BLOCKRISE

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Getting Off Zero
"The Power of Bitcoin Allocation"

Introduction

This article begins a series of fundamental research publications that demonstrate Bitcoin's relevance in today's investment landscape. Introducing the "Getting Off Zero" series, we will be exploring various investment portfolios to serve a broad range of investors. This first article examines how different Bitcoin allocations would affect a traditional, well-diversified stock market portfolio. The upcoming articles will cover various related topics, ranging from Bitcoin's impact on real estate portfolios to optimising corporate cash management.

Problem statement

Investors typically turn to the stock market to diversify their investments with a higher yield, instead of receiving low interest rates with traditional bank accounts. However, the purchasing power of currencies steadily declines each year, with most central banks maintaining a 2% inflation target. This economic reality prompts investors to seek strategies that can enhance, or at least preserve, their purchasing power.

The impact of purchasing power on performance is rarely considered, but it is a valuable metric for evaluating the actual performance of investments. Portfolio performance metrics are often expressed in euros, US dollars, or other currencies that are subject to inflationary pressure. Consequently, stock market investments' actual impact on purchasing power is often less impressive than the nominal performance figures suggest.

Objective

This research article addresses a crucial question: "How does Bitcoin allocation affect the real purchasing power of investment portfolios?" Our analysis examines the difference between nominal and real returns while demonstrating the strategic advantages of Bitcoin allocation. The "Getting Off Zero" series helps investors of all backgrounds understand the benefits of including Bitcoin in their investment strategy.

Risk-on or Risk-off

The "risk-on, risk-off" investment framework characterises market conditions based on investor sentiment toward risk. During risk-on periods, investors demonstrate greater risk tolerance, allocating capital toward higher-yielding assets such as equities. Conversely, risk-off environments prompt investors to prioritise capital preservation, redirecting investments toward traditionally safer assets like gold and government bonds.

The classification of Bitcoin as either a "risk on" or "risk off" asset represents a primary consideration for prospective investors evaluating their first Bitcoin investment. Upon careful analysis, we have determined that Bitcoin's distinctive characteristics render traditional financial frameworks inadequate for its evaluation, as its long-term performance drivers demonstrate fundamental independence from conventional portfolio return sources.

Although Bitcoin has exhibited periods of volatility and occasional correlation with equity markets, its long-term performance metrics indicate minimal correlation with both equities and fixed-income securities, while consistently delivering superior returns compared to traditional asset classes.

Why should investors allocate towards Bitcoin?

As shown in Figure 1, we analyse the correlation between Bitcoin and the S&P 500, a prominent U.S. market index. The data reveals Bitcoin's limited exposure to conventional macroeconomic factors, evidenced by its minimal long-term correlation with equities. Although we observe occasional periods of short-lived increased correlation during significant monetary policy shifts, these instances do not indicate a sustained pattern of macroeconomic dependence.

Investment professionals evaluating Bitcoin allocation strategies face the challenge of analysing this asset class within the context of traditional financial frameworks, given its distinctive characteristics and relatively brief market history. While Bitcoin exhibits significant price volatility that classifies it as a high-risk investment when viewed independently, its fundamental risk and return drivers differ substantially from conventional risk assets. This unique profile renders traditional financial analysis frameworks, particularly the "risk-on" and "risk-off" paradigm, less applicable.

As a scarce, sovereign, and decentralised global asset, Bitcoin has emerged as a potential safe-haven during periods of market uncertainty and geopolitical instability. The long-term adoption of Bitcoin is anticipated to correlate with heightened concerns regarding global monetary stability, geopolitical tensions, and the fiscal health of major economies. This relationship notably contrasts with the typical behaviour patterns observed in traditional risk assets under similar conditions. In the following analysis, we will examine the correlation between Bitcoin and the S&P 500, while also providing a comparative assessment of how Bitcoin, Gold, and the S&P 500 have performed during significant market events.

An uncorrelated asset

Figure 1 presents the 6-month rolling correlation analysis between the S&P 500 and Bitcoin. This analytical method continuously updates by incorporating new data points while removing older ones, providing a dynamic assessment over each 6-month interval. For example, the first data point shows the average correlation from January 1, 2015, to July 1, 2015, while the second data point covers January 2 to July 2, and so forth. This rolling approach smooths the correlation analysis, reducing statistical noise. The analysis reveals an average correlation coefficient of 0,46, indicating a moderate relationship between these assets. This relationship suggests that Bitcoin and the S&P 500 exhibit some degree of synchronised movement, potentially influenced by broader macroeconomic factors.

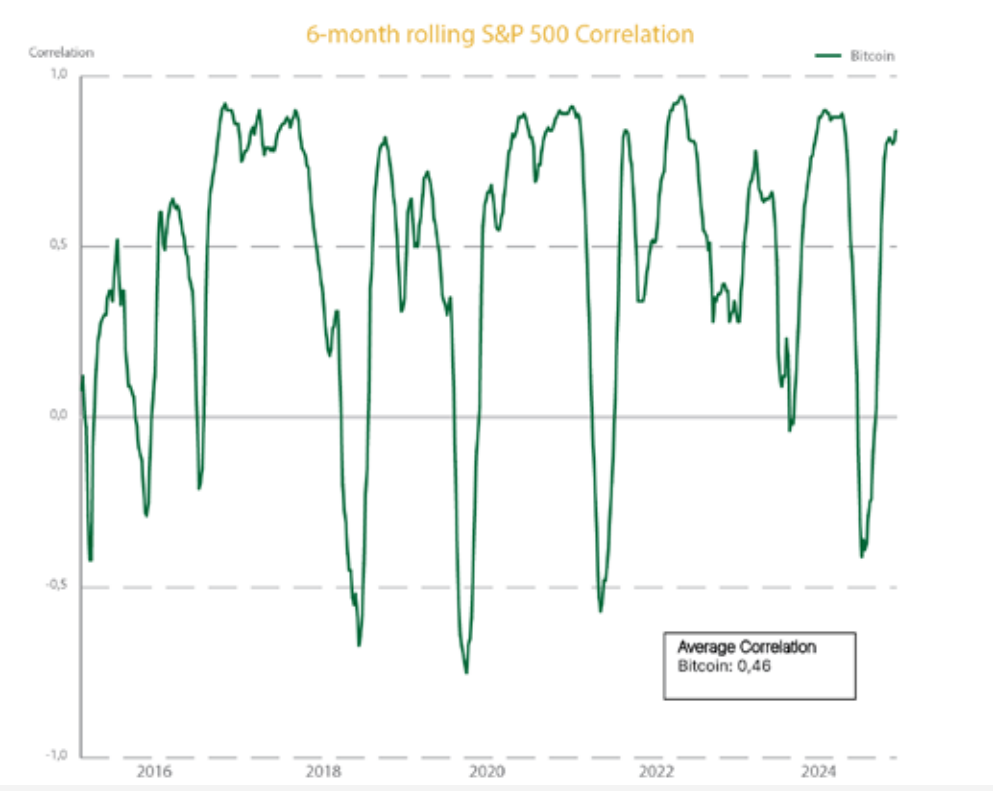

Figure 1: Correlation between S&P 500 and Bitcoin
* The correlation has a 6-month rolling window

Unique anticipation on unique events

Figure 2 presents a comparative analysis of asset performance during significant market events over the past five years. The visualisation provides a comprehensive view of performance metrics, with the event description on the left, followed by 10-day and 60-day performance indicators in the center and right columns, respectively.

In periods of market uncertainty, gold maintains its position as a reliable store of value, demonstrating consistent performance with returns fluctuating between -1% and +11% over 60-day intervals, particularly during geopolitical tensions. The S&P 500 exhibits characteristic market behaviour, initially responding negatively to market pressures before showing measured recovery patterns. Bitcoin, notably, demonstrates superior performance during these periods of market stress. Despite occasional initial downturns, Bitcoin has consistently exhibited robust recovery characteristics over extended timeframes, with performance ranging from 15% to 131%.

		10D Return			60D Return		
Event	**Date**	**S&P**	**Gold**	**BTC**	**S&P**	**Gold**	**BTC**
U.S.-Iran Escalation	Jan. 3, 2020	2%	0%	12%	-7%	6%	20%
COVID Outbreak	Mar. 11, 2020	-20%	-9%	-25%	2%	3%	21%
2020 U.S. Elections	Nov. 3, 2020	7%	-1%	19%	12%	-1%	131%
Russia invasion of Ukraine	Feb. 24, 2022	1%	2%	-6%	3%	9%	9%
U.S. Regional Banking Crisis	Mar. 9, 2023	-2%	10%	25%	4%	11%	32%
Yen Carry Trade Unwinding	Aug. 5, 2024	7%	2%	7%	11%	10%	15%

Figure 2: Returns of different asset classes after market shifting events over two time periods
* 10D and 60D returns represent the returns 10 and 60 days after the event.

Getting Off Zero

Now that we understand how Bitcoin behaves in different market conditions, let's look at what happens when you add it to an investment portfolio. Our research shows that Bitcoin can be a valuable addition to traditional investments. In this section, we'll show you how adding a small amount of Bitcoin to your portfolio can improve both your overall returns and the balance between risk and reward.

Analysis of Figure 3 demonstrates that the strategic integration of Bitcoin into conventional investment portfolios presents a sophisticated approach to portfolio enhancement. The empirical evidence suggests that a calibrated Bitcoin allocation has the potential to optimise portfolio outcomes while preserving risk equilibrium through systematic position management and periodic portfolio rebalancing.

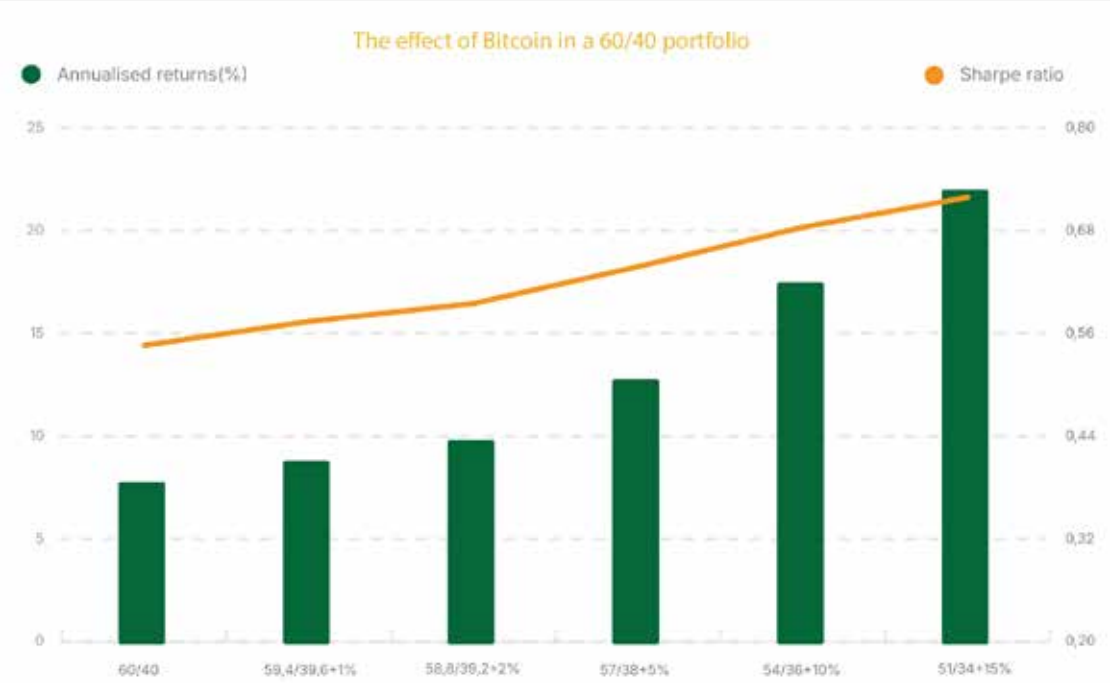

Figure 3: Portfolio performance and Sharpe ratio with increasing Bitcoin allocation
*The equity portion is the S&P 500 index and the bond portion is a Bloomberg U.S. Aggregate Bond Index

The widely-adopted 60/40 portfolio strategy, which allocates 60% to equities and 40% to fixed-income securities, has long served as a cornerstone of investment management. This traditional allocation model provides a fundamental framework for portfolio diversification. Our analysis examines the impact of incrementally incorporating Bitcoin allocations ranging from 1% to 15%. In contrast to standard portfolio performance measurement, our analysis has adjusted the performance for inflation, reducing the actual returns of the traditional 60/40 investment portfolio. In general, the performance of investment portfolios is illustrated in nominal terms without accounting for inflation, creating an upward bias for investors.

Figure 3 demonstrates that this incorporation not only enhances annualised returns but also improves the portfolio's Sharpe ratio. This indicates that the additional return generated exceeds the proportional increase in risk exposure. The enhanced Sharpe ratios reflect an optimised risk-reward profile achieved through Bitcoin integration. This improvement can be attributed to Bitcoin's low correlation with the S&P 500, which contributes to the sustained increase in the Sharpe ratio. Furthermore, the elevated annualised returns stem from Bitcoin's superior historical performance relative to conventional asset classes.

Finally, as the allocation toward Bitcoin rises, the impact of inflation—which diminishes portfolio returns—becomes relatively smaller. Hence, the larger the Bitcoin allocation, the lower the effect of inflation, indicating a more than proportional performance increase for portfolios that include Bitcoin.

Portfolio growth

Figure 4 illustrates the comparative portfolio performance across different Bitcoin allocation strategies. Based on an initial investment of €20.000 from January 2019 to January 2025, our analysis reveals a distinct positive relationship between Bitcoin allocation and overall portfolio value.

The empirical data demonstrates that a conventional portfolio without Bitcoin allocation achieved a final value of €31.237, generating an annualised return of 7,65% with a Sharpe ratio of 0,47. In contrast, incorporating a 10% Bitcoin allocation into a 60/40 portfolio resulted in a final value of €54.791,42, delivering an annualised return of 17,37% and an improved Sharpe ratio of 0,65. While the implementation of a 10% Bitcoin allocation requires careful consideration, the enhanced risk-adjusted returns present a compelling case for portfolio diversification. There is a positive linear relationship between including Bitcoin, the annualised returns, and the Sharpe ratio.

Analysis demonstrates Bitcoin's effectiveness as an inflation hedge: Our research spanning six years reveals that portfolios incorporating a 10% Bitcoin allocation demonstrated enhanced resilience against inflationary pressures, exhibiting a 3,3% advantage over traditional portfolios. In an environment where inflation fluctuated between 1,9% and 7,9%, with a mean of 4,5%, the impact on portfolio performance was substantial. The traditional portfolio's nominal return of 7,65% was significantly diminished to 3,15% when adjusted for inflation, underscoring the critical importance of considering inflationary effects in investment performance evaluation.

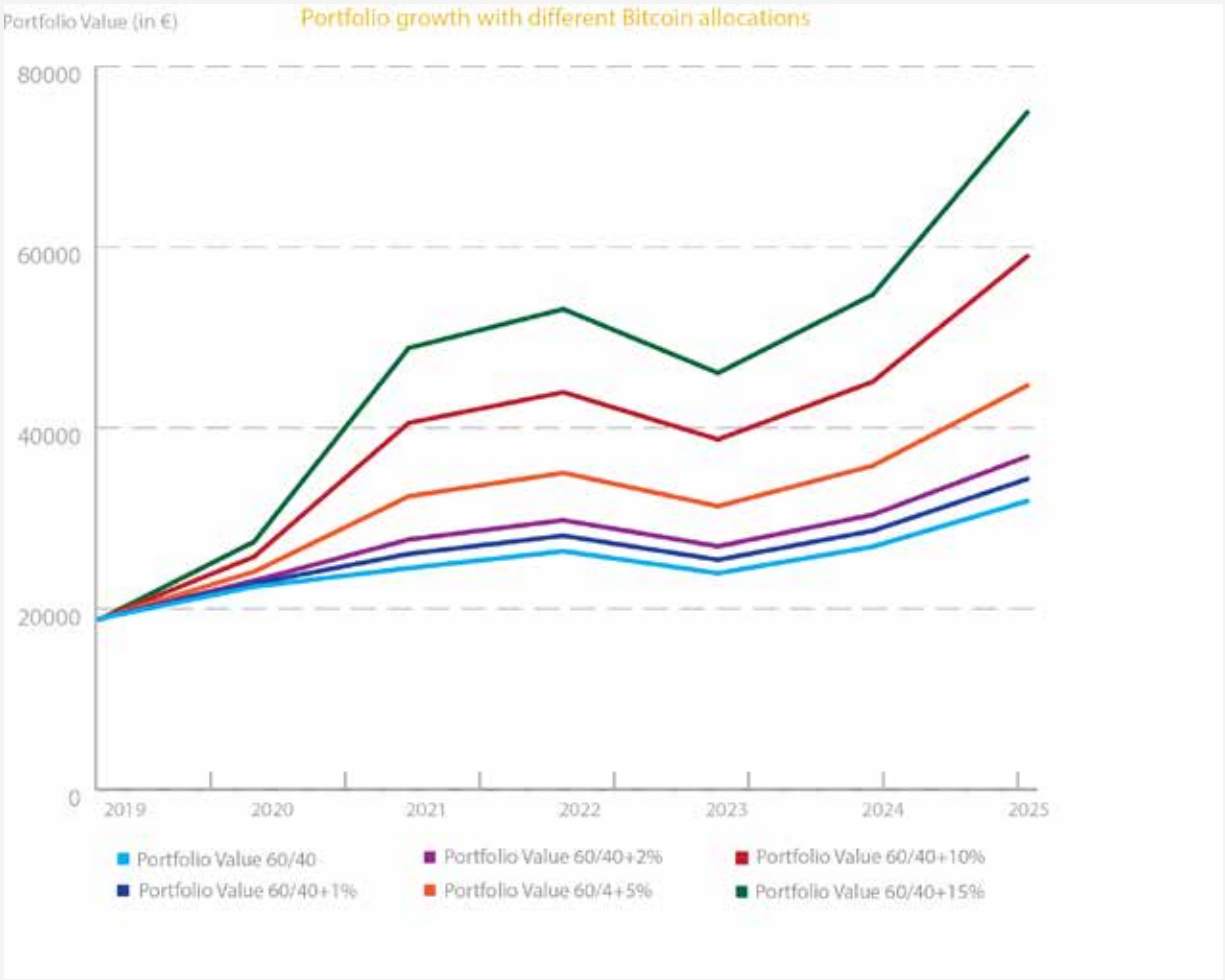

Figure 4: Portfolio growth with different Bitcoin allocations

Conclusion

While Bitcoin demonstrates volatility characteristic of emerging asset classes, our analysis indicates its performance exhibits minimal correlation with traditional investment vehicles. Although we observe periods of heightened correlation during significant monetary policy shifts, these relationships remain transient and moderate in nature. Bitcoin transcends traditional risk classifications, functioning as a strategic portfolio component that empirically enhances both absolute performance and risk-adjusted returns, as demonstrated by improved Sharpe ratios. Additionally, Bitcoin allocations have demonstrated appreciable value during inflationary periods, positioning it as an effective inflationary hedge in diversified portfolios.

This article is part of our "Getting Off Zero" series, with more publications coming soon. For more information about Blockrise and our services, please contact us at contact@blockrise.com. Important: The information provided in this article is for educational purposes only and should not be considered investment advice. Investing in Bitcoin carries substantial risk, including potential loss of principal. Past performance does not guarantee future results.

Blockrise Capital B.V.
Blaak 555, 23rd floor
3011 GB Rotterdam
The Netherlands

+31 10 848 17 41
support@blockrise.com
blockrise.com

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