BLOCKRISE

Private Bitcoin Asset Management

ABPR: A Key Indicator for Bitcoin Market Analysis

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Introduction

At Blockrise, we recognise the paramount importance of educating our clients about crypto assets and the broader market dynamics. Our mission extends beyond merely managing our clients' wealth within our secure Blockrise ecosystem; we are committed to empowering our clients with comprehensive knowledge about crypto assets and its market.

To this end, Blockrise is introducing its first market research report, designed to provide in-depth insights into the crypto market dynamics. In this edition, we examine the Average Buy Profit Ratio (ABPR), a sophisticated indicator created by Whale Alert and which is available through their analytics platform, which sheds light on investor behaviour in response to price fluctuations.

What is the ABPR and how does it work?

To fully comprehend the ABPR, it is essential to first consider the fundamental structure and advantages of blockchain technology and performing analytics on this technology. At its core, a blockchain serves as an immutable ledger, recording all transactions and balances. This can be analysed, by documenting when crypto holders engage in transactions (ie. buying or selling activities) and at what price points these transactions occur.

The significant advantage of blockchain analytics lays in its ability to provide real-time insights, similar to analysing a company's quarterly report but with precise updates on transaction flows and holder balances. Whale Alert is one of the very first companies who is able to provide such an infrastructure through a dashboard, which they launched recently. Professional investors leverage this blockchain data to construct indicators for interpreting market conditions, with the ABPR being an example of such innovative analysis.

The ABPR is defined as the ratio between the price at which the crypto asset is sold (*price received*) and the price at which it was previously acquired (*price paid*), calculated for all the crypto assets that moved within a specific timeframe. The assumption is made that an asset which is moved on-chain, also changes ownership. This metric offers valuable insights into macro market sentiment by reflecting the degree of realised profit or loss for all crypto assets transferred on-chain during the period under consideration.
The ABPR can be interpreted within the following framework:

- ABPR > 1: Indicates that crypto assets moved during the period were sold at a profit, implying that the selling price exceeded the purchase price for tokens sold.
- ABPR < 1: Suggests that crypto assets were sold at a loss, meaning the selling price was lower than the initial purchase price.

- ABPR = 1: Represents a break-even scenario, where crypto assets were sold at the same price they were purchased.

By analysing the ABPR, traders can gain valuable insights into investor behaviour, market sentiment, and potential supply dynamics, thereby informing their investment strategies in the volatile crypto asset market.

ABPR Trend

An ABPR with higher values indicates more profit realised on a given moment compared to others. Interestingly, the crypto assets sold on one day will have little to no effect on the next day's ABPR, as their *price paid* will generally be very close to the expected *price received,* should an investor choose to sell them again the next day. Subsequent peaks of high ABPR suggest that more crypto assets are being traded again, typically during bull market rallies when investors are making substantial profits. As more crypto are traded again on exchanges, the likelihood of reaching a short-term or macro market top increases as the market faces more trading supply.

Conversely, a ABPR with lower values indicates that more investors are selling their coins at a loss. A decreasing ABPR trend can be indication of panic selling, capitulation, or bearish market conditions. However, it can also result from investors holding onto profitable crypto assets. In a bull market, this can signal that a correction has exhausted sellers, and that the accumulation phase might be underway.

ABPR Market Outlook of Bitcoin

This research paper specifically examines how significant weekly ABPR values correlate with maximum price changes across various timeframes. For analytical purposes, we define the drawdown (surge) as the largest difference between the maximum (minimum) price and the last price, respective of the measurement period, that occurs after an ABPR breach. A breach occurs when the ABPR exceeds two standard deviations (SD) from the sample mean. The break levels which can either be +2 or -2 standard deviations from the mean, are depicted as the dotted red lines.

Drawing from our extensive dataset spanning 2012-2024, provided by the Whale Alert dashboard, we have conducted an in-depth analysis of the relationship between ABPR ratio and market performance. Although this research focuses on Bitcoin, as this is the largest, leading crypto asset, and the primary focus of Blockrise, the ABPR is generic and can be used on any crypto asset. Future research will determine the paramount significance of ABPR on other crypto assets.

The methodology for this research paper incorporates several distinct sample periods to ensure comprehensive analysis. The data has been primarily segmented according to Bitcoin's halving cycles, which provide natural boundaries between bullish and bearish market phases. The analysis is further enhanced by identifying similarities and differences between the various periods. This approach has

revealed unique patterns within each temporal segment, reflecting the evolving nature of market behaviour.

Lastly, to establish a thorough assessment of ABPR's predictive potential, the price movements have been evaluated across multiple measurement periods: three months, six months, and twelve months. This multi-period approach enables the identification of both short-term market reactions and longer-term trends following significant ABPR signals.

Market analysis

Throughout these market cycles, we have observed significant market movements in both directions. The data reveals instances of extraordinary returns surpassing 1000%, followed by substantial corrections of over 80%. The ABPR functions as an essential metric for monitoring market-wide profit realisation trends. When the ABPR exhibits notable upward deviation from its mean, this may indicate heightened profit-taking behaviour, which often precedes market adjustments. Alternatively, periods where the ABPR shows significant downward deviation, indicating widespread loss realisation, may signal potential market entry points.

This analysis focuses on instances where the ABPR-ratio surpasses defined thresholds, which we called "breaches". These breaches may occur as singular events or extend across multiple weeks. We determine a breach's duration by analysing consecutive data points that exceed the threshold. For clarity in this analysis, we label these as "1st breach," "2nd breach," and so forth, with each designation potentially comprising multiple consecutive threshold exceedances.

Period “2012-2016”

Figure 1 presents an analysis spanning November 2012 to July 2016. During this period, the weekly ABPR exceeded the +2 standard deviation threshold of 1,063 on two distinct occasions in 2013. Following the *1st breach*, which encompassed multiple threshold exceedances, the market experienced a correction with an average drawdown of -36.7% over three months. Subsequently, the Bitcoin price resumed its upward momentum until substantial profit-taking emerged (*2nd breach*), resulting in an average drawdown of -56%. It is noteworthy that both the *1st* and *2nd breaches* comprise multiple threshold exceedances, with the consecutive drawdowns representing the mean of 3-month drawdowns for each threshold breach point. This methodology accounts for significant variations in maximum drawdowns between individual data points.

A notable observation for both breaches is that price reversals did not manifest immediately following the initial ABPR threshold exceedance. Instead, both instances exhibited continued price appreciation. These breaches signify periods of substantial profit realisation, with elevated prices corresponding to increased investor willingness to secure gains, as evidenced by heightened ABPR ratios. Given the

inherent difficulty in identifying precise market peaks, a strategic approach involves implementing graduated position exits rather than complete portfolio liquidation.

In contrast, the *3rd breach* penetrated the -2 standard deviation threshold, indicating substantial loss realisation. This event preceded a moderate 3-month price appreciation of +12%. Despite considerable price volatility between the *2nd* and *3rd breaches*, the data suggests minimal loss realisation by market participants during this interval.

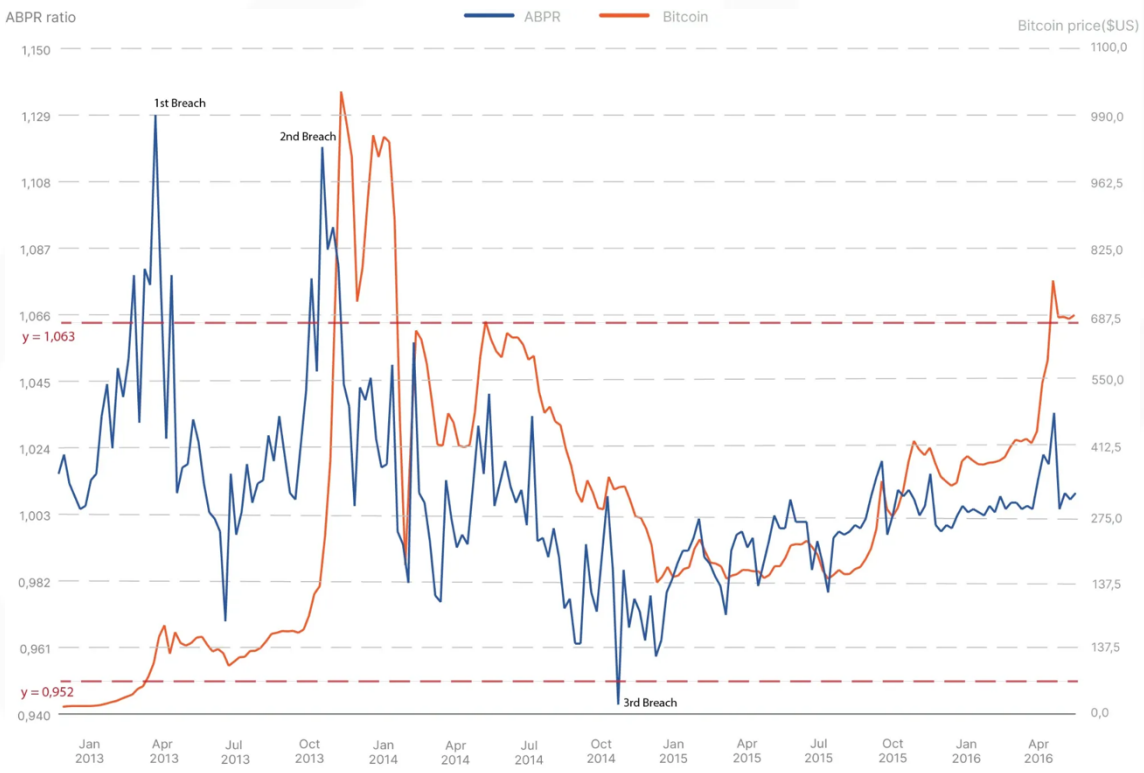

Figure 1. ABPR Analysis Bitcoin, Period 2012 – 2016 (source: Whale Alert)

Period "2016-2020"

The market activity in 2017 displayed notable threshold events, particularly the *1st breach* and *2nd breach*. The initial significant profit-taking at the *1st breach*, coincided with substantial market appreciation, resulting in a moderate -17% adjustment. Subsequently, following a remarkable 400% price appreciation, the *2nd breach* initiated a pronounced market reversal, leading to a -50% average decline over three months. The *5th breach* subsequently resulted in a -28% market adjustment.

The market corrections following these profit-taking events presented strategic investment opportunities. Specifically, the *3rd*, *4th*, and *6th breaches* emerged as favourable entry positions. While the *3rd breach* proved particularly advantageous, investors should note that timing market bottoms

carries inherent risks. Consequently, implementing a systematic approach to position entry, similar to exit strategies, is essential to mitigate exposure to individual price movements.

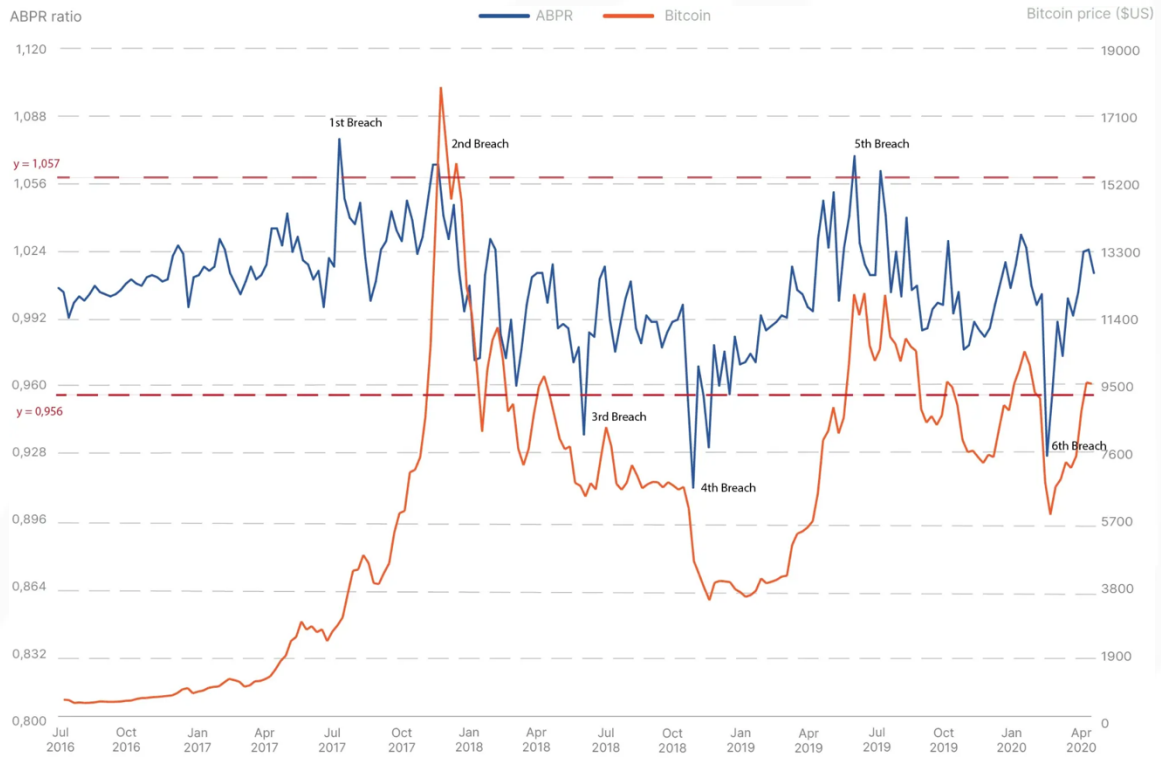

Figure 2. ABPR Analysis Bitcoin, Period 2016 – 2020 (source: Whale Alert)

Period "2020-2024"

Figure 3 presents an analysis of the final period from May 2020 to September 2024. This period demonstrates notable reduced price volatility compared to previous periods, resulting in a more stable ABPR ratio, with the exception of four distinct breaches. The *1st breach* emerged in late 2020 during a period of significant price appreciation, resulting in a subsequent average drawdown of -13%. A noteworthy observation is that the second market peak in late 2021 did not generate significant ABPR ratios, indicating that early profit-taking during the *1st breach* may have influenced subsequent market dynamics. The *3rd* and *4th breaches* occurred in close succession within the same market movement, followed by an average three-month drawdown of -15%.

The *2nd breach* manifested as a substantial decline in the weekly ABPR ratio, primarily attributed to the dissolution of FTX, a major cryptocurrency exchange. This event corresponded with a subsequent +50% price appreciation over the following quarter. While market movements continue to demonstrate clear directional trends, their magnitude has moderated over time, consistent with Bitcoin's evolution toward reduced volatility as the asset class matures. Despite this stabilisation, the market continues to present significant opportunities for strategic investment.

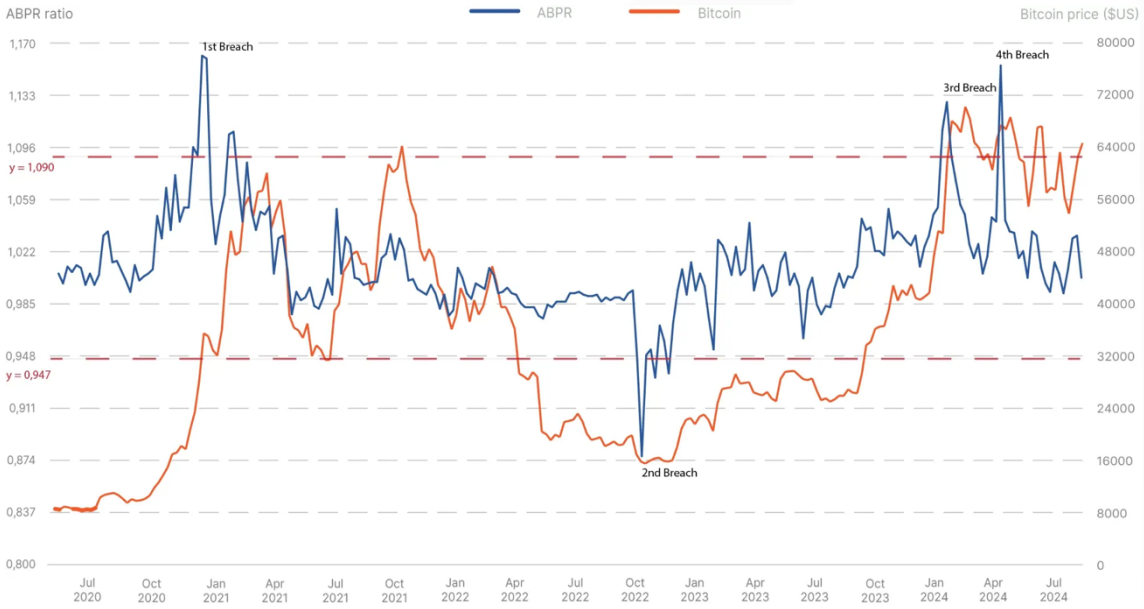

Figure 3. ABPR Analysis Bitcoin, Period 2020 – 2024 (source: Whale Alert)

Different drawdown measurement periods

This section investigates several measurement periods of price changes. Initially, this research focussed on a three-month measurement period of price changes. Hence, this analysis presents the findings under measurement periods of six months and twelve months, comparing them to the initial results.

ABPR > 1 threshold breaks (Table I)

Measurement period	2012-2016	2016-2020	2020-2024
3 months	-44,69%	-35,63%	-15,30%
6 months	-58,19%	-48,12%	-37,20%
12 months	-76,06%	-64,83	-38,22%

ABPR < 1 threshold breaks (Table II)

Measurement period	2012-2016	2016-2020	2020-2024
3 months	+11,94%	+25,78%	+51,0%
6 months	+32,85	+101,65%	+82,03%
12 months	+77,07%	+215,30%	+142,39%

Examination of Tables I and II demonstrates a notable relationship between measurement timeframes and the scale of price movements that occur after two standard deviation threshold breaches. The tables present averaged drawdown values across specified measurement periods and timeframes. Given Bitcoin's characteristic volatility and sensitivity to market events, these findings warrant measured interpretation rather than definitive conclusions about future market behaviour.

The findings reveal a consistent pattern of diminishing negative returns following threshold breaches in three-month intervals, while positive returns show marked expansion under comparable conditions. We observe that weekly ABPR threshold breaches tend to align with significant market turning points. To optimize portfolio management in light of these patterns, investors would be well-advised to implement structured protocols for market entry and exit positions.

Conclusion

The weekly ABPR serves as a valuable metric for quantifying real-time investor sentiment in the crypto market. This research demonstrates a distinct inverse correlation between ABPR breaches and subsequent market performance. Based on these findings, investors could consider the implementation of a diversified approach to market entry and exit points, as ABPR breaches do not guarantee market reversals. Furthermore, this analysis indicates that Bitcoin's declining price volatility decreased significant ABPR breaches, characterised by concentrated ownership changes. While we observe an inverse relationship in the data, it is important to note that this correlation may be partially attributed to Bitcoin's inherent price volatility rather than representing a strong causal relationship. Furthermore, the longer the measurement period the lower the statistical significance of the ABPR on respective price changes.

Blockrise performs continuous quantitative research on the crypto market, even though we do not utilise the ABPR-indicator for Fundamentals asset management. The ABPR-indicator is considered to validate market developments and compare the foundation of our strategy. Nonetheless, it should be noted that this research is no financial advice, nor does historical data provide any guarantees for future performance. Blockrise publishes more research and analysis, so make sure to subscribe to our newsletter to stay up to date.