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Keith Black has over twenty-five years of financial market experience, serving approximately half of that time as an academic and half as a trader and consultant to institutional investors. He currently serves as Managing Director of Curriculum and Exams for the CAIA Association. During his most recent role at Ennis Knupp + Associates, Keith advised foundations, endowments and pension funds on their asset allocation and manager selection strategies in hedge funds, commodities, and managed futures. Prior experience includes commodities derivatives trading, stock options research and CBOE floor trading, and building quantitative stock selection models for mutual funds and hedge funds. Dr. Black previously served as an assistant professor and senior lecturer at the Illinois Institute of Technology.

He contributes regularly to The CFA Digest, and has published in The Journal of Wealth Management, The Journal of Trading, The Journal of Investing, and The Journal of Alternatives Investments, among others. He is the author of the book "Managing a Hedge Fund," as well as co-author of the 2012 and 2015/2016 second and third editions of the CAIA Level I and Level II textbooks. Dr. Black was named to the Institutional Investor magazine's list of "Rising Stars of Hedge Funds" in 2010.

Dr. Black earned a BA from Whittier College, an MBA from Carnegie Mellon University, and a PhD from the Illinois Institute of Technology. He has earned the Chartered Financial Analyst (CFA) designation and was a member of the inaugural class of the Chartered Alternative Investment Analyst (CAIA) candidates.

Dr. Black is available to speak on the following topics. Most presentations are less technical talks for a general audience, while those on VIX, smoothing, and hedge fund replication are advanced talks for more technical audiences.

The State of Alternative Investments: A Global View

The world of alternative investments continues to grow and change. Nearly \$10 trillion in assets have flowed into the alternative investment industry in the last fifteen years. Now AI is starting to show up in mutual funds and ETFs. What might the future hold? Which asset classes are likely to most quickly grow assets and which are more likely to decline in importance over time?

Liquid Alternative Investments

Historically, alternative investments were only available to institutional and high net worth investors with minimum investments often starting at \$500,000 or more. In this private placement world of alternative investments, managers had significant investment discretion with regards to disclosure, fees, liquidity, leverage and derivatives positions. In recent years, a growing number of investment managers have made products available in a “liquid alternatives” format, which complies with UCITS or the Investment Company Act of 1940 regulations. These liquid alternatives products have significant regulatory differences from private placement products, but are widely available to retail investors. The differences in performance and due diligence requirements are also discussed.

The Investment Practices of Sovereign Wealth Funds

There has been tremendous growth in the AUM and breadth of the sovereign wealth industry in recent years, with over 25 new funds being established since 2007, while assets have grown from \$3 trillion in 2008 to over \$7.3 trillion by 2017. What does the oil-funded Norway fund have in common with the FX-funded China Investment Corporation? How are SWFs allocating assets to alternative investments and what does this bode for the future of the alternative investment industry? What are the different types of SWFs, and how do their goals and source of income influence their asset allocation?

Commodities: Boom or Bust? The Case of a Strategic Allocation

Institutional investment in commodity futures programs increased substantially for many years, but has declined in the recent bear market. The attraction to commodities rests on the potential to hedge against increasing inflation, as well as the low correlation to stock and bond markets. There is concern, however, that increasing asset flows has led commodities to become more of a financial asset, which has increased the correlation of commodity returns to those financial markets. Ultimately, commodity prices are set by supply and demand, which differs over the course of the business cycle.

The Universe of Alternative Investments

This presentation contrasts the investment opportunities between the world of traditional and alternative investments. The potential of alternative investments to reduce portfolio volatility and hedge inflation risk is discussed. Limited partnership and liquid alternative products are presented. An overview of investment opportunities in real assets, commodities, hedge funds, private equity and structured products is included.

Funds of Hedge Funds

Funds of hedge funds can be highly effective at diversifying risk over a number of hedge fund styles and managers. The goals and value added of funds of funds managers are presented. However, funds of hedge funds have been suffering outflows, as the extra fee burden can make these vehicles less attractive when compared against multistrategy hedge funds or a portfolio of hedge funds built by an investor. Specific comparisons between funds of funds, multistrategy funds, and direct investment in hedge fund portfolios are explored. The changing nature of the hedge fund industry since 2008 is discussed.

Portfolio Diversification Revisited: Lessons Learned from Previous Cycles

In a crisis, do all correlations converge to one? No! While the correlations of short volatility, convergent strategies do rise substantially in a crisis, there are a number of assets that can rise in value during a crisis. Assets showing the ability to hedge tail risk during times of crisis include sovereign debt, macro hedge funds, managed futures strategies, equity index put options and some form of volatility arbitrage.

Protecting your Portfolio from Inflation: The Case for Real Assets

Many investors are seeking to add assets to their portfolio that can be effective in hedging increasing rates of inflation. Assets that have been considered to hedge inflation risk include equities, real estate, commodity futures, farmland, timberland, inflation-linked bonds, infrastructure and master limited partnerships. Each of these assets varies in its ability to hedge inflation risks, as well as in the liquidity provisions.

Opportunities in Private Credit Investing

Since 2008, credit has been harder to come by for many borrowers, as banks have backed away from many types of lending due to the stress tests and capital adequacy requirements imposed after the bank bailouts. As a result, the private credit market has exploded from \$200 billion in AUM in 2008 to over \$600 billion today as borrowers turn to non-bank lenders to meet their credit needs. The yield potential and risk factors of direct lending, mezzanine and distressed investments are discussed.

An Empirical Investigation of the CBOE Volatility Index (VIX) as a Hedge for Equity Market and Hedge Fund Investors

Adding long positions in the VIX index has proven effective at reducing the risk of long position in equity markets or hedge fund investments. Now that futures on the VIX index have been trading for more than five years, the data is available to evaluate the portfolio characteristics of adding position in the VIX futures to a portfolio. The cost and hedging effectiveness varies substantially with the contract selection within the VIX futures market.

Hedge Fund Investing: Developments in Hedge Fund Replication

First generation hedge fund replication consisted of measuring the factor risk of a hedge fund, and taking exposures in index tracking products to replicate those estimated exposures. In this case, replication with liquid products may forego earning the liquidity or complexity premia earned by many hedge fund strategies. Second generation replication products seek to mimic hedge fund strategies by investing in an indexed version of the underlying hedge fund strategy, such as taking long-short positions in stocks to replicate a merger arbitrage strategy. The betas of hedge fund strategies are decomposed into traditional betas, exotic betas, while "alpha" is explained through liquidity, complexity, leverage, events risks, security selection and market timing.

Adjusting Asset Allocation Models for the Smoothing and Higher Moments Exposures of Alternative Investments

The pitfalls of using mean-variance optimization with alternative investments are well-documented. Given that mean-variance models focus on the maximization of returns given a desired level of portfolio variance, higher moments such as skewness and kurtosis are typically not considered. When portfolios contain assets where returns are calculated using an appraisal-based methodology or illiquid securities, the stated returns may understate volatility and the correlation between these assets and more liquid portfolio holdings. Portfolio allocations with standard and modified allocation models will be presented.