

IBKRWEBINARS.COM



November 15, 2021

EQDerivatives

Diversification Benefits Of Bitcoin

Russell Rhoads

CFA, Head Research & Consulting
EQDerivatives

Exchange and Industry Sponsored Webinars are presented by unaffiliated third parties. Interactive Brokers LLC is not responsible for the content of these presentations. You should review the contents of each presentation and make your own judgment as to whether the content is appropriate for you. Interactive Brokers LLC does not provide recommendations or advice. This presentation is not an advertisement or solicitation for new customers. It is intended only as an educational presentation.



Disclosure:

Trading in digital assets, including cryptocurrencies, is especially risky and is only for individuals with a high-risk tolerance and the financial ability to sustain losses. For more information about the risks surrounding the trading of Digital Assets please see the ["Disclosure of Risks of Trading Digital Assets"](#).

Options involve risk and are not suitable for all investors. For information on the uses and risks of options, you can obtain a copy of the Options Clearing Corporation risk disclosure document titled [Characteristics and Risks of Standardized Options](#) by calling (312) 542-6901.

Futures are not suitable for all investors. The amount you may lose may be greater than your initial investment. Before trading futures, please read the [CFTC Risk Disclosure](#). For a copy visit [interactivebrokers.com](#).

Security futures involve a high degree of risk and are not suitable for all investors. The amount you may lose may be greater than your initial investment. Before trading security futures, please read the [Security Futures Risk Disclosure Statement](#). For a copy visit [Interactivebrokers.com](#).

There is a substantial risk of loss in foreign exchange trading. The settlement date of foreign exchange trades can vary due to time zone differences and bank holidays. When trading across foreign exchange markets, this may necessitate borrowing funds to settle foreign exchange trades. The interest rate on borrowed funds must be considered when computing the cost of trades across multiple markets.

The Order types available through Interactive Brokers LLC's Trader Workstation are designed to help you limit your loss and/or lock in a profit. Market conditions and other factors may affect execution. In general, orders guarantee a fill or guarantee a price, but not both. In extreme market conditions, an order may either be executed at a different price than anticipated or may not be filled in the marketplace.

There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

- IRS Circular 230 Notice: These statements are provided for information purposes only, are not intended to constitute tax advice which may be relied upon to avoid penalties under any federal, state, local or other tax statutes or regulations, and do not resolve any tax issues in your favor.
- Interactive Brokers LLC is a member of [NYSE](#) [FINRA](#) [SIPC](#)



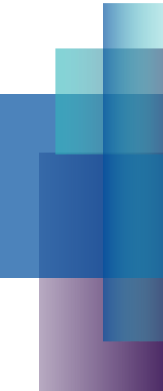
EQDerivatives

Diversification Benefits Of Bitcoin

Russell Rhoads, CFA
head research and consulting

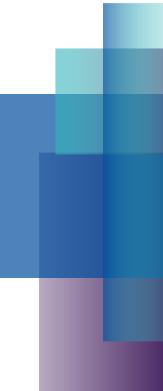
Disclosure

- This material is provided for information only and is not an offer to sell or the solicitation of an offer to buy any financial instrument or asset class
- This material does not and is not intended to take into account the particular financial conditions, investment objectives or requirements of individual customers. Before acting on this material, you should consider whether it is suitable for your particular circumstances and, as necessary, seek professional advice.
- EQDerivatives, Inc. is not affiliated with Interactive Brokers LLC, or any other FINRA broker-dealer.
- The information provided in this presentation is believed to be accurate, but the accuracy and completeness of the information is not guaranteed.
- Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.
- Past performance is not indicative of future results.
- Day Trading can be extremely risky and may not be appropriate for individuals with limited resources, investment experience or low risk tolerance. Please review the [Day Trading Risk Disclosure Statement](#) before deciding whether Day Trading is appropriate for you.



Overview

- Quick Intro
- Exposure to Bitcoin
- Methodology
- Results
- Contact / Q&A



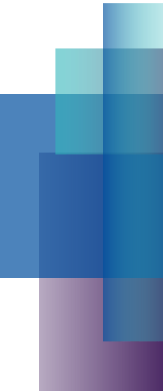
Market Exposure

- **Stocks: S&P 500 Total Return**
- **Bonds: Bloomberg Barclays US Aggregate Bond Index**
- **Spot Bitcoin: 2011 – 3Q2021**
- **CME Futures: 2018 – 3Q2021**
- **Grayscale Bitcoin Trust: 2017 – 3Q2021**



Methodology

- **Combine bitcoin exposure with traditional equity / fixed income portfolio**
- **Explore various traditional asset weightings in 5% increments**
- **Bitcoin exposure rebalanced to 1%**
- **Frequent rebalancing to avoid bitcoin overtaking the portfolio allocation**



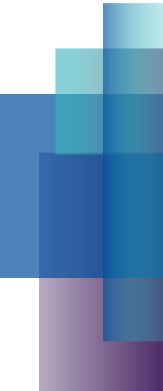
Methodology

Example:

75% Stocks / 25% Bonds

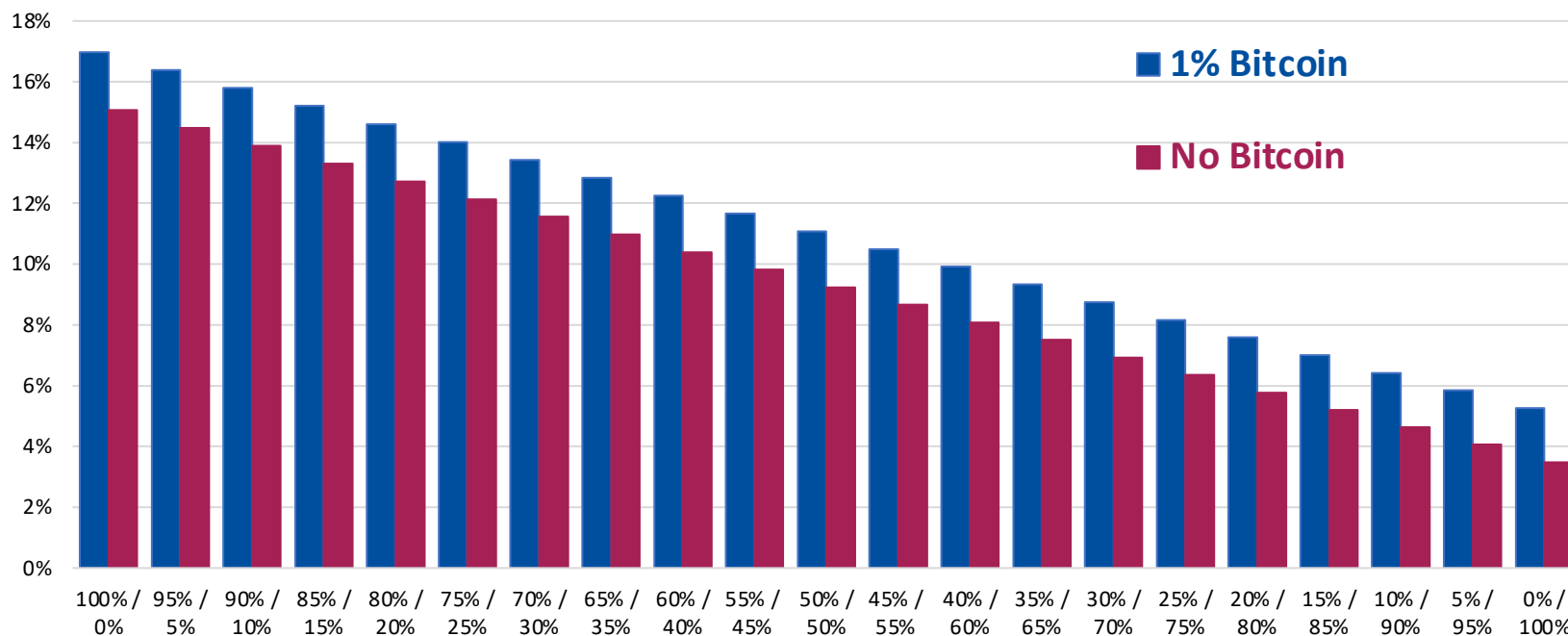
vs.

74.25% Stocks / 24.75% Bonds / 1.00% BTC



Spot Bitcoin Returns 2011 – 3Q2021

Average Annual Return Stock / Bond With And Without BTC Exposure

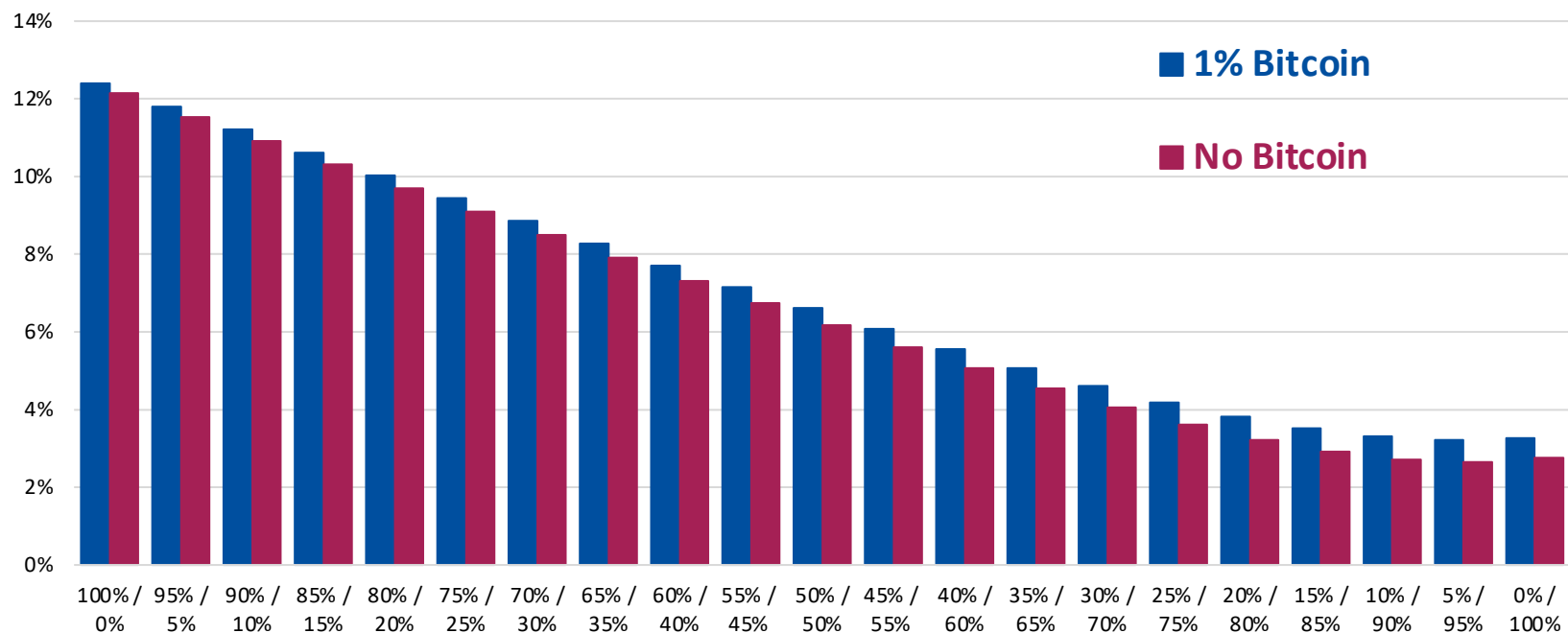


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Spot Bitcoin Volatility 2011 – 3Q2021

Average Annual Volatility Stock / Bond With And Without BTC Exposure

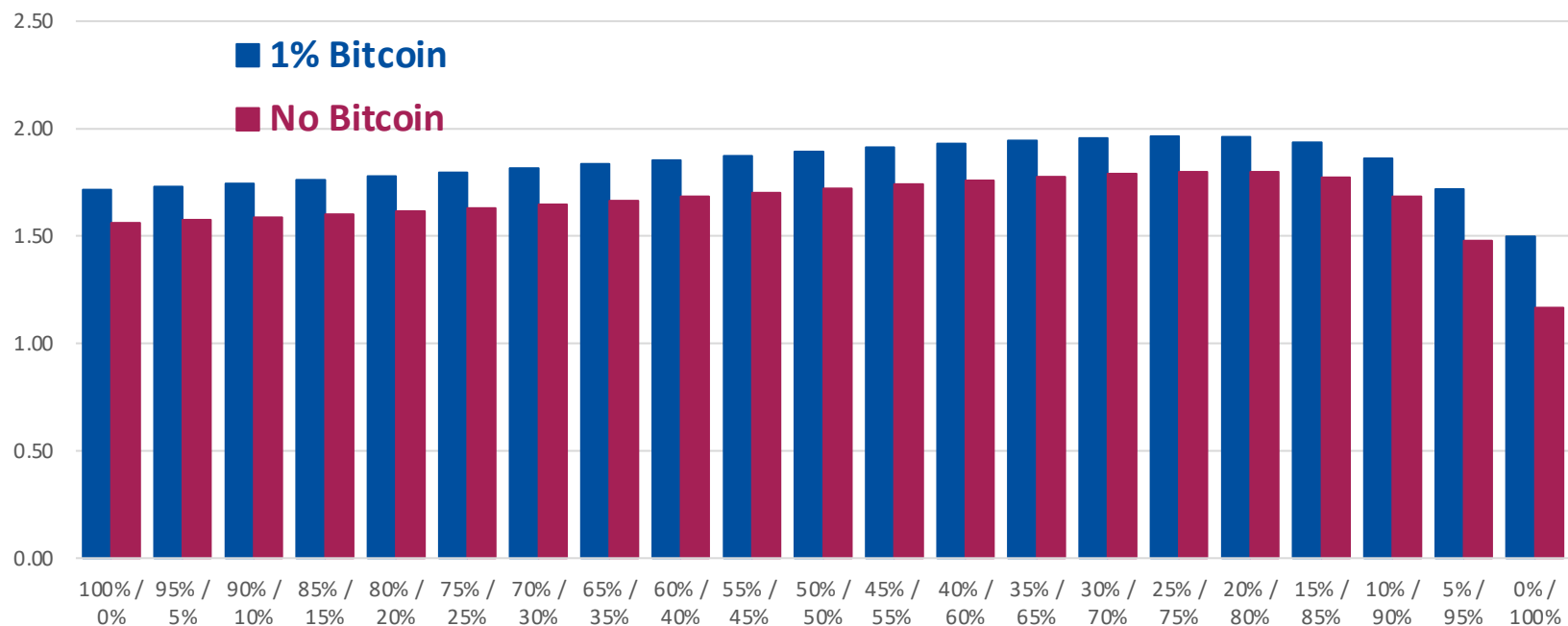


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Spot Bitcoin Sharpe Ratio 2011 – 3Q2021

Average Annual Sharpe Ratio Stock / Bond With And Without BTC Exposure

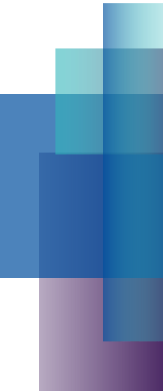


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

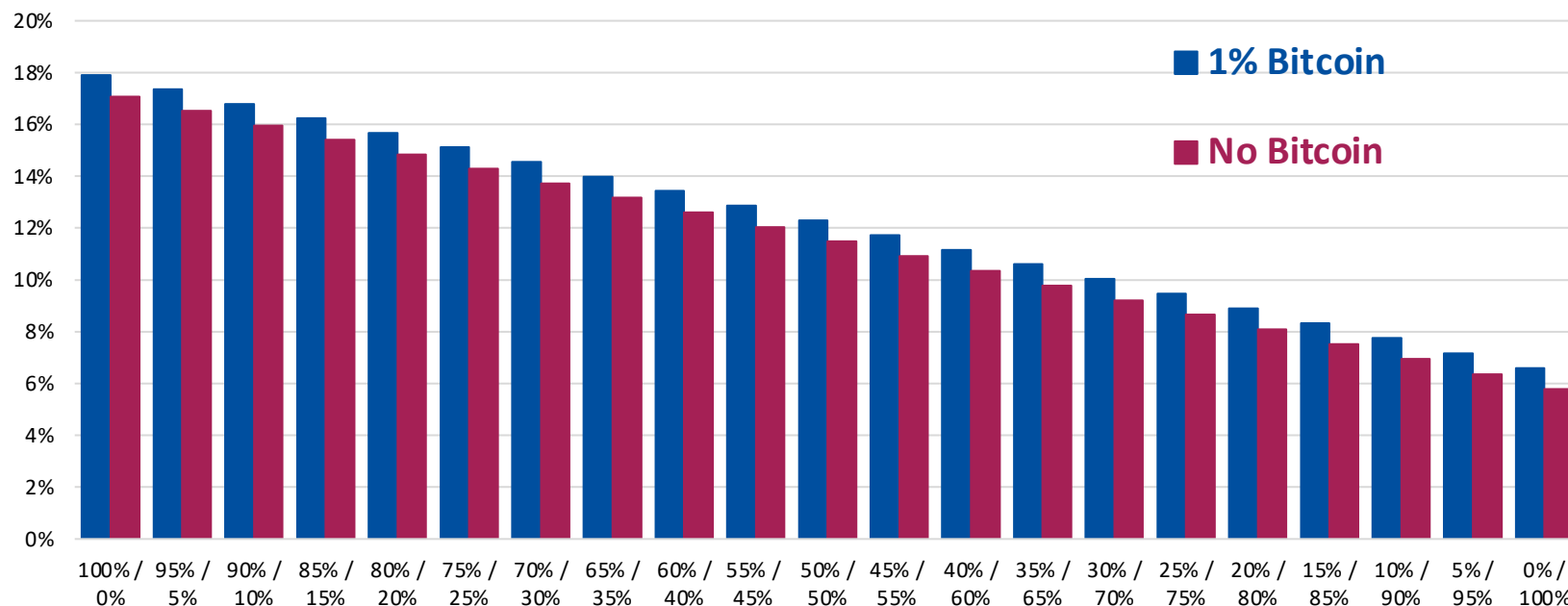
Spot Bitcoin Highlights

- **2014 and 2018 were the two years where the non-bitcoin portfolios put up lower Sharpe ratios**
- **A majority of the better annual risk adjusted bitcoin exposure returns lean toward a higher bond than stock weighting**



CME BTC Futures Returns 2018 – 3Q2021

Average Annual Return Stock / Bond With And Without Futures

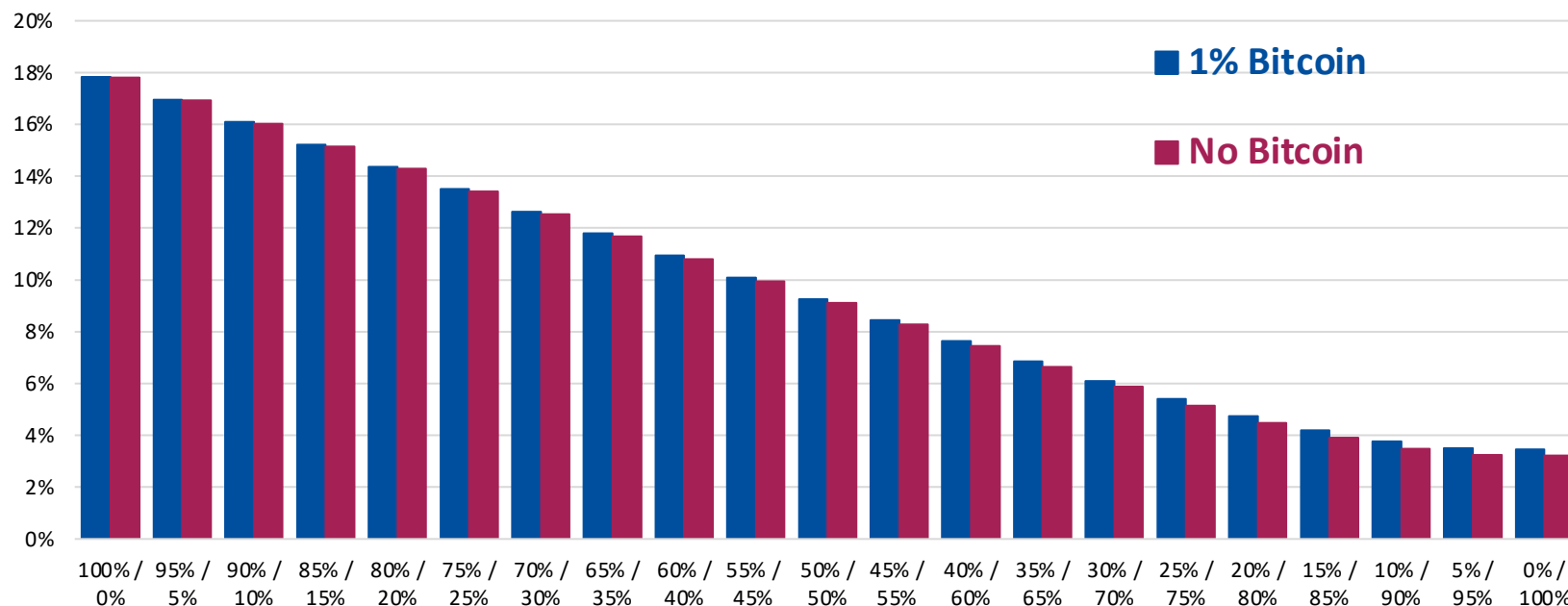


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

CME BTC Futures Volatility 2018 – 3Q2021

Average Annual Volatility Stock / Bond With And Without Futures

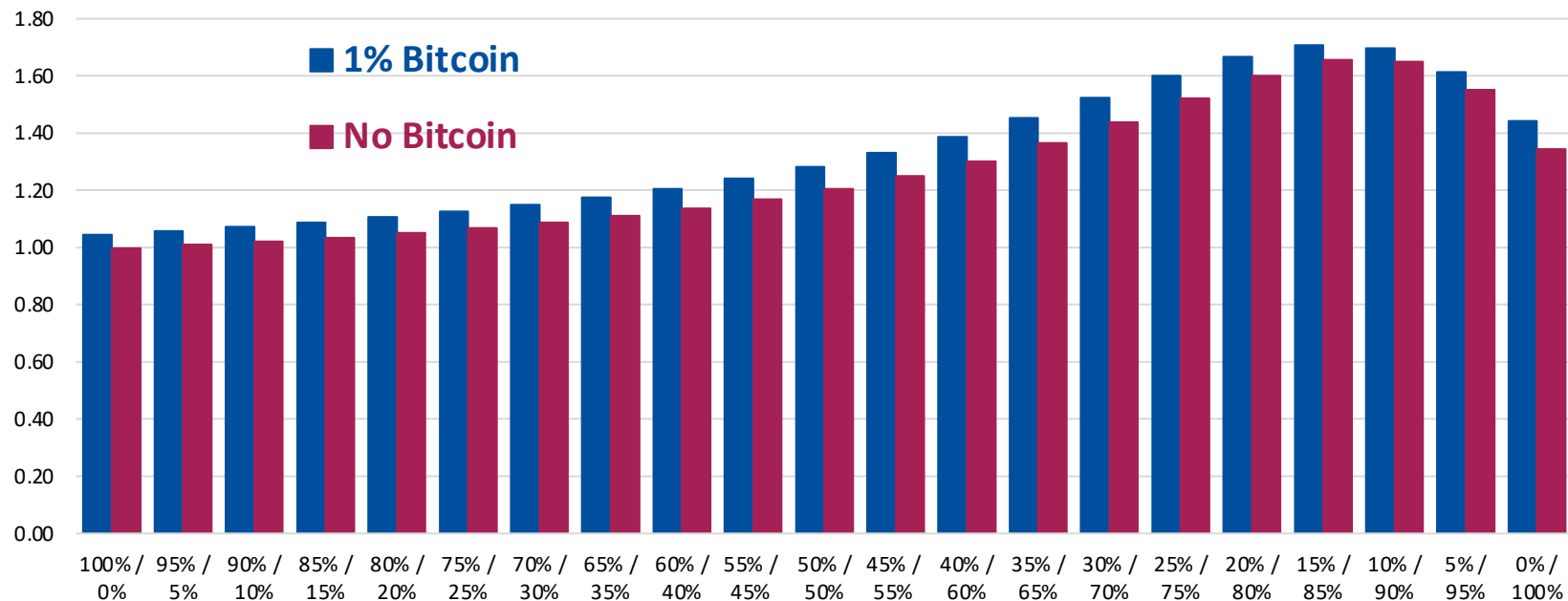


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

CME Futures Sharpe Ratio 2018 – 3Q2021

Average Annual Sharpe Ratio Stock / Bond With And Without Futures

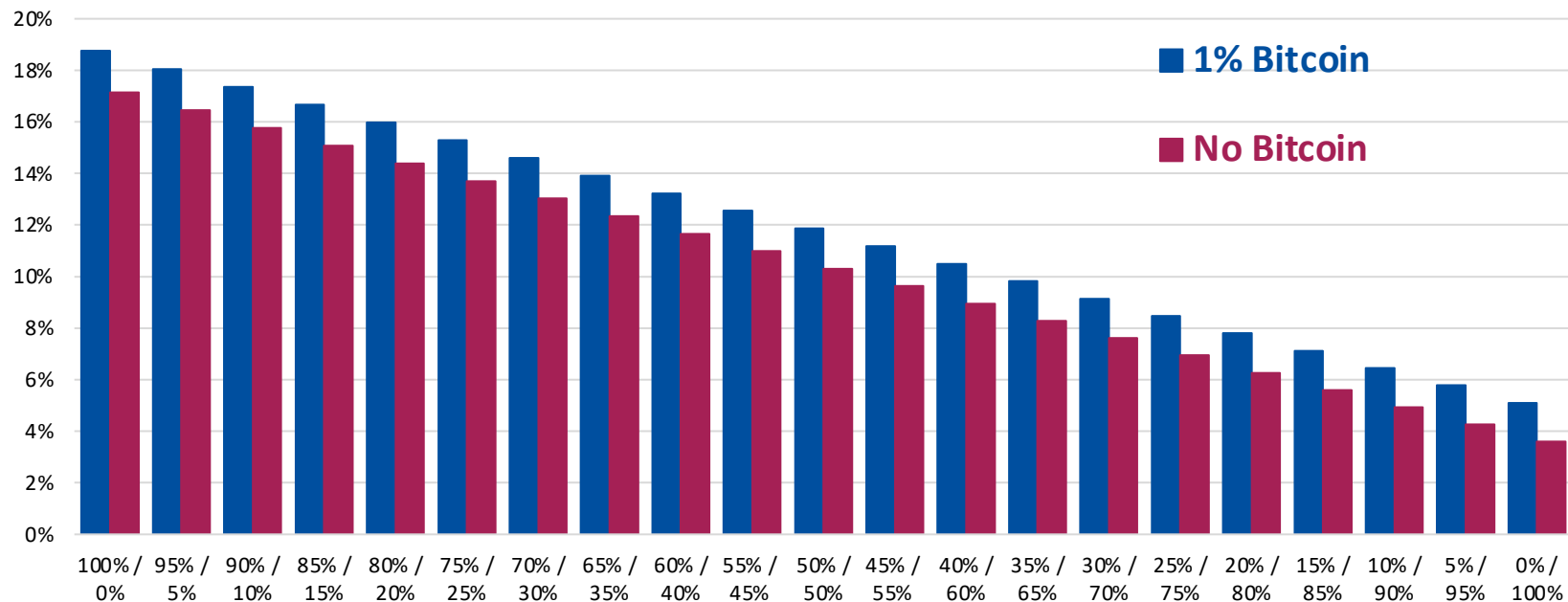


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Grayscale BTC Trust Returns 2017 – 3Q2021

Average Annual Return Stock / Bond With And Without GBTC Exposure

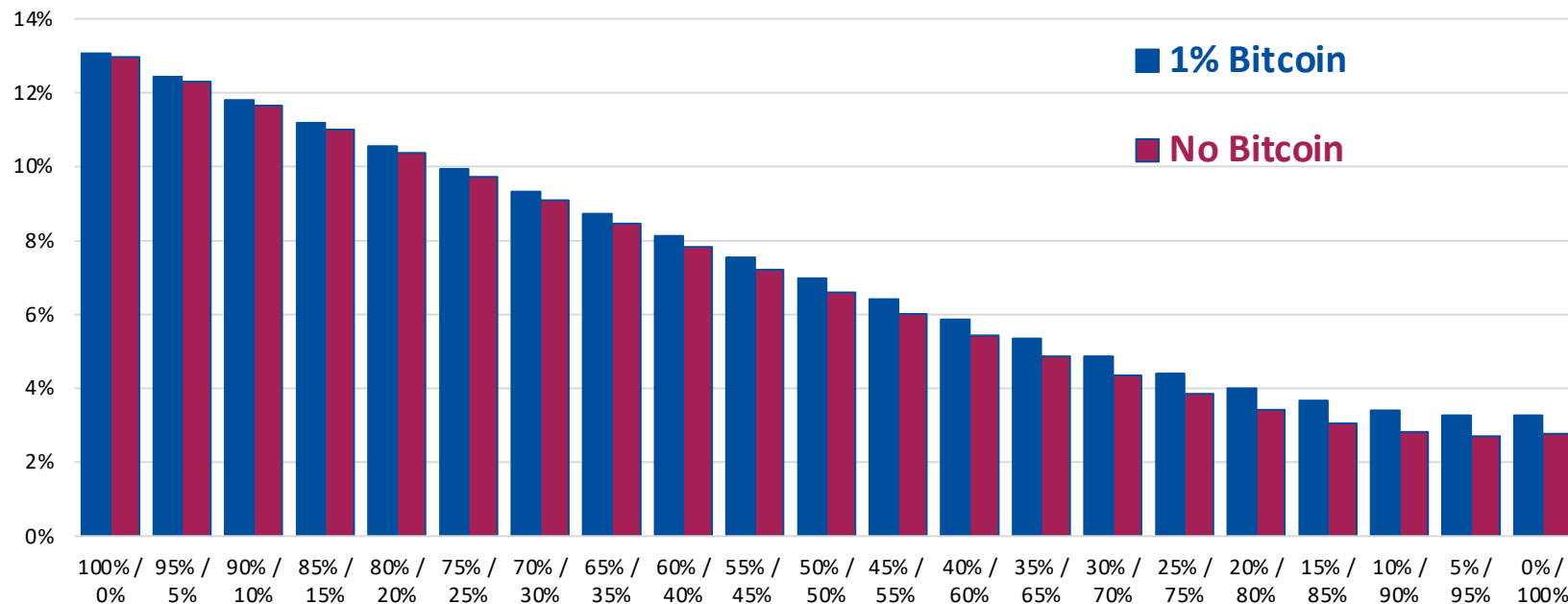


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Grayscale BTC Trust Volatility 2017 – 3Q2021

Average Annual Volatility Stock / Bond With And Without BTC Exposure

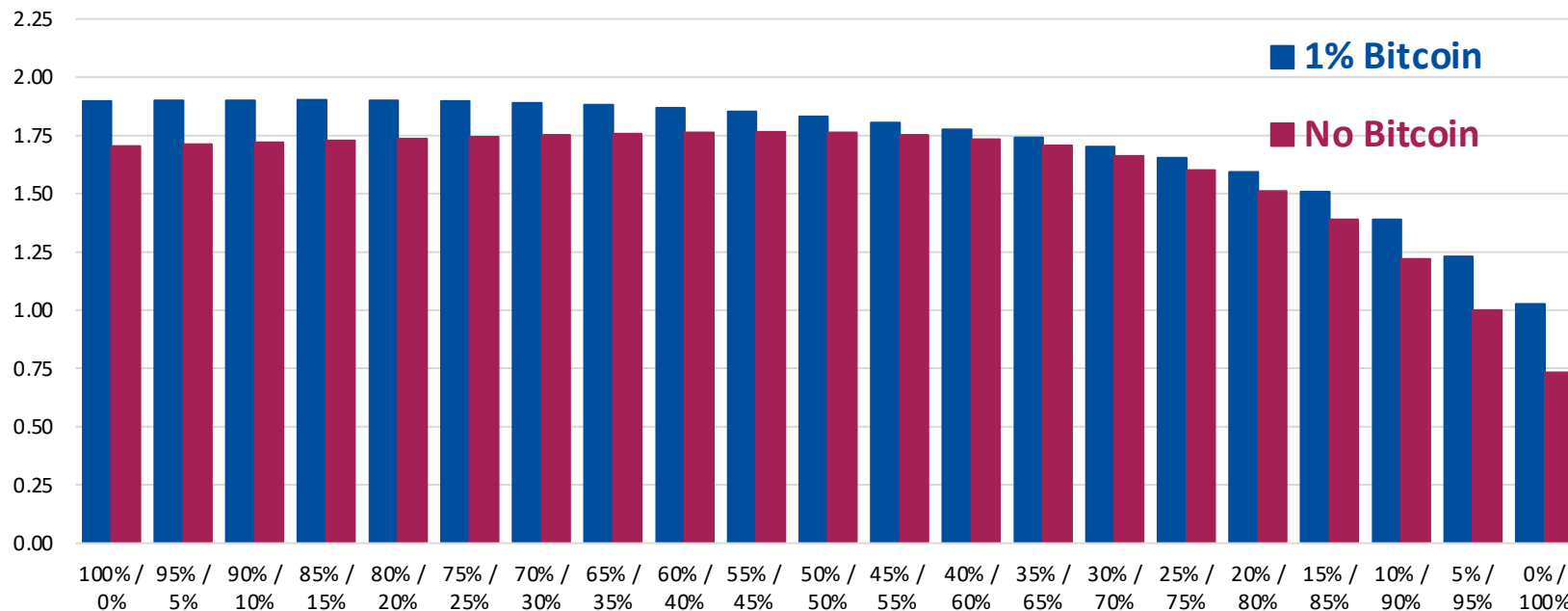


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Grayscale BTC Trust Sharpe Ratio 2017 – 3Q2021

Average Annual Sharpe Ratio Stock / Bond With And Without GBTC

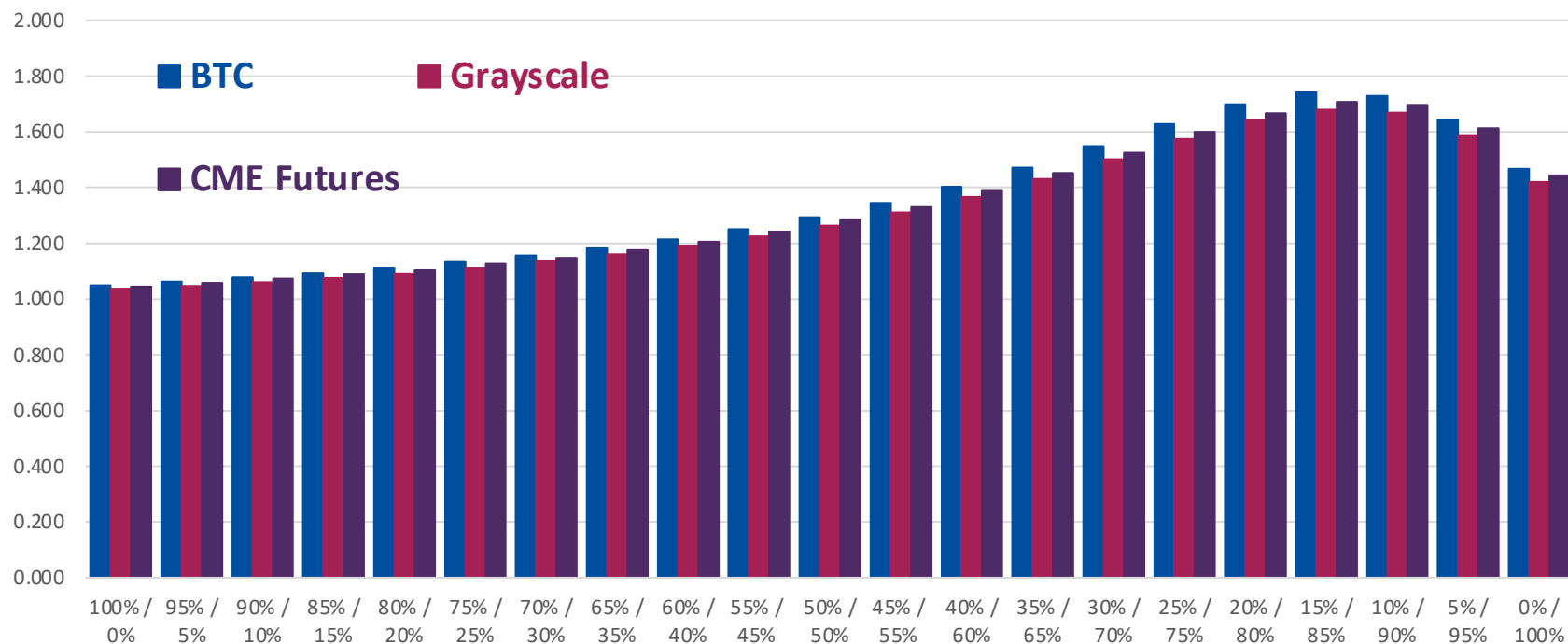


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

3 Methods Sharpe Ratios 2018 – 3Q2021

BTC / Grayscale / CME Futures Average Sharpe Ratios 2018 - 3Q2021

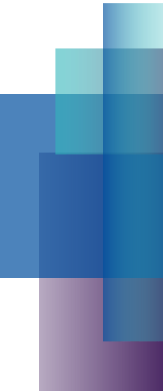


Data Sources: Bloomberg & EQD Calculations

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations. Past performance is not indicative of future results.

Summary

- **Historical absolute and risk adjusted performance likely benefits from a small amount of bitcoin exposure**
- **This extends to all three methods presented today**
- **A comparison over the same time period shows little difference in the method used to get bitcoin exposure**



Questions / Contact

Questions?

Contact Info

rhoads@eqderivatives.com

www.eqderivatives.com

Twitter – @RussellRhoads

