

Vinter ByteTree BOLD Index

May 2024

The BOLD1 Index (BOLD) invests in Bitcoin and Gold.

BOLD combines the world's two most liquid alternative assets on a risk-adjusted basis. Due to their natural low correlation, an excess return of circa 6% to 7% pa is generated – a special situation unique to this asset pairing and we expect Bitcoin to beat Gold 3 years out of every 4.

For more information on how the BOLD1 index is constructed, [please visit our website](#).

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ByteTree Research: Expertise in Multi-Asset Portfolios



- ByteTree is an investment research company specializing in multi-asset portfolios.
- Top down and bottom up, value-driven approach.
- Embraces alternative assets such as commodities and digital



21Shares - World's Largest Provider of Digital Asset ETPs

- 21Shares is a technology company that creates financial on-ramps to invest, trade, and secure digital assets.
- Private Investors and institutions can use our products to get exposure to digital assets in a simple, safe, and easy way using your conventional broker and bank.
- 21Shares AG is based in Zurich, Switzerland. With its traditions of international neutrality, national sovereignty and regulatory stability, we believe this is the best jurisdiction in the financial world. You can count on Switzerland's privacy, neutrality, and stability when making your crypto investments.
- Founded 2018.

21SHARES

40+ ETPs

Listed on 10+ Exchanges

\$3 Billion USD

In Assets Under Management



Bitcoin + Gold = BOLD

- Limited supply makes Bitcoin and Gold a natural pairing.
- Two most liquid alternative assets.
- Gold is stable, and Bitcoin is volatile. Rebalancing transactions can add 5% or more p.a.
- BOLD combines Bitcoin and Gold in a monthly rebalancing strategy that adjusts weightings according to each asset's volatility.

**“I would take the gold...
I would like to sprinkle a
little bit of bitcoin into
that mix too.”**

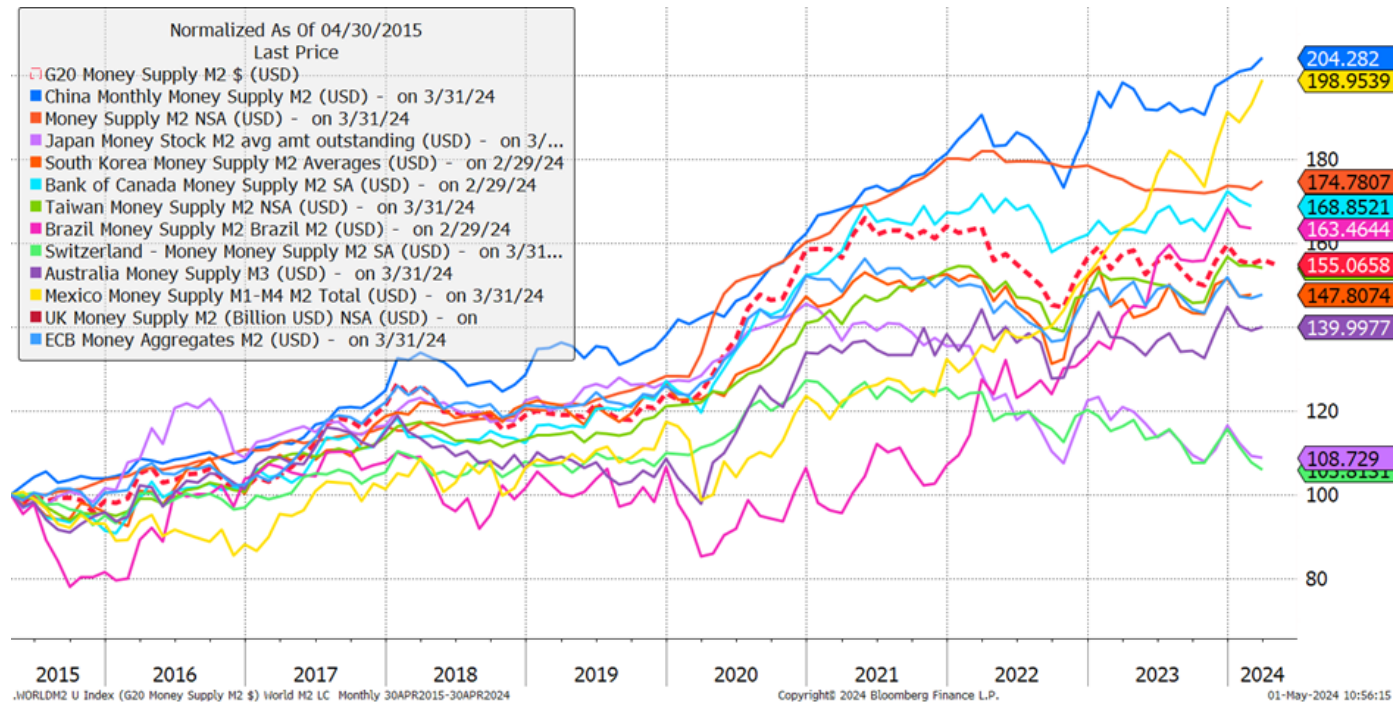
Ray Dalio, Bridgewater Associates

Bitcoin in Gold



- Bitcoin's all-time high in Gold has been 35 ounces in 2021.
- Failed to move higher on two retests in late 2021 and recently.
- Expected to take longer as Bitcoin has enjoyed a strong move, while Gold is getting started.

BOLD Is Correlated with the G20 Money Supply



- Bitcoin and Gold are thought to be driven by the money supply among other factors.
- M2 has grown 7% p.a. since 2003.
- Money supply growth remains sluggish in the West but strong in Latin America and China where nominal GDP growth is higher.

Fund Flows - Record Bitcoin ETF Inflows Cooling

Bitcoin held by ETFs



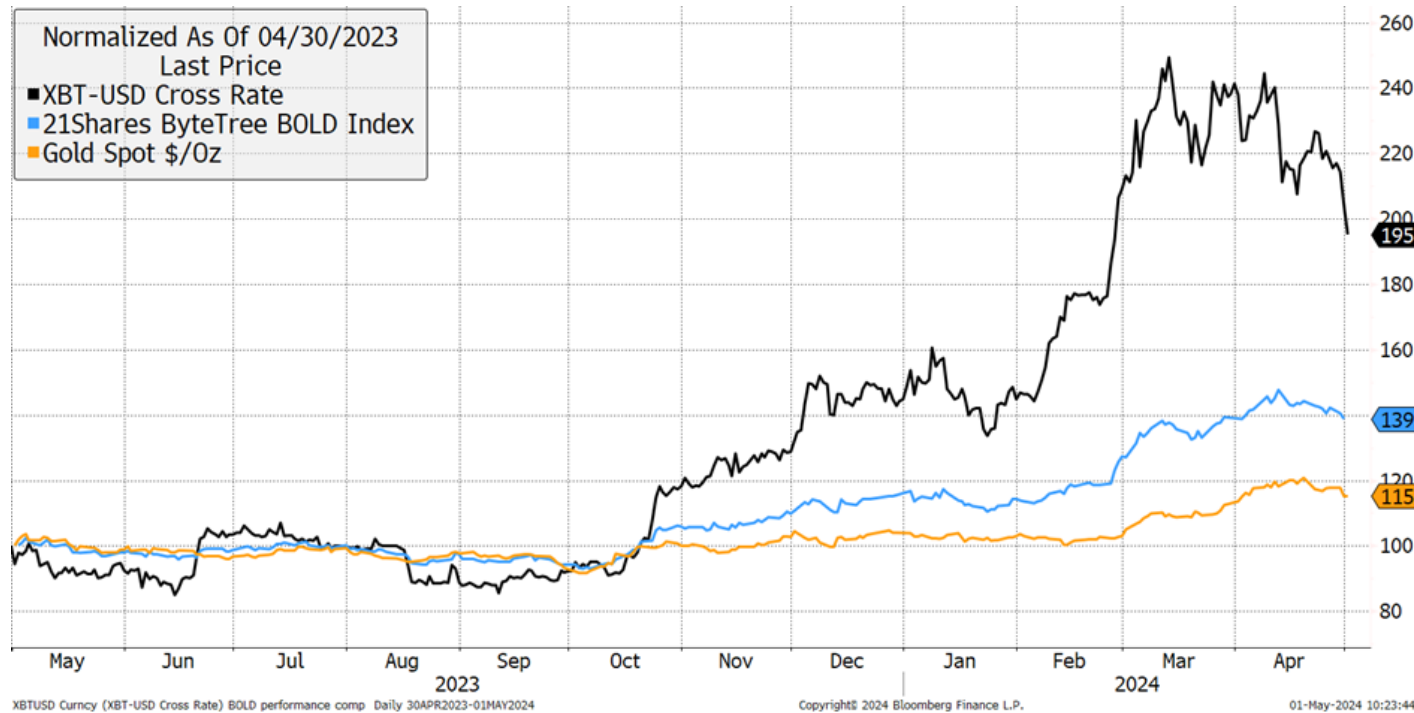
- Bitcoin ETFs have seen a surge of demand in Q4 2023 and then Q1 2024 once the ETFs were launched.
- That is now cooling, but halving is due on 20th April 2024, which may lead to renewed demand.

Fund Flows - Record Gold ETF Outflows Cooling



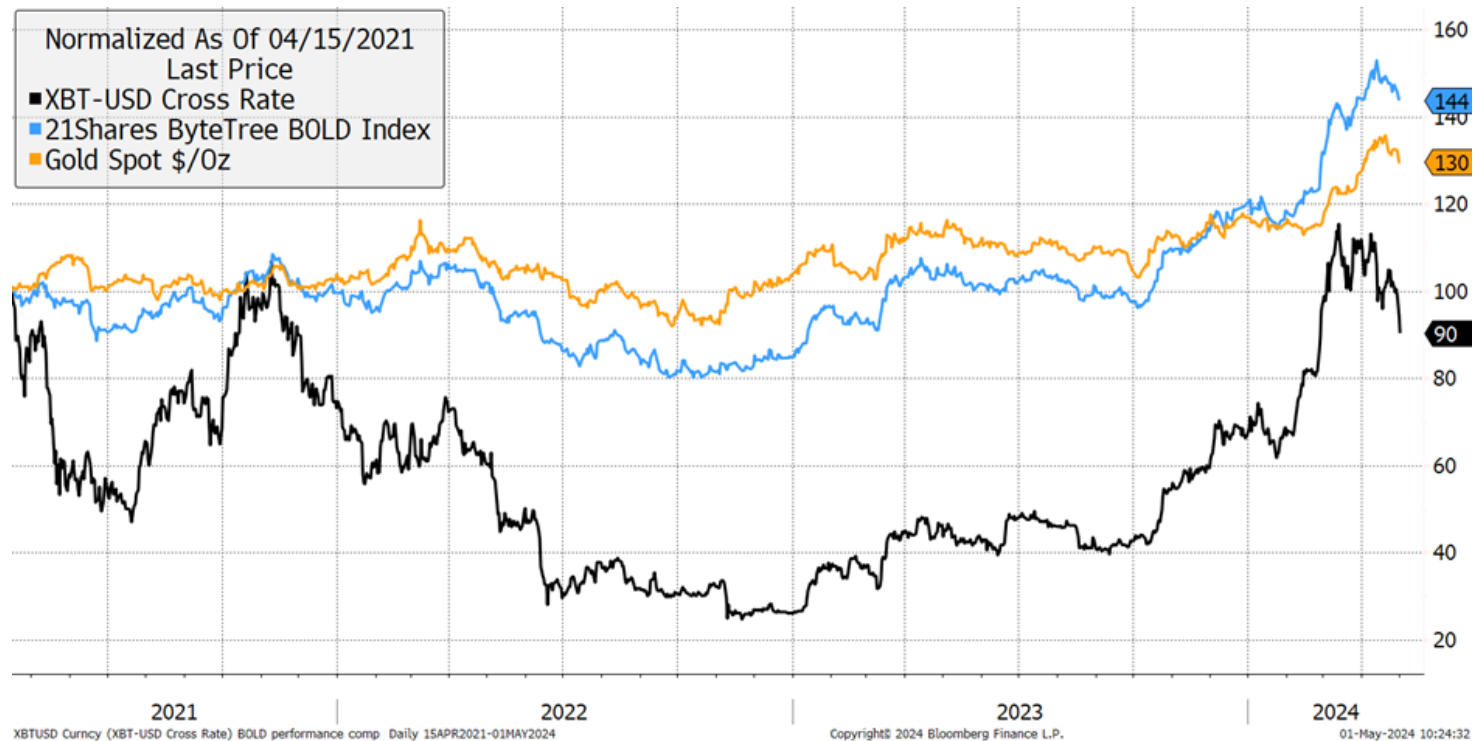
- Gold ETFs have been shunned since mid-2020 and have seen over 25% of the Gold held sold by investors.
- That has recently stabilized, and Gold ETF outflows have ceased.
- Inflows are expected but have yet to start.

BOLD Performance - One Year



- Bitcoin +95%, Gold +15%
- 25/75 split +35%, BOLD +39%, excess return +4%
- BOLD rebalancing has generated a +4% excess return.

BOLD Performance – Since April 2021 High



- Bitcoin -10%, Gold +30%
- 25/75 split +20%, BOLD +44%, excess return +24%
- BOLD has beaten Bitcoin and Gold by a wide margin

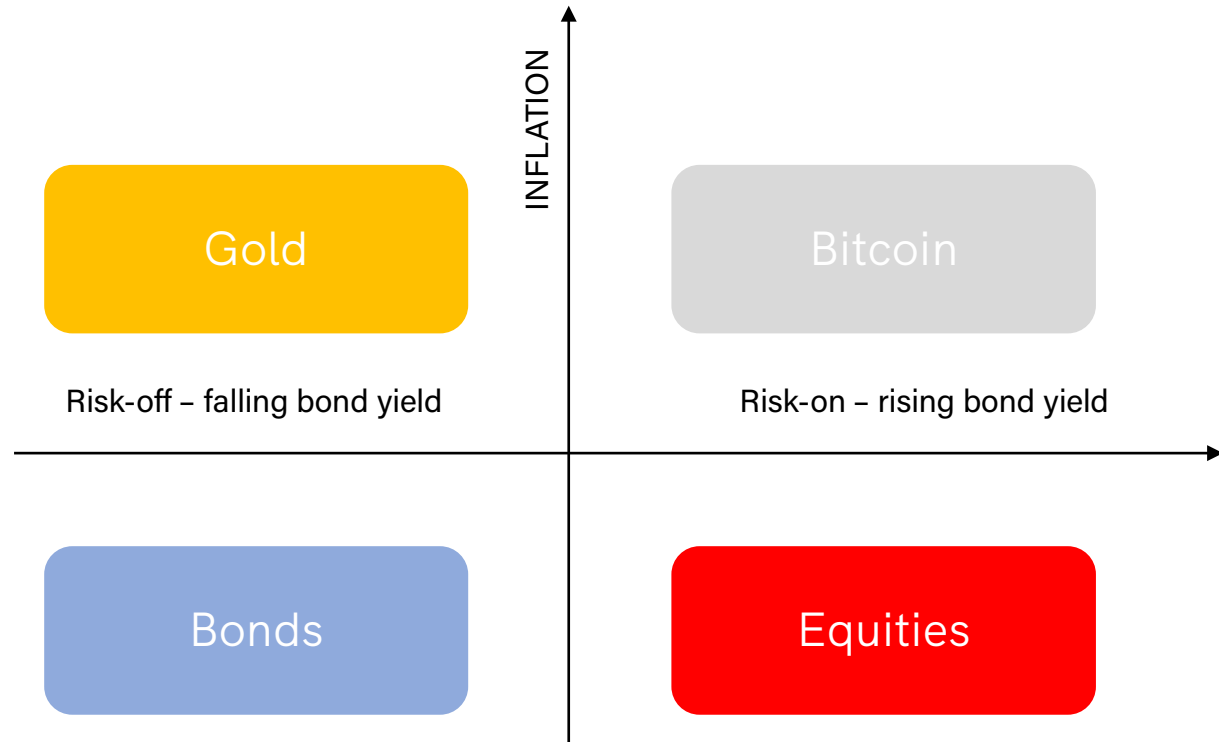
BOLD Performance – Since 2017 All-Time High



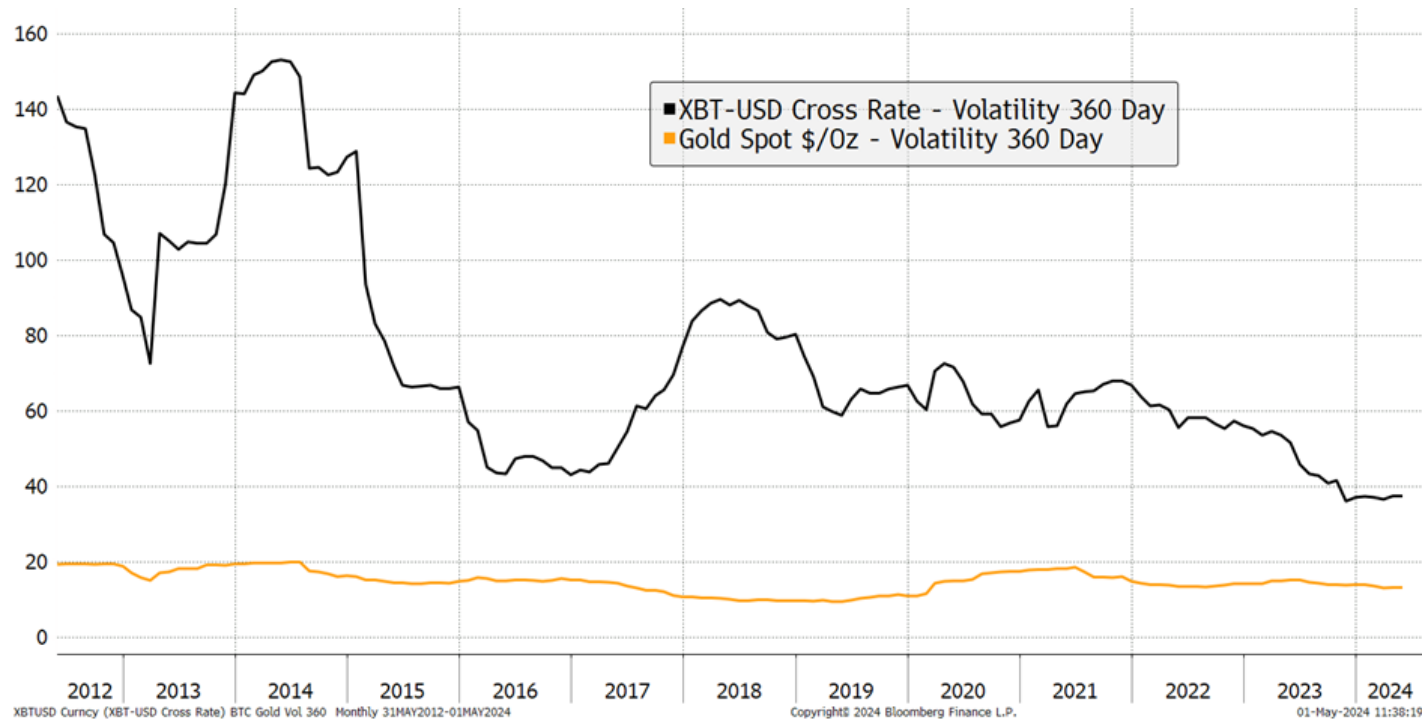
- Bitcoin +201%, Gold +81%
- 25/75 split +111%, BOLD +175%, excess return +64%
- BOLD is very likely to outperform over a longer period and is further boosted, on a relative basis, during periods of high market volatility and asset non-correlation.
- It is further boosted by asset allocation over the long term.

Asset Allocation in Macro Environments

- Gold and Bitcoin are positively correlated with inflation.
- Gold outperforms when real interest rates are falling.
- Bitcoin outperforms during a risk-on environment, normally when rates are rising.



Volatility Is the Tool Used to Equalize Risk



- 360-day realized volatility captures the asset's risk.
- Bitcoin volatility has historically been high but has been structurally falling.
- Using inverse volatility, asset allocation is risk-weighted.

Latest Rebalancing

Inverse Volatility Weights

| | Volatility over past 360 days (v) | Inverse volatility (1/v) | Calculation | Weight |
|---------|--------------------------------------|-----------------------------|----------------|--------|
| Bitcoin | 38.1% | 2.63 | $2.63 / 10.61$ | 24.8% |
| Gold | 12.5% | 7.98 | $7.98 / 10.61$ | 75.2% |

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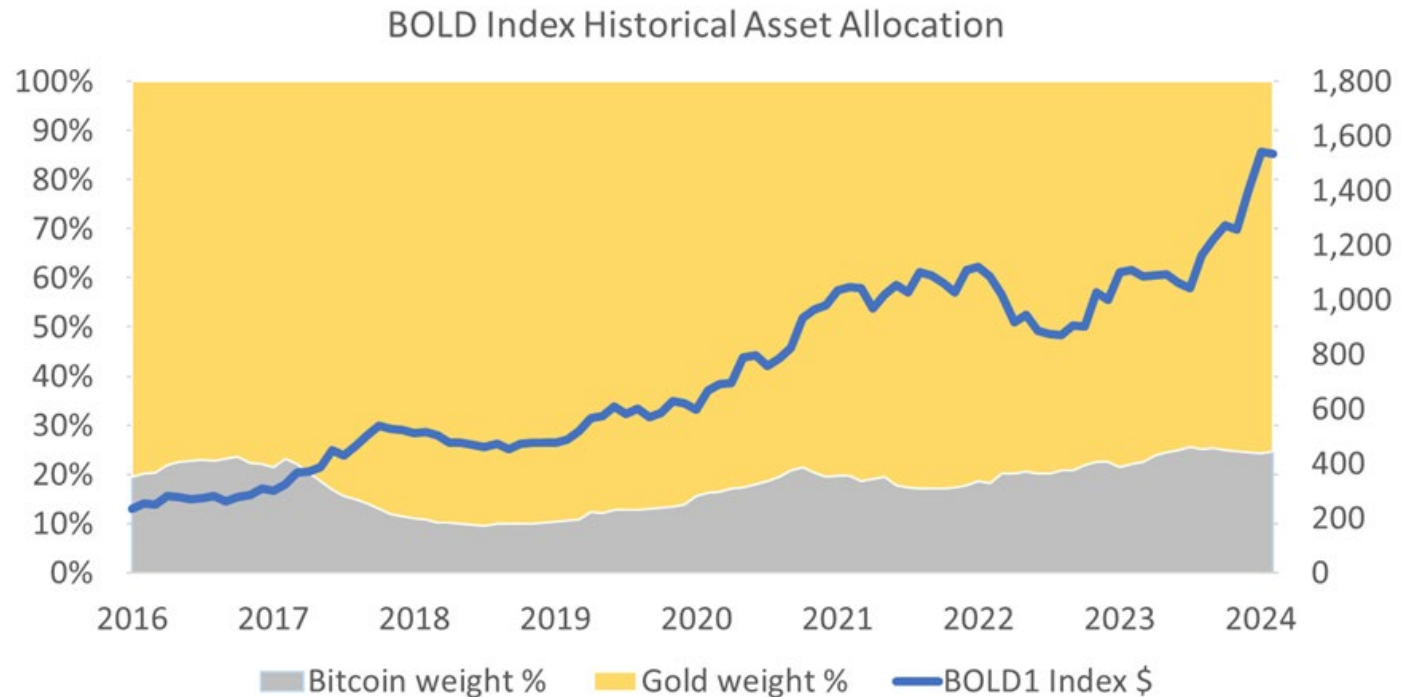
10.61

- Higher volatility leads to a lower weight
- If the assets' volatility was the same, the weights would be 50/50

- Latest rebalancing 30th April 2024.
- Risk-weighted asset allocation techniques are commonly used in finance to improve risk-adjusted returns.
- BOLD uses the “inverse volatility” methodology.

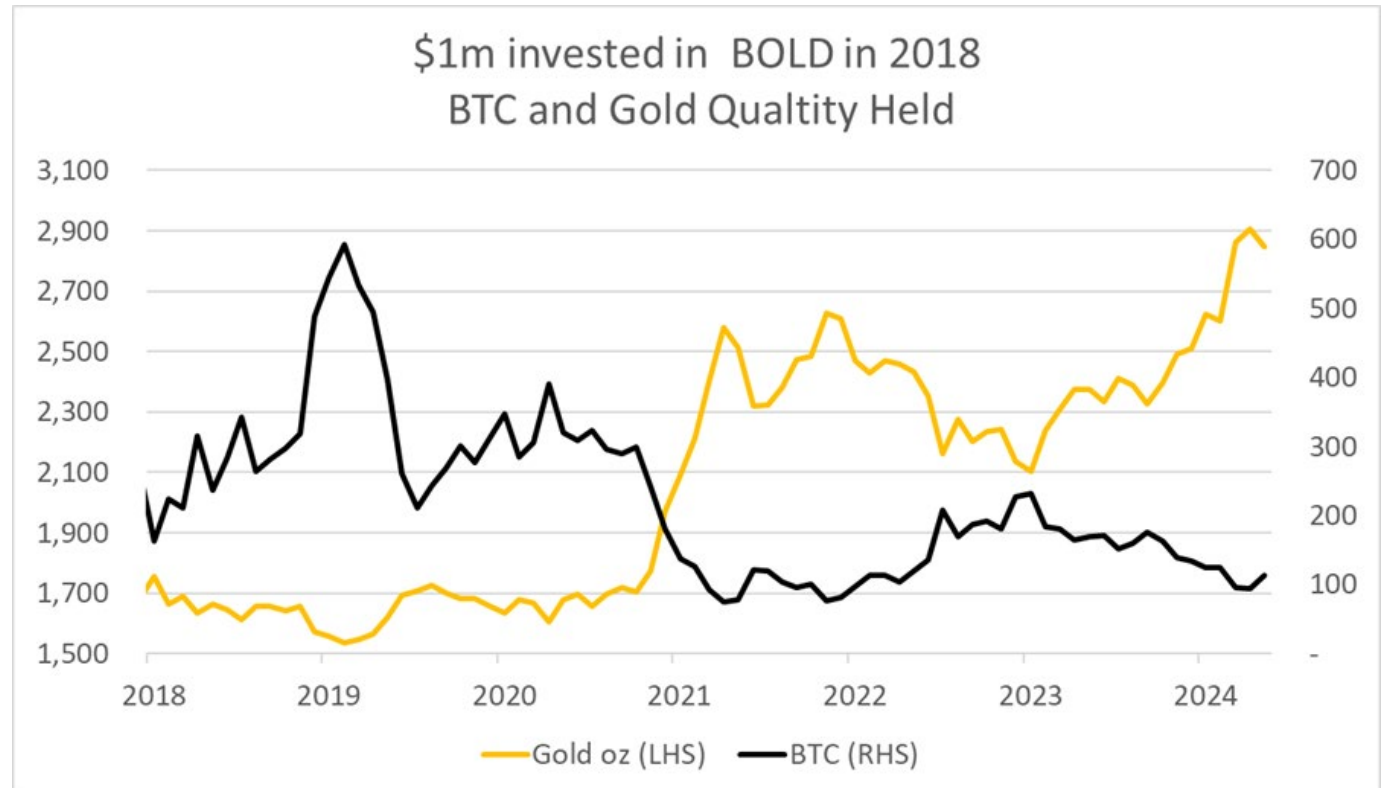
BOLD – Historical Asset Allocation

- Bitcoin allocation ranges between 10% and 26%, with Gold the remainder.
- Falling volatility sees Bitcoin's weight rise.
- Last rebalance 30th April 2024:
 - Gold 75.2%
 - Bitcoin 24.8%

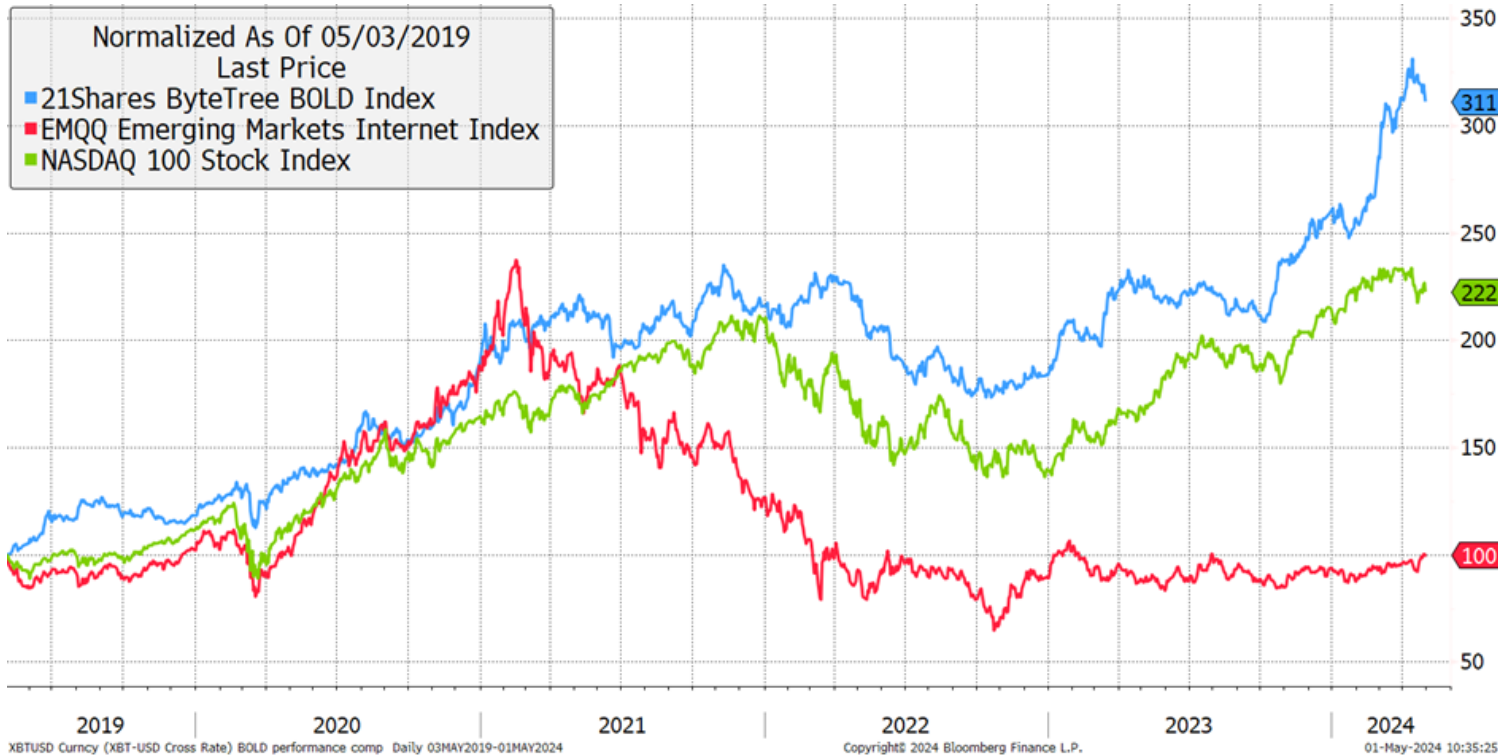


BOLD – The Power of Rebalancing

- Monthly rebalancing transactions sell the stronger asset and add to the weaker asset “buy low, sell high”.
- Repeat at the end of every month.
- BOLD generates excess returns above buy and hold of 5% or more per annum.
- Effective Gold holdings have increased by 49% due to rebalancing transactions with Bitcoin unchanged.



BOLD and Technology



- There is a significant divergence between US technology, shown by the Nasdaq and the Emerging Markets equivalent.
- Expect that to swing as EM outperforms.
- Regardless, we expect BOLD to continue to deliver strong performance relative to technology.

Asset Class Returns 2015 to 2024

| | S&P 500 | NASDAQ | Europe | Suisse | Japan | Emerging markets | Brent Crude | Dollar Index | Bitcoin | Gold | BOLD |
|--------------|-------------|-------------|------------|------------|------------|------------------|-------------|--------------|---------------|------------|-------------|
| 2015 | 1.4% | 9.8% | -2.8% | 0.4% | 9.6% | -14.9% | -35.0% | 9.3% | 36.2% | -10.4% | -2.6% |
| 2016 | 12.0% | 7.3% | -0.4% | -4.9% | 2.4% | 11.2% | 52.4% | 3.6% | 120.3% | 8.1% | 30.1% |
| 2017 | 21.8% | 33.0% | 25.5% | 22.5% | 24.0% | 37.3% | 17.7% | -9.9% | 1375.1% | 13.5% | 95.3% |
| 2018 | -4.4% | 0.0% | -14.9% | -9.1% | -12.9% | -14.6% | -19.5% | 4.4% | -73.8% | -1.6% | -12.7% |
| 2019 | 31.5% | 39.5% | 23.8% | 32.3% | 19.6% | 18.4% | 22.7% | 0.2% | 94.8% | 18.3% | 24.2% |
| 2020 | 18.4% | 48.9% | 5.4% | 11.6% | 14.5% | 18.3% | -21.5% | -6.7% | 305.1% | 25.1% | 60.0% |
| 2021 | 28.7% | 27.5% | 16.3% | 19.3% | 1.7% | -2.5% | 50.2% | 6.4% | 59.8% | -3.6% | 13.7% |
| 2022 | -18.1% | -32.4% | -15.1% | -18.3% | -16.6% | -20.1% | 10.5% | 8.2% | -64.3% | -0.3% | -15.0% |
| 2023 | 26.3% | 55.1% | 19.9% | 15.7% | 20.3% | 9.8% | -10.3% | -2.1% | 157.0% | 13.1% | 40.9% |
| 2024 | 6.0% | 3.9% | 3.2% | -5.9% | 5.6% | 2.8% | 14.0% | 4.8% | 40.8% | 10.8% | 20.4% |
| Total | 191% | 352% | 65% | 67% | 79% | 37% | 53% | 18% | 18765% | 93% | 604% |

Source: Bloomberg. Asset class returns (TR) 1/1/2015 to 31/3/2024, USD Total return.

Summary

- The BOLD Index combines Bitcoin and Gold on a risk-weighted basis.
- Bitcoin is the most established and liquid digital asset, and Gold is the historical store of value.
- Monthly rebalancing transactions adjust the weights of each asset.
- Expected inflation protection with long-term capital growth.

BOLD rebalances Bitcoin and Gold exposure on a monthly basis, resulting in superior risk-adjusted returns compared to both assets held in isolation.

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