day markets. Our conversation considers portfolio construction in a world starved of yield, of low cross asset risk premia and one in which the potential for more drastic policy response may be on the horizon. Alberto's views on today's regime of monetary policy point to the side effects that result from negative rates, as the banking system suffers and investors are deprived of income. On the changing nature of volatility in markets, Alberto provides thoughtful insights. He points to the increasing degree of forward guidance employed by the world's large Central Banks, a factor that has depressed volatility and led to more days of sun for market participants. But since there's no free lunch, days of rain, while fewer, have become more substantial storms. Alberto details the increased frequency of flash crashes and sharp risk-offs during the post crisis period, perhaps the result of investors being forced to embrace carry at skinny margins for error. On inflation, Alberto points to a bottoming of CPI in the US even as structural drivers of low inflation like demographics and technology are likely to remain going forward. As the view that monetary policy has lost some of its punch and may be responsible for increasing income inequality, Alberto considers the trend towards lower Central Bank independence and greater cooperation with governments on the fiscal front. Will this work? In Alberto's rendering, it might, but it's all about how a more unified version of fiscal and monetary policy is deployed

#### Jon Havice, Founder and CIO, DGV Solutions

A nearly 30 year career has given Jon Havice exposure to just about every strategy across the spectrum of asset markets. A freshly minted Wharton graduate with a major in engineering, Jon came upon O'Connor Associates in the early 1990's where he cut his teeth trading listed currency option markets. Pre-euro, Jon would experience seminal FX vol events like the ERM unwind, Tequila crisis and Asian contagion in short order, gaining an appreciation for the impact of positioning on currency vol surfaces.

As his career progressed, Jon would manage the gamut of arbitrage strategies, focusing on exotic options, convertible bonds, capital structure and muni bonds and dispersion. Our discussion brings to life the lessons to be had from trading through market crisis periods, including the importance of counterparty risk and the degree to which asset prices can stray from fundamental value. We also dive into the vol risk premium, exploring its attributes and how it has evolved over the years in light of the heavy hand of Central Banks. In a world of exceptionally low rates, Jon worries about the glut of yield-chasing capital in private credit and the potential that valuation distortions have resulted.

Today, Jon is CIO of DGV Solutions, a firm he founded in 2014 to offer customized investment management products in a transparent and cost efficient manner. His firm deploys its expertise with a purpose, partnering with clients with inspiring missions that Jon and his team feel very connected to.

#### Scott Ladner, Chief Investment Officer, Horizon Investments

In 1998, Scott Ladner hit the derivatives scene at First Union, just as LTCM was imploding and equity volatility was rocketing higher. No sooner would the Fed help contain that risk episode, then the tech bubble would be set in motion. An intense period of "stocks up, vol up" during which valuations expanded to unheard of levels, followed by an equally intense, "stocks down, vol up" characterized the period of 1999 through 2001 and provided hands on, sometimes painful experiences for Scott in managing convexity risk. Short airline volatility during the September 11<sup>th</sup> terrorist attack, Scott quickly came to appreciate the potential for significant gap risk and discontinuity in markets, a reality not contemplated in the textbook version of Black Scholes.

My conversation with Scott considers insights gathered over a career managing volatility exposure across asset classes and how he came to his role as CIO of Horizon Investments. Scott shares his views on how volatility can come and go, how many factors can come to impact the price of options and how important it is to have a number of little bets on versus being overly concentrated in a singular exposure. He points to the value, but also the dangers of option models, learning along the way not to take the output too seriously and to constantly reexamine the assumptions being made. Today, Scott's dashboard consists of credit, liquidity and risk metrics with the goal of identifying incongruities that help him focus his research to better understand market dynamics. In this context, we discuss the early and late year vol events of 2018.

Lastly, we discuss Horizon's efforts on behalf of its clients to manage wealth and reach retirement goals within the constraints of the low growth and low interest rate environment. His team is seeking to build risk management techniques that work specifically in today's unique economic and financial climate. Noting that there is now "an ETF for everything", he sees the last 10 years as the age of product. The next 10, in contrast, he views as the age of planning, where the focus should be on how to best utilize these new products to maximize the wealth and overall experience of retirement for individuals.

## Andy Redleaf, Partner, Park Principal Group

The son of a physician and with a penchant for math, Andy Redleaf came upon options in high school, even before they were listed on the CBOE. Post college, Andy landed in an option trading role and was making markets on the CBOE during the 1987 stock market crash. In his rendering, the introduction of stock index futures dramatically increased correlation among stocks and the creation of portfolio insurance left some investors short a put that no other investors were long. In combination, this left the market vulnerable to such a sharp one day plunge in stock prices. Our conversation considers market stress periods in the context of the neat mathematical models and their simplifying assumptions that may be enablers of these seismic events.

We talk as well about Andy's hedge fund career, first co-founding Deephaven and then founding Whitebox. Both ventures were focused on exploiting mispricings in complex securities such as convertible bonds and the relative value between equity and corporate credit securities. As the head of Whitebox for two decades, Andy oversaw the firm's expansion into a global multi-strat fund that traded all asset classes and through periods of vol both high and low. Our discussion brings to life the instability that Andy saw lurking beneath the surface of calm markets in the period prior to the financial crisis. He shares his analysis of the wholesale mispricing of mortgage risk that was evident in the statistic that nearly 90% of the refinancings on New Century's book increased the amount owed from the original mortgage. This, Andy suggests, is an indication of a more desperate borrower.

As we explore the important risk events that have helped shaped Andy's philosophy on risk, we also pivot to the financial climate that is today. Andy is skeptical that ultra-low interest rates are stimulative and sees the decline in interest rate income as a headwind for consumers who are trying to reach a specific financial goal through savings. Today, Andy is principal of Park Financial Group, a firm finding opportunities to prudently lend in today's climate of highly bifurcated credit allocation.

## Michael Green, Chief Strategist, Logica Capital Advisers

Managing portfolios over the course of two decades, Mike Green has developed a unique framework for assessing risk and opportunity. Trained in his early days to perform equity valuation, Mike came on the scene just as the tech bubble was imploding and the massive discrepancy between growth and value was coming undone. In a great seat to ride the small cap value wave during the post internet bubble, but pre-crisis period, Mike began to appreciate the force of market prices and their impact on behavior, narratives and how they become entangled in feedback loops. Our conversation is a retrospective on these situations of co-dependency – between profits, psychology and the economy. In this context we discuss left and right tail events – in valuations, in housing price appreciate and in events of extreme high and low implied and realized volatility.

Mike's insights on market structure bring to life the motivations and market frictions that ultimately give rise to a transaction. Price, in his rendering, is less about valuation and more about the conditions that give rise to a trade to occur. The result can be option prices that clear the market considerably higher than what one would think possible and Mike references the near 100% bid to implied correlation in 2012 as an example.

Today, Mike is Chief Strategist for Logica Capital Advisers and, as usual, he has a lot on his mind. We talk a good deal about passive investing, a strategy increasingly embraced as simply a better way. For Mike, passive indexation is plenty active - there's a specific decision being made to buy stocks in proportion to their market caps. At a time when both the SPX and NDX have become substantially top heavy, investors ought to question the efficacy of such a valuation agnostic approach.

## John Succo, Partner, SS Financial

When it comes to equity derivatives, few individuals have traded more options than John Succo. Across a career in markets spanning more than 3 decades, John has managed convexity risk on both the sell-side and buy-side, through high and low vol periods and across single stock and index options. During the course of our discussion, John shares many rich stories. He brings to life the early days of career - one in which option pricing inefficiencies were significant across both strike and time. He describes one of the large, early hedging trades he orchestrated in 1989 – a collar on S&P 500 shortly before the UAL mini-crash in October. And he has plenty to say about the spectacular blow-up of LTCM, an outcome that surprised him very little. A theme throughout our conversation is John's careful attention to sizing positions and his overall objective of remaining long gamma. While the lean periods for volatility make this challenging, John successfully managed decay through active position management, trading the range in volatility and offsetting some of the bleed from long single stock vol by selling index volatility. The result was that his hedge fund, Vicis Capital, became looked upon by institutional allocators as a valuable addition to a portfolio of generally correlated risk-assets. The orthogonal nature of the return stream from Vicis was of great value for investors in the period leading into and through the financial crisis. Today, John is a partner at SS Financial, and remains a keen and skeptical observer of markets. On his mind mostly is debt and the view that it is the sudden stop of unsustainable leverage that usually figures complicit in big vol events. Please enjoy this episode of the Alpha Exchange, my conversation with John Succo.

#### Stuart Kaiser, Head of Equity Derivatives Research, UBS

The price of vol, in single stocks, in equity sectors and across asset classes is on the mind of Stuart Kaiser. Now the head of equity derivatives research at UBS, Stuart spends his time helping the firm's institutional clients find value on both the long and short side of the derivatives market. Landing at Goldman Sachs a stone's throw away from the global financial crisis, Stuart developed his skill set by looking for opportunities in the single stock options market at a time of massive transition in implied volatility. During our conversation, we revisit the surge in option premia in US financials, from extremely low to unrecognizably high levels in a matter of a year. In this context, Stuart shares his views on the vol risk premia, noting that it can sometimes be compelling to sell vol at low levels, especially when markets are trending in muted fashion as they did in 2017.

As part of his process for supporting clients, Stuart continuously evaluates volatility surfaces. He shares the process he uses, describing how he utilizes back-tests and how he arrives at points on the curve that carry best and are optimal in the context of the risks being hedged. We also discuss 2018, a year book-ended by market disruption events of very different character that required unique trade construction in hedging. Lastly, Stuart shares his framework for evaluating cross-asset risk factors and how he looks for warning signs that sister asset classes like FX and rates may send to equity investors. Today, amidst a challenging environment for carrying options, he sees value in gold volatility. Please enjoy this episode of the Alpha Exchange, my discussion with Stuart Kaiser.