TEPHRA DIGITAL

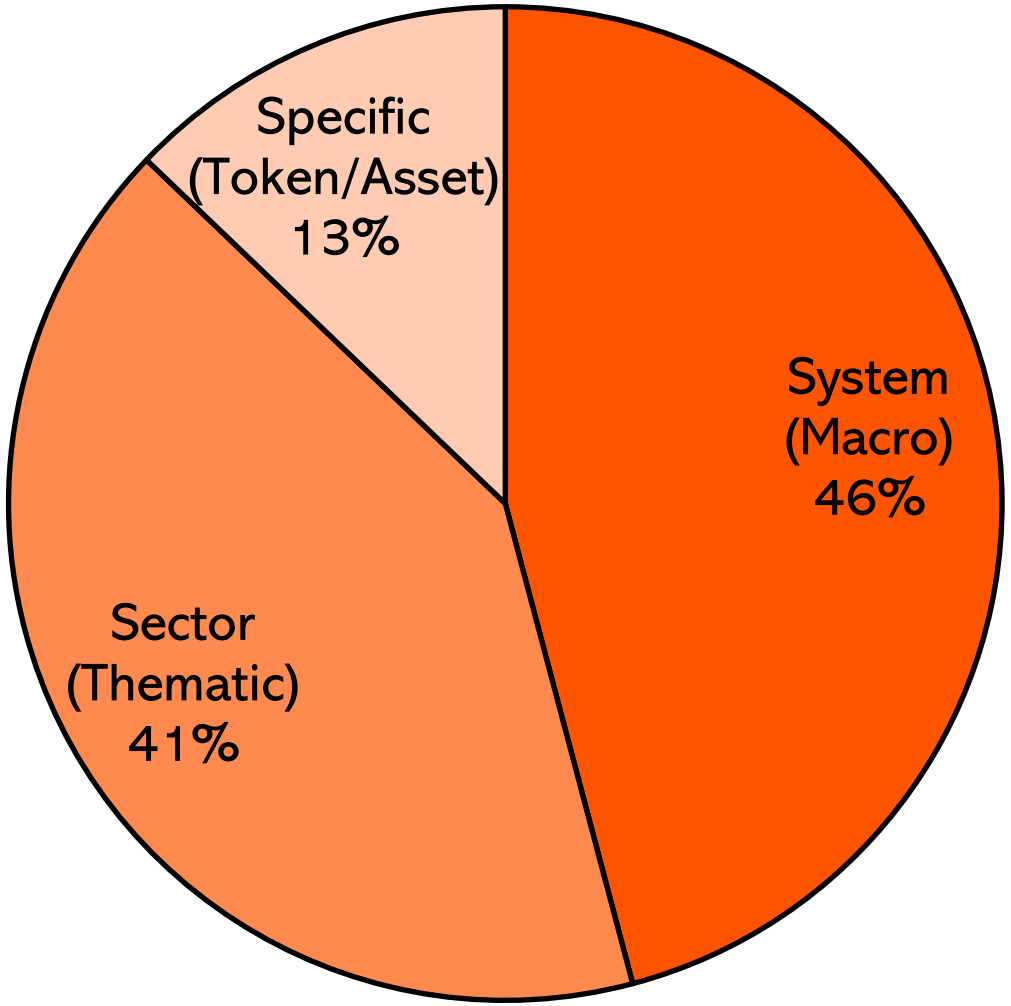
LAVA FLOW CHART BOOK

April 2025

LAVA FLOW CATEGORY BREAKDOWN

System (Macro)	Sector (Thematic)	Specific (Token/Asset)
-Interest Rates/Treasury Markets -Debt & GDP -Central Banks -Money Supply & Inflation -FX/Currencies -Gold -Traditional Asset Comparisons (S&P 500, Bonds, etc.) -Geopolitical Events & Market Reactions -U.S. Presidential Elections	-Adoption/Ownership Trends -Energy Consumption Statistics -ETF Flows -Market Cycles & Halving Trends -Tokenization -Stablecoins -VC Fundraising -Crypto Verticals (DeFi, DePIN, etc.) -Comparisons to Web2 (Payments, Computing, etc.) -Cost Savings	-Focus on One Token, Equity or Company -Tokenomics & Supply Dynamics -Asset-Specific Metrics -Asset Historical Performance

LAVA FLOW CHART DISTRIBUTION



111 Total Charts

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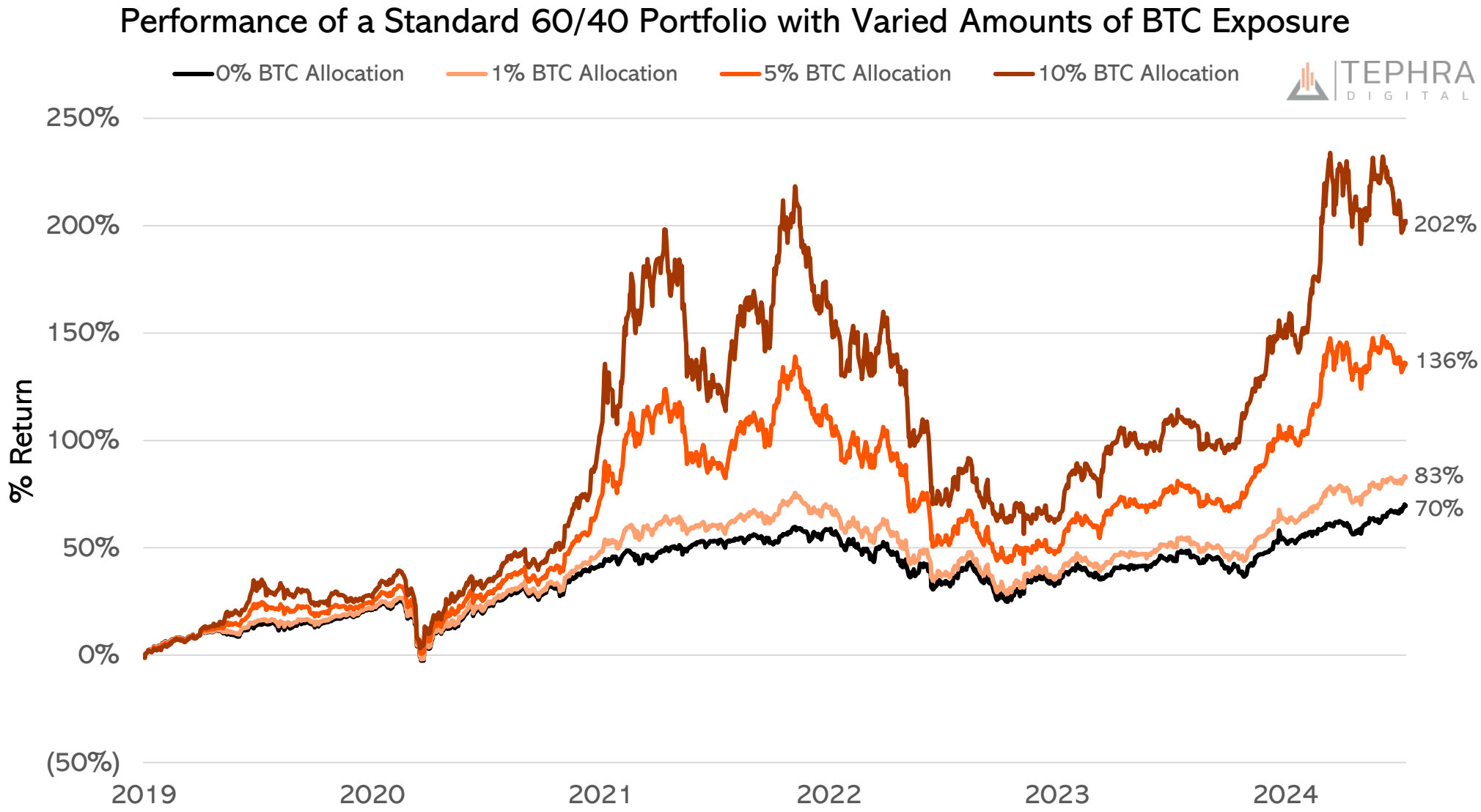
TABLE OF CONTENTS – SPECIFIC (TOKEN/ASSET) CHARTS

SYSTEM (MACRO)

CHART #2

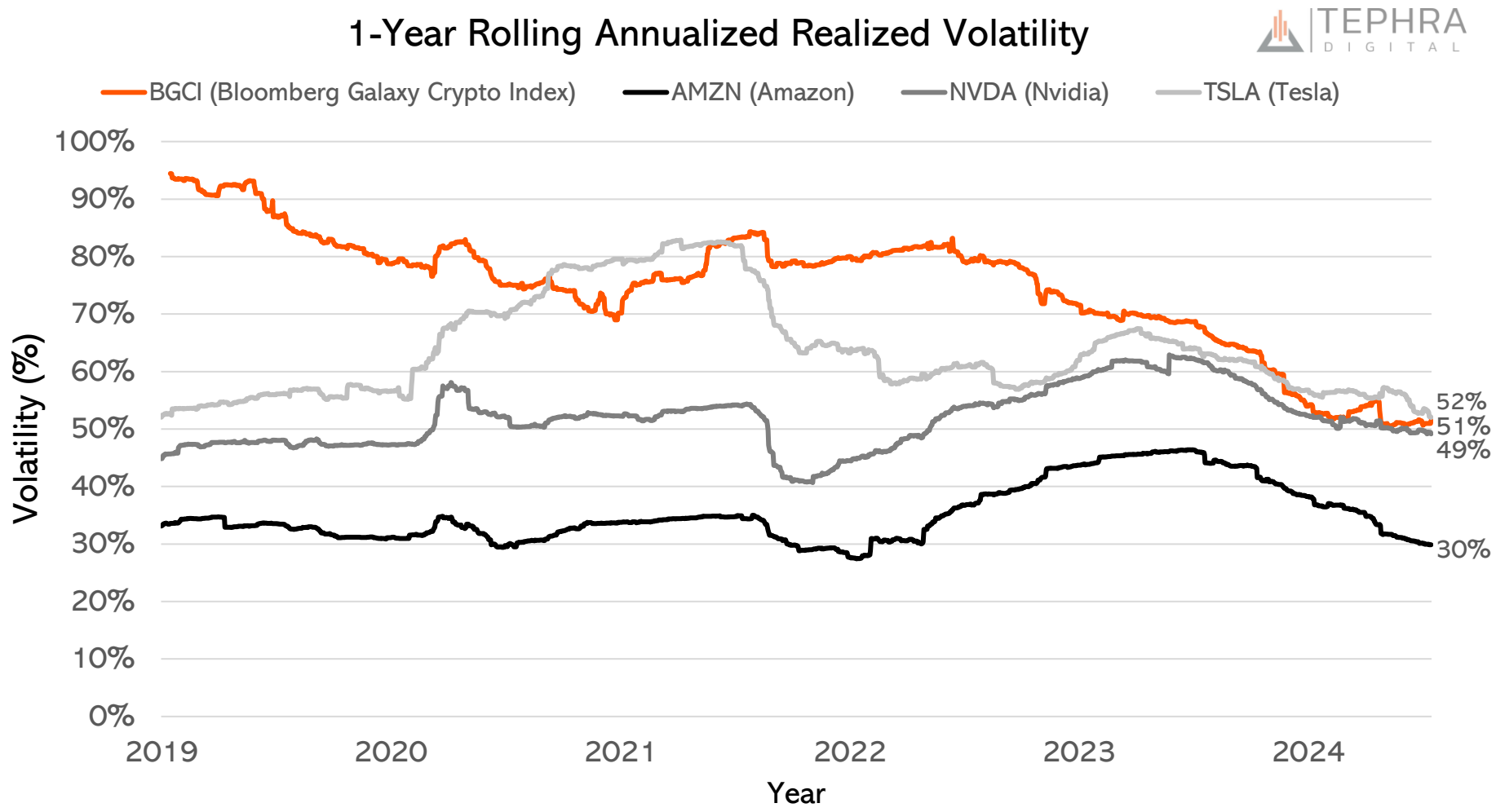
Bitcoin (BTC) Exposure Can Drive Significant Overall Returns



Note: Based on BlackRock 60/40 Target Allocation Fund (BIGPX) and spot BTC price. Data is as of 7/12/24.
Sources: Bloomberg and Artemis.

CHART #3

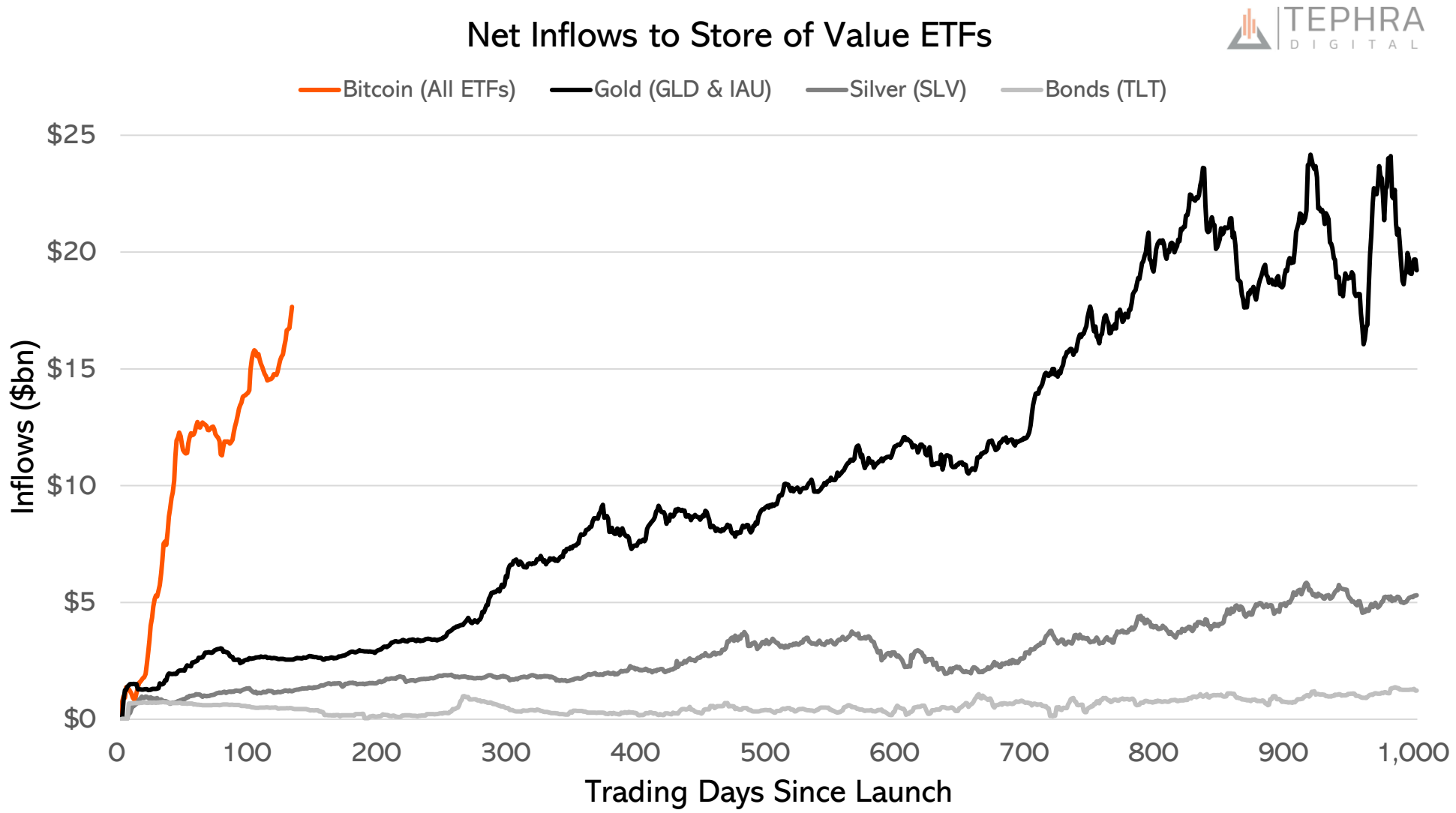
The Perception? Digital Assets Volatility Is Too High for Many Investors.
The Reality? Digital Assets Volatility Has Been Comparable to Some Large, Widely-Held and Well-Known Technology Stocks.



Note: Based on Bloomberg Galaxy Crypto Index (BGCI). Data is as of 7/15/24.
Source: Bloomberg.

CHART #5

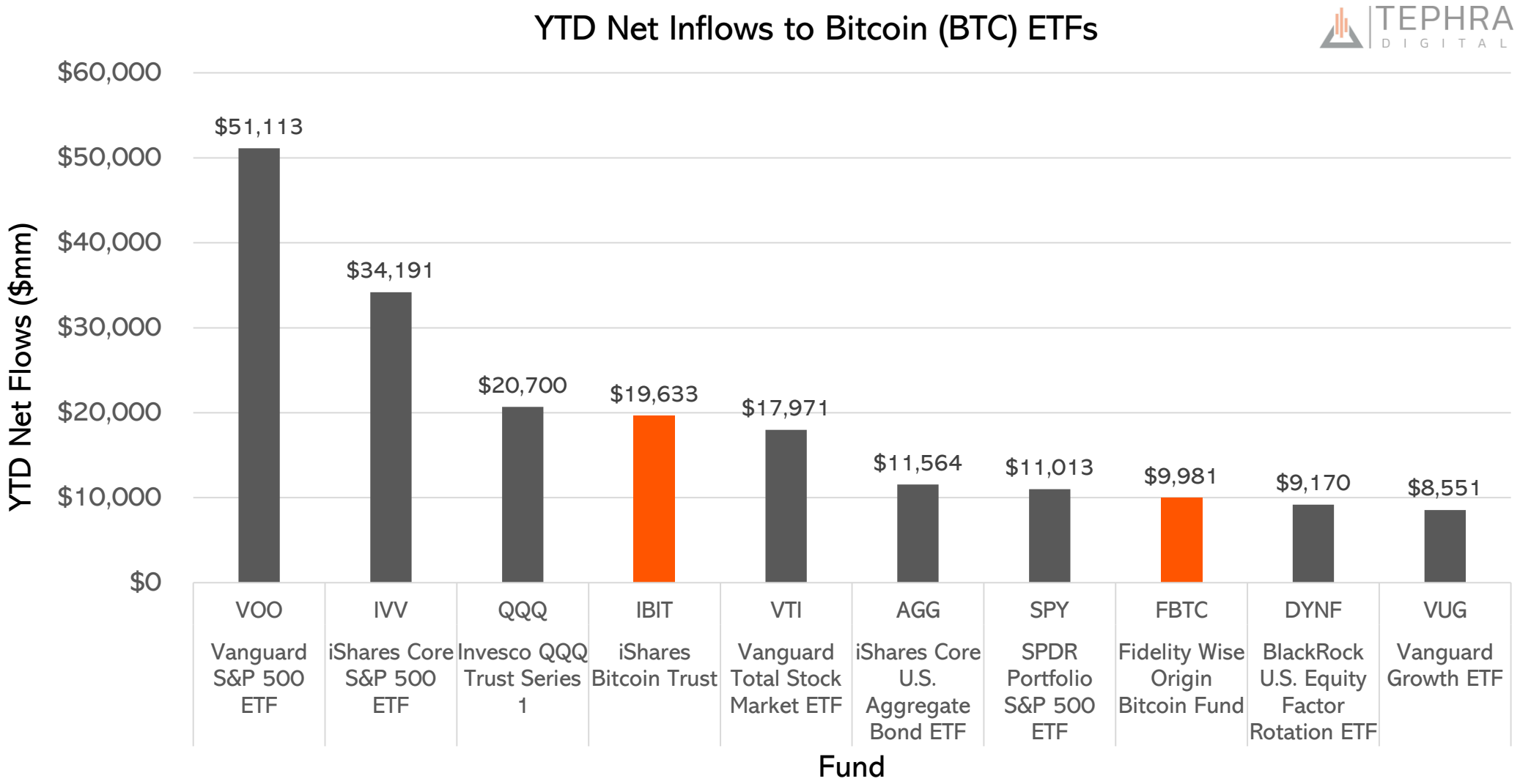
Bitcoin ETF Net Inflows Have Already Eclipsed ETFs of Some Other Major Asset Classes



Note: Bitcoin ETFs include: IBIT, GBTC, FBTC, ARKB, BITB, BTCO, HODL, BRRR, EZBC and BTCW. Data is as of 7/22/2024.
Sources: iShares and State Street Global Advisors.

CHART #7

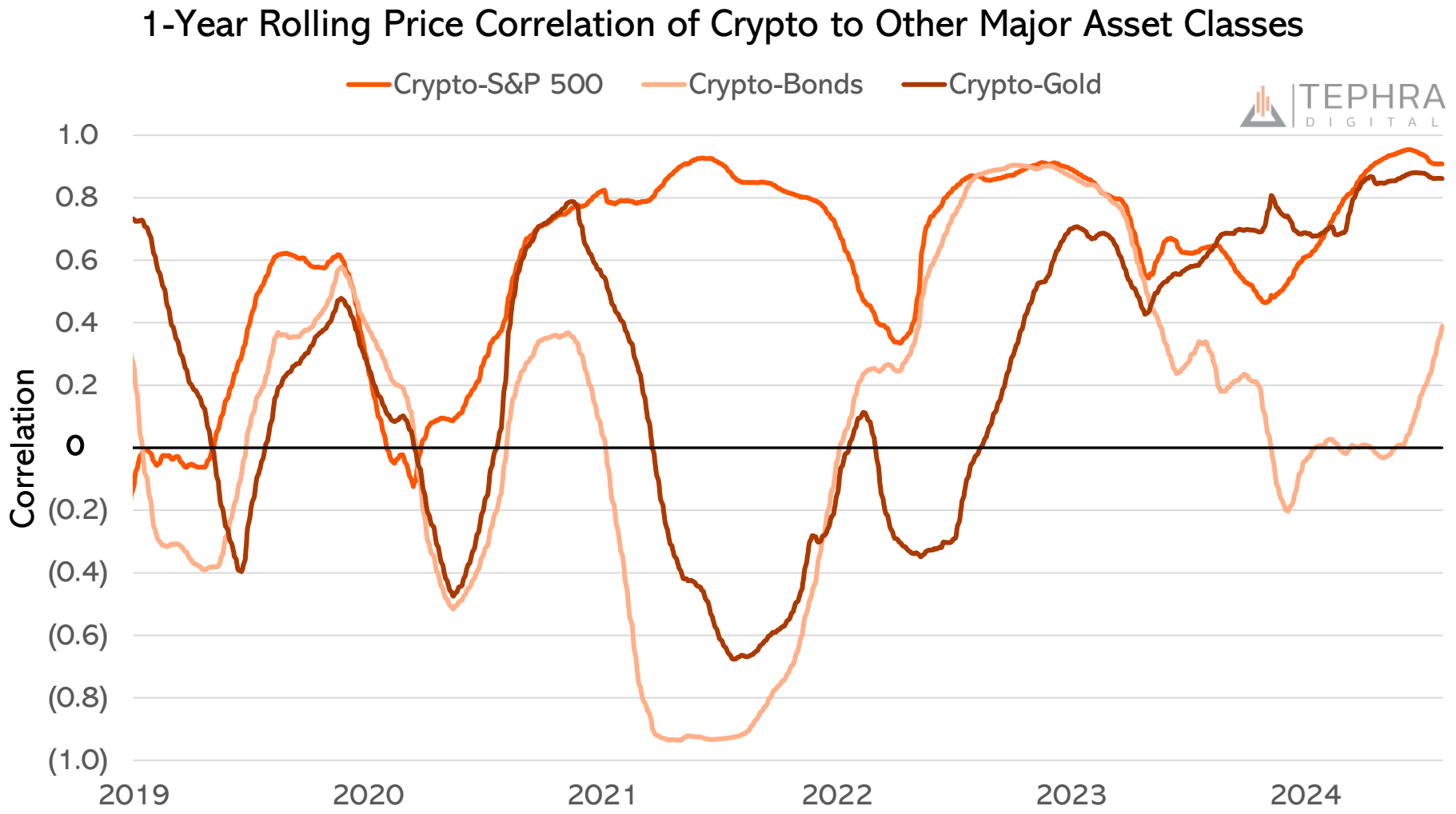
The Perception? Bitcoin Is a Niche Asset. The Reality? YTD Bitcoin ETF Net Flows Have Exceeded Many Broad Market ETFs.



Note: Data is as of 7/24/2024.
Source: Bloomberg.

CHART #11

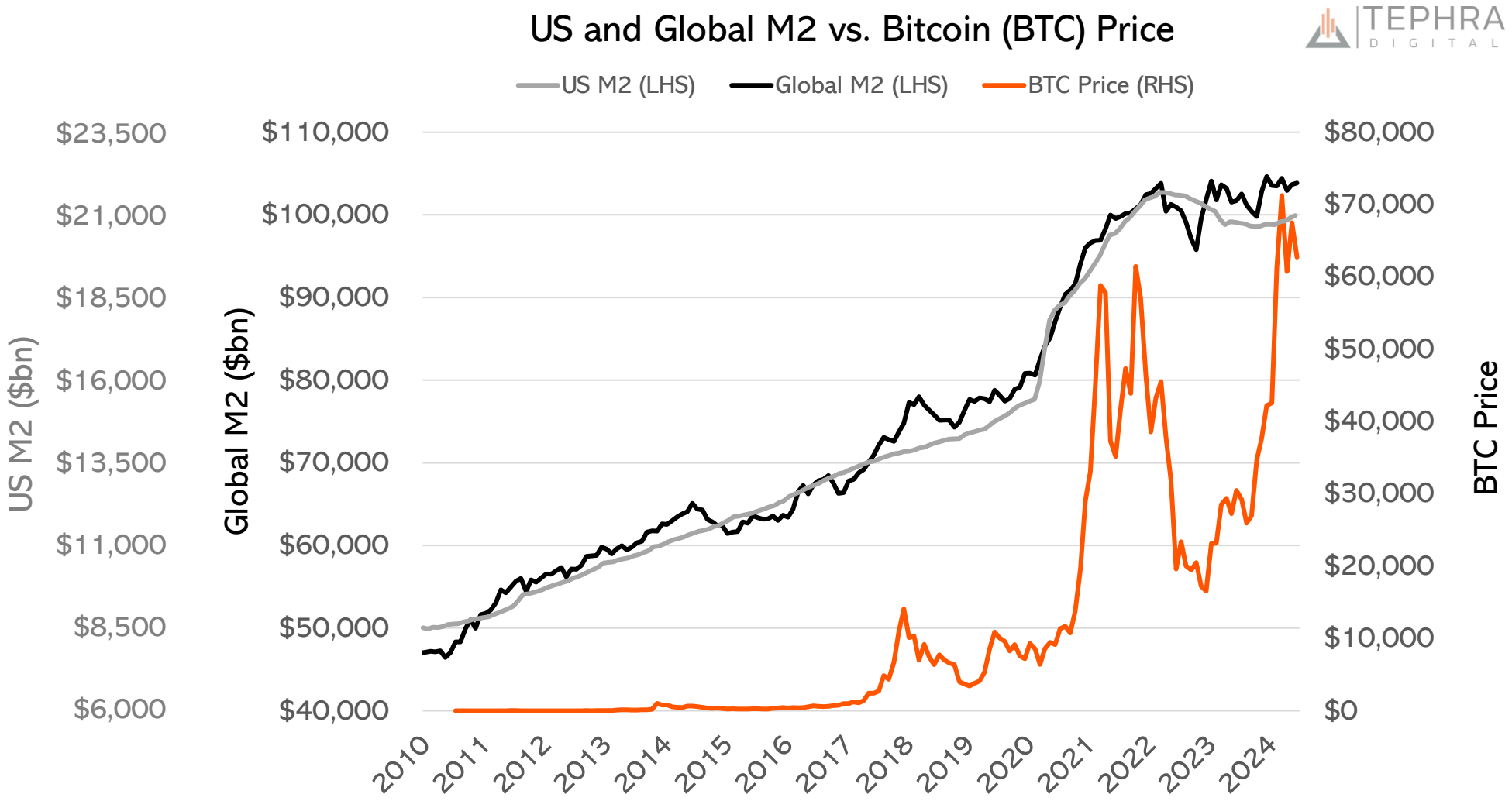
The Correlation of Crypto to Major Asset Classes Has Actually Varied Significantly Over Time, Given its Unique Attributes



Note: Crypto refers to the Bloomberg-Galaxy Crypto Index (BGCI). S&P 500 refers to the SPDR S&P 500 ETF Trust (SPY), Bonds refer to the iShares 20+ Year Treasury Bond ETF (TLT) and Gold refers to the SPDR Gold Trust (GLD). Price correlations are calculated on a rolling basis that assumes 252 trading days per year. Data is as of 8/1/2024.
Source: Bloomberg.

CHART #17

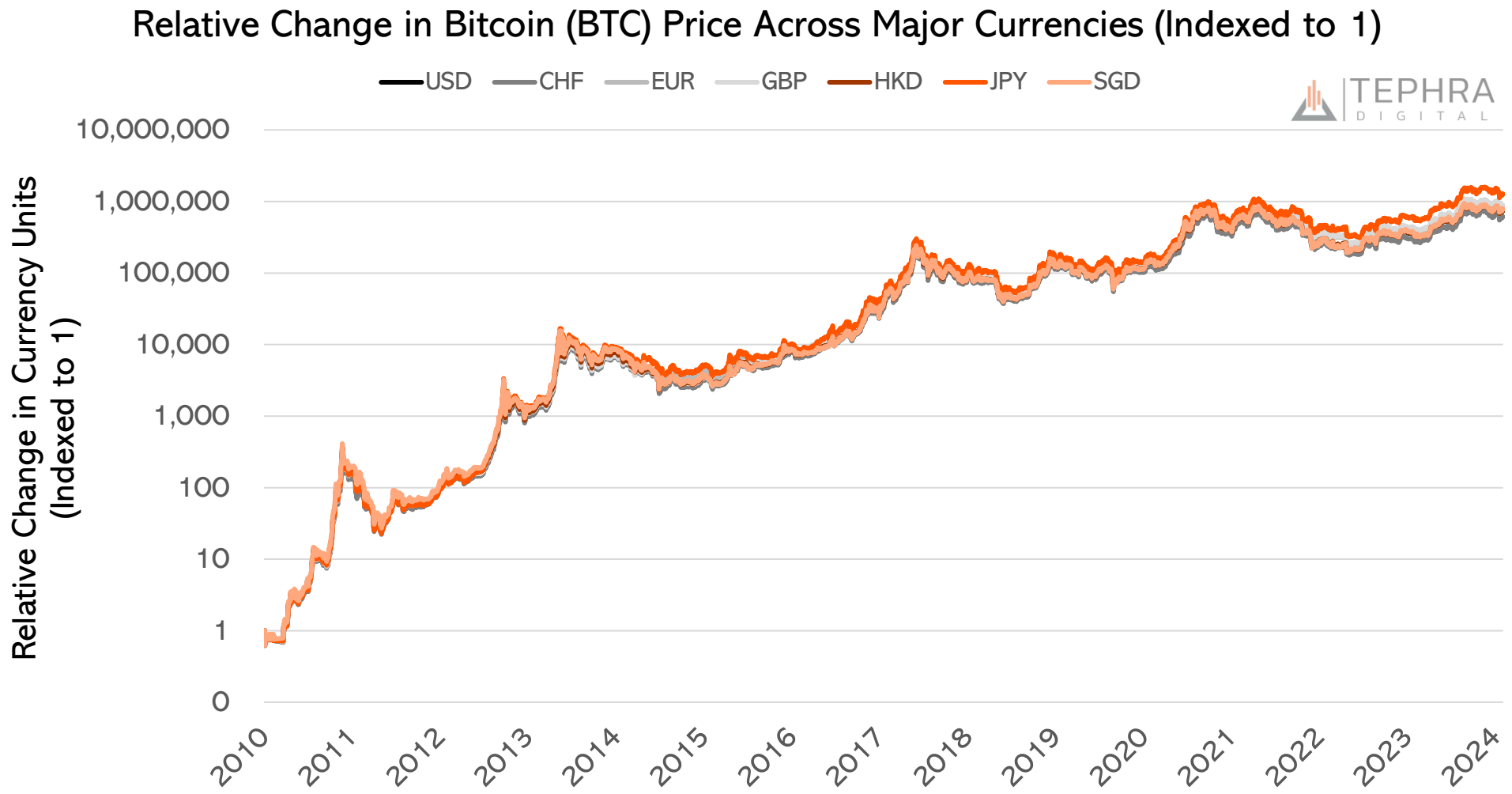
A Reacceleration in US and Global Money Supply (M2) Will Likely Drive Bitcoin (BTC) and Digital Asset Prices Over the Long-Term



Note: Global M2 includes Australia, Brazil, Canada, China, Europe, Japan, Mexico, Russia, South Korea, Switzerland, Taiwan, UK and US. Data as of 6/30/2024.
Sources: Bloomberg and Artemis.

CHART #19

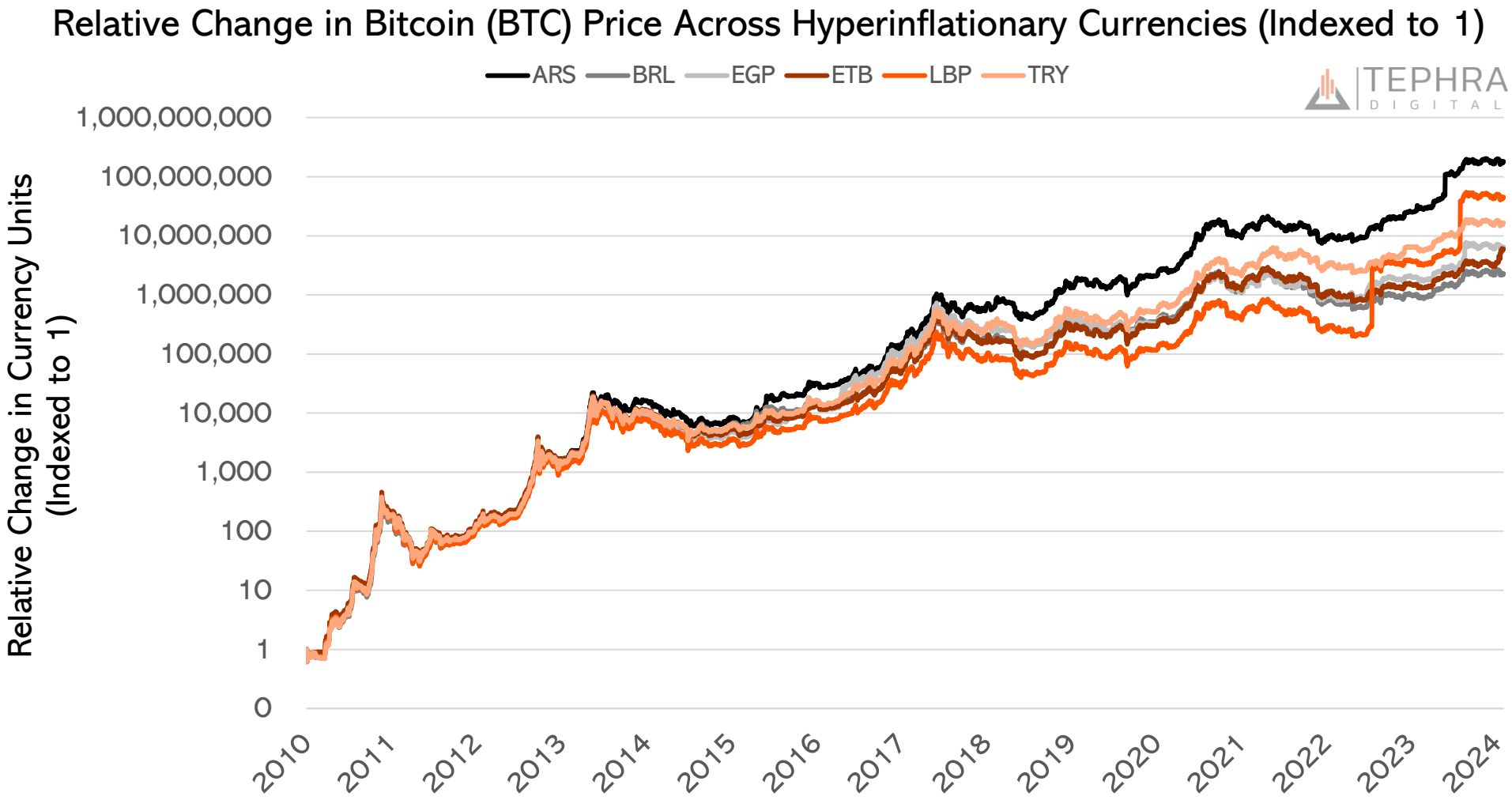
Major Currencies in Developed Markets Appear to Reflect Ongoing Monetary Debasement, While Bitcoin (BTC) Has Appreciated Exponentially Against Each of Them



Note: Currencies include the US Dollar (USD), Swiss Franc (CHF), Euro (EUR), British Pound Sterling (GBP), Hong Kong Dollar (HKD), Japanese Yen (JPY) and Singapore Dollar (SGD). The relative change is indexed to 1, calculated by dividing the daily Bitcoin (BTC) price in each currency by Bitcoin (BTC) price on 7/19/2010. Data is as of 8/20/2024.
Source: Bloomberg.

CHART #20

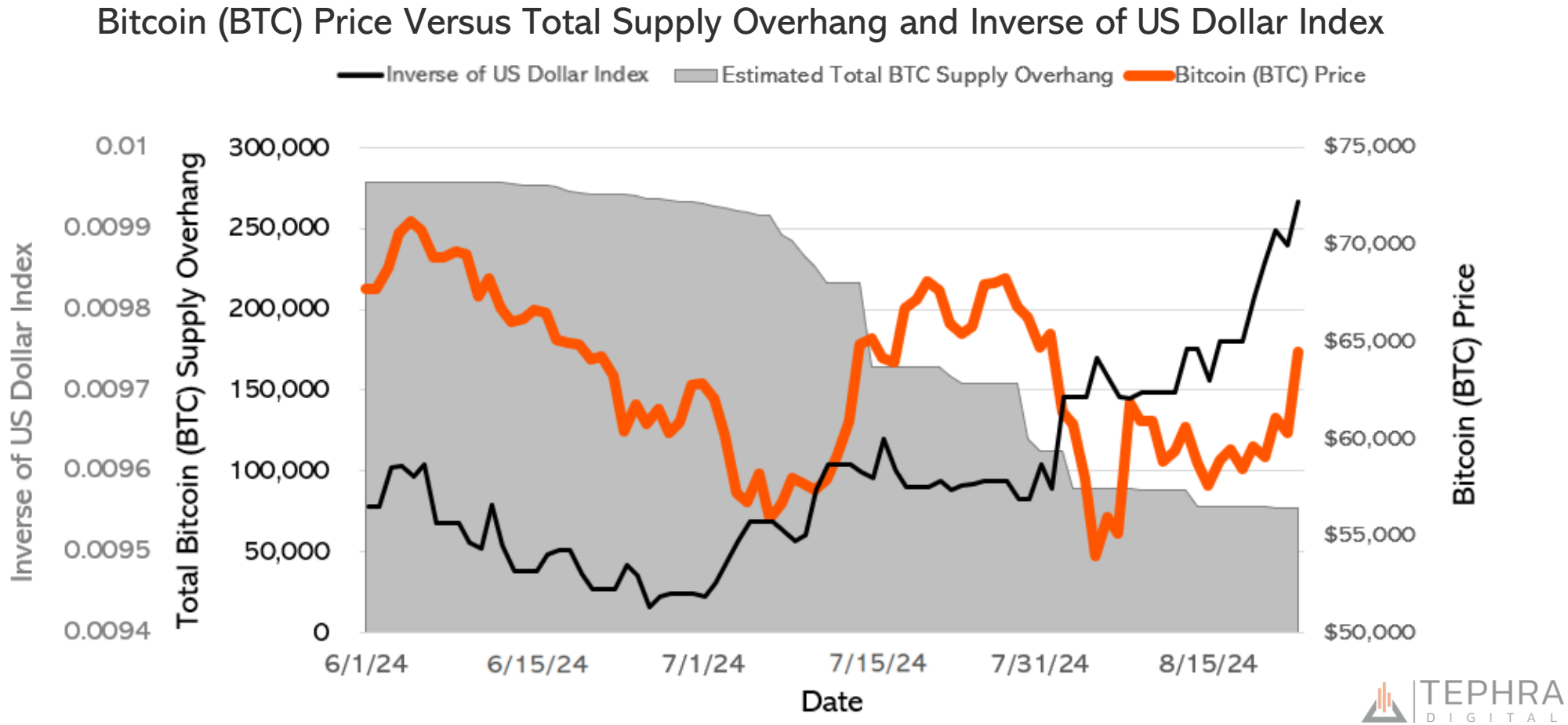
Hyperinflationary Currencies in Some Emerging Markets Have Continued to Collapse, While Bitcoin (BTC) Has Served as a Potential Viable Alternative and a Life Raft



Note: Currencies include the Argentine Peso (ARS), Brazilian Real (BRL), Egyptian Pound (EGP), Ethiopian Birr (ETB), Lebanese Pound (LBP) and Turkish Lira (TRY). The relative change is indexed to 1, calculated by dividing the daily Bitcoin (BTC) price in each currency by Bitcoin (BTC) price on 7/19/2010. Data is as of 8/20/2024.
Source: Bloomberg.

CHART #21

Bitcoin (BTC) Appears to Be Demonstrating Resilience While Absorbing a Massive but Temporary Supply Overhang



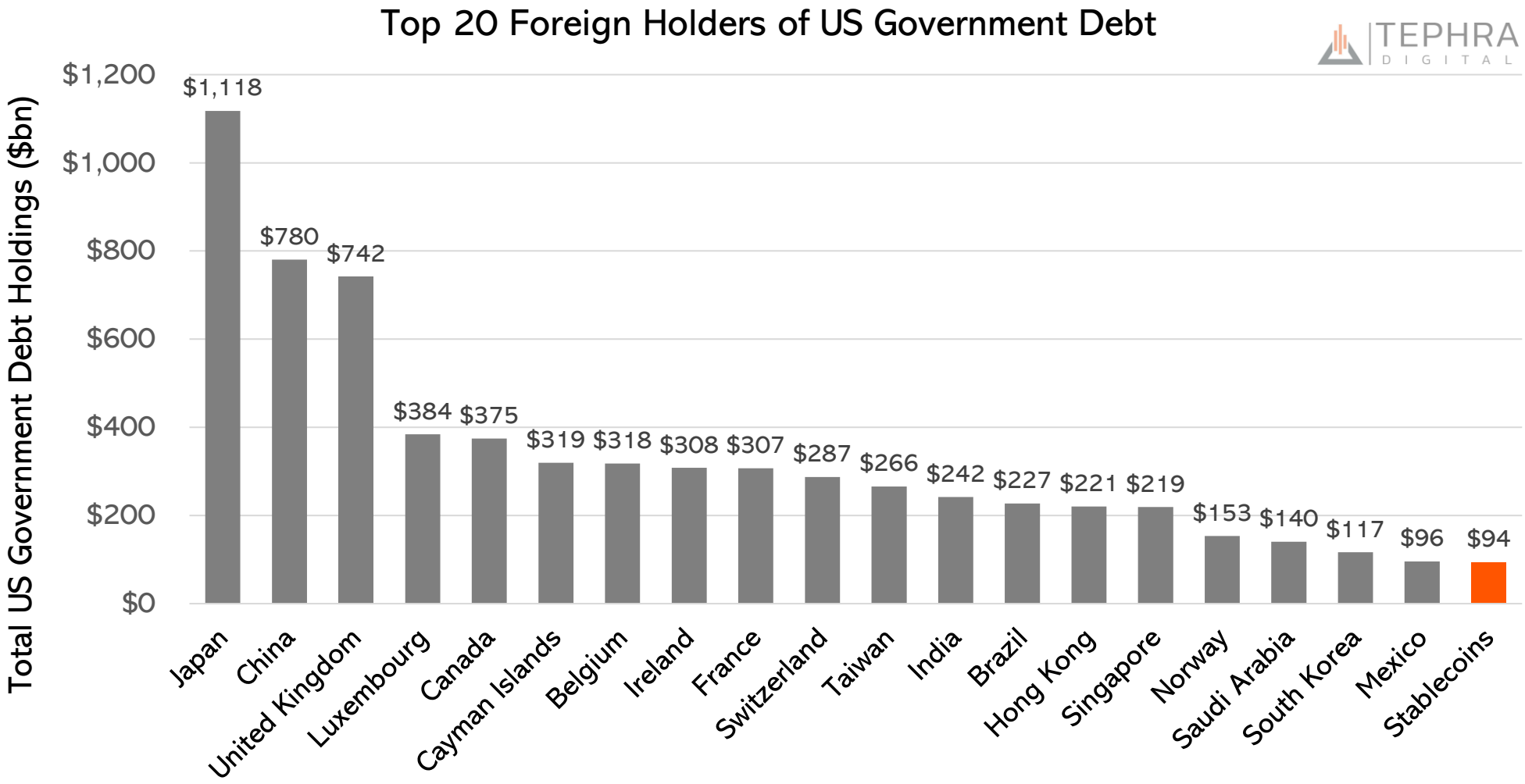
278,587 BTC (Total Supply Overhang) Represents 46% of Daily Average Trading Volume and 4% of the Total Active Supply

Note: Total Supply Overhang refers to Mt. Gox creditor distributions, Genesis creditor distributions, German Government sales and United States Marshal Service sales from the Ross Ulbricht forfeiture. Daily Average Trading Volume refers to the year-to-date average Bitcoin (BTC) daily volume. Total Active Supply refers to Bitcoin (BTC) tokens moved in the last one year. Data is as of 8/23/2024.

Sources: Bloomberg, Arkham Intelligence, Artemis and Glassnode.

CHART #22

The Perception? Digital Assets Are Too Small to Matter Within the Global Financial System. The Reality? Stablecoins Now Rank Among the Top 20 Foreign Holders of US Government Debt

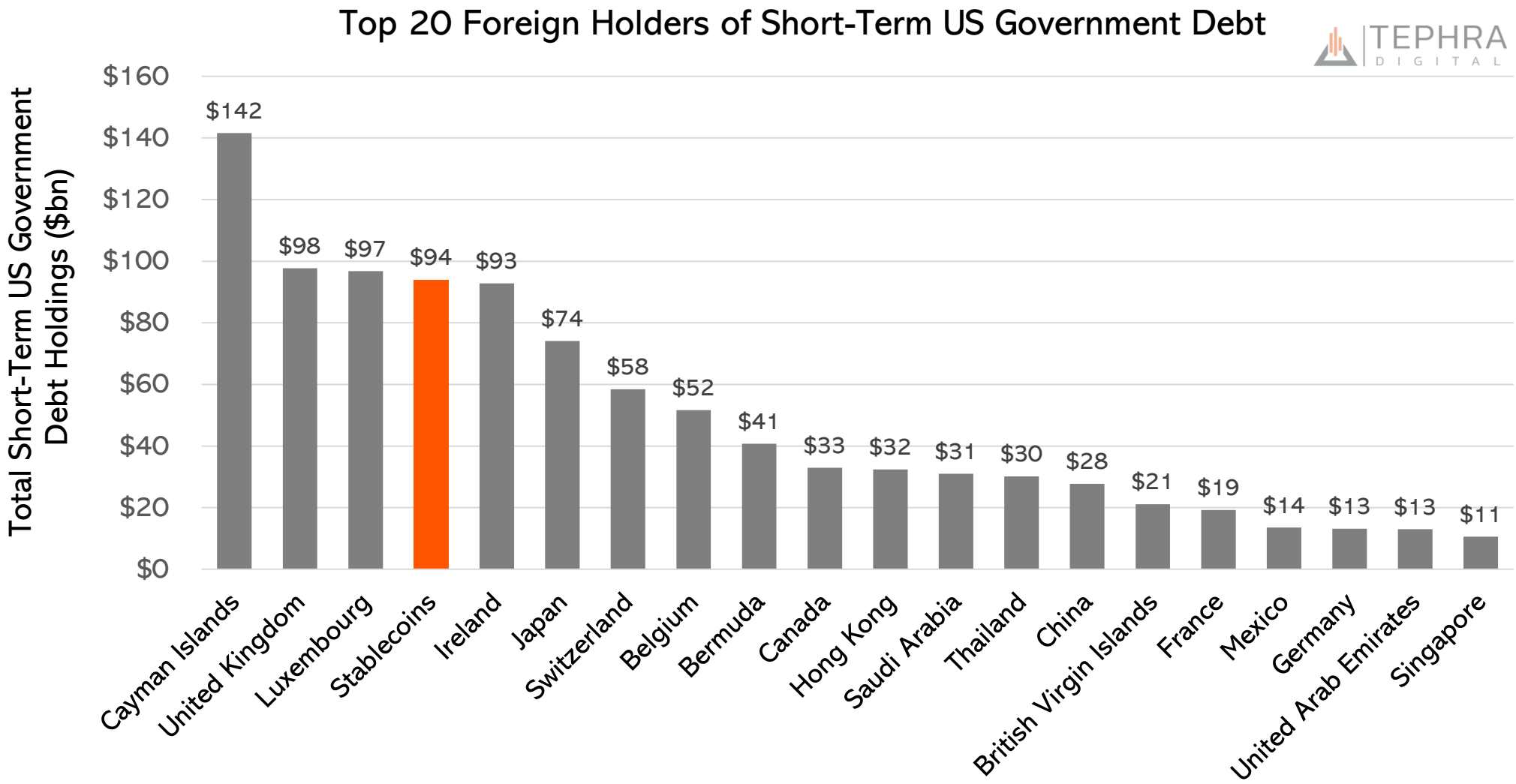


Note: Stablecoins includes Tether (USDT), Circle (USDC), First Digital USD (FDUSD), PayPal USD (PYUSD), Ondo US Dollar Yield Token (USDY), Paxos Dollar (USDP) and Gemini Dollar (USDG). Data is as of 6/30/2024.

Sources: The United States Treasury, Tether Holdings Limited, Circle Internet Financial, FD121 Limited, Paxos Trust Company, Ondo USDY and Gemini Trust Company.

CHART #23

Stablecoins Are Already the Fourth Largest Foreign Holder of Short-Term US Government Debt

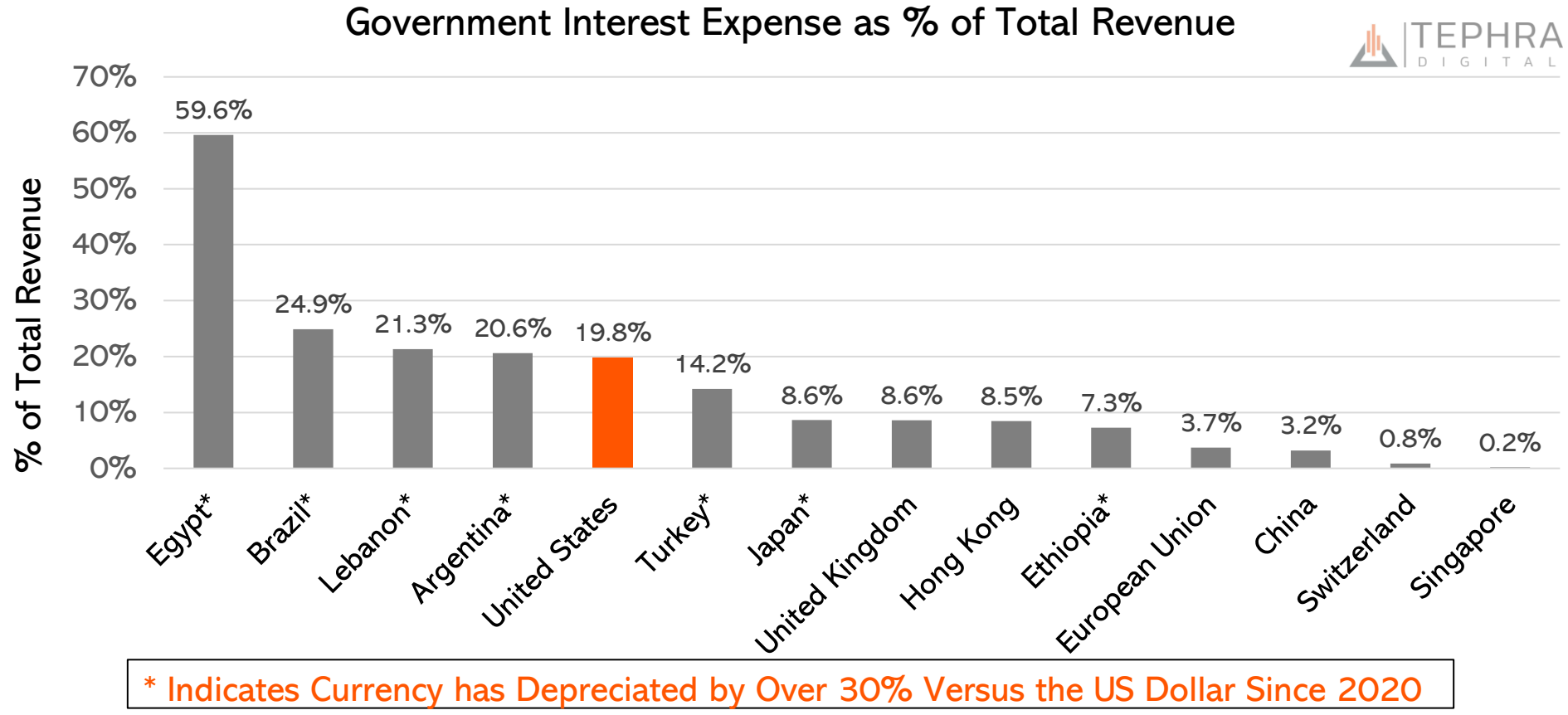


Note: Stablecoins includes Tether (USDT), Circle (USDC), First Digital USD (FDUSD), PayPal USD (PYUSD), Ondo US Dollar Yield Token (USDY), Paxos Dollar (USDP) and Gemini Dollar (USDG). Data is as of 6/30/2024.

Sources: The United States Treasury, Tether Holdings Limited, Circle Internet Financial, FD121 Limited, Paxos Trust Company, Ondo USDY and Gemini Trust Company.

CHART #24

US Interest Expense as a Percentage of Total Revenue Now Rivals Countries that Recently Experienced Significant Currency Devaluation



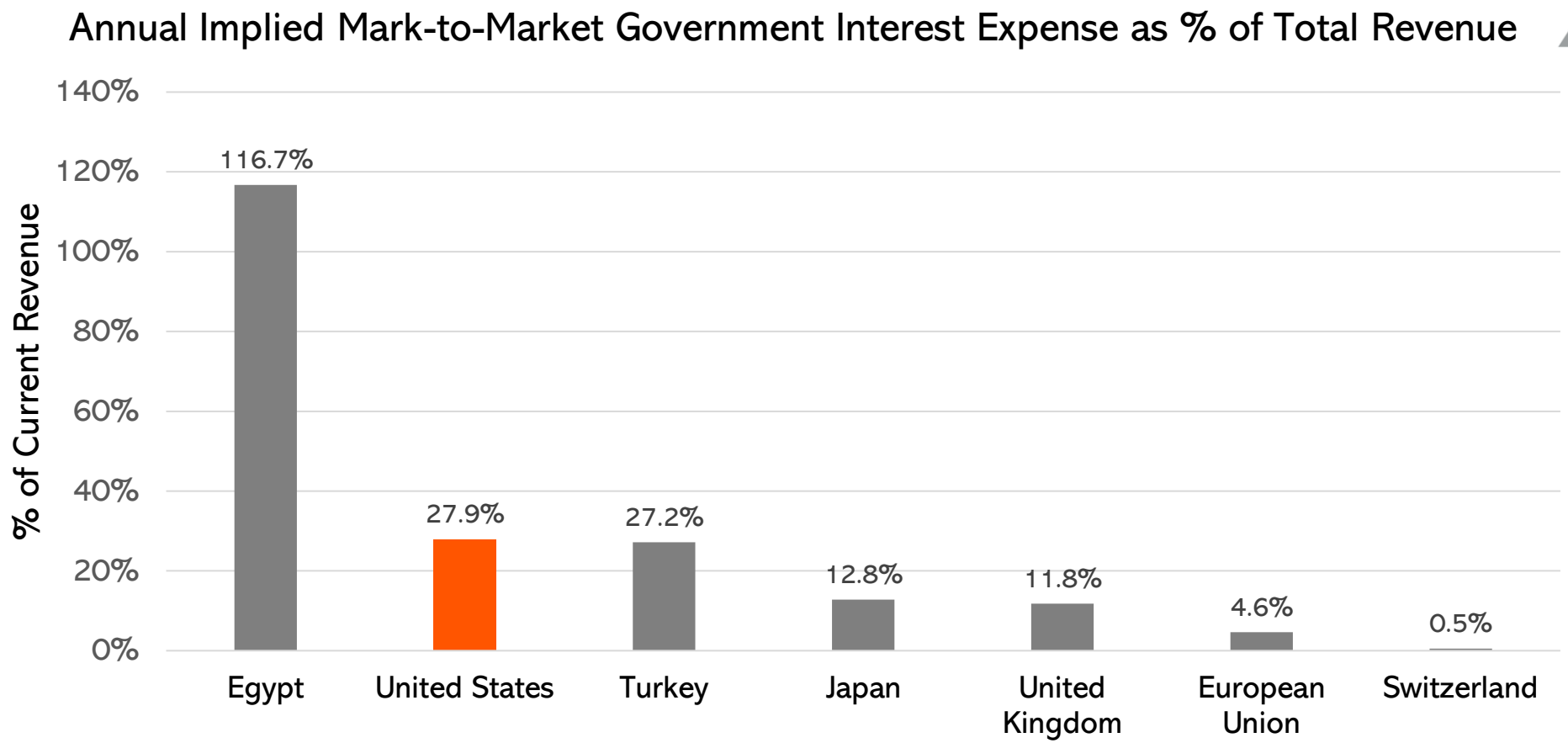
* Indicates Currency has Depreciated by Over 30% Versus the US Dollar Since 2020

Note: Total Revenue includes gross tax receipts, social and retirement insurance, customs duties, government-owned-enterprise revenue and certain other items. Egypt figures refer to totals from July 2023 to May 2024. Brazil figures refer to totals from January to June 2023. Lebanon figures refer to totals from October to December 2023. Argentina and Turkey figures refer to annualized interest expense from July 2024 divided by annualized year-to-date total revenue through July 2024. United States figures refer to annualized interest expense from July 2024 divided by annualized total revenue from October 2023 to July 2024. Japan figures refer to the 2024 general account budget estimate. United Kingdom figures refer to annualized interest expense from July 2024 divided by annualized total revenue from April to July 2024. Hong Kong figures refer to totals from April 2022 to March 2023. Ethiopia figures refer to totals from January to March 2023. European Union, China, Switzerland, and Singapore figures refer to totals from 2023.

Sources: Bloomberg, the United States Treasury, the National Treasury of Brazil, Banque Du Liban, the Ministry of Economy of Argentina, the Ministry of Finance of Egypt, the Ministry of Treasury and Finance of Turkey, the Japanese Ministry of Finance, the Treasury of the Government of the HKSAR, the UK Statistics Authority, the National Bank of Ethiopia, the European Commission, the Ministry of Finance of the People's Republic of China, the Swiss Federal Finance Administration and the Singapore Department of Statistics.

CHART #25

The US Appears to Be Facing a Concerning Currency and Credit Outlook, Which Highlights the Importance of Digital Asset Allocation

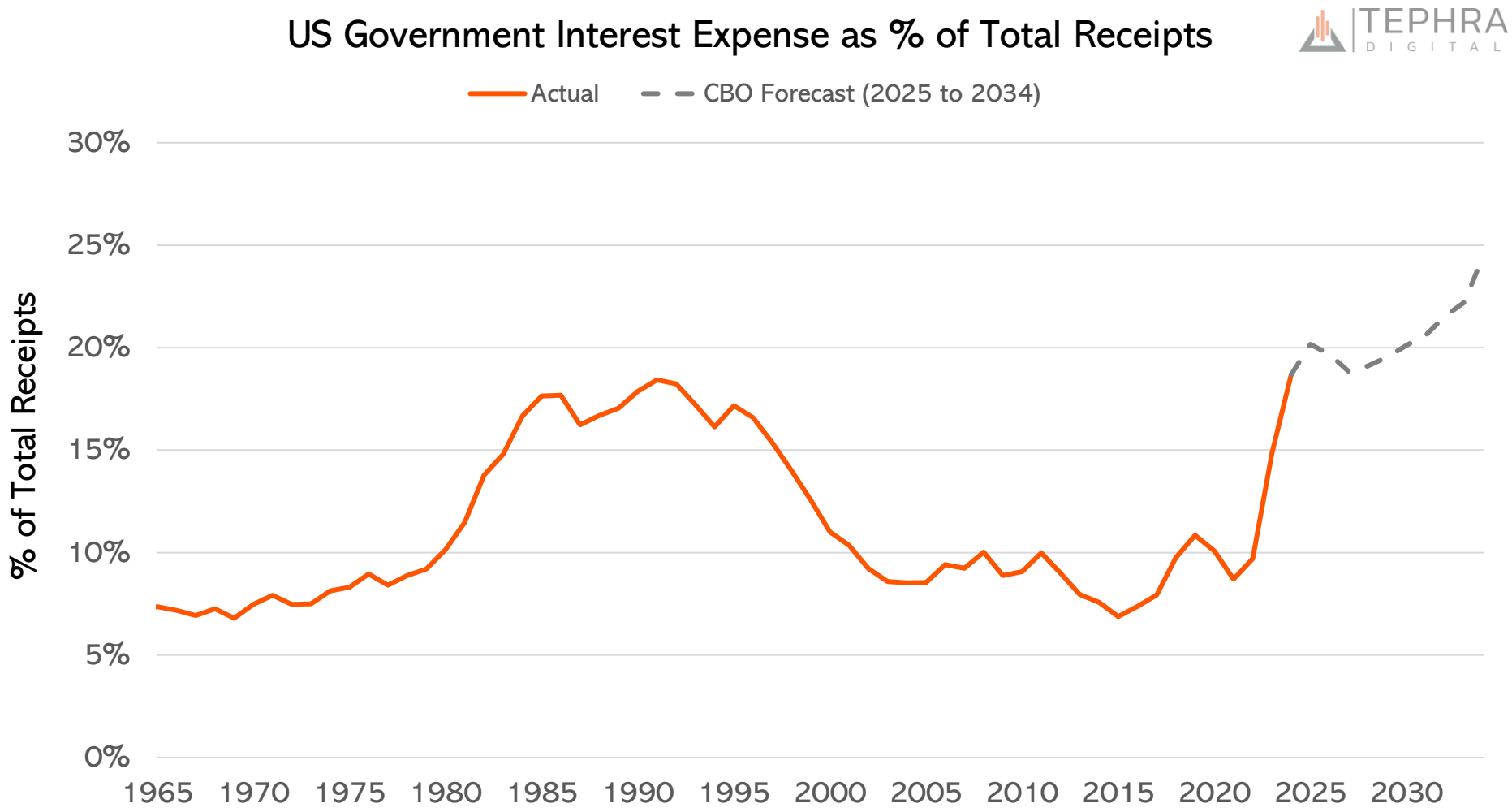


Note: Annual Implied Mark-to-Market Government Interest Expense is calculated by multiplying the latest total government debt by the coupon rate of 10-year government treasury bonds. Egypt figures refer to government debt calculated by multiplying the June 2024 debt-to-GDP by 2023 GDP, and total revenue from July 2023 to May 2024. United States figures refer to government debt from August 2024 and annualized total revenue from October 2023 to July 2024. Turkey figures refer to government debt from July 2024 and annualized total revenue from January 2024 to July 2024. Japan figures refer to government debt from June 2024 and total revenue from the 2024 general account budget estimate. United Kingdom figures refer to government debt from December 2023 and annualized total revenue from April 2024 to July 2024. European Union and Switzerland figures refer to government debt from December 2023 and total revenue from 2023.

Sources: Bloomberg, the Federal Reserve Bank of St. Louis, the United States Treasury, the Ministry of Finance of Egypt, the Ministry of Treasury and Finance of Turkey, the Japanese Ministry of Finance, the UK Statistics Authority, His Majesty's Treasury, the European Commission, the Swiss Federal Department of Finance and the Swiss Federal Finance Administration.

CHART #27

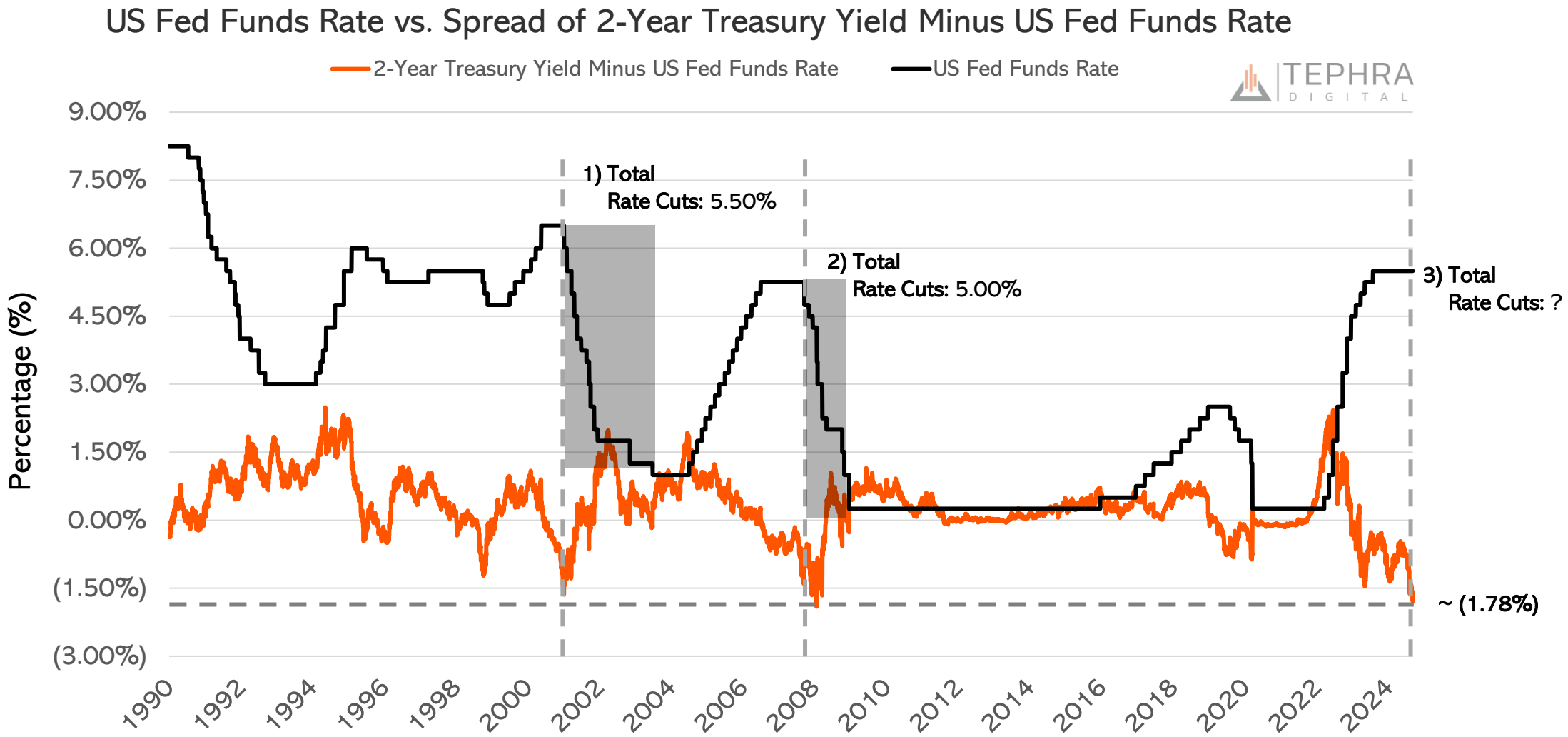
US Government Interest Expense Appears to Be on an Unsustainable Path, Highlighting Digital Assets as a Monetary System Alternative with Growing Potential



Note: Total Receipts defined as receipts from individual and corporate income taxes, social and retirement insurance, excise taxes, customs duties, estate and gift taxes and certain other items. 2024 figures refer to fiscal year-to-date totals through July 2024. All data is as of August 2024.
Source: The United States Treasury and Congressional Budget Office.

CHART #29

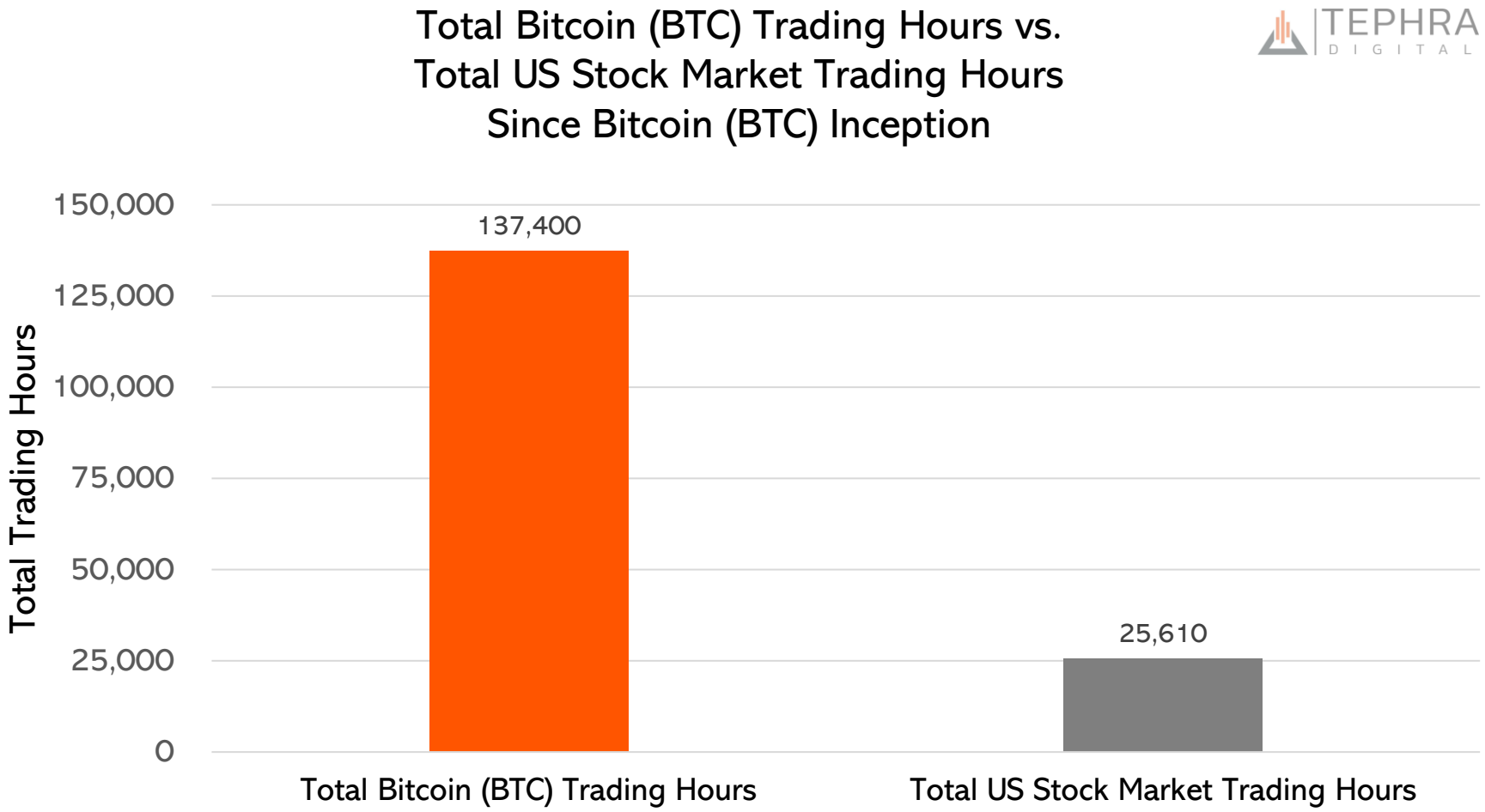
The 2-Year Treasury Yield Is Indicating the Fed is Again Behind the Curve. In the Two Cases Since 1990 Where the Difference Between the 2-Year Yield and Federal Funds Rate Reached Current Levels, Over 500 Basis Points of Cuts Followed



Note: Data is as of 9/4/2024.
Source: Bloomberg.

CHART #30

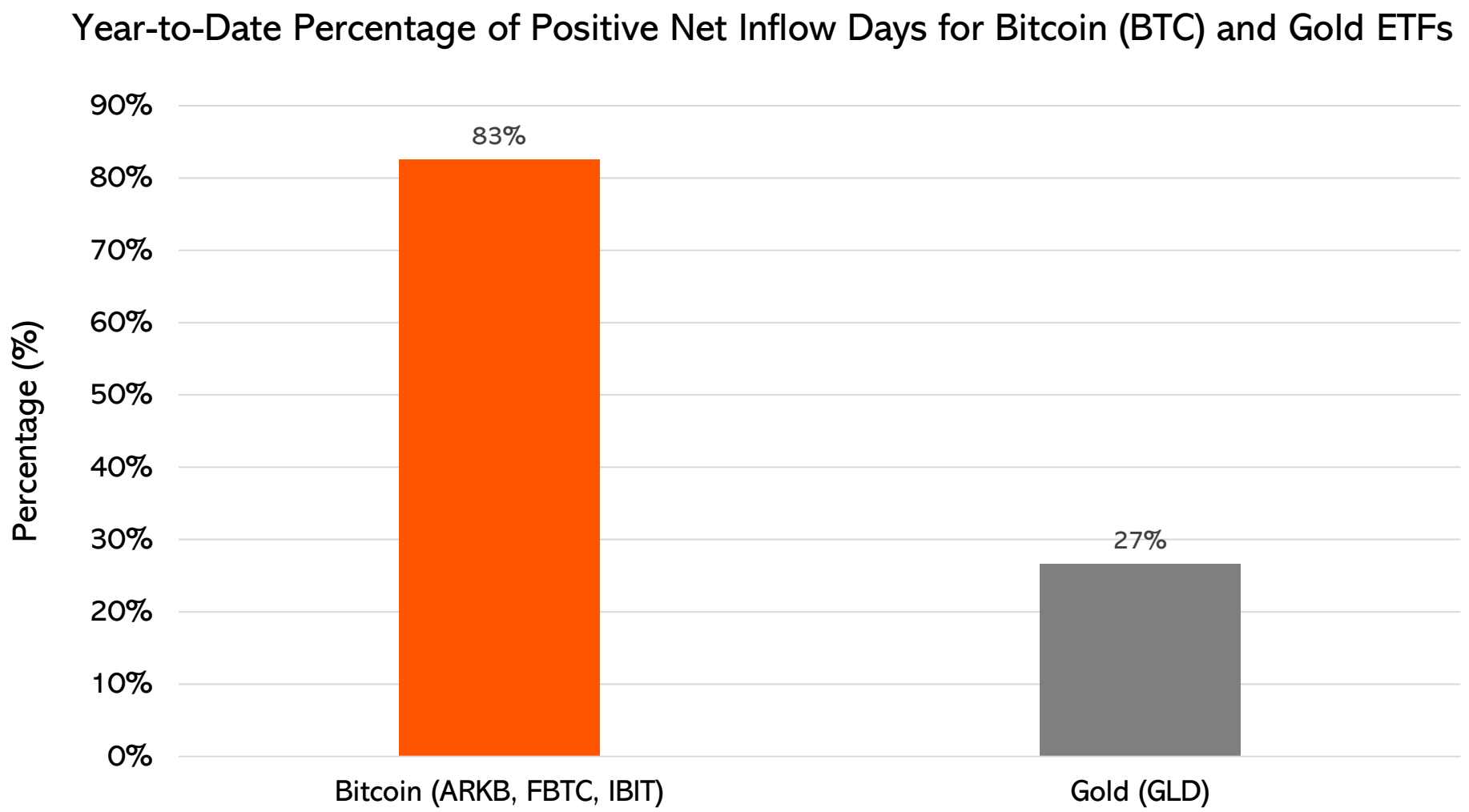
The Perception? Bitcoin (BTC) Is New, Unproven and has a Limited History. The Reality? Since Its Inception, Bitcoin (BTC) Has Already Traded More Estimated Total Hours than the US Stock Market Has Since 1940



Note: Calculations include total trading hours from Bitcoin (BTC) inception on 1/3/2009 through 9/6/2024. Total Bitcoin (BTC) Trading Hours assumes 24 hours per day and 5,725 days since 1/3/2009. Total US Stock Market Trading Hours assumes 6.5 hours per trading day and 3,940 trading days since 1/3/2009. To determine the date when the US stock market would have operated for the same total hours as Bitcoin (BTC) trading to date, we assume the US stock market operates 252 trading days per year with 6.5 hours per day. The total Bitcoin trading hours are divided by the product of 252 trading days and 6.5 hours. This result is then subtracted from 9/6/2024 to find the equivalent date, which falls in late 1940.
Source: New York Stock Exchange.

CHART #31

ETF Net Inflow Data Appears to Support the Role of Bitcoin (BTC) as Digital Gold, with Significant Potential Runway Ahead

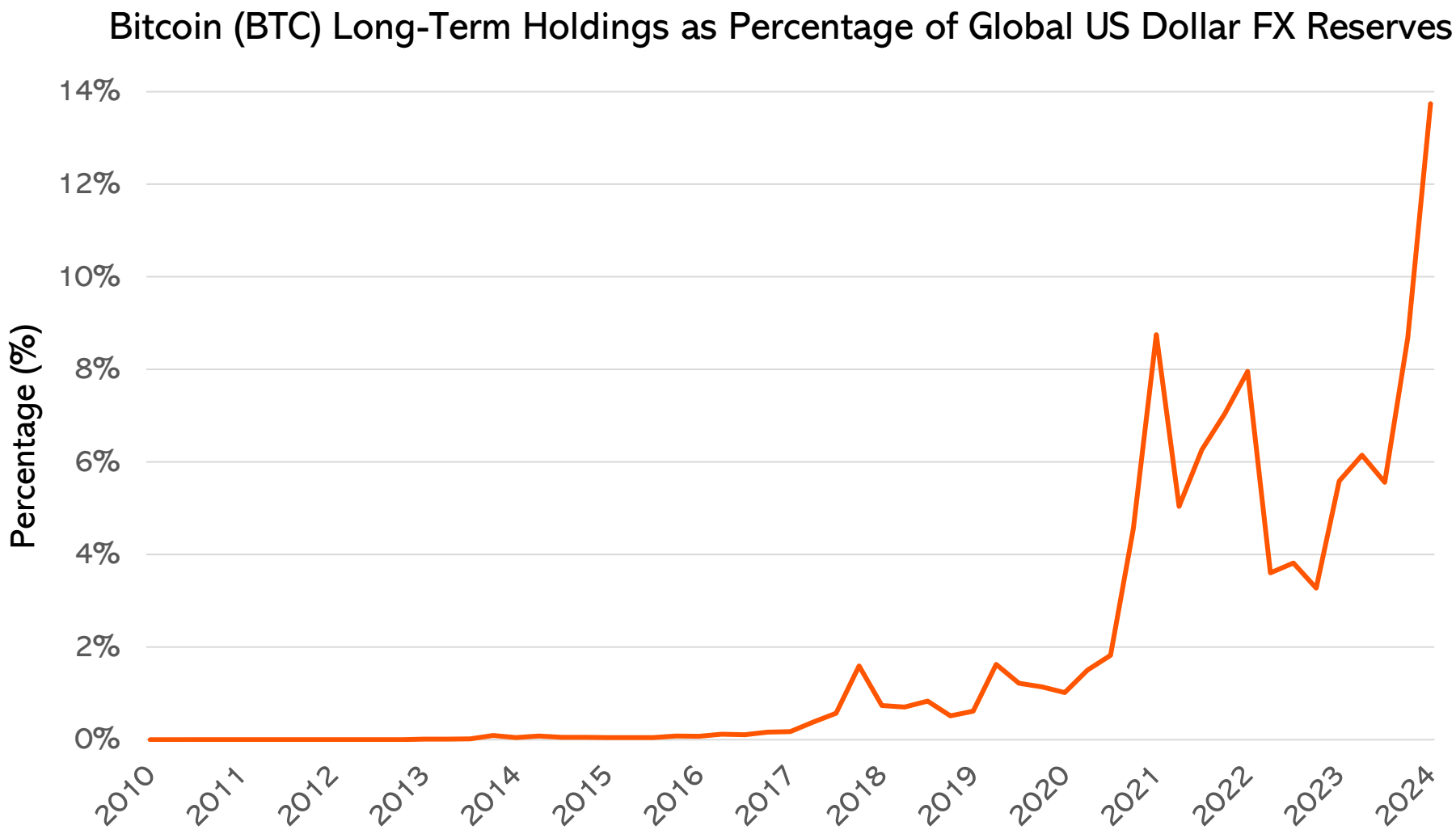


Note: Bitcoin ETF flows include the combined daily net flows of the ARK 21Shares Bitcoin ETF (ARKB), Fidelity Wise Origin Bitcoin Fund (FBTC), and iShares Bitcoin Trust ETF (IBIT). Gold ETF inflows are based on daily net flows of the SPDR Gold Shares ETF (GLD). A positive net inflow day refers to a day where ETF holdings increased relative to the previous day. Sources: ARK Invest, Fidelity, iShares, State Street Global Advisors.

Sources: ARK Invest, Fidelity, iShares, State Street Global Advisors.

CHART #32

Bitcoin (BTC) Appears to Be Gaining Meaningful Traction as a Global Store of Value in US Dollar Terms



Note: Bitcoin (BTC) Long-Term Holdings refers to the point-in-time US Dollar value of Bitcoin (BTC) that has not been transferred in over one year. Global US Dollar FX Reserves includes quarterly data from 149 reporting countries according to IMF COFER methodology. Data is as of 3/31/2024.
Source: IMF COFER and Glassnode.

CHART #36

Bitcoin (BTC) Has Demonstrated Resilience and Significant Outperformance Through a Wide Range of Geopolitical Events and Market Shocks

S&P 500, Gold, Bond, and Bitcoin (BTC) Performance Through Major Geopolitical Events

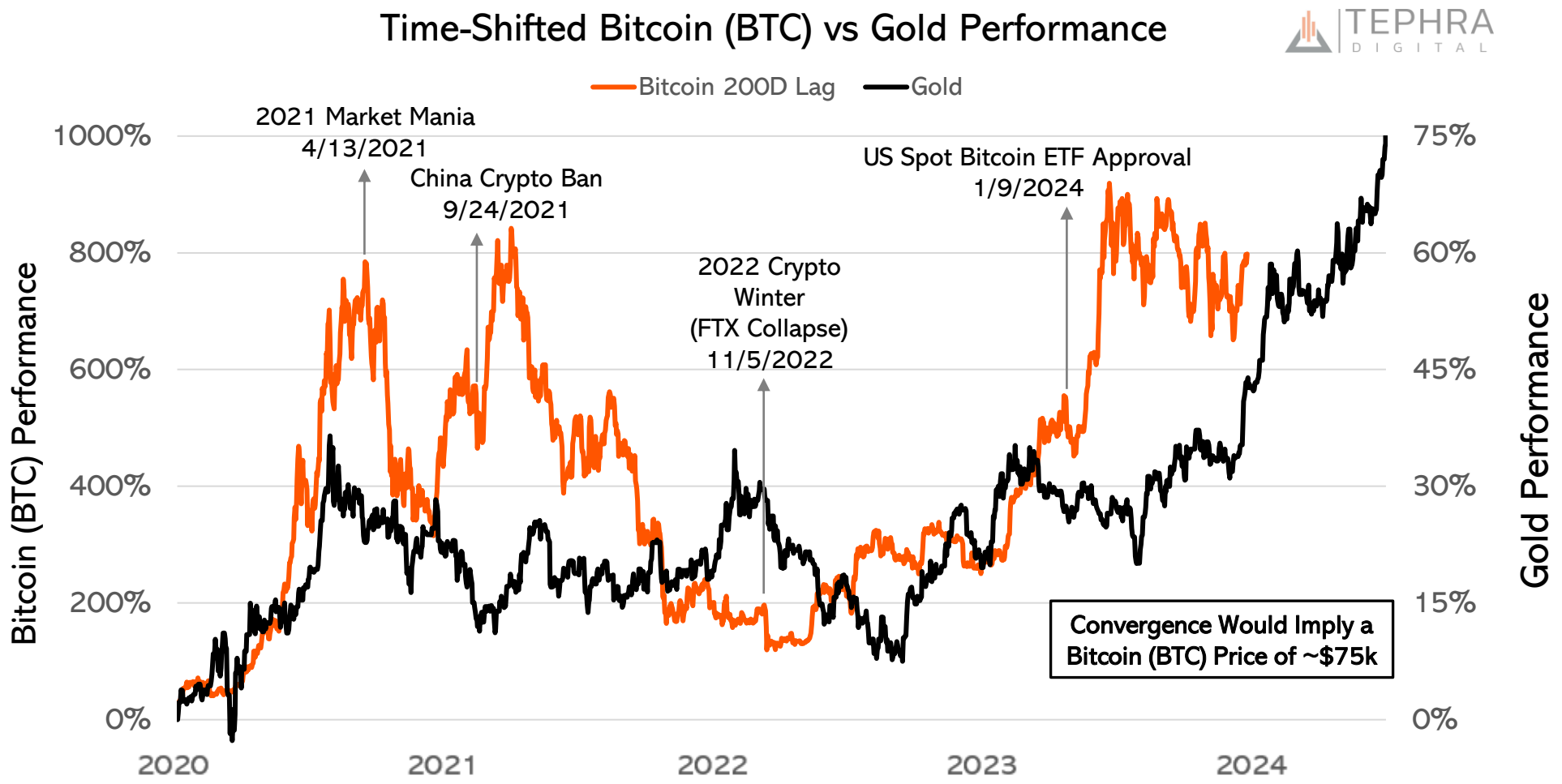
		5D Return				30D Return				90D Return			
Event	Date	S&P 500	Gold	Bonds	BTC	S&P 500	Gold	Bonds	BTC	S&P 500	Gold	Bonds	BTC
Brexit	6/23/2016	-4%	4%	5%	-4%	3%	4%	5%	0%	2%	5%	3%	-10%
2016 US Election	11/9/2016	0%	-5%	-3%	0%	5%	-9%	-6%	8%	6%	-4%	-3%	48%
US China Trade War	3/8/2018	1%	0%	0%	-2%	-5%	1%	2%	-27%	1%	-2%	0%	-19%
FOMC Policy Error	12/19/2018	-7%	0%	0%	9%	6%	2%	-1%	-2%	12%	4%	0%	9%
Powell Pivot	1/4/2019	2%	1%	-1%	4%	8%	3%	-1%	-9%	14%	0%	1%	28%
US-Iran Escalation	1/3/2020	1%	1%	-2%	10%	1%	2%	5%	28%	-22%	4%	21%	-7%
COVID Outbreak	3/11/2020	-13%	-10%	5%	-37%	0%	2%	5%	-13%	17%	4%	1%	23%
2020 US Election Challenges	11/4/2020	3%	-2%	-3%	9%	8%	-3%	-4%	33%	11%	-4%	-6%	152%
US Withdrawal from Afghanistan	8/16/2021	0%	1%	1%	6%	0%	1%	1%	5%	5%	4%	-2%	43%
Russia Invasion of Ukraine	2/24/2022	0%	-1%	3%	16%	6%	0%	-5%	16%	-7%	-5%	-13%	-23%
US Regional Banking Crisis	3/9/2023	0%	4%	2%	22%	5%	9%	5%	37%	9%	7%	-1%	29%
Hamas-Israel Conflict	10/7/2023	1%	3%	2%	-4%	1%	9%	2%	25%	9%	13%	14%	58%
Iranian Missile Strike on Israel	4/12/2024	-2%	0%	-1%	-9%	2%	-2%	0%	-9%	9%	0%	4%	-15%
Mini AI Crash	6/18/2024	-1%	0%	0%	-3%	1%	6%	-1%	-2%	3%	11%	7%	-11%
Yen Carry Trade Unwinding	8/5/2024	3%	2%	-2%	13%	6%	4%	0%	7%	N/A	N/A	N/A	N/A
Average		-1%	0%	0%	2%	3%	2%	0%	6%	5%	3%	2%	22%
Median		0%	0%	0%	4%	3%	2%	0%	5%	7%	4%	1%	16%

Note: Returns are calculated based on the closing price of each asset relative to the closing price on the date of each geopolitical event. For S&P 500, Gold, and Bond figures, if the return date does not fall on a trading day, the return is calculated using the closest available trading day after the specified date. Because the Hamas-Israel conflict occurred on a weekend, its figures refer to market-close prices from 10/6/2023. S&P 500 refers to the SPDR S&P 500 ETF Trust (SPY) and Bonds refer to the iShares 20+ Year Treasury Bond ETF (TLT). Red indicates negative returns. Yellow indicates returns between 0% and 5%. Green indicates returns greater than 5%. 90 days have not yet elapsed from 8/5/2024 at the time of publication. Data is as of 9/24/2024.

Sources: Artemis, Nasdaq and the World Gold Council. Inspired by BlackRock's report, "Bitcoin: A Unique Diversifier."

CHART #37

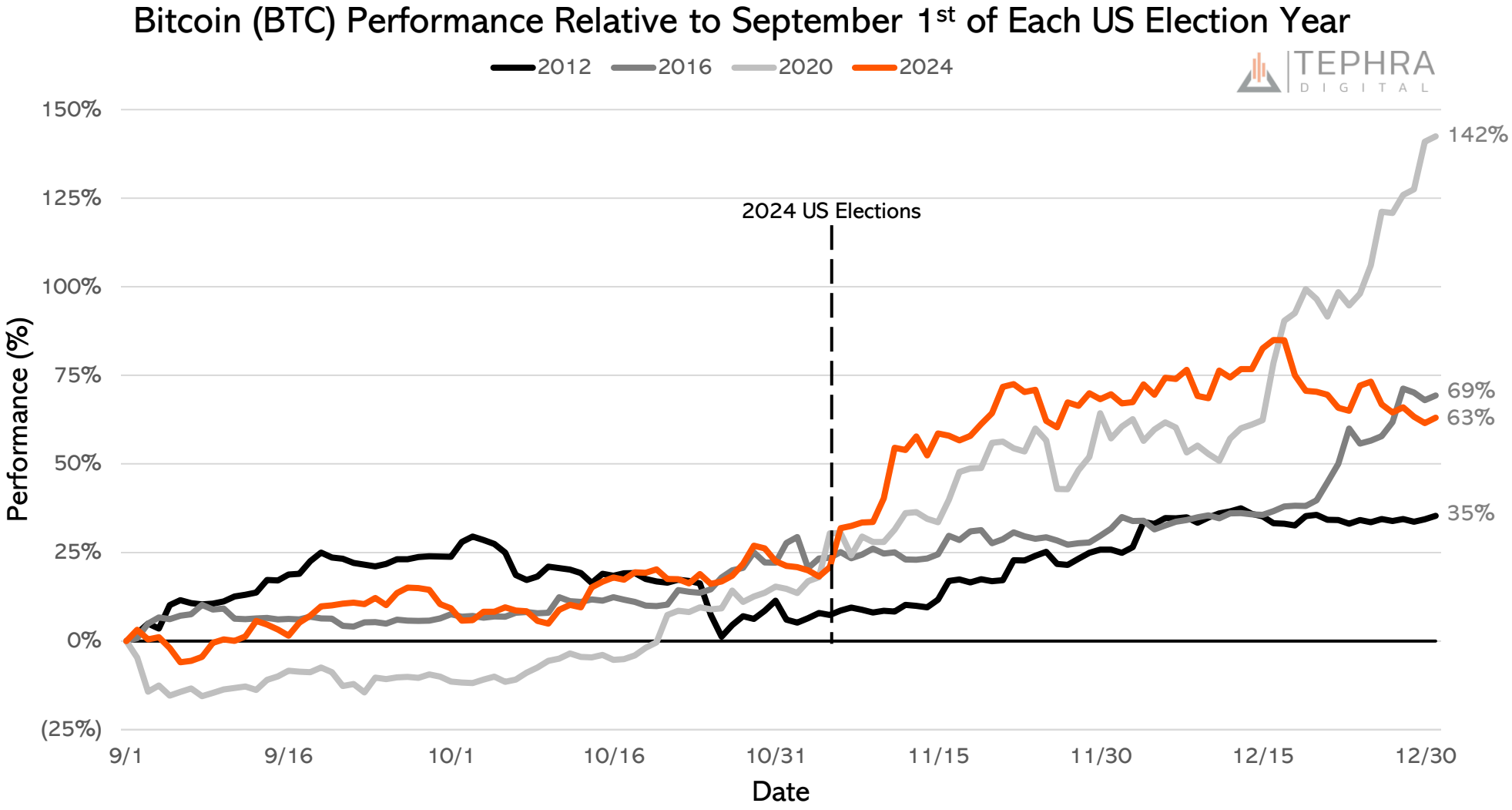
Gold Appears to Be a Leading Indicator of Bitcoin (BTC) Performance. Key Attributes of BTC May Position it as a Reserve Asset of the Future



Note: Performance refers to the daily closing prices of Bitcoin (BTC) and gold relative to their closing prices on 1/1/2020. Bitcoin (BTC) performance is shown with a 200-day lag to gold, so labelled events appear 200 days earlier on the x-axis. The Bitcoin (BTC) 200-day implied price is calculated by dividing recent Bitcoin performance by gold performance and multiplying by Bitcoin's closing price on 1/1/2020. Data is as of 9/24/2024.
Sources: Artemis and the World Gold Council.

CHART #39

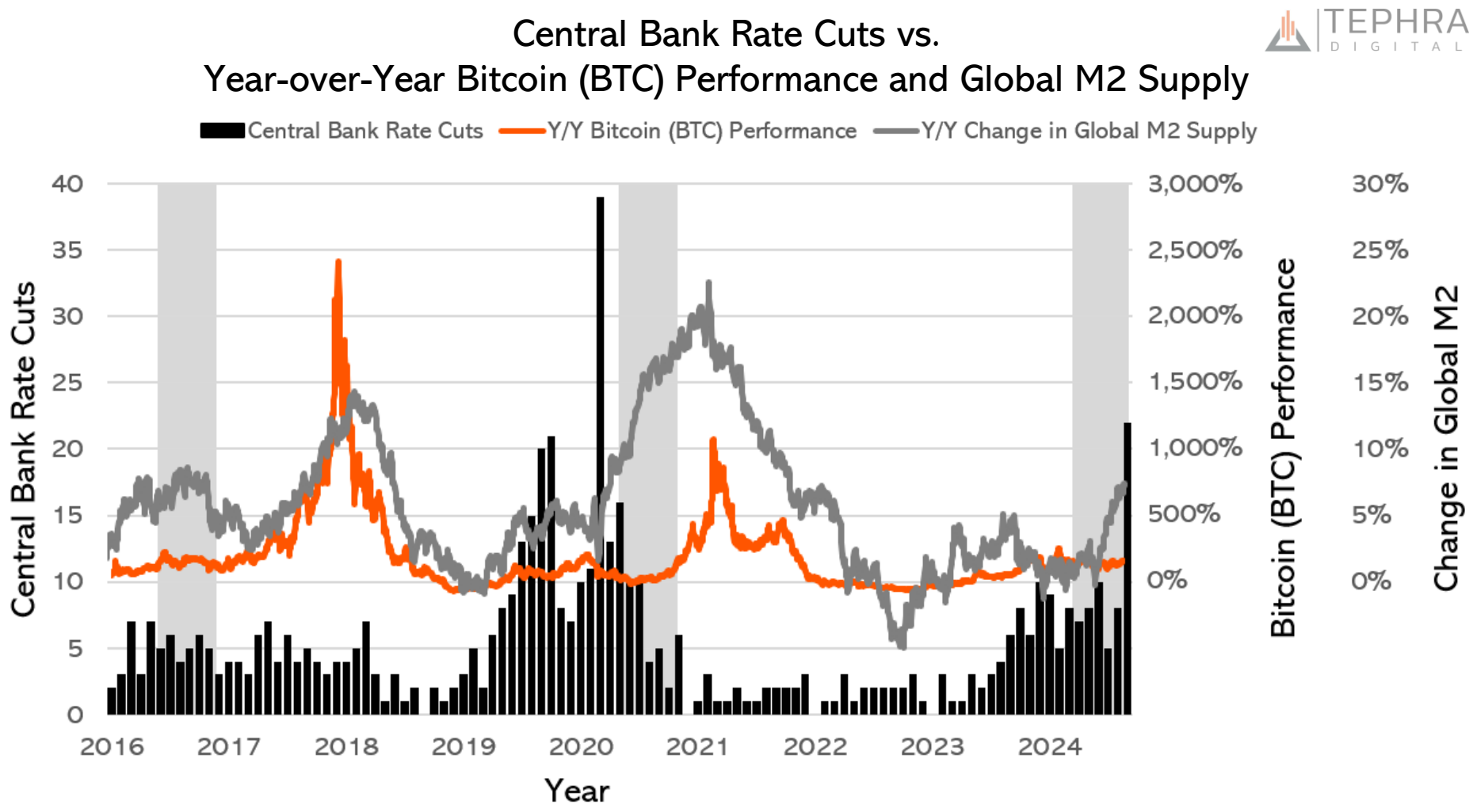
Historically, Bitcoin (BTC) Has Demonstrated Strong Returns Following US Presidential Elections - Regardless of the Outcome



Note: Bitcoin (BTC) Performance denotes the closing price of Bitcoin (BTC) for each day following September 1st, relative to its closing price on September 1st for each US election year since Bitcoin (BTC) inception in 2009. Data is as of 1/1/2025.
Source: Artemis.

CHART #40

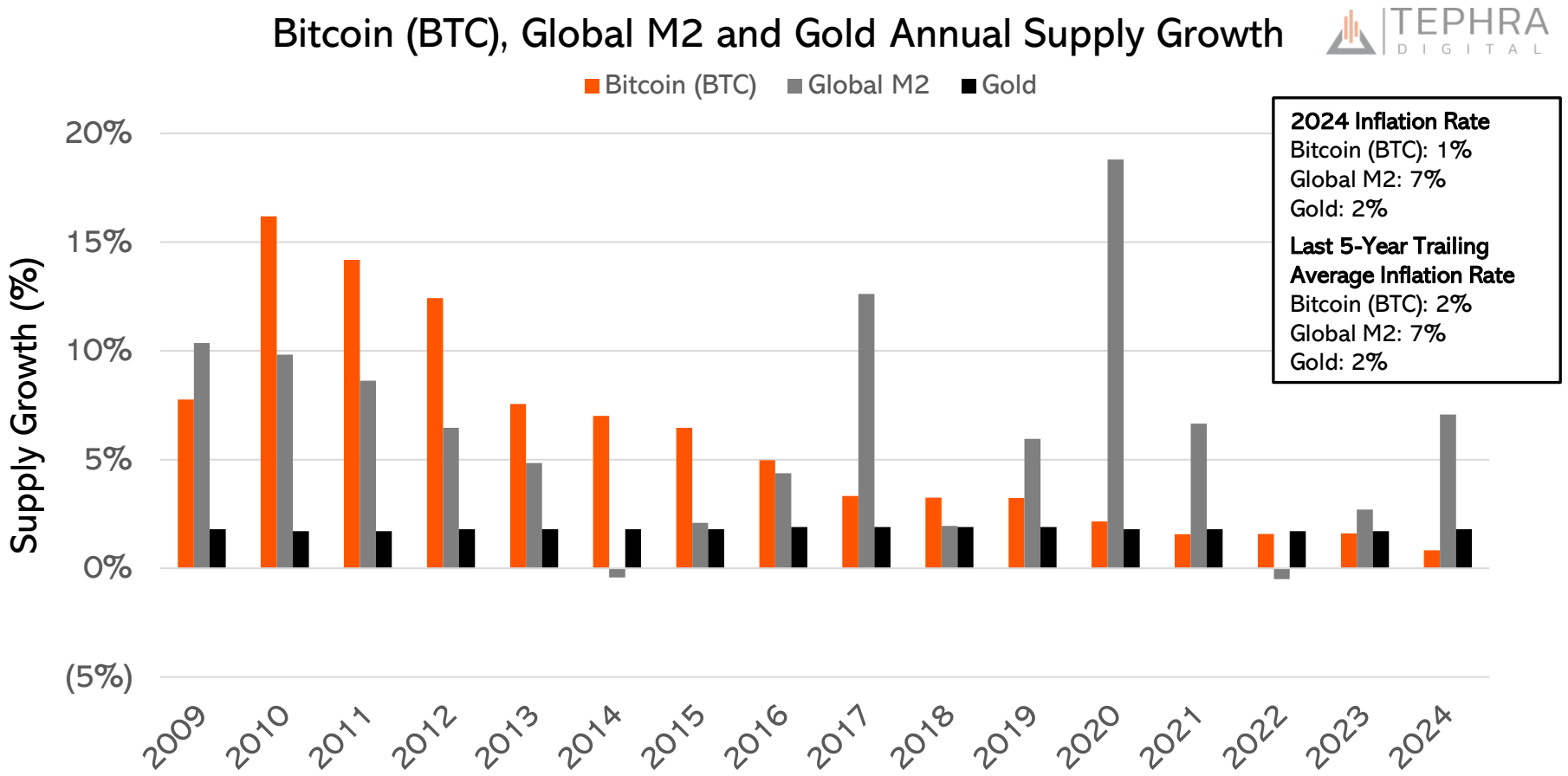
Central Bank Rate Cuts (Largest Since 2020) Typically Lead to Global Money Supply Growth. Historically, This Has Driven Significant Increases in the Price of Bitcoin (BTC)



Note: Central Bank Rate Cuts refers to a sample of 52 central banks. Y/Y Change in Global M2 assumes 252 trading days per year. Shaded areas indicate Bitcoin halving dates and the six months that follow. Data is as of 9/27/2024.
Sources: Bloomberg and Artemis.

CHART #41

Bitcoin (BTC) Is Scarcer Than Gold Based on its Current Supply Growth Rate. Unlike the Large and Irregular Increases in Global Money Supply (M2), BTC Supply Growth Is Both Predictable and Declining, Making It Increasingly Differentiated Over Time



Note: Bitcoin (BTC) figures represent the year-over-year nominal supply growth as a percentage of the 21 million total BTC issuance. Global M2 figures represent the year-over-year supply growth. Gold figures represent the year-over-year supply growth from mining production. The 2024 Bitcoin (BTC) estimate is based on year-to-date supply growth through September 2024 and assumes an average of 450 BTC mined per day for the remainder of the year. The 2024 Global M2 estimate is based on year-to-date supply growth through September 2024 with respect to the same timeframe in 2023. The 2009 and 2024 gold figures are estimated based on average historical supply growth figures from 2010 through 2023. Data is as of 10/3/2024.
Sources: Bloomberg, Glassnode and the World Gold Council.

CHART #43

An Analysis of Bitcoin and S&P 500 Historical Seasonality Trends Suggests Strong Performance in October, Particularly Following the Conclusion of a Notable Holiday Period

Bitcoin (BTC) and S&P 500 Returns Through Jewish Holidays and October

Year	Rosh Hashanah	Yom Kippur	BTC	S&P 500	BTC (October)	S&P 500 (October)
2010	9/8/2010	9/18/2010	0.0%	1.9%	211.0%	3.8%
2011	9/28/2011	10/8/2011	(16.4%)	0.5%	(36.5%)	10.9%
2012	**9/16/2012**	**9/26/2012**	**3.6%**	**(2.7%)**	**(10.0%)**	**(1.8%)**
2013	9/4/2013	9/14/2013	1.5%	2.2%	61.2%	4.6%
2014	9/24/2014	10/4/2014	(22.4%)	(1.5%)	(14.9%)	2.4%
2015	9/13/2015	9/23/2015	1.6%	(1.6%)	36.7%	8.5%
2016	**10/2/2016**	**10/12/2016**	**3.7%**	**(1.2%)**	**18.8%**	**(1.7%)**
2017	9/20/2017	9/30/2017	19.8%	0.5%	54.4%	2.4%
2018	9/9/2018	9/19/2018	2.0%	1.3%	(3.9%)	(6.9%)
2019	9/29/2019	10/9/2019	6.3%	(1.4%)	10.6%	2.2%
2020	**9/18/2020**	**9/28/2020**	**(2.3%)**	**1.1%**	**27.9%**	**(2.5%)**
2021	9/6/2021	9/16/2021	(9.2%)	(1.3%)	40.2%	7.0%
2022	9/25/2022	10/5/2022	7.2%	2.5%	5.2%	8.1%
2023	9/15/2023	9/25/2023	(1.3%)	(2.5%)	28.6%	(2.2%)
2024	**10/4/2024**	**10/12/2024**	**1.8%**	**1.2%**	**(0.1%)**	**0.5%**
Average			**(0.3%)**	**(0.1%)**	**28.6%**	**2.4%**

Note: S&P 500 figures refer to the SPDR S&P 500 ETF Trust (SPY). BTC and S&P 500 columns refer to the performance from Rosh Hashanah through Yom Kippur of each year. If the referenced date falls on a non-trading day, the prior day's closing price is used to calculate returns. Years including Bitcoin halvings and U.S. elections are highlighted in bold. 2009 is excluded as Bitcoin (BTC) price data is unavailable before July 2010. Bitcoin (BTC) data is based on a UTC 0:00 close, while S&P 500 data reflects the 4:00 PM EST market close. 2024 October figures are not finalized, as all data is as of 10/12/2024.

Sources: Artemis and Bloomberg.

CHART #44

Fiat Currencies Around the Globe Have Been Devalued Significantly Since 2000, as Economic Growth Has Come at the Cost of Ballooning Central Bank Balance Sheets. This May Underscore the Rising Popularity of Bitcoin as a Preferred Monetary Standard. Indeed, 1 BTC Is Still 1 BTC

TEPHRA DIGITAL

1 BTC is Still 1 BTC

Implied Fiat Currency Devaluations Since 2000

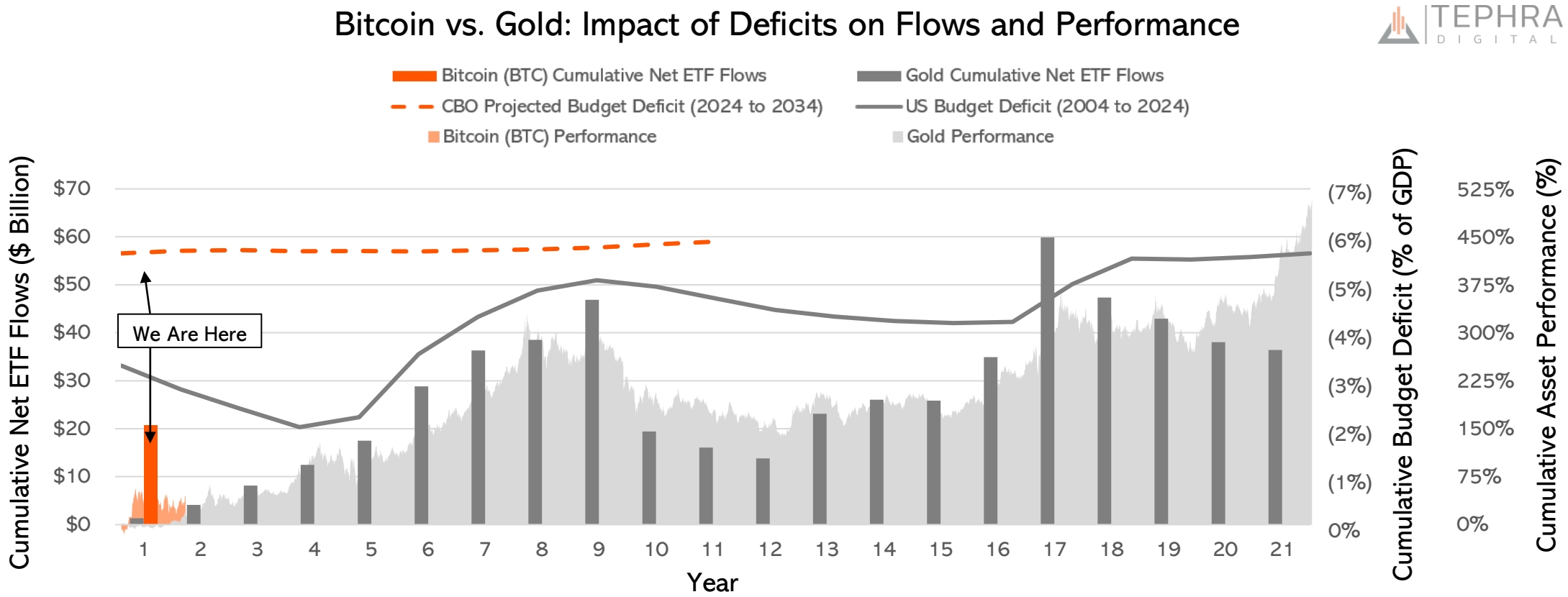
	2000 to 2007			2000 to 2019			2000 to 2024		
	GDP Increase	CB Balance Sheet	Implied Devaluation	GDP Increase	CB Balance Sheet	Implied Devaluation	GDP Increase	CB Balance Sheet	Implied Devaluation
US	1.5x	1.3x	12%	2.2x	6.2x	(64%)	2.9x	10.6x	(72%)
China	3.2x	5.8x	(44%)	13.1x	12.8x	2%	16.9x	15.7x	8%
EU	1.8x	1.9x	(6%)	1.9x	6.2x	(69%)	2.2x	8.5x	(74%)
Japan	1.0x	1.0x	2%	1.0x	5.1x	(80%)	1.2x	6.8x	(83%)
India	2.7x	3.0x	(11%)	6.2x	15.9x	(61%)	8.3x	20.9x	(60%)
UK	1.5x	3.1x	(52%)	2.1x	25.0x	(92%)	2.6x	35.5x	(93%)
Canada	1.5x	1.3x	23%	2.3x	2.8x	(19%)	2.9x	6.5x	(55%)
Brazil	2.5x	2.9x	(15%)	6.7x	13.2x	(49%)	10.1x	18.4x	(45%)
Australia	1.8x	1.8x	1%	3.1x	3.4x	(9%)	4.1x	8.3x	(50%)
Mexico	2.0x	2.2x	(11%)	4.0x	7.9x	(50%)	5.1x	9.9x	(48%)
Switzerland	1.3x	1.2x	8%	1.6x	8.2x	(81%)	1.8x	7.7x	(77%)
Average	1.9x	2.3x	(8%)	4.0x	9.7x	(52%)	5.3x	13.5x	(59%)

Note: Devaluation is measured by comparing GDP growth with the expansion of central bank balance sheet (CB B/S) assets for each country since 2000. CB B/S multiples are based on year-end figures (December 31st), except for the UK (end of February) and India (end of June for 2000, 2007, and 2019, and March for 2024 to reflect changes in fiscal year dates). GDP values represent annualized Q4 data, except for China and India, which use full-year GDP. The year 2000 serves as the baseline for comparison. For 2024, GDP figures for the US, Japan, Canada, Brazil, Australia, and Switzerland are seasonally-adjusted Q2 figures, while figures for the EU, UK, and Mexico are from Q1 2024. 2024 GDP figures for China and India are estimates according to the IMF. Balance sheet data for the US, Japan, UK, Canada, Brazil, and Mexico are through September 2024, while figures for China, the EU, and Switzerland are through August 2024. India's balance sheet data is through March 2024. Data is as of 10/16/2024.

Sources: Bloomberg, Federal Reserve Bank of St. Louis, People's Bank of China, Reserve Bank of India, European Central Bank, Bank of England, Government of Canada Statistics, Banco Central do Brasil, Reserve Bank of Australia, Swiss National Bank and the International Monetary Fund (IMF).

CHART #47

The Past May be Prologue: Our Pattern Recognition of Gold Price Performance in the Wake of Swelling US Budget Deficits Suggests Significant Long-Term Appreciation for Bitcoin. Importantly, Based on First Year Net ETF Flows, Bitcoin's Performance Could Follow an Accelerated Trajectory

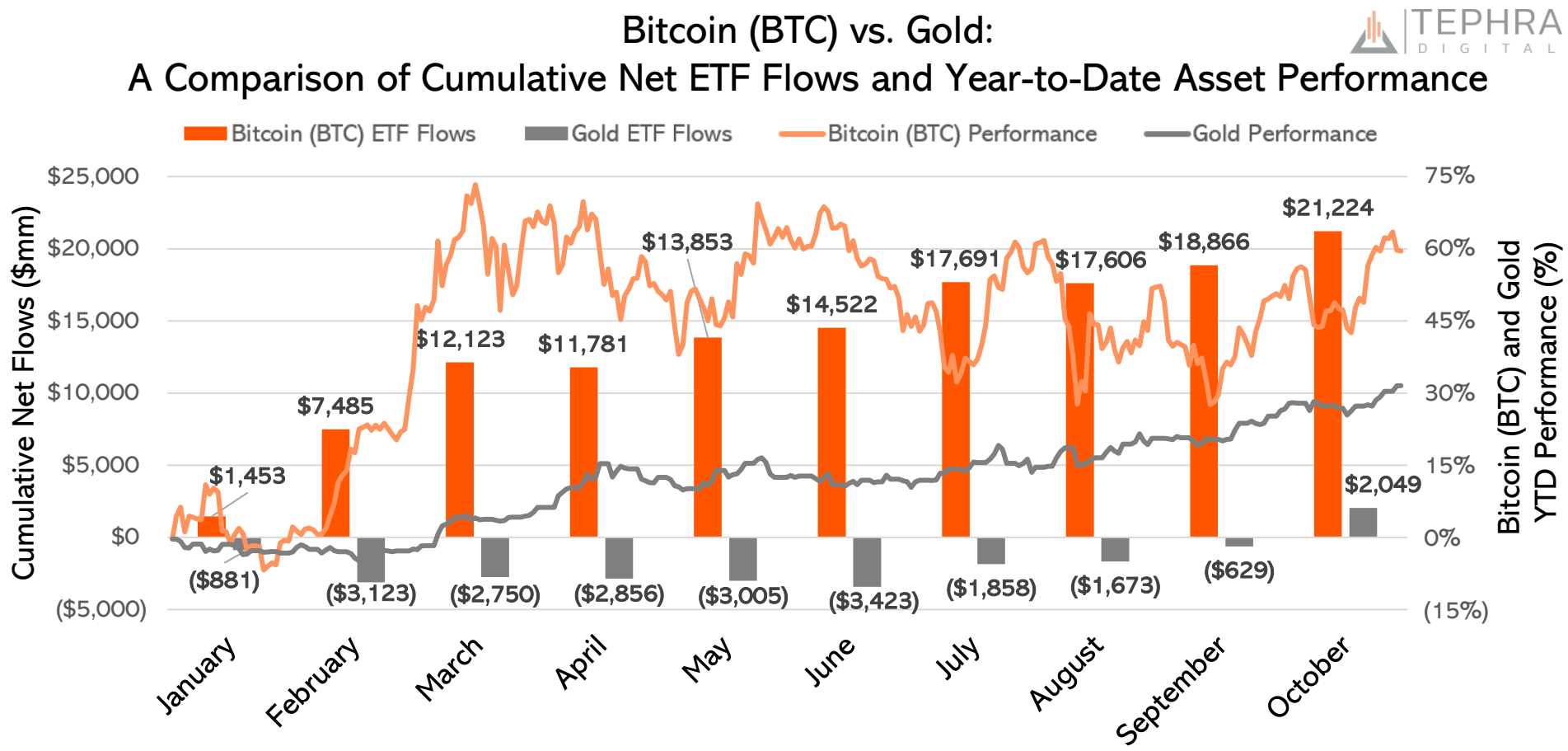


Note: Cumulative net flows for Bitcoin (BTC) and gold ETFs represent the aggregate net flows for each calendar year since their respective ETF launches. Gold ETFs include the SPDR Gold Shares ETF (GLD) and the iShares Gold Trust (IAU). Bitcoin ETFs include the iShares Bitcoin Trust ETF (IBIT), Grayscale Bitcoin Trust (GBTC), Fidelity Wise Origin Bitcoin Fund (FBTC), ARK 21Shares Bitcoin ETF (ARKB), Bitwise Bitcoin ETF (BITB), Grayscale Bitcoin Mini Trust (BTC), VanEck Bitcoin ETF (HODL), CoinShares Valkyrie Bitcoin Fund (BRRR), Invesco Galaxy Bitcoin ETF (BTCO), Franklin Bitcoin ETF (EZBC), and WisdomTree Bitcoin Fund (BTCW). Budget deficit figures reflect the cumulative average U.S. budget deficit as a percentage of GDP from fiscal years starting in 2004, with the orange line reflecting CBO projected from 2024 through 2034. Cumulative asset performance tracks the daily closing price of gold and Bitcoin (BTC) relative to their ETF launch dates (11/18/2004 and 1/11/2024, respectively). Data is current as of 10/21/2024.

Sources: Artemis, Bloomberg, the Federal Reserve Bank of St. Louis, the US Congressional Budget Office and the World Gold Council.

CHART #48

While Gold Has Been a Big Story this Year, Bitcoin (BTC) Is the Much Bigger Story in Terms of Performance as well as Net ETF Flows. We Expect Tailwinds for Bitcoin (BTC) Could Build on this Momentum

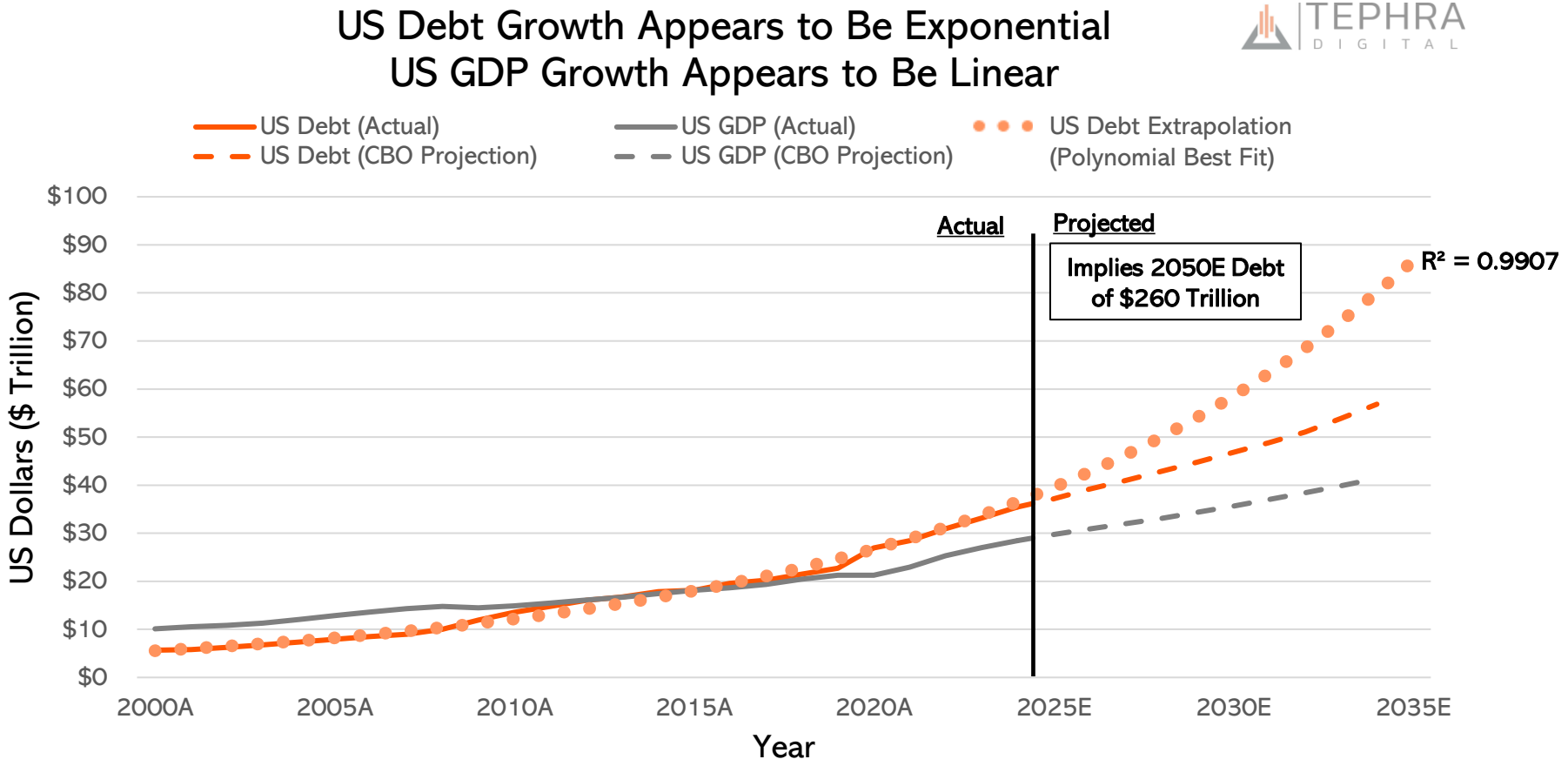


Note: Cumulative net flows are point-in-time metrics taken from the last day of each month, except for October, where the latest data reflects flows through 10/22/2024. All ETF flow figures represent cumulative flows since the launch of Bitcoin (BTC) ETFs on 1/11/2024. Bitcoin (BTC) and gold year-to-date performance measures each asset's closing relative to the closing price on 12/31/2023. Gold ETF flows are calculated by multiplying the daily change in ETF gold holdings by the daily gold price. Gold ETFs include the SPDR Gold Shares ETF (GLD) and the iShares Gold Trust (IAU). Bitcoin (BTC) ETFs include the iShares Bitcoin Trust ETF (IBIT), Grayscale Bitcoin Trust (GBTC), Fidelity Wise Origin Bitcoin Fund (FBTC), ARK 21Shares Bitcoin ETF (ARKB), Bitwise Bitcoin ETF (BITB), Grayscale Bitcoin Mini Trust (BTC), VanEck Bitcoin ETF (HODL), CoinShares Valkyrie Bitcoin Fund (BRRR), Invesco Galaxy Bitcoin ETF (BTCO), Franklin Bitcoin ETF (EZBC), and WisdomTree Bitcoin Fund (BTCW). Data is as of 10/22/2024.

Sources: Artemis, Bloomberg and the World Gold Council.

CHART #50

The Growth of US Debt Has Significantly Outpaced the Growth of US GDP. The Rise of Bitcoin (BTC), Which Is Insulated from the Forces of Monetary Debasement, Is Likely to Continue as US Debt Growth Seems to be Following an Exponential Trajectory

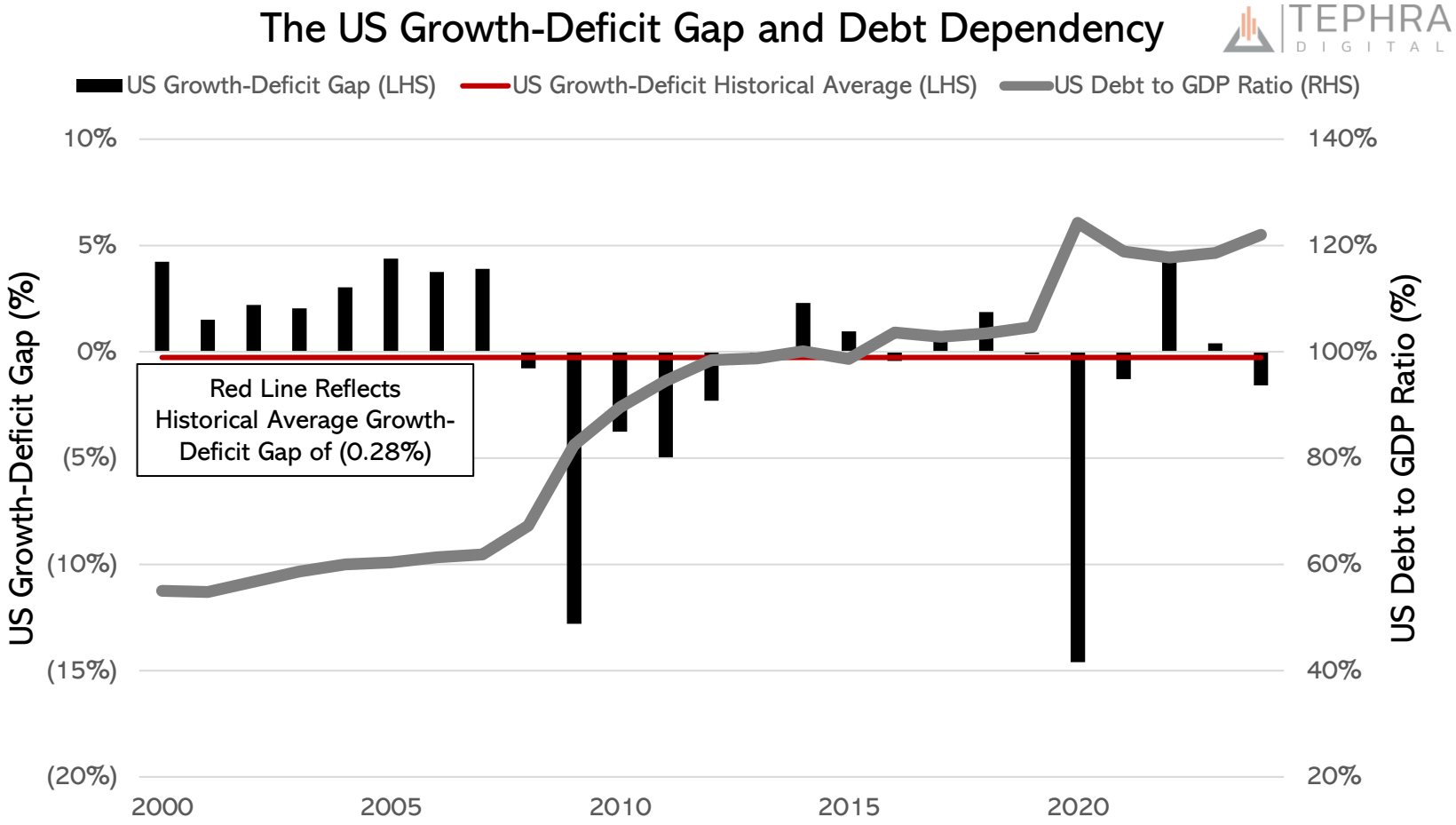


Note: The extrapolation, or "polynomial best fit," is a curve represented by actual historical data points used to generate predicted values through a process of error minimization that continues the existing trend. Historical debt figures are point-in-time metrics from the end of each U.S. fiscal year from 2000 through 2024. Debt projections refer to estimates from the United States Congressional Budget Office (CBO). Historical GDP figures are annual values from each fiscal year from 2000 through 2023, with GDP projections also sourced from the CBO. The U.S. debt extrapolation refers to an exponential best-fit line that yields an R-squared value of 0.99 based on historical debt figures from 2000 through 2024. This best-fit line is used to estimate the U.S. debt for 2050. Data is as of 10/24/2024.

Sources: The Federal Reserve Bank of St. Louis and the US Congressional Budget Office.

CHART #51

Historical US GDP Growth Has Relied Heavily on US Government Deficits. Even with High Deficit Spending, US GDP Growth Rates Have Trailed the Rate of Deficit Expansion. Future US GDP Growth Seems Increasingly Dependent on Significant US Debt Growth. This Underscores the Independence and Protection Afforded by Bitcoin (BTC)



Note: The Growth-Deficit Gap is calculated by subtracting the annual U.S. budget deficit as a percentage of nominal GDP from the year-over-year nominal GDP growth rate. The U.S. Debt to GDP Ratio refers to point-in-time figures from the end of each fiscal year, except for 2024, where it incorporates the most recent debt data available as of 10/30/2024, instead of the fiscal year-end figure. All figures are historical values from fiscal years 2000 through 2024. Data is as of 10/30/2024.
Sources: Bloomberg and the United States Treasury.

CHART #54

U.S. Presidential Elections Have Served as a Clearing Event for Bitcoin (BTC) Performance. Historical Data Shows that, Between Bitcoin Halving Cycles, Daily Average Returns Are 3.6x Greater After U.S. Presidential Elections than Before

Bitcoin (BTC) Performance: Before and After US Presidential Elections

Halving Date	US Presidential Election Date	Halving to Election Performance	Implied Average Daily Performance	Election to Next Halving Performance	Implied Average Daily Performance
11/28/12	11/6/12	N/A	N/A	13%	0.61%
7/9/16	11/8/16	11%	0.09%	1,093%	0.85%
5/11/20	11/3/20	63%	0.36%	364%	0.29%
4/20/24	11/5/24	18%	0.09%	N/A	N/A
		Average	0.18%	Average	0.57%

Average Daily Return Increase Post-Election: 3.6x

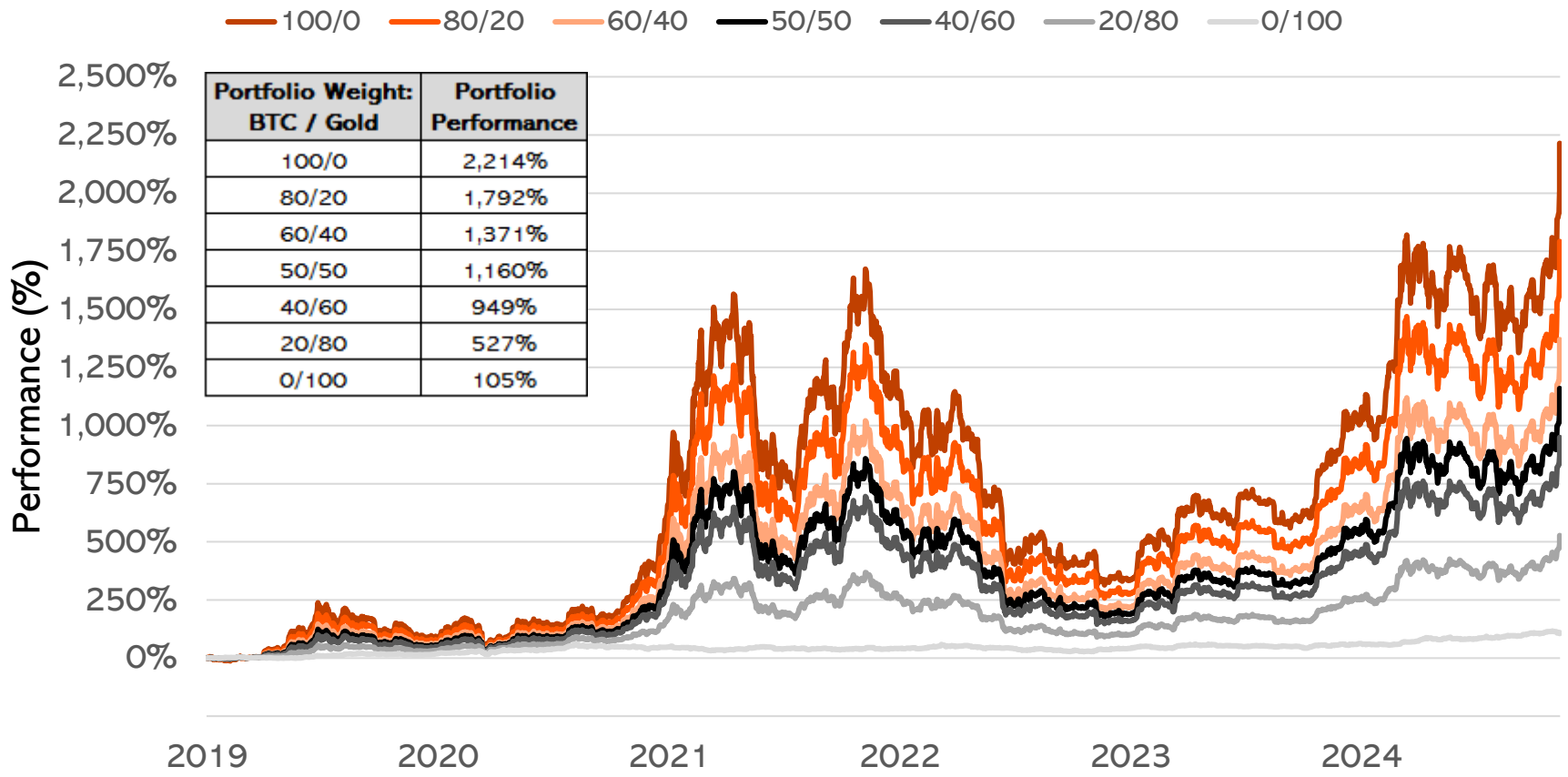
Note: Halving to Election Performance is calculated as the percentage change between Bitcoin (BTC) closing price on each US presidential election date and the closest prior halving event. The first row is unavailable because the first Bitcoin halving occurred after the US presidential election in that same year. Because the 2024 US Presidential Election has not occurred as of this analysis, figures in the last row use Bitcoin's price as of 12 p.m. EST on 11/4/2024. Election to Next Halving Performance is calculated as the percentage change between Bitcoin (BTC) closing price on each halving date and the closest prior US presidential election. The last row is unavailable because, as of this analysis, there has not been a halving event following the 2024 US presidential election. Implied Average Daily Performance is calculated by dividing the cumulative performance between each event by the number of days in that period. Data is as of 11/4/2024.

Sources: Artemis and Coin Metrics.

CHART #59

"Diworsification" was Coined by Peter Lynch in his 1989 book, "One Up on Wall Street." Investors Who Diversify their Portfolio with Gold Rather than Bitcoin (BTC) Appear to be Meaningfully Sacrificing their Overall Returns

Performance of a Bitcoin (BTC) and Gold Portfolio with Varied Amounts of Bitcoin (BTC) Exposure

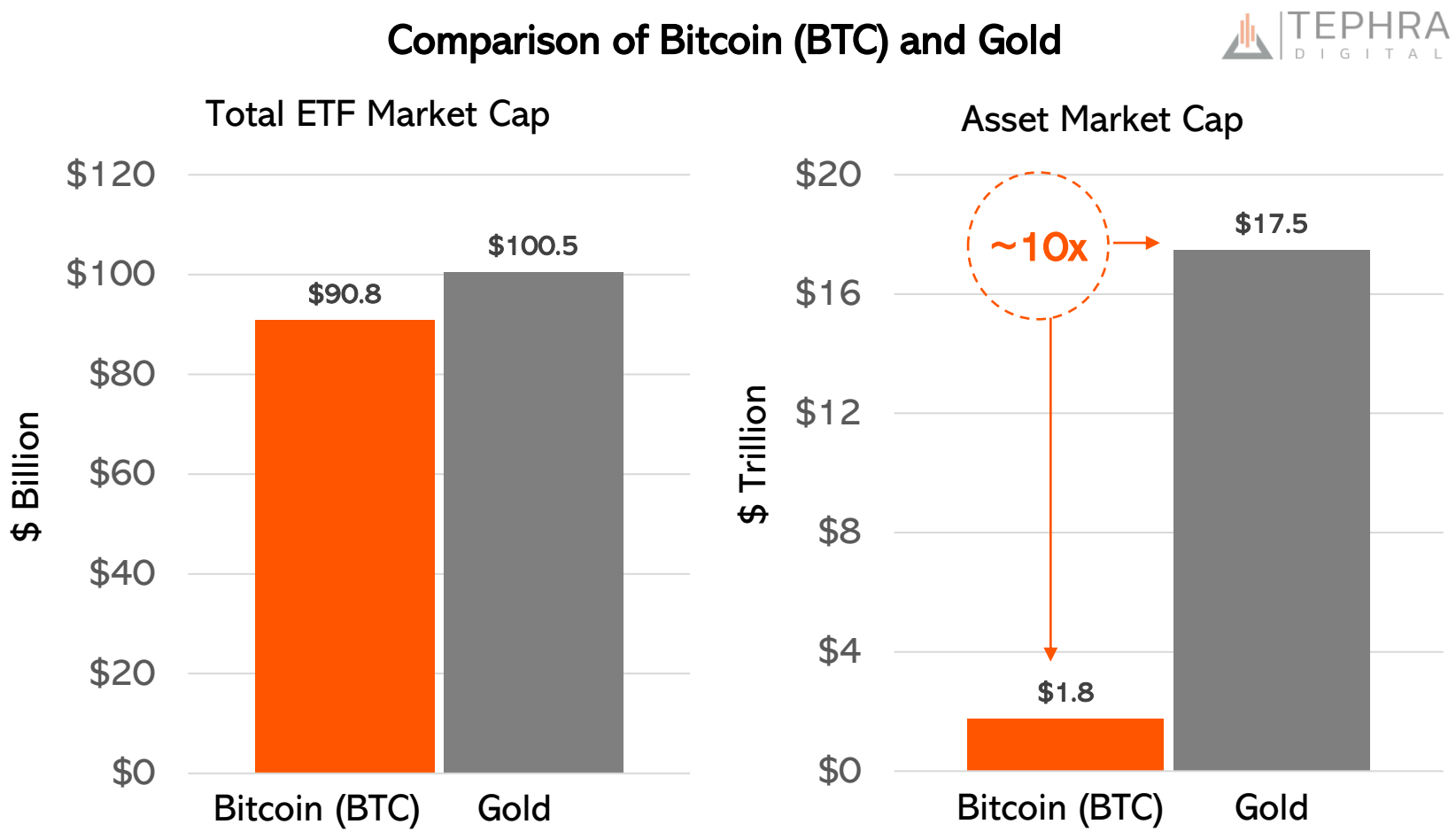


Portfolio Weight: BTC / Gold	Portfolio Performance
100/0	2,214%
80/20	1,792%
60/40	1,371%
50/50	1,160%
40/60	949%
20/80	527%
0/100	105%

Note: Performance is calculated based on the daily closing prices of Bitcoin (BTC) and gold, using 1/1/2019 as the starting point. Each line represents a different BTC-to-gold allocation in the portfolio. The table displays the cumulative performance of each allocation from 1/1/2019 through 11/11/2024, assuming an initial investment at market close on the start date.
Data is as of 11/12/2024.
Sources: Artemis and the World Gold Council.

CHART #61

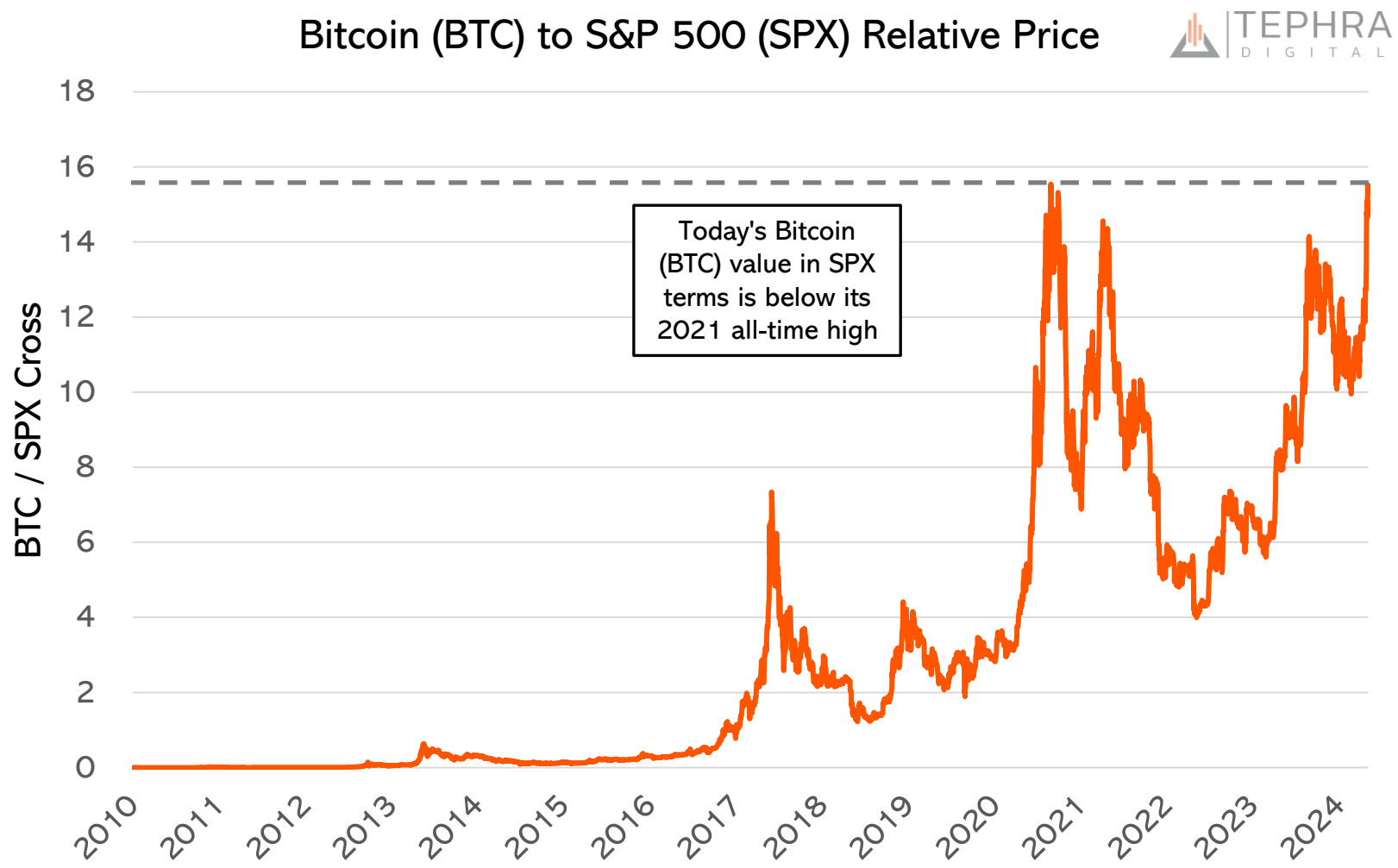
In Just 10 Short Months, Bitcoin (BTC) ETFs Have Nearly Eclipsed the Size of Gold ETFs, which had a 20-Year Head Start. How Long Until Bitcoin's Market Capitalization Surpasses that old (a 10x Increase in Bitcoin Price)?



Note: Bitcoin (BTC) ETF market cap includes the iShares Bitcoin Trust ETF (IBIT), Grayscale Bitcoin Trust (GBTC), Fidelity Wise Origin Bitcoin Fund (FBTC), ARK 21Shares Bitcoin ETF (ARKB), Bitwise Bitcoin ETF (BITB), Grayscale Bitcoin Mini Trust (BTC), VanEck Bitcoin ETF (HODL), CoinShares Valkyrie Bitcoin Fund (BRRR), Invesco Galaxy Bitcoin ETF (BTCO), Franklin Bitcoin ETF (EZBC), and WisdomTree Bitcoin Fund (BTCW). Gold ETF market cap includes the SPDR Gold Shares ETF (GLD) and the iShares Gold Trust (IAU). ETF Market cap figures are point-in-time metrics from market close on 11/14/2024. Gold asset market cap is calculated by multiplying the above-ground gold stock by gold price per ounce at market close on 11/14/2024.
Sources: Artemis, Bloomberg and the World Gold Council.

CHART #63

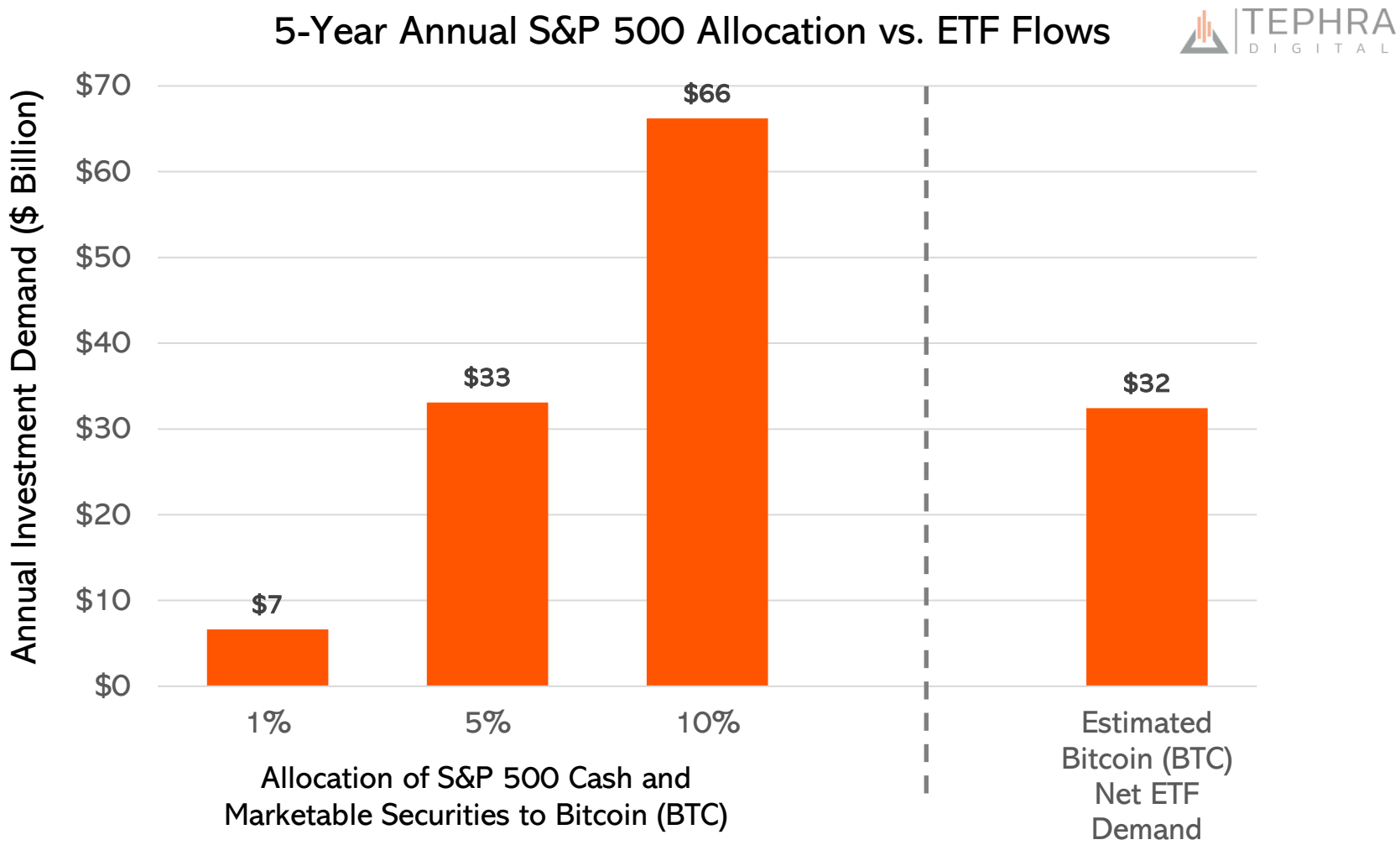
Bitcoin (BTC) at $92,000 Is Actually $61,000 on an S&P 500 Price Adjusted Basis. This Suggests that Bitcoin (BTC) May Not be as "Stretched" As Some Investors Believe from Viewing the Latest Chart



Note: The BTC/SPX cross is calculated by dividing Bitcoin (BTC) price by the S&P 500 (SPX) index value at each market close. The SPX market close is at 4:00 PM EST, while BTC prices are recorded at 12:00 AM UTC. Data is as of 11/18/2024.
Sources: Coin Metrics and Nasdaq.

CHART #64

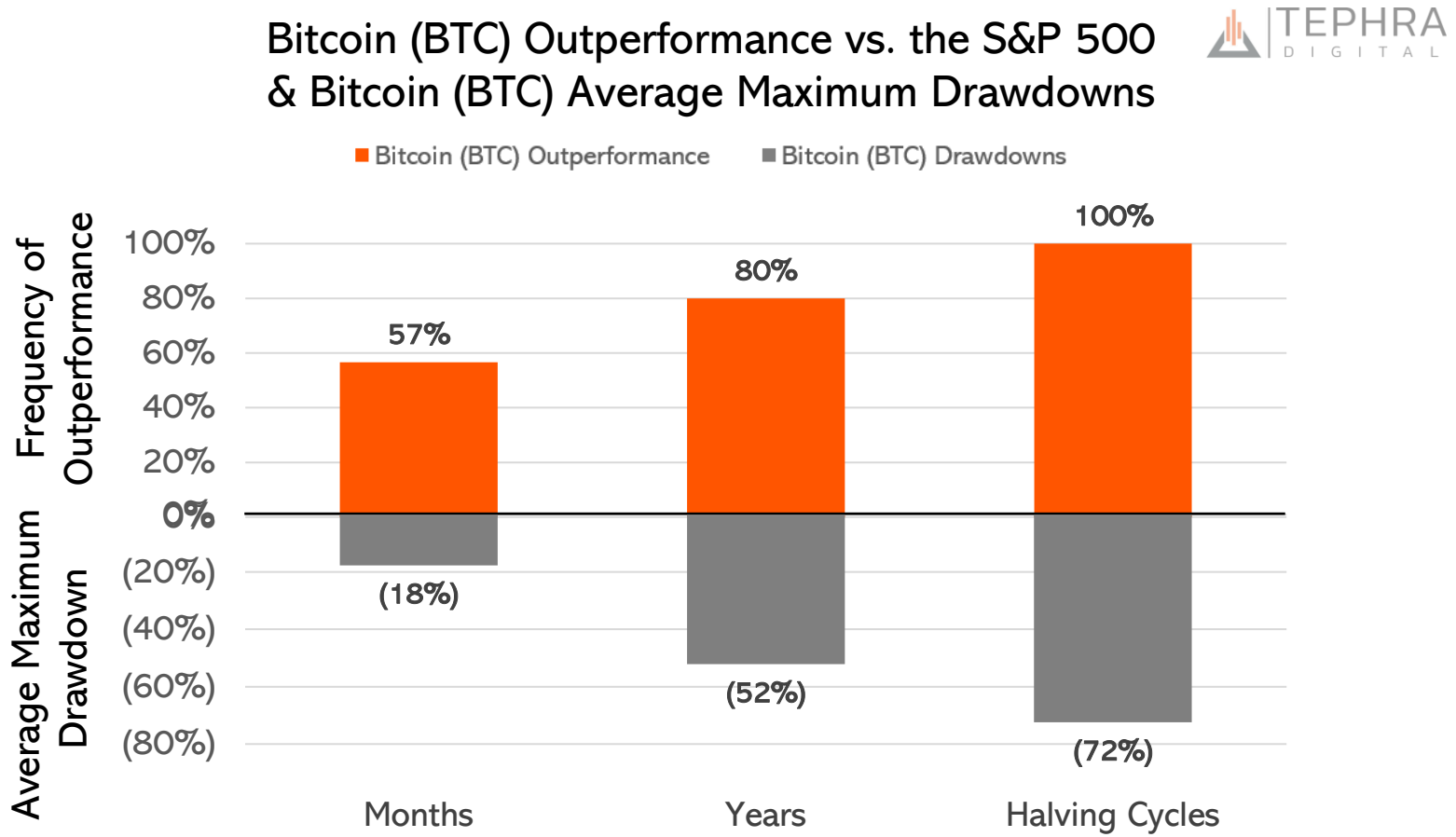
The Adoption of Bitcoin (BTC) on Corporate Balance Sheets Could be Even More Impactful to Demand than Bitcoin ETFs. The Rise of Simultaneous Tailwinds May be Underappreciated by the Market



Note: The figures represent various allocations of the combined total cash and marketable securities held by all S&P 500 companies in the most recent quarter. For banks, only cash and cash equivalents are included. The projections illustrate the potential annual investment demand for Bitcoin over a five-year period. Bitcoin (BTC) ETF Demand reflects the estimated year-end demand for Bitcoin ETFs, based on annualized year-to-date totals. ETFs include tickers IBIT, GBTC, FBTC, ARKB, BITB, BTC, HODL, BRRR, BTCO, EZBC and BTCW. Data is as of 11/19/2024.
Source: Bloomberg.

CHART #67

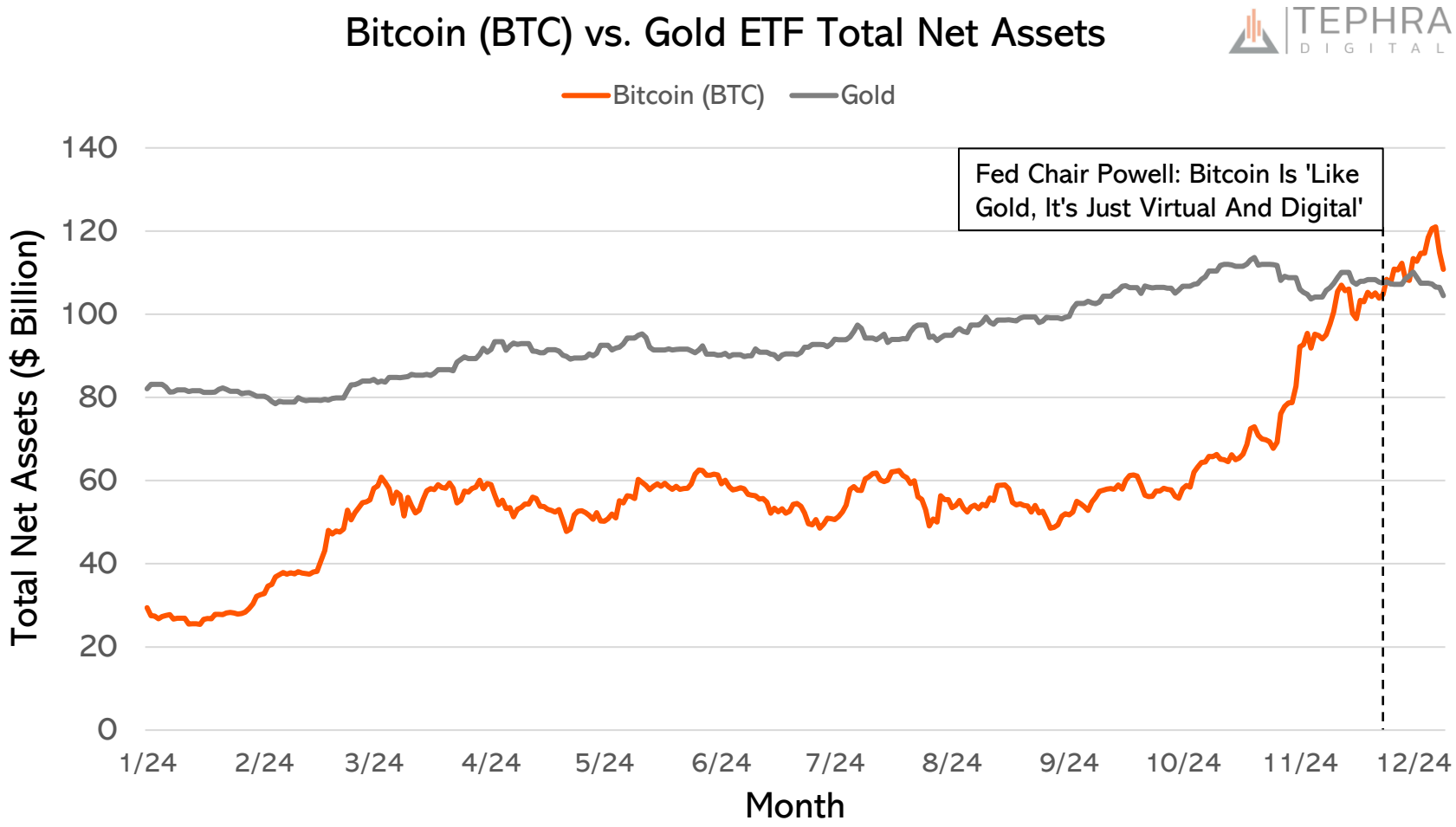
Bitcoin (BTC) Has Consistently Outperformed Equities (the S&P 500 Index) Over Longer Time Horizons — Which Highlights the Importance of a Long-Term Investment Approach. However, the Sharp and Significant Drawdowns — Within Each Timeframe Shown in the Chart Below — Suggest that Active Risk Management is of Paramount Importance



Note: The top bars display the percentage of times Bitcoin (BTC) has outperformed the S&P 500 Index (SPX) across various timeframes since Bitcoin (BTC) began trading on exchanges on 07/18/2010. Performance is measured using daily closing prices at the end of each period relative to the start of each period. If a date does not fall on a trading day, SPX data refers to the closing price from the next earliest trading day. The bottom bars display the average maximum drawdown of Bitcoin (BTC) closing price along various timeframes. Data is as of 11/26/2024.
Sources: Artemis and Bloomberg.

CHART #75

Bitcoin (BTC) ETFs Have Eclipsed Gold ETFs Within the First Year They Were Launched. The Investor Preference for "Digital Gold" May Accelerate Further in 2025 with Increased Understanding and Awareness

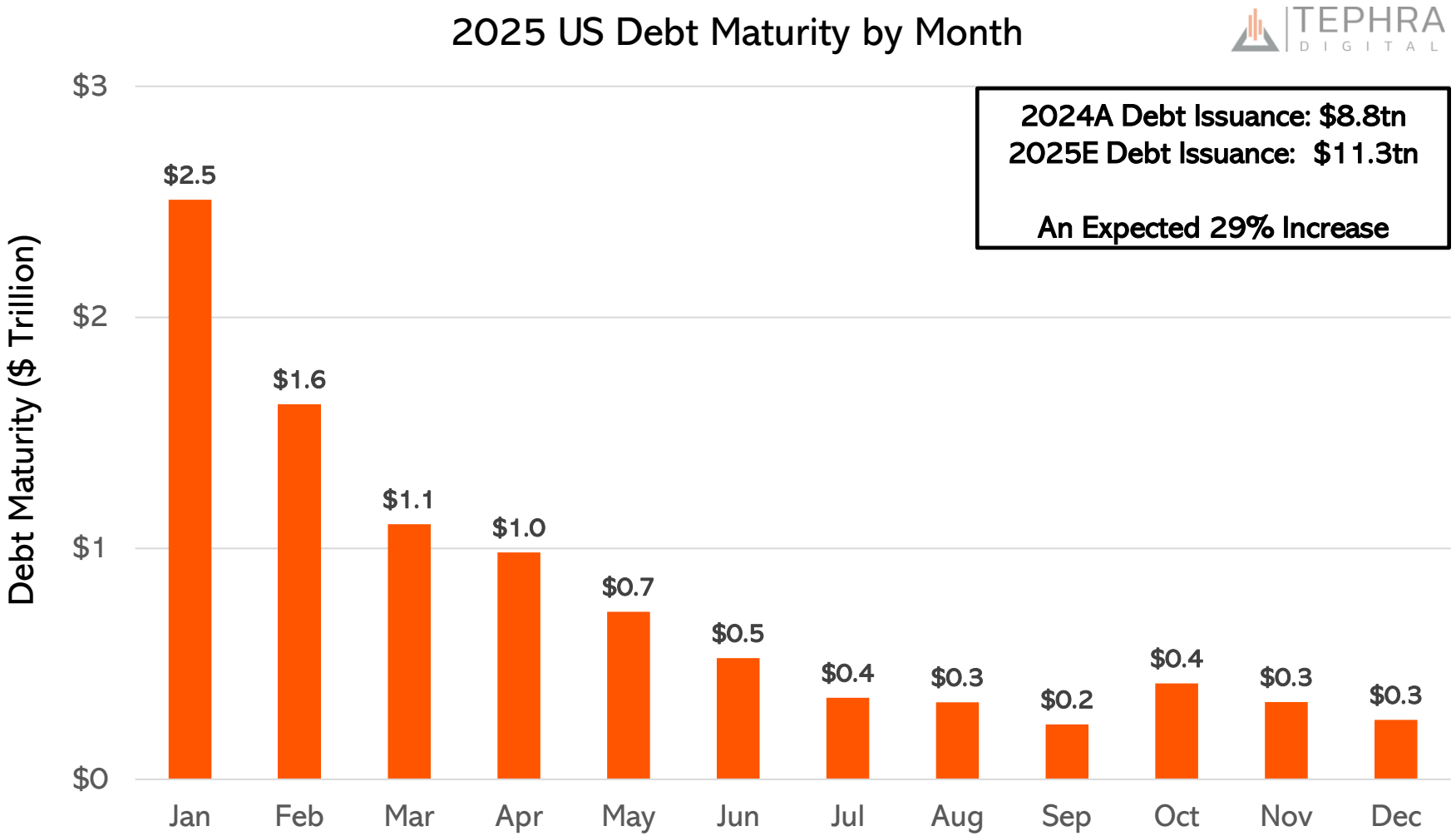


Note: Bitcoin (BTC) ETF total net assets are calculated by multiplying the daily reported Bitcoin (BTC) holdings of each fund by the daily closing price of Bitcoin (BTC). Gold ETF total net assets figures are as reported by State Street and iShares. Bitcoin (BTC) ETFs include tickers IBIT, GBTC, FBTC, ARKB, BITB, BTC, HODL, BRRR, BTCO, EZBC and BTCW. Gold ETFs include tickers GLD and IAU. Data is as of 12/19/2024.

Sources: Bloomberg, State Street and iShares.

CHART #79

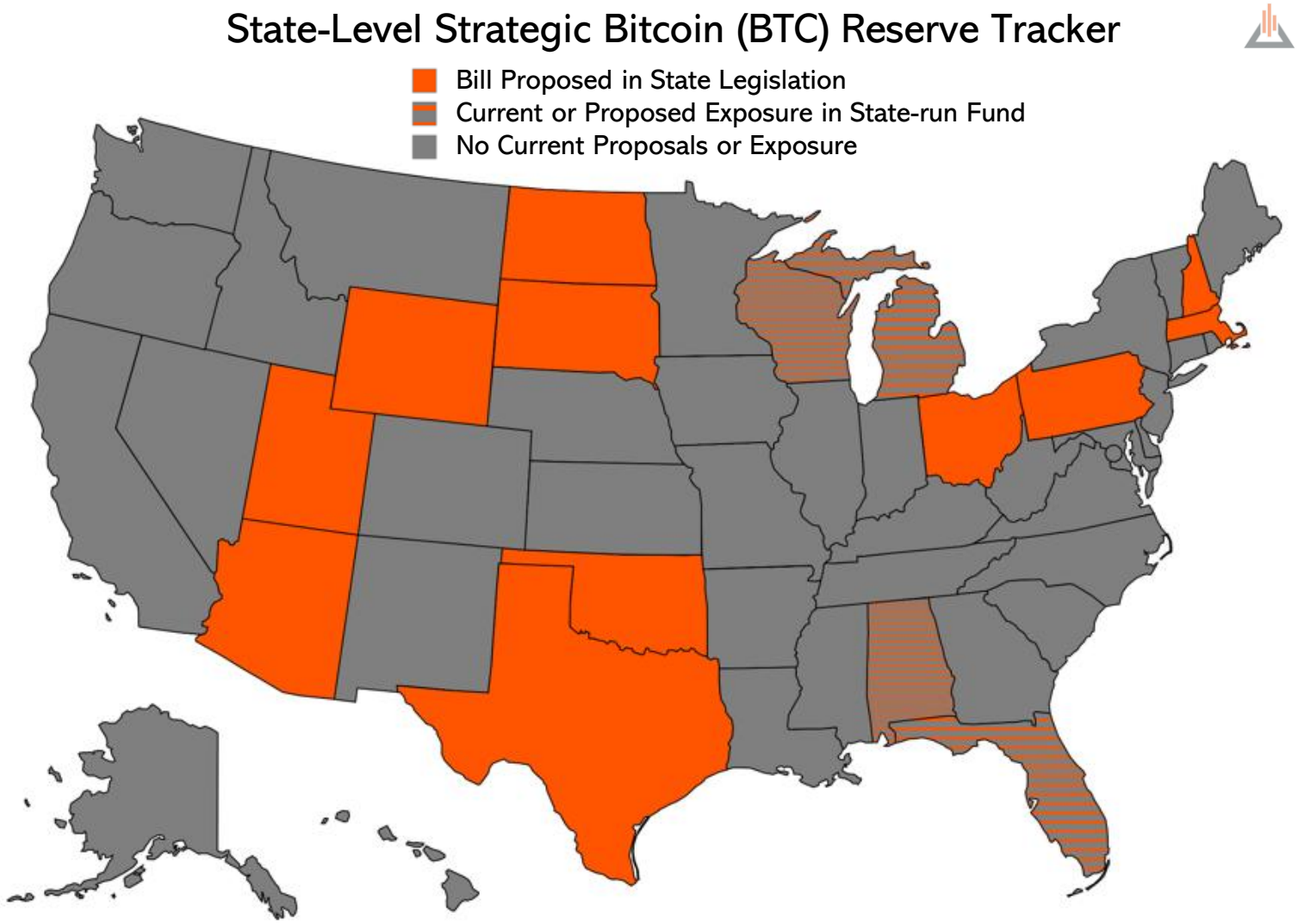
Looming US Government Debt Maturities in 2025, Combined with Ongoing Needs for New Issuance, Could Present Major Challenges to the US Treasury Market and May Catalyze Significant Monetary Support



Note: Figures represent the total principal due within each month of 2025. 2025E Debt Issuance refers to the total debt maturity in 2025 plus the expected $1.9tn budget deficit projected by the CBO in June 2024. Data is as of 12/30/2024.
Sources: Bloomberg and the Congressional Budget Office.

CHART #87

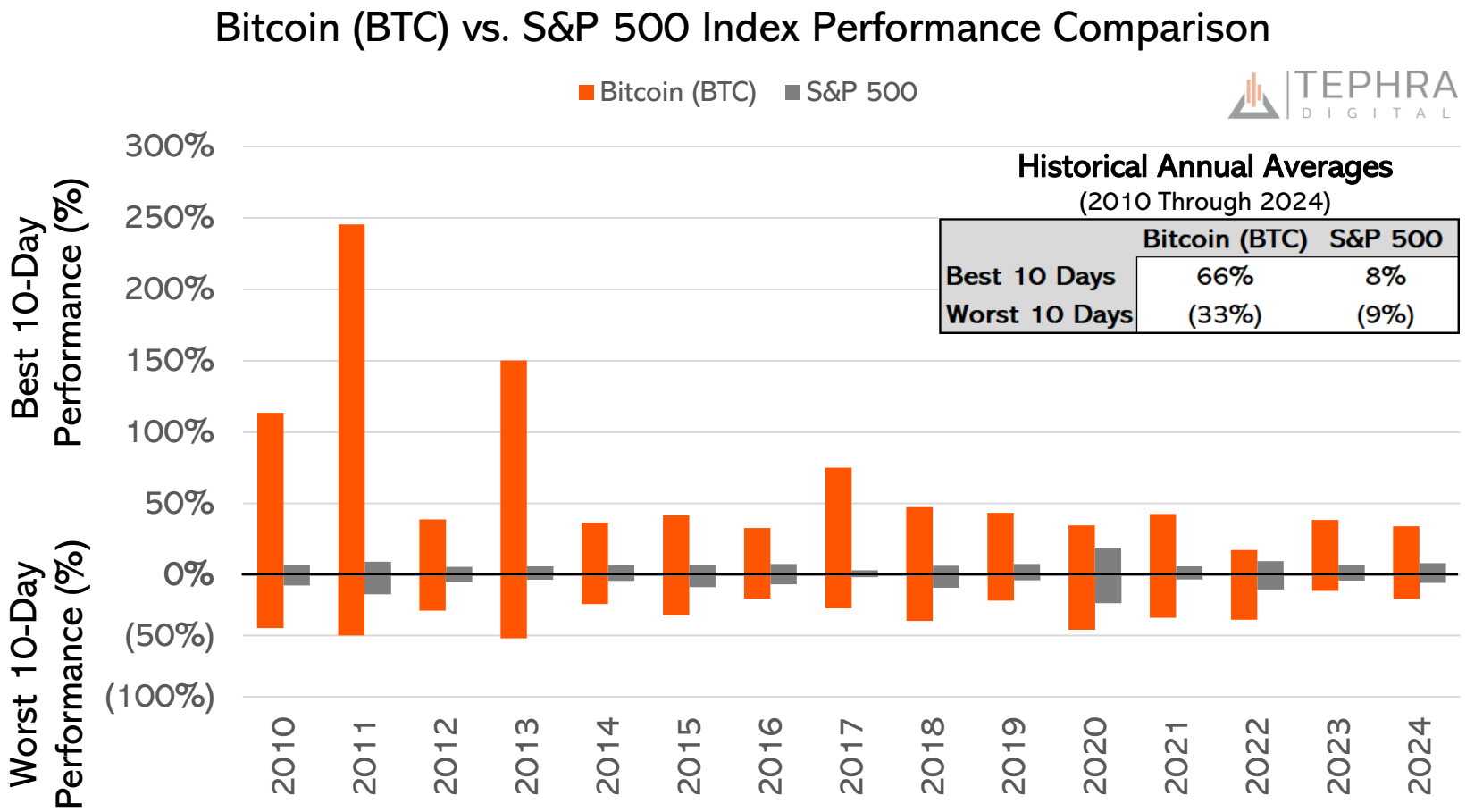
Orange is the New Gray. Traction for a Bitcoin (BTC) Strategic Reserve Across 15 US States Appears to be Driven by a Growing Recognition of the Macroeconomic and Technological Case for Bitcoin (BTC) Adoption



Note: Data is collected from state legislature and news articles. Data is as of 1/21/2025.

CHART #89

Outlier Performance Days for Bitcoin (BTC) Skew Positive, While Outlier Performance Days for the S&P 500 Index Often Skew Negative. Short-Term Volatility in Bitcoin Appears to be the Cost of Meaningful Outsized Returns. Given Substantial Positive Returns for Bitcoin (BTC) in Narrow Windows of Time, a Focused, High-Conviction and Long-Term Investment Strategy Appears to be Most Effective



Figures show the best and worst 10 consecutive trading-day performances, based on closing prices, for each year since 2010. For 2010, Bitcoin (BTC) data begins on 7/18/2010—the first day of recognized exchange trading—while S&P 500 data covers the full year. Data is as of 1/27/2025.
Sources: Coin Metrics and Nasdaq.

CHART #91

The United States Bitcoin (BTC) Strategic Has Elicited a Wide Range of Opinions and Reactions, But it May be Worth Turning to the Stock Market for a Truly Expert Point of View. Public Companies that Established a Bitcoin (BTC) Treasury Subsequently Outperformed the S&P 500 Index by 297%, on Average. Policymakers, Constituents, Management Teams and Boards of Directors Should Take Notice

Performance of Publicly-Listed Companies with a Bitcoin (BTC) Treasury Strategy

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Company	Ticker	Market Cap ($mm)	Country	Date of Bitcoin (BTC) Treasury Adoption	Initial Purchase or Guidance as % of Cash	Bitcoin (BTC) Holdings as % of Market Cap	Company Performance Since Announcement (%)	S&P 500 Performance Since Announcement (%)	Relative Performance vs. S&P 500 (%)
Strategy*	MSTR	$87,328	U.S.	8/11/2020	47%	52%	2,396%	82%	1,275%
Metaplanet	3350.T	$1,244	Japan	4/8/2024	73%	13%	2,600%	16%	2,218%
Semler Scientific*	SMLR	$510	U.S.	5/28/2024	64%	62%	79%	14%	57%
MARA Holdings	MARA	$6,581	U.S.	7/25/2024	39%	77%	(16%)	12%	(25%)
Genius Group*	GNS	$51	U.S.	11/12/2024	90%	130%	(59%)	3%	(60%)
Solidion Technology*	STI	$51	U.S.	11/14/2024	60%	N/A	20%	2%	18%
Nano Labs*	NA	$102	U.S.	11/18/2024	14%	34%	52%	3%	48%
KULR Technology Group*	KULR	$493	U.S.	12/4/2024	90%	10%	75%	(1%)	76%
Worksport*	WKSP	$32	U.S.	12/5/2024	10%	N/A	40%	(0%)	41%
Average (ex. MSTR)					**55%**	**55%**	**349%**	**6%**	**297%**

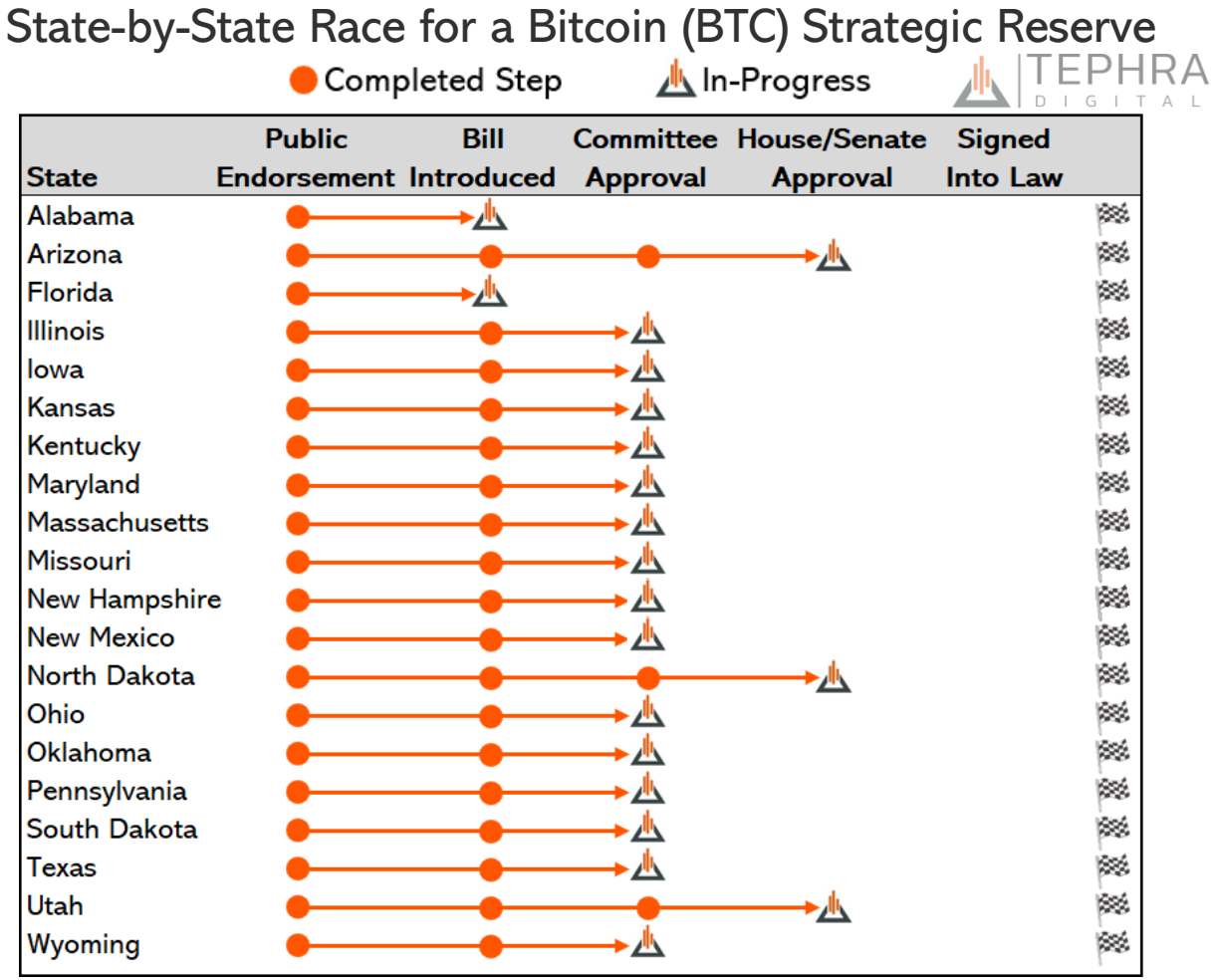
* Indicates founder-led or controlled

Note: The included companies have explicitly stated their intention to adopt a Bitcoin (BTC) treasury strategy. "Initial Purchase or Guidance as % of Cash" shows the higher figure of the first Bitcoin (BTC) purchase as a percentage of cash reserves, or the indicated Bitcoin (BTC) allocation for future cash reserves. Cash balances refer to the most recent quarterly filings preceding the first Bitcoin (BTC) purchase, plus any capital raise amounts in-between. Solidion Technology (STI) and Worksport (WKSP) have not disclosed Bitcoin (BTC) purchases as of 2/5/2025. Company performance is measured as the percentage change in share price from market close on the day of each company's announcement through market close on 2/5/2025. Relative performance figures indicate the percentage by which each stock outperformed or underperformed the S&P 500 over the same period. Averages exclude Strategy, given its significantly earlier adoption date. All data is as of 2/5/2025.

Sources: Artemis and corporate announcements.

CHART #92

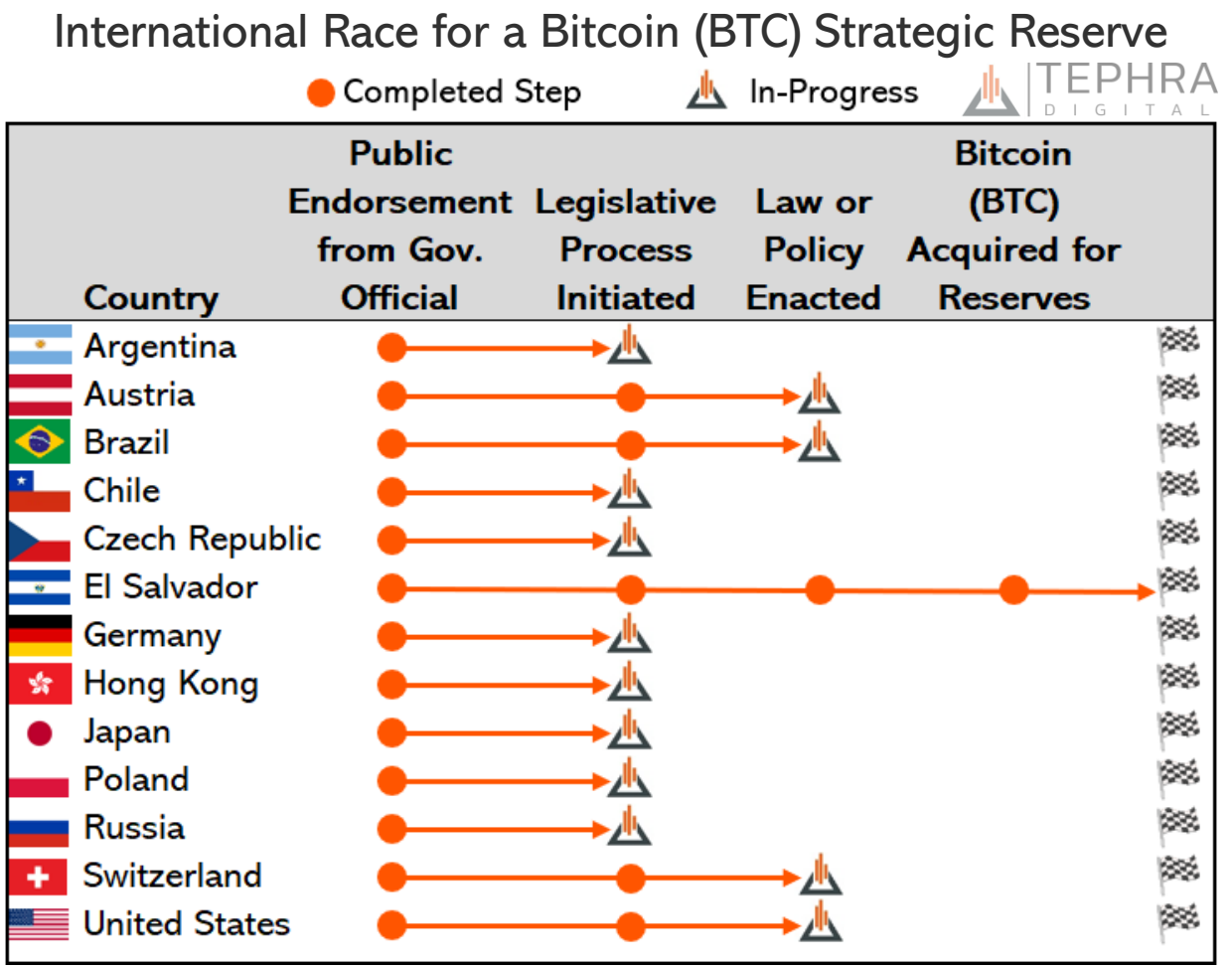
The Bitcoin (BTC) Strategic Reserve Discussion Continues to Progress at the Global and National Level, but at the State Level in the US, the Race is Truly On. Some States Have a Fast Start and We Expect the Field to Grow as More Policymakers Begin to Saddle Up



Note: The included states have public endorsements from state officials regarding a Bitcoin (BTC) strategic reserve through state legislation. A full orange dot indicates the completion of a step, while a Tephra volcano symbol represents an in-progress step. North Dakota refers to HCR 3001, which, as a House Concurrent Resolution, does not carry the full force of law. Additionally, Michigan and Wisconsin already have Bitcoin (BTC) exposure through state-run funds, despite no public endorsement for a Bitcoin (BTC) strategic reserve through state legislation. Data is as of 2/7/2025.
Source: LegiScan.

CHART #93

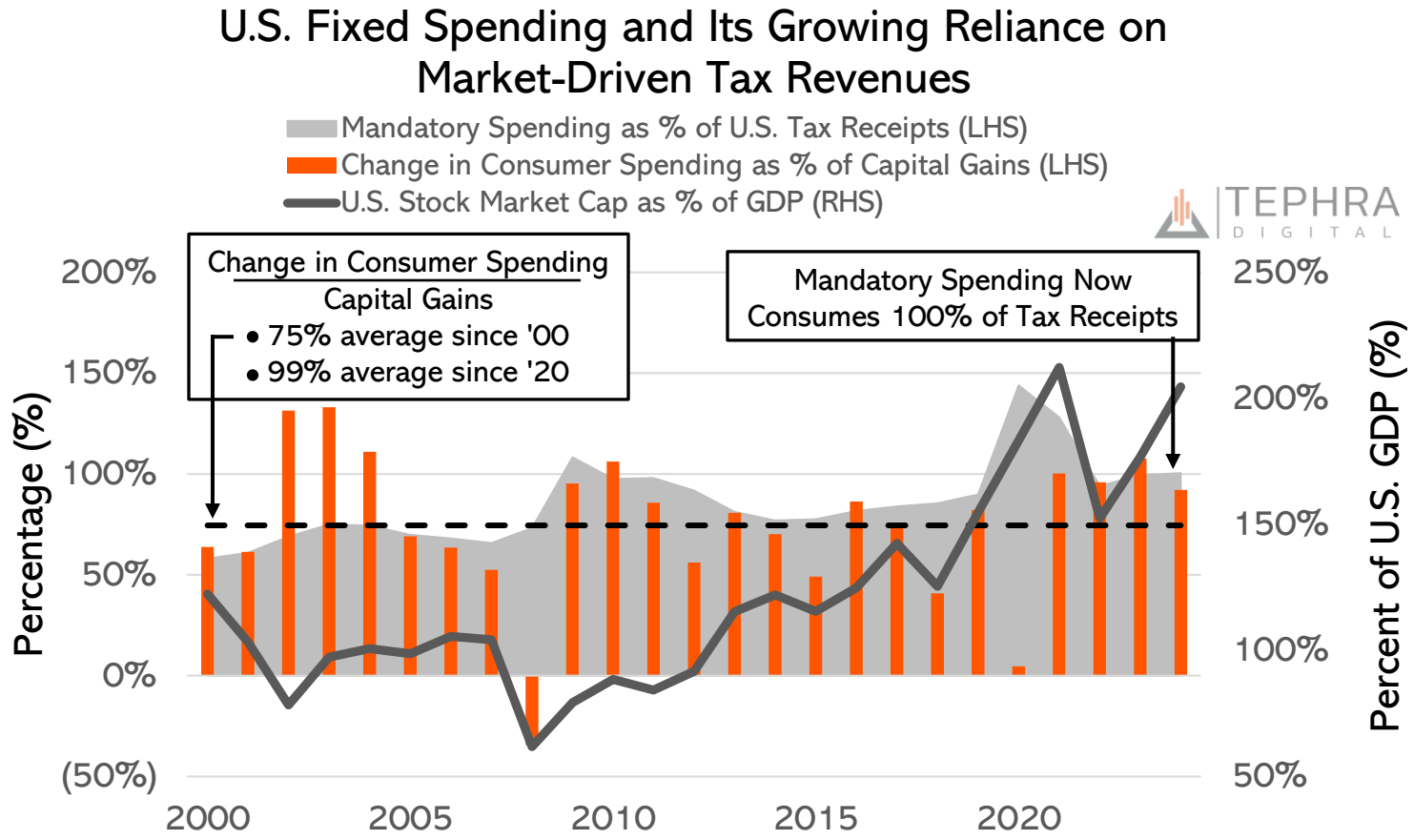
Bitcoin (BTC) Is Reshaping the Global Financial System, and the March Towards a National Strategic Reserve Has Picked Up Pace in a Wide Variety of Jurisdictions. As Certain Nations Put their Foot on the Gas, We Expect Others to Follow



Note: The included countries have public endorsements from a government official regarding the creation of a Bitcoin (BTC) strategic reserve through legislation. A full orange dot indicates the completion of a step, while a Tephra volcano symbol represents an in-progress step. Additionally, Bhutan already has Bitcoin (BTC) exposure through mining efforts. Data is as of 2/4/2025.
Sources: Various news articles and legislative trackers.

CHART #94

The Macroeconomic Dots Lead to an Orange Brick Road: Bitcoin (BTC) and Digital Assets. Any Significant Weakness in the U.S. Economy or Stock Market May Trigger U.S. Dollar Liquidity Injections to Prevent Treasury Market Dysfunction and Further Fiscal Deterioration. This Inflationary Response Function Reinforces the Bullish Case for Bitcoin (BTC) and Digital Assets

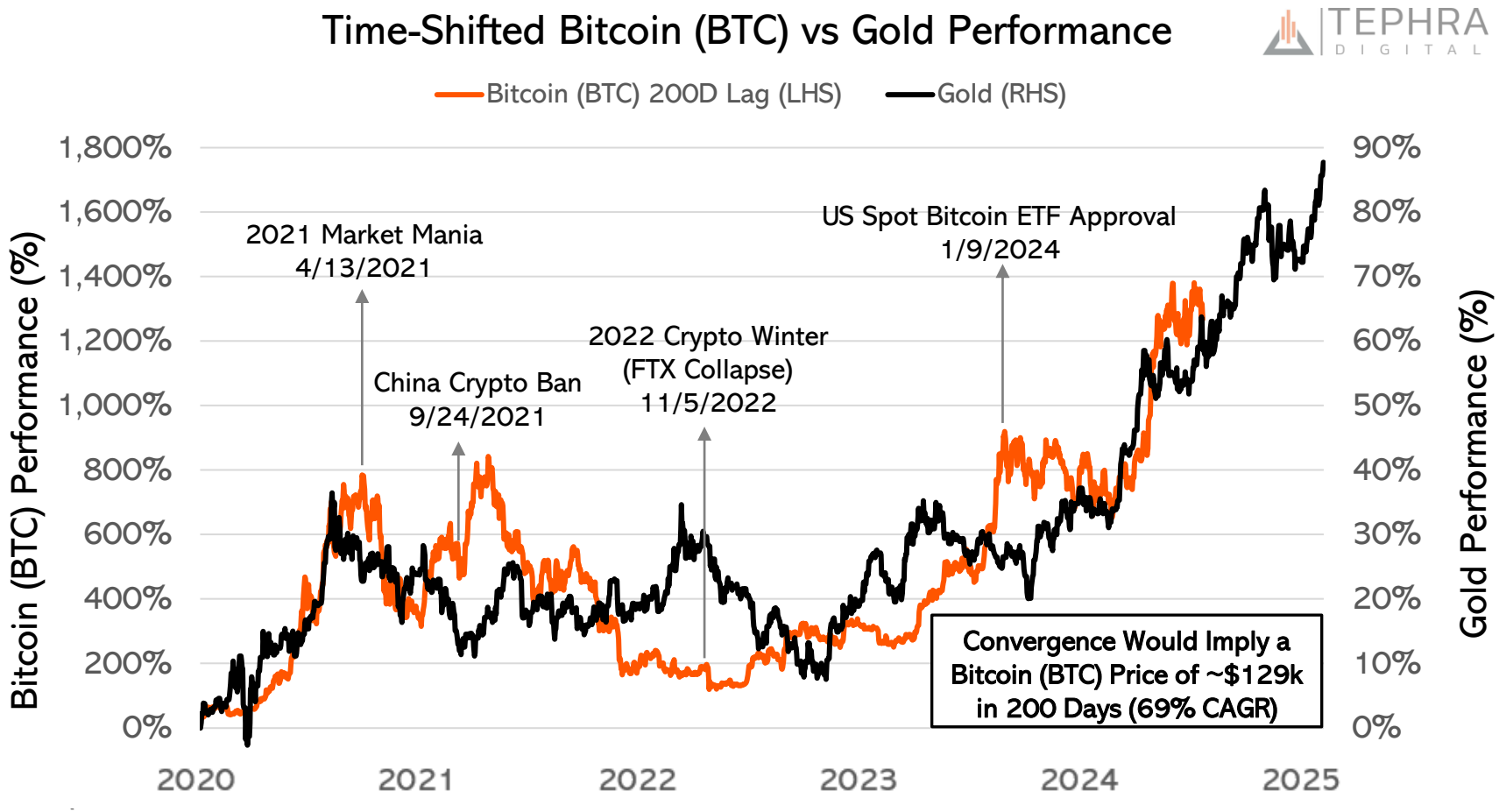


Note: The gray area represents U.S. annual mandatory spending (interest payments and fixed entitlements) as a percentage of total U.S. tax receipts for each fiscal year. The orange bars show the annual change in US consumer spending as a percentage of total net capital gains reported by U.S. individuals, and the black dotted line indicates the average for all years shown. The gray line reflects the ratio of the total market capitalization of U.S. stocks (using the Wilshire 5000 Index value on the last trading day of each year) to that fiscal year's nominal GDP. Data covers 2000 through 2024 and is as of 2/3/2025.

Sources: Bloomberg, the U.S. Congressional Budget Office and Wilshere Indexes.

CHART #95

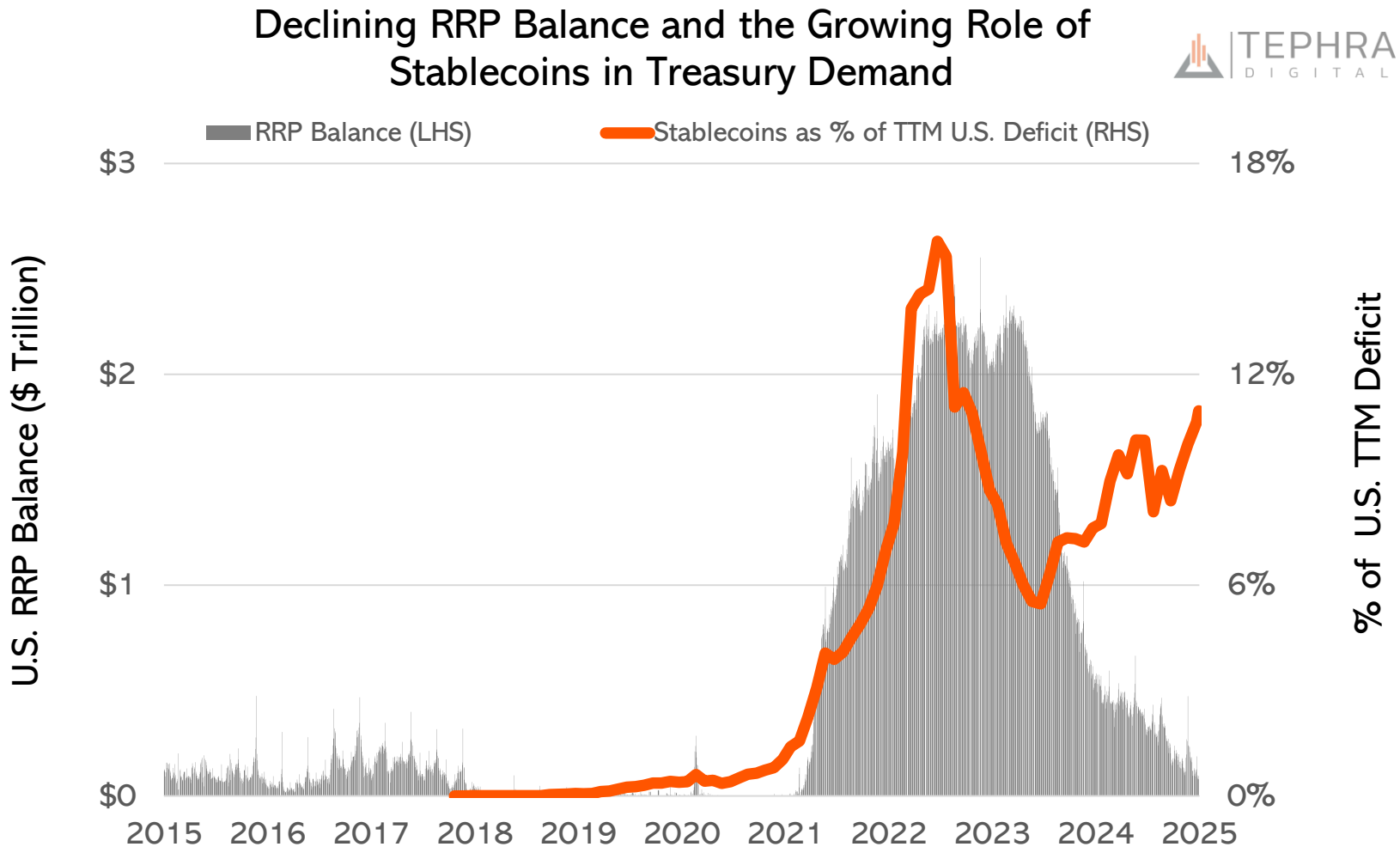
Gold Has Continued to be a Leading Indicator of Bitcoin (BTC) Performance, and Even Federal Reserve Chairman Jerome Powell has Described Bitcoin as Digital Gold. An Updated Correlation Analysis Suggests a Continuation of Recent Trends



Note: Performance refers to the daily closing prices of Bitcoin (BTC) and gold relative to their closing prices on 1/1/2020. Bitcoin (BTC) performance is shown with a 200-day lag to gold, so labelled events appear 200 days earlier on the x-axis. The Bitcoin (BTC) 200-day implied price projection is determined by identifying the point at which Bitcoin (BTC) lagged performance would converge with gold's performance. Data is as of 2/5/2025.
Sources: Artemis and the World Gold Council.

CHART #96

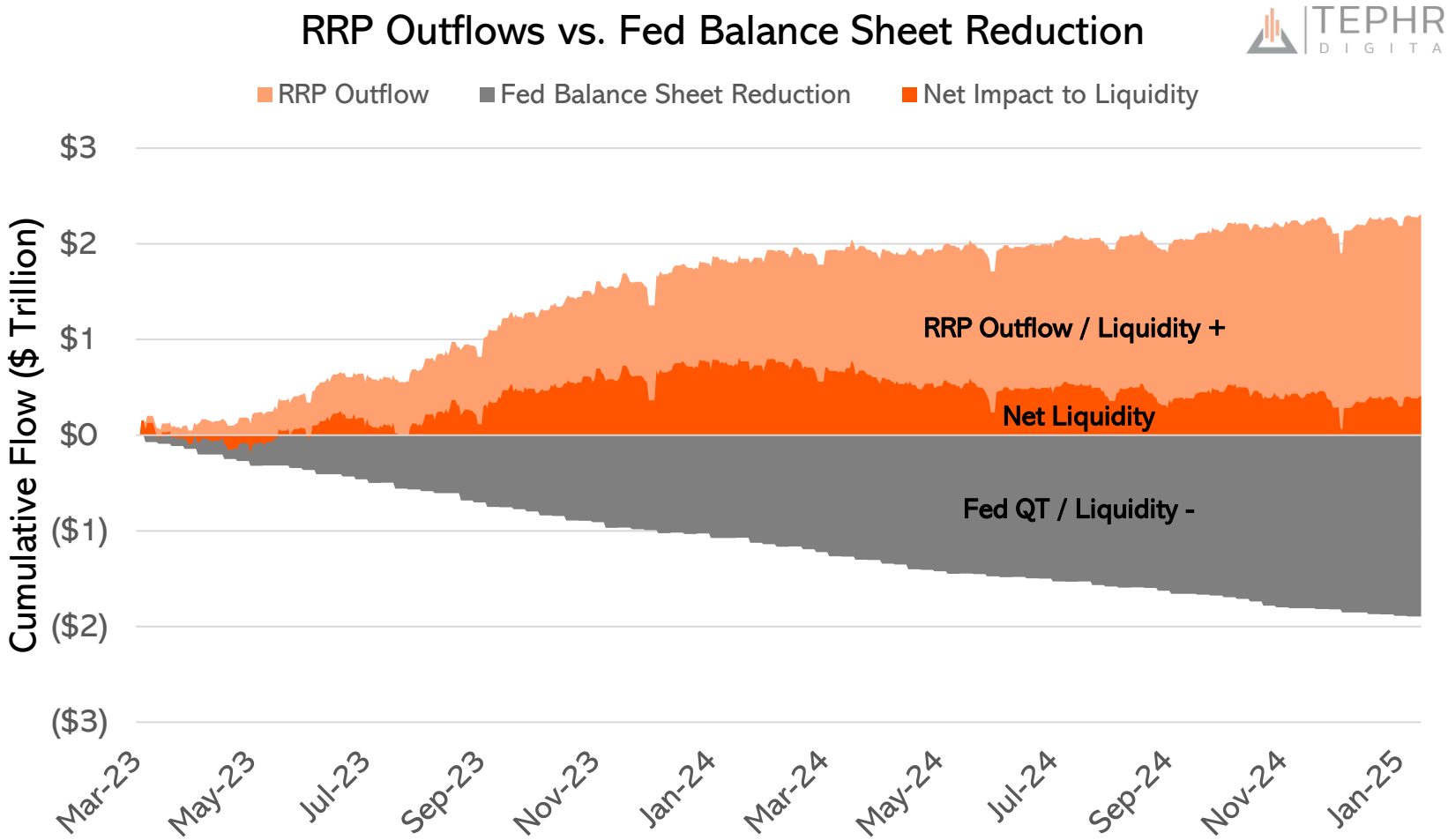
Stablecoins Have Become a Meaningful Source of Short-Term U.S. Treasury Demand, Particularly as the U.S. Fiscal Deficit Balloons Higher. The Drawdown of U.S. Reverse Repurchase Agreements (RRP) Sets the Stage for Stablecoins to Become Even More Important for U.S. Deficit Financing



Note: The orange series represents point-in-time total stablecoin supply from the last day of each month as a percentage of the trailing twelve-month U.S. deficit. The final data point reflects the most recent U.S. debt data as of 2/7/2025. Stablecoin data begins on 11/30/2017. Data is as of 2/12/2025.
Sources: Artemis, the Federal Reserve Bank of St. Louis and the United States Treasury.

CHART #97

Former Treasury Secretary Janet Yellen Shifted Treasury Issuance to Short-Term Bills, Draining the RRP Instead of the Broader Banking System—Blunting Quantitative Tightening (QT). With the RRP Now Fully Drained, Policymakers are Searching for New Balance Sheets (Debt Buyers) to Fund Deficits and Support Market Liquidity. As Demand from Traditional Foreign Buyers Weakens, New Sources are Needed. Enter Stablecoins



Note: RRP Outflow and Fed Balance Sheet Reduction represent cumulative totals from 3/31/2023 to the most recent data points (2/12/2025 for RRP, 2/5/2025 for the Fed Balance Sheet). Net Impact to Liquidity is calculated as the sum of both series. Data as of 2/12/2025.
Source: The U.S. Federal Reserve.

CHART #100

For its 100th Chart Anniversary, Tephra Digital Presents a Policy Brief that Outlines a Bitcoin-Backed Monetary System. As Shown in the Table Below, the U.S. Government's Solution to Binging on Debt Could Involve an Orange Pill and a 21-Step Process

The 21-Step Integration of Bitcoin into the U.S. Financial System

	List of Developments	Complete	Work In Progress
1	Bitcoin integration in the U.S. financial system (qualified custody, commodity status)	▲	
2	Spot Bitcoin ETF approval (regulated financial products to increase adoption and legitimacy)	▲	
3	Options trading for Bitcoin ETFs (to enable participation from institutional players with hedging needs and to improve market depth)	▲	
4	Entry of banks and financial institutions through the removal of onerous capital requirements (specifically, the repeal of SEC SAB 121)	▲	
5	Elimination of pause letters and written notices to banks to deter them from serving digital assets customers (specifically, rescinding various FDIC directives)	▲	
6	Treasury strategy inclusion of Bitcoin by U.S. corporations (both listed and private companies)	▲	
7	Inclusion of Bitcoin in target model portfolios by major asset managers (beginning with a 1% to 3% weighting)	▲	
8	Explicit protection for the self-custody of digital assets	▲	
9	Initial purchases of Bitcoin by public pension funds (state and local entities)	▲	
10	In-kind creation and redemption activity for Bitcoin ETF issuers (allowing more efficient and direct market access by major financial institutions)		▲
11	Stablecoin legislation (currently three bills have been proposed, and are making significant progress through both chambers of Congress)		▲
12	Legal classification (Bitcoin could be reclassified as a strategic reserve asset, similar to gold, setting the stage for its wide and immediate use as collateral)		▲
13	Sovereign wealth fund for long-term asset growth and appreciation as a de-leveraging strategy (with an investment mandate explicitly including Bitcoin)		▲

	List of Developments	Work In Progress	To Be Determined
14	Reserve accumulation (U.S. Treasury could begin acquiring Bitcoin quietly as part of its reserve assets, alongside gold; this could be gradual to avoid disrupting the market)	▲	
15	Formal establishment of a Bitcoin Strategic Reserve (there are over 30 U.S. states with activity in this regard; positions the U.S. as a leader in digital assets and diversifies its financial asset base)	▲	
16	Approval of solicited sale by banks (broad marketing of Bitcoin and digital assets across wealth platforms)	▲	
17	Acceptance of Bitcoin as collateral by major banks for prime brokerage purposes (and cross-collateralization and portfolio margin credit)		▲
18	Formal policies and economic support of Bitcoin mining firms in the U.S.		▲
19	Elimination of capital gains taxes on Bitcoin and digital assets (to create incentives and conditions for accelerated adoption by households and institutions)		▲
20	Allocating a portion of the Social Security Trust Fund's assets into Bitcoin (this could either be a direct purchase of Bitcoin or an investment through Bitcoin-related vehicles (e.g. Bitcoin ETFs); the goal would be to diversify the fund's holdings, increase returns, and offset underfunded programs for an aging population)		▲
21	Transitioning the U.S. Dollar to a Bitcoin-Collateralized Standard (the U.S. could issue new forms of Treasury bonds or debt instruments collateralized with Bitcoin. This would increase the demand for Bitcoin and create a direct relationship between Bitcoin and the U.S. dollar. By backing U.S. debt with Bitcoin, it may help restore credibility to U.S. fiscal policy, especially in light of rising deficits and the increasing distrust of fiat currencies due to accelerated monetary debasement and fiscal opacity).		▲

Note: Data is as of 2/27/2025.
Sources: Publicly available information, filings and news.

CHART #101

Following Recent Bitcoin Strategic Reserve Announcements, a Bitcoin-Backed Monetary System Appears Particularly Relevant. The Table Below Outlines the Significant U.S. Debt Reduction Potential from this Strategy (25% to 100% Backing of US Money Supply)

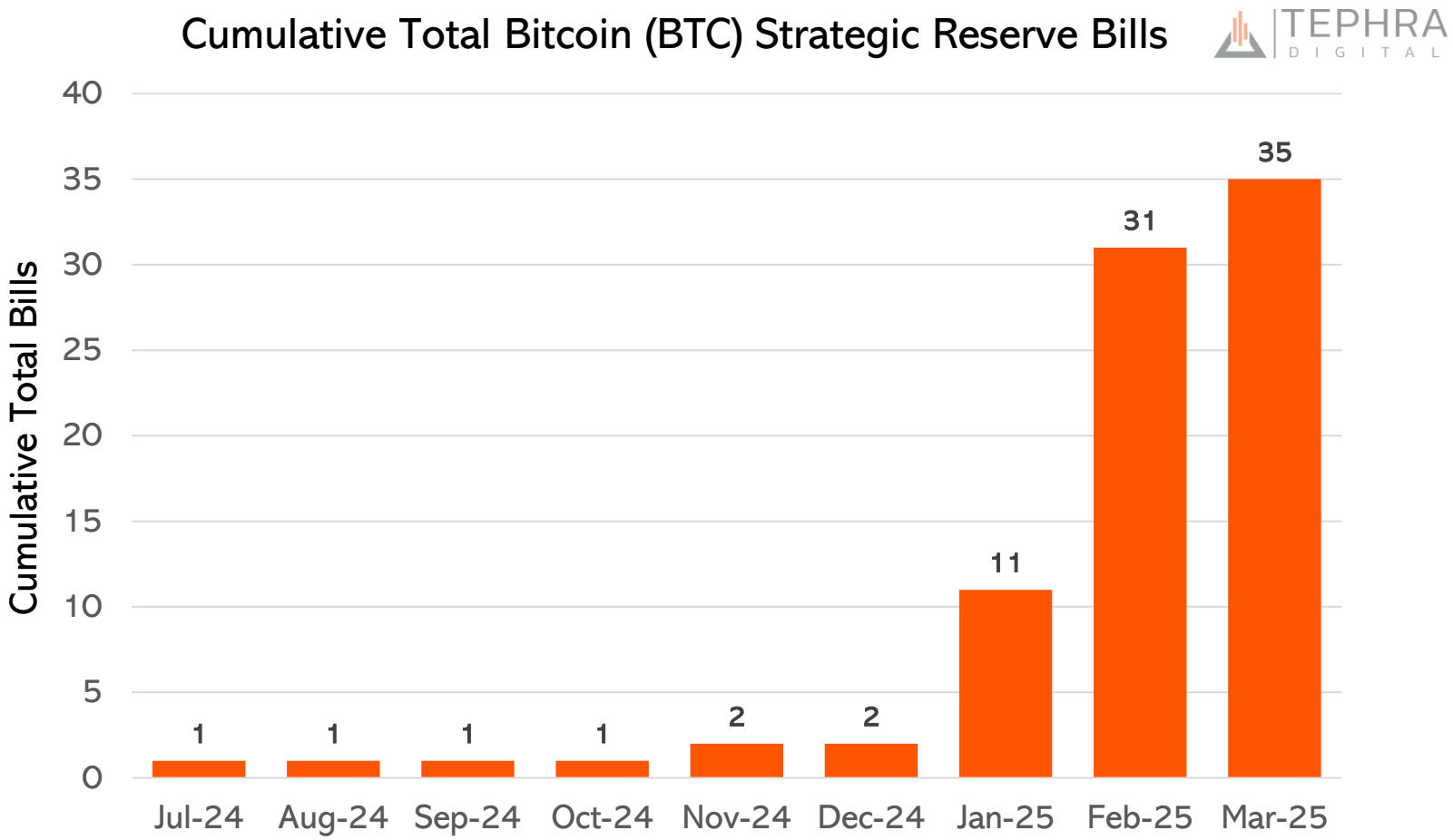
Bitcoin (BTC) Backing Scenario Analysis

U.S. M2 Bitcoin Backing Percentage (Assumption)	Required U.S. Ownership (Number of Bitcoins)	Implied U.S Ownership (% of Total Bitcoin Supply)	Required Capital Investment Today	Days of Open Market Bitcoin Purchases (At 20% of ADV)	Monetization % of Existing U.S. Gold Holdings	Value of Bitcoin in 2045 as % of Projected U.S. Debt
25%	~1.5 million	7%	~$124 billion	15	~19%	~17%
50%	~2.9 million	14%	~$249 billion	31	~37%	~34%
75%	~4.4 million	21%	~$373 billion	46	~56%	~51%
100%	~5.9 million	28%	~$498 billion	62	~74%	~69%

Note: Data is as of 3/2/2025.
Sources: Artemis and Bloomberg.

CHART #105

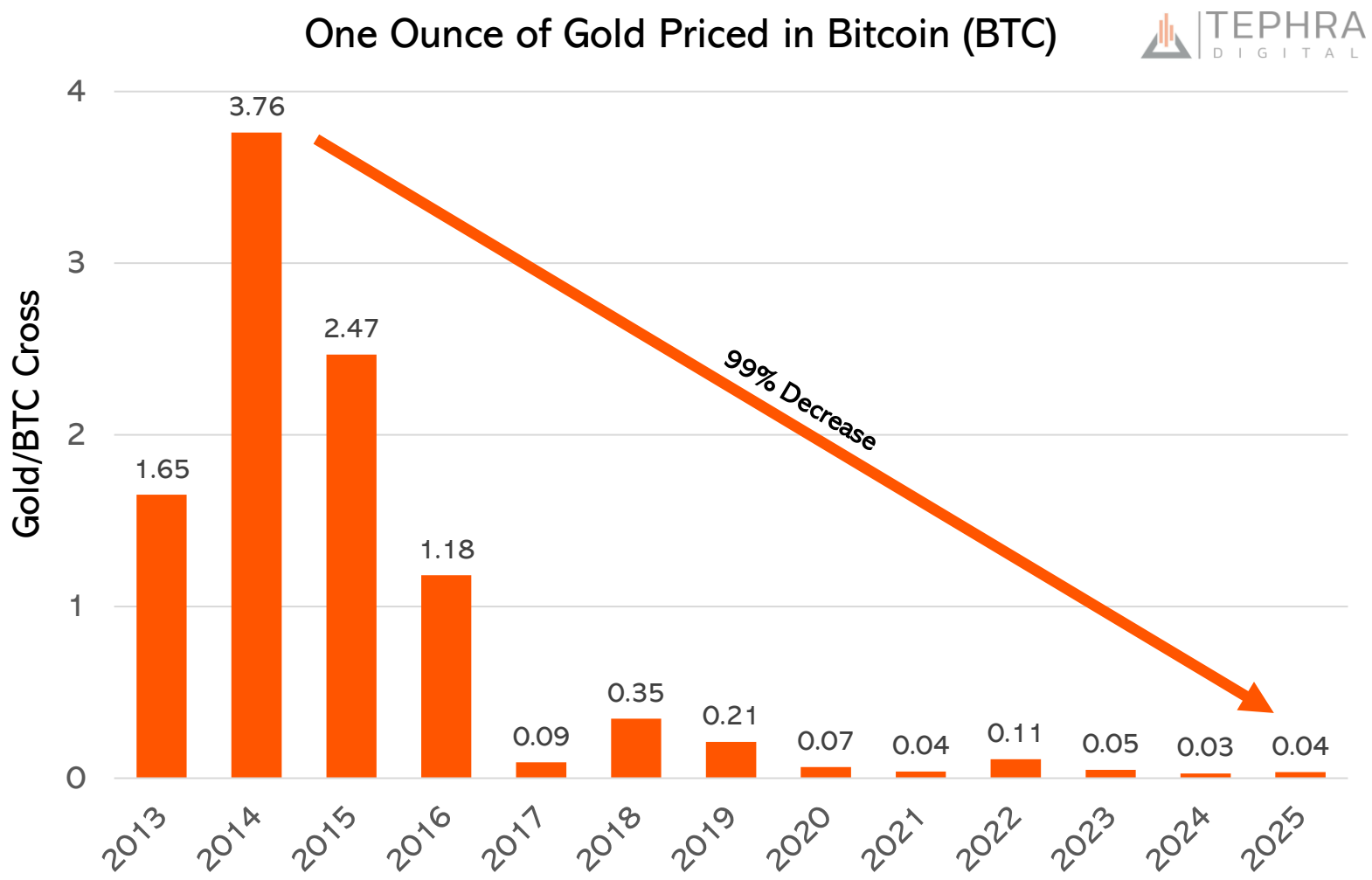
The Orange Wave Developed Gradually...Then All of a Sudden. While an Executive Order Already Created a U.S. Bitcoin Strategic Reserve, there has Also Been a Rapid Rise in Legislative Efforts to Permanently Establish National and State-Level Bitcoin Strategic Reserves



Note: Figures represent aggregated monthly filings for Bitcoin (BTC) Strategic Reserve bills introduced to the House and Senate at the U.S. state and federal level. Presidential Executive Orders are also included. Data is as of 3/12/2025.
Source: LegiScan.

CHART #108

While Gold Has Been Registering All-Time Highs, Bitcoin's Long-Term Relative Outperformance Shows the Sustained and Growing Importance of "Digital Gold" (Bitcoin) in the Information Age

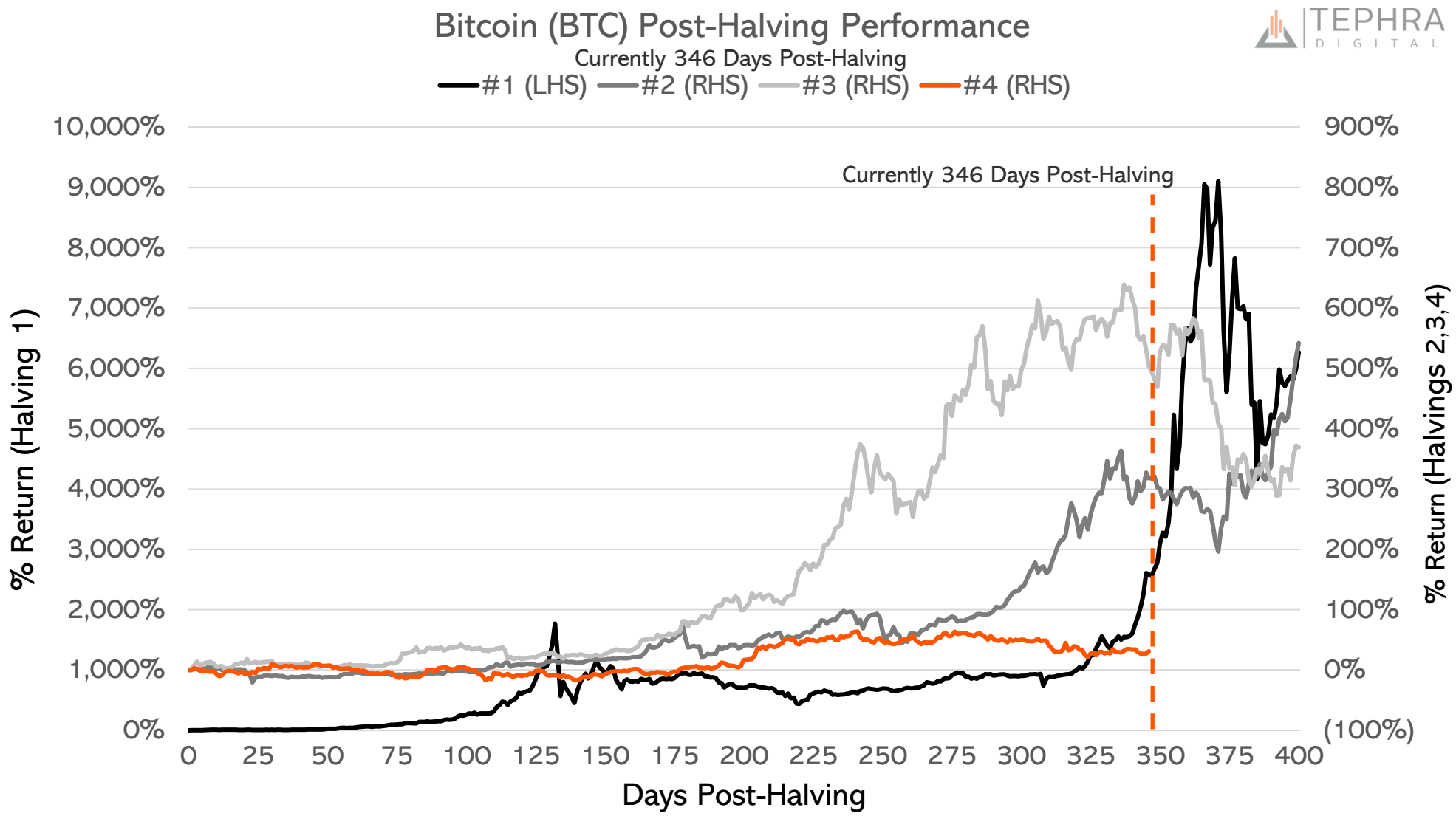


Note: Values are calculated by dividing Bitcoin's (BTC) closing price on the last calendar day of each year by gold's closing price on its final trading day of the year. The 2025 figure is based on data as of the close on 3/23/2025.
Source: Artemis and World Gold Council.

SECTOR (THEMATIC)

CHART #1

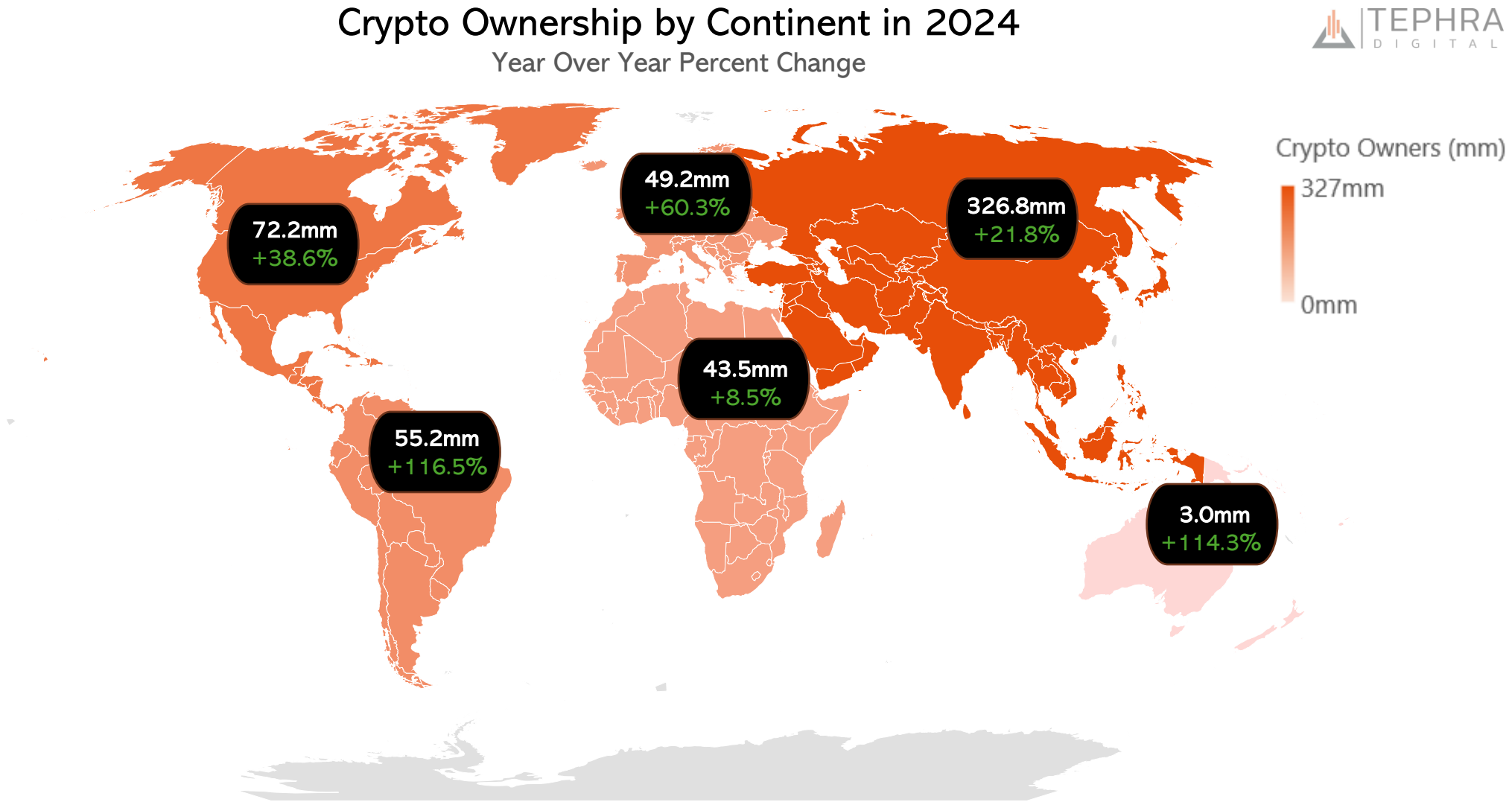
Bitcoin Has Rebounded After Each Halving Event



Note: Post-Halving Performance denotes the closing price of Bitcoin (BTC) for each day following its halving event, relative to its closing price on the day of the halving event. Data is as of 4/1/2025.
Source: Artemis.

CHART #4

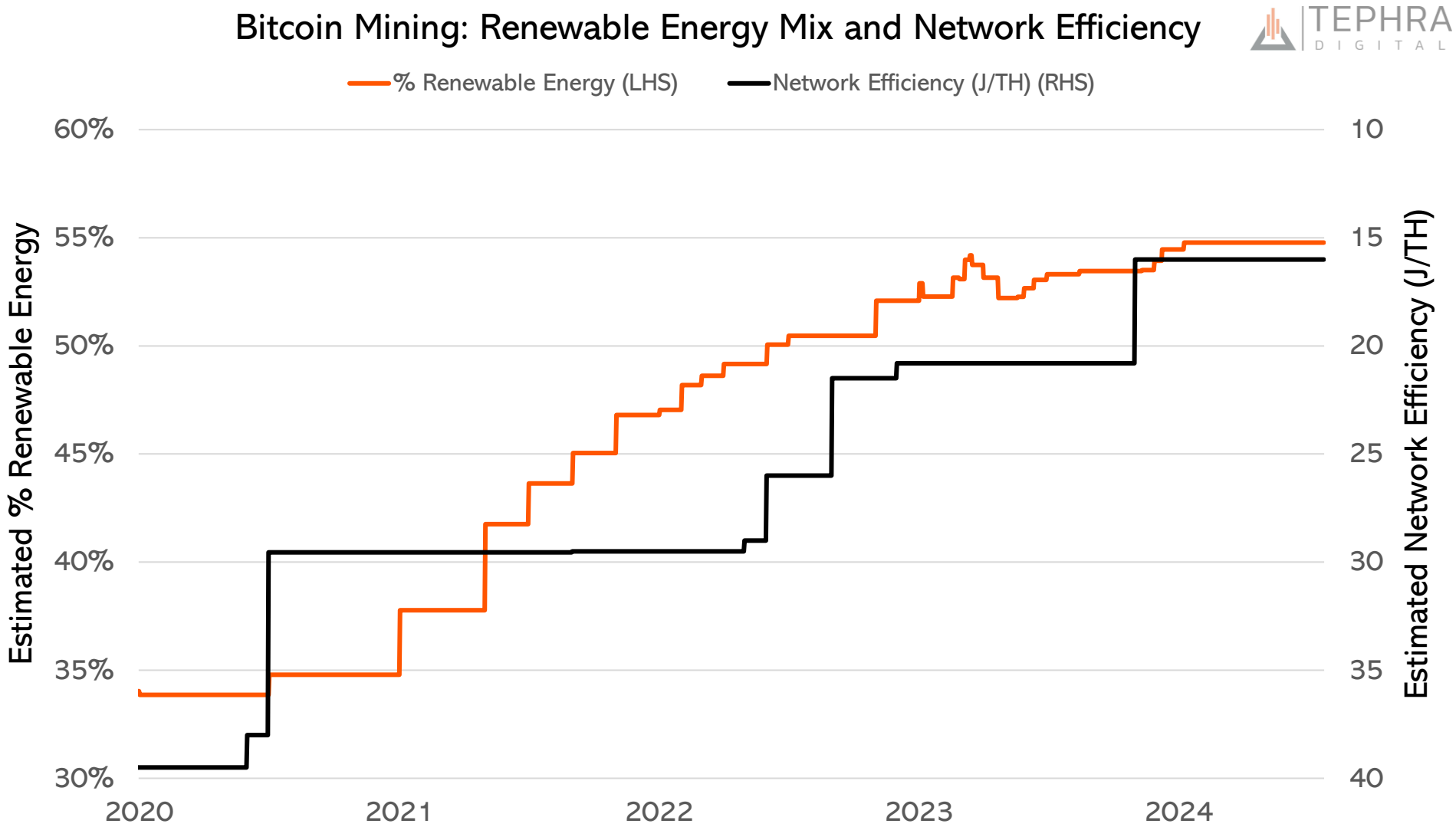
Crypto Ownership Is a Global Phenomenon with Total Estimated Growth of 32% to 550 Million



Note: Data is as of May 2024.
Source: Triple-A, "The State of Global Cryptocurrency Ownership in 2024."

CHART #6

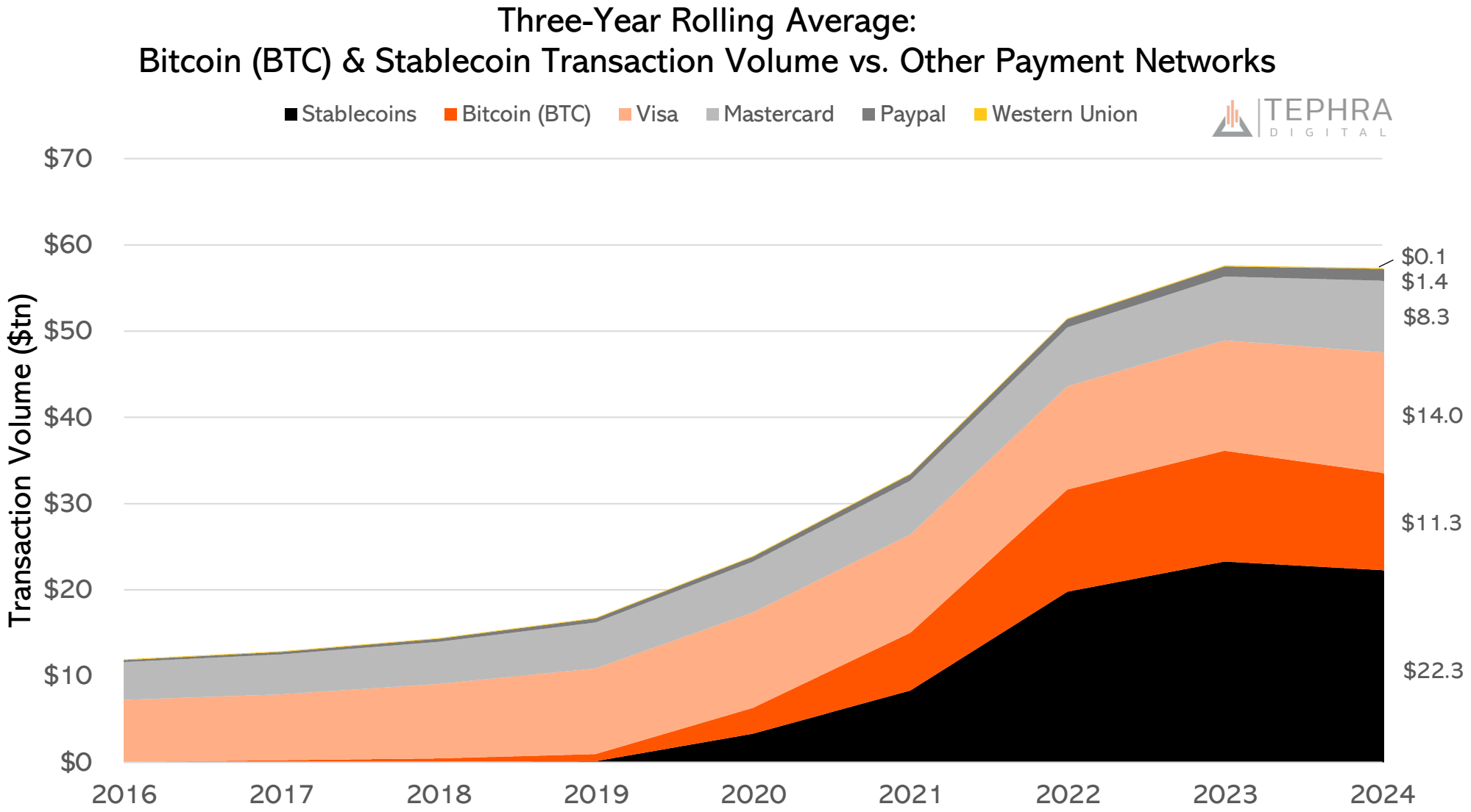
Bitcoin Mining Predominantly Uses Renewable Energy, and the Bitcoin Network Has Become Increasingly Energy Efficient Over Time



Note: Figures are estimates. J/TH represents Joules per Terahash. Data is as of 7/23/2024.
Sources: Digital Assets Research Institute and University of Cambridge.

CHART #9

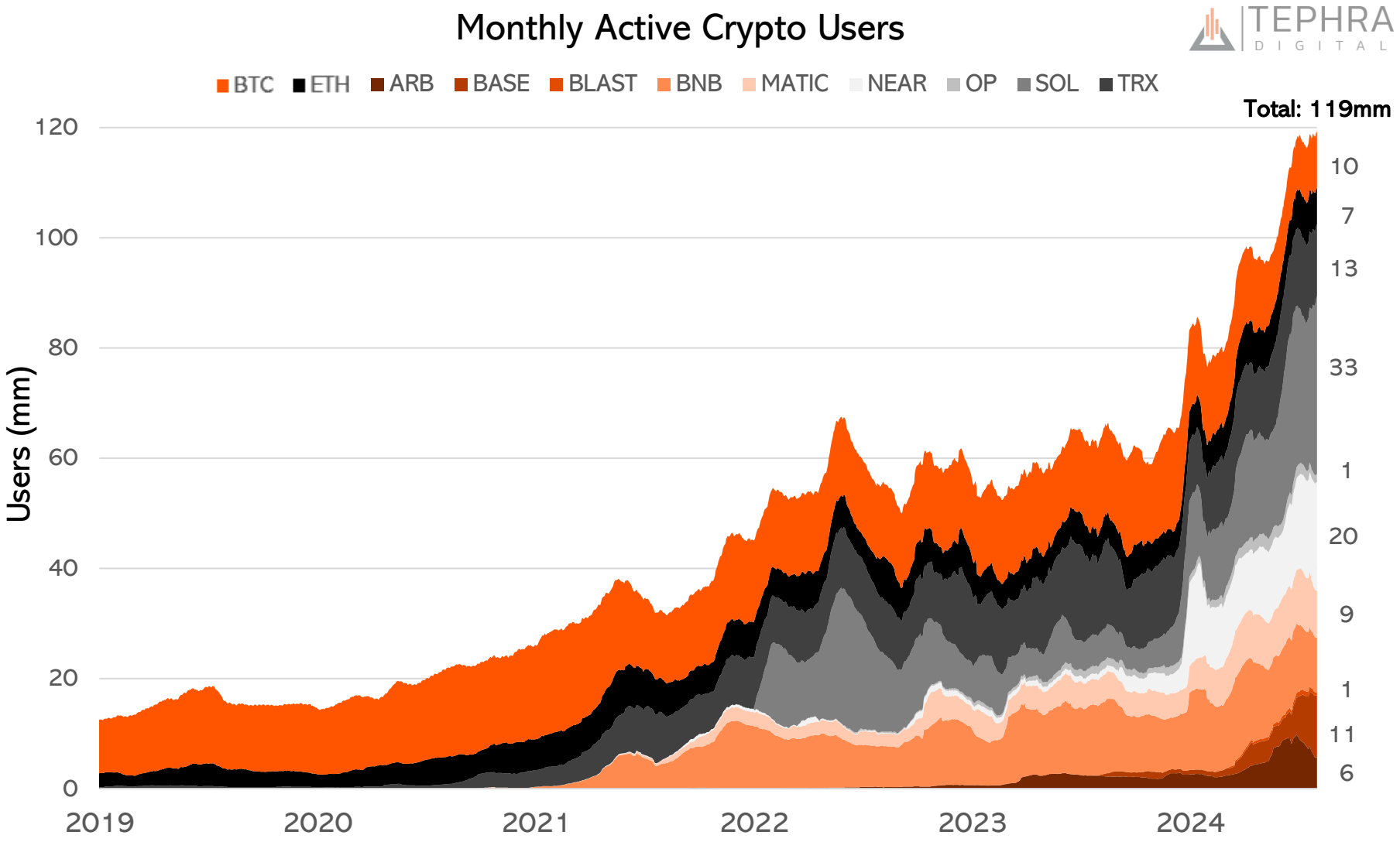
Digital Asset Transaction Volumes Persisted Through the Bear Market and Already Rival Those of Major Payment Networks



Note: Stablecoins include USDT, USDC and DAI. Data is as of 7/28/2024.
Sources: Visa, Mastercard, PayPal and Western Union.

CHART #10

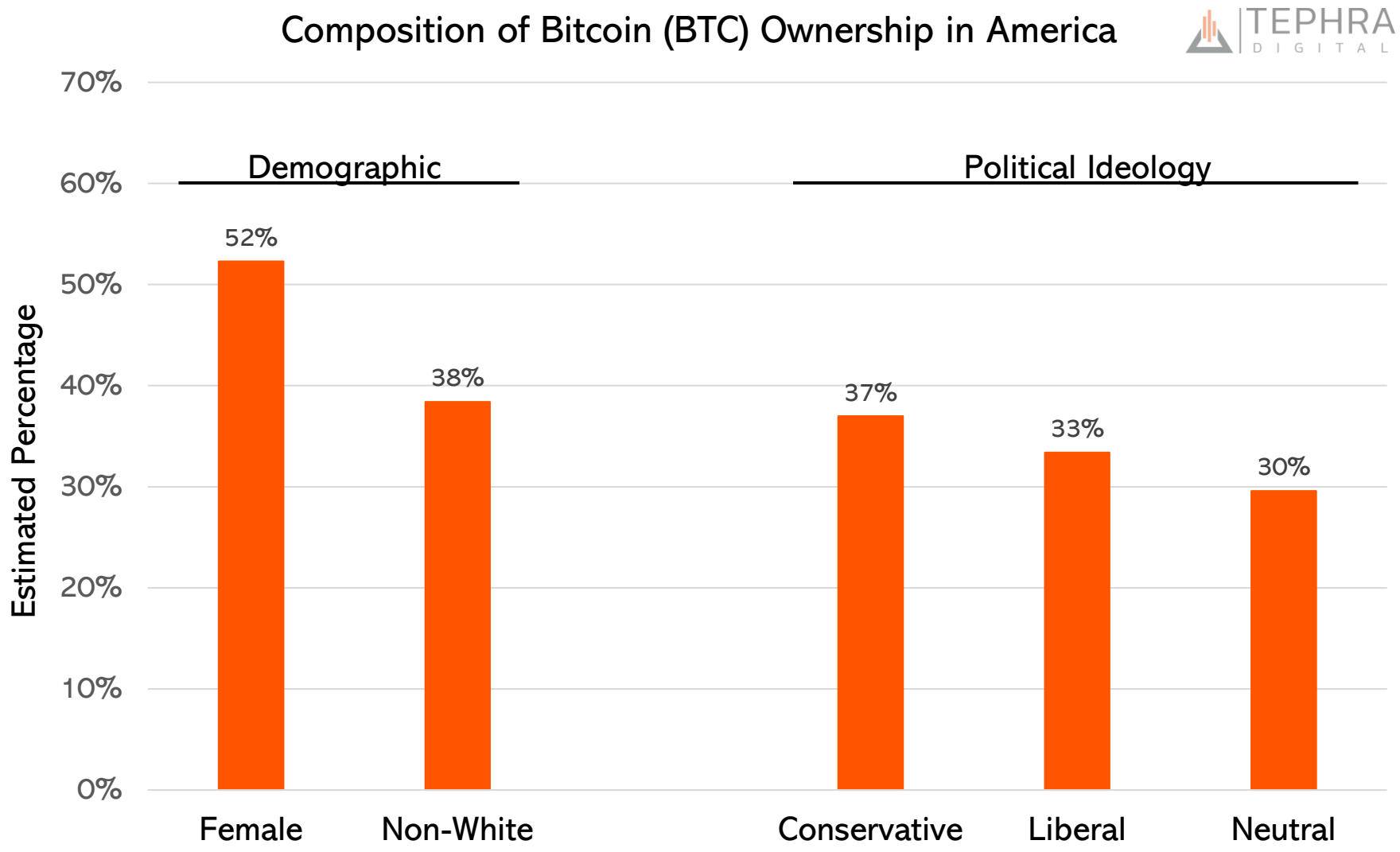
Crypto User Activity Levels — Not Just Ownership — Have Meaningfully Risen Despite Market Fluctuations



Note: Monthly Active Users defined as monthly unique transaction signers. Data includes Bitcoin (BTC), Ethereum (ETH), Arbitrum (ARB), Base (BASE), Blast (BLAST), Binance (BNB), Polygon (MATIC), Near (NEAR), Optimism (OP), Solana (SOL) and Tron (TRX). Data is as of 7/31/2024.
Source: Artemis.

CHART #12

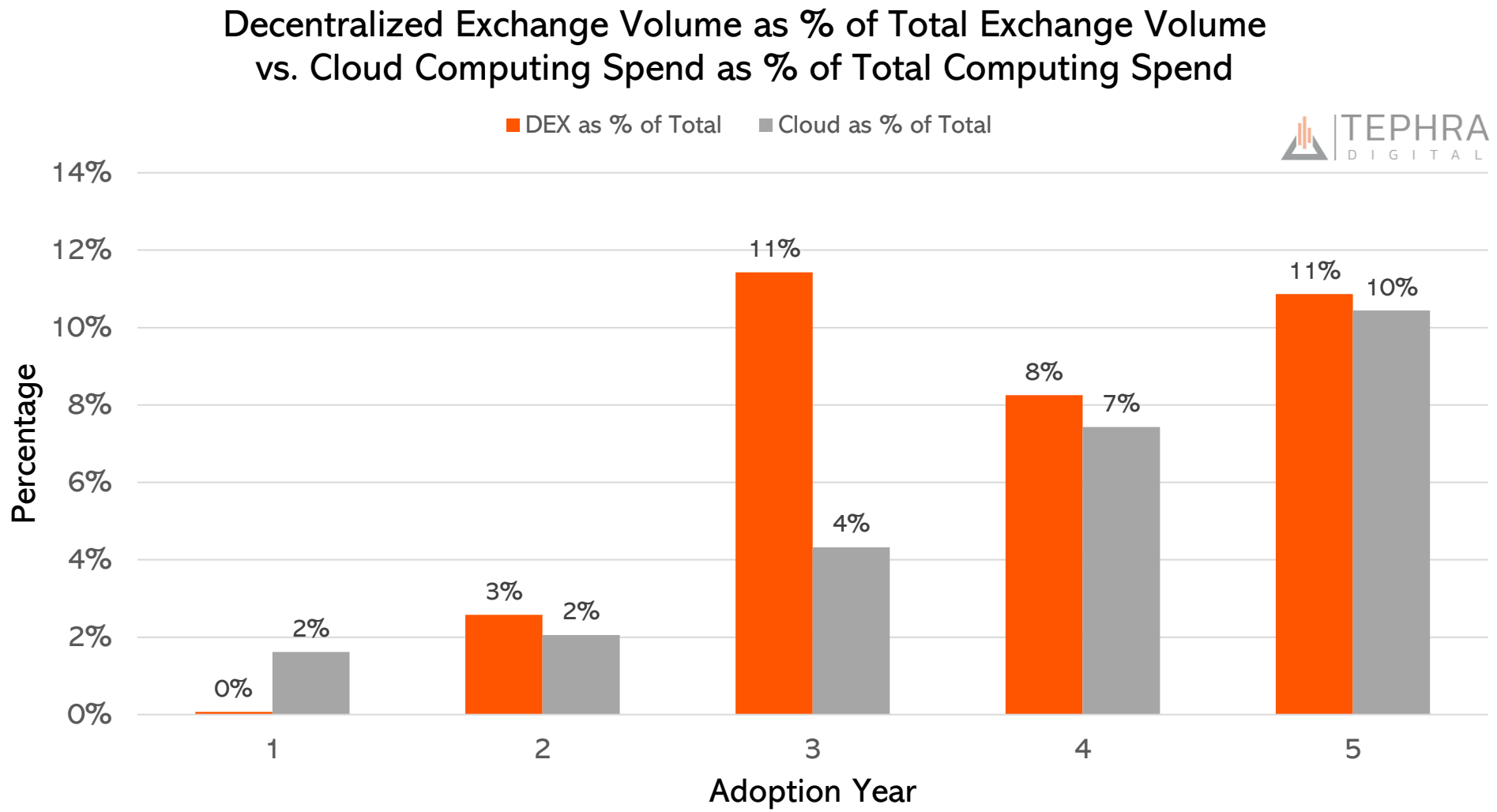
Bitcoin (BTC) Has a Broader and More Diverse Ownership Base than You May Think



Note: "Liberal" includes "Very Liberal," "Liberal," and "Slightly Liberal" respondents. "Conservative" includes "Very Conservative," "Conservative," and "Slightly Conservative" respondents.
The estimated percentages for Liberal, Neutral and Conservative are approximations from The Nakamoto Project. Data is as of 7/22/2024.
Source: The Nakamoto Project (Troy Cross and Andrew Perkins), "Understanding Bitcoin Adoption in the United States: Politics, Demographics, & Sentiment."

CHART #13

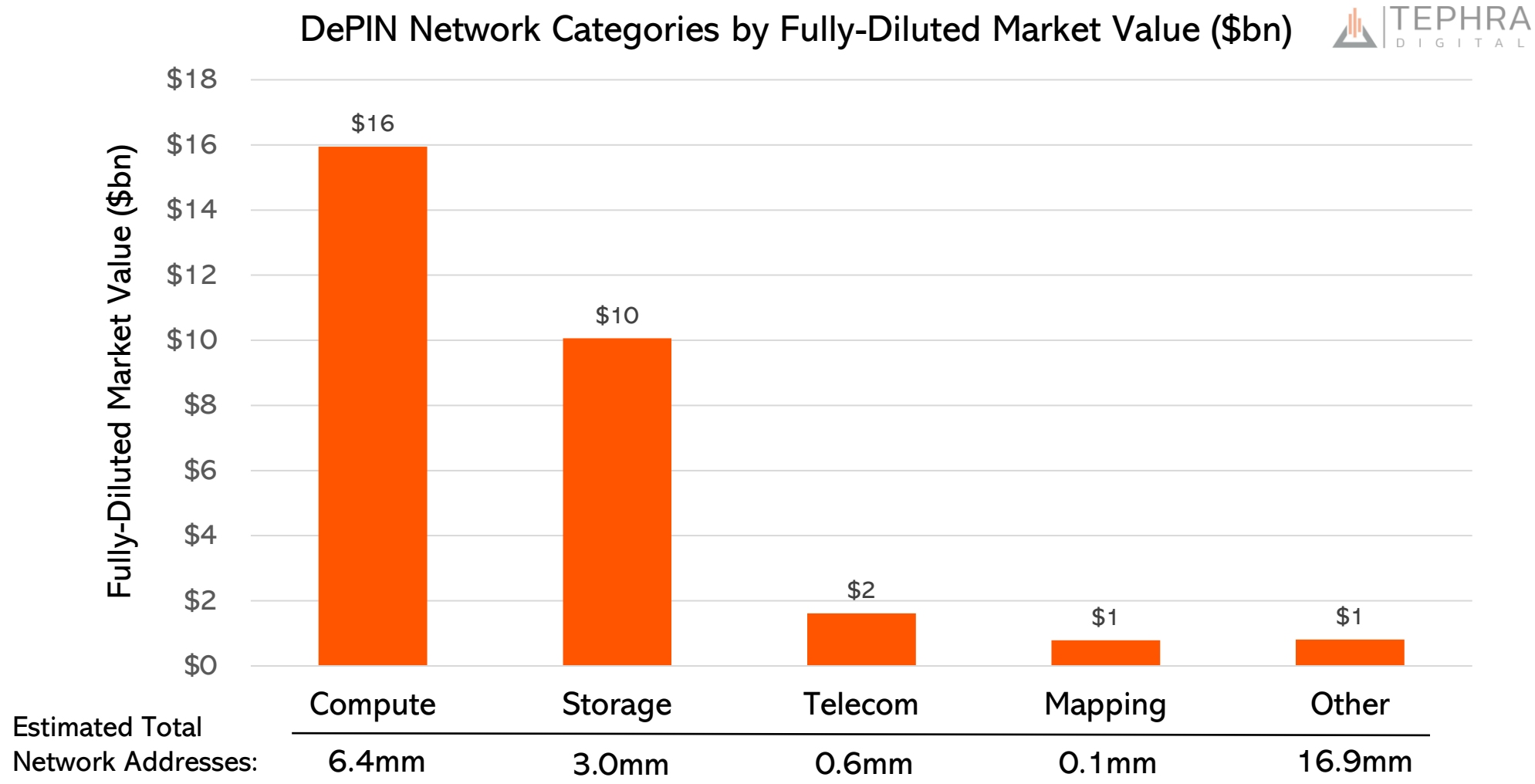
The Rise of Decentralized Exchange Trading Shows Similarities to the Early Adoption Trends of Cloud Computing



Note: Total Exchange Volume refers to digital assets volume on decentralized and centralized exchanges. Total Computing Spend includes enterprise cloud and on-premise spending. Adoption Year corresponds to 2019 to 2023 for exchange volumes and 2009 to 2013 for computing spend. Exchange volume is a point-in-time metric and represents the volume ratio for December of each year. Exchange data is as of August 2024. Computing data is as of February 2024.
Sources: The Block, DeFi Llama and Synergy Research Group.

CHART #18

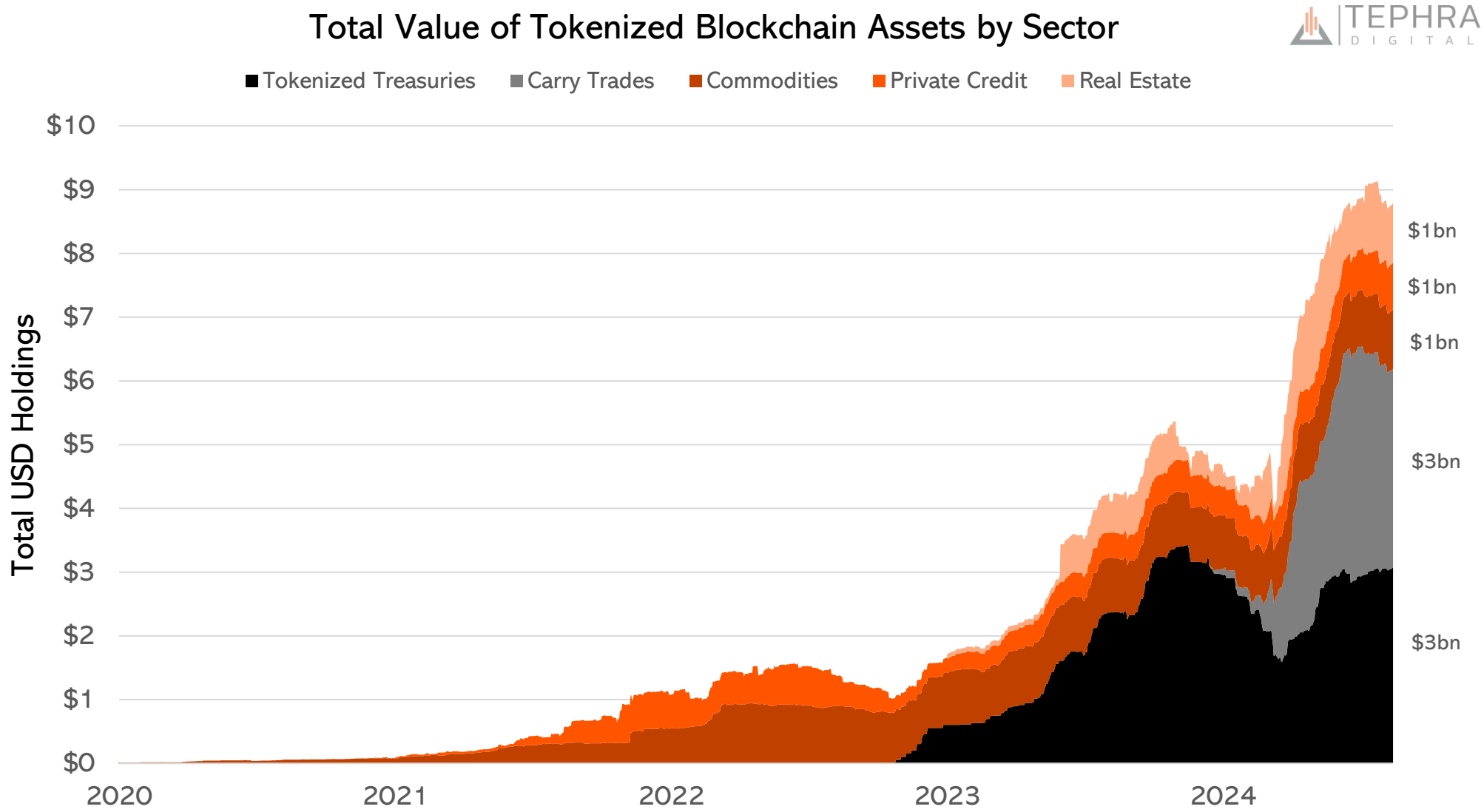
Blockchain-Based Decentralized Physical Infrastructure Networks (DePIN) May Be Reaching Significant Scale and Automation in Some Areas



Note: "Storage" includes Arweave, Bittorent, Crust Network, Filecoin, Keep Network, Siacoin, Storj and StorX. "Compute" includes Aethir, AIOZ Network, Akash Network, Bittensor, Cudos, Flux, Golem, Io.Net, Livepeer, Nosana, Render Network and Theta Network. "Mapping" includes DIMO, Geodnet, Hivemapper and Natix. "Telecom" includes Helium and Wifi Map. "Other" includes Braintrust, Stepn and Sweat Economy. Data is as of 8/15/2024.
Source: Artemis.

CHART #33

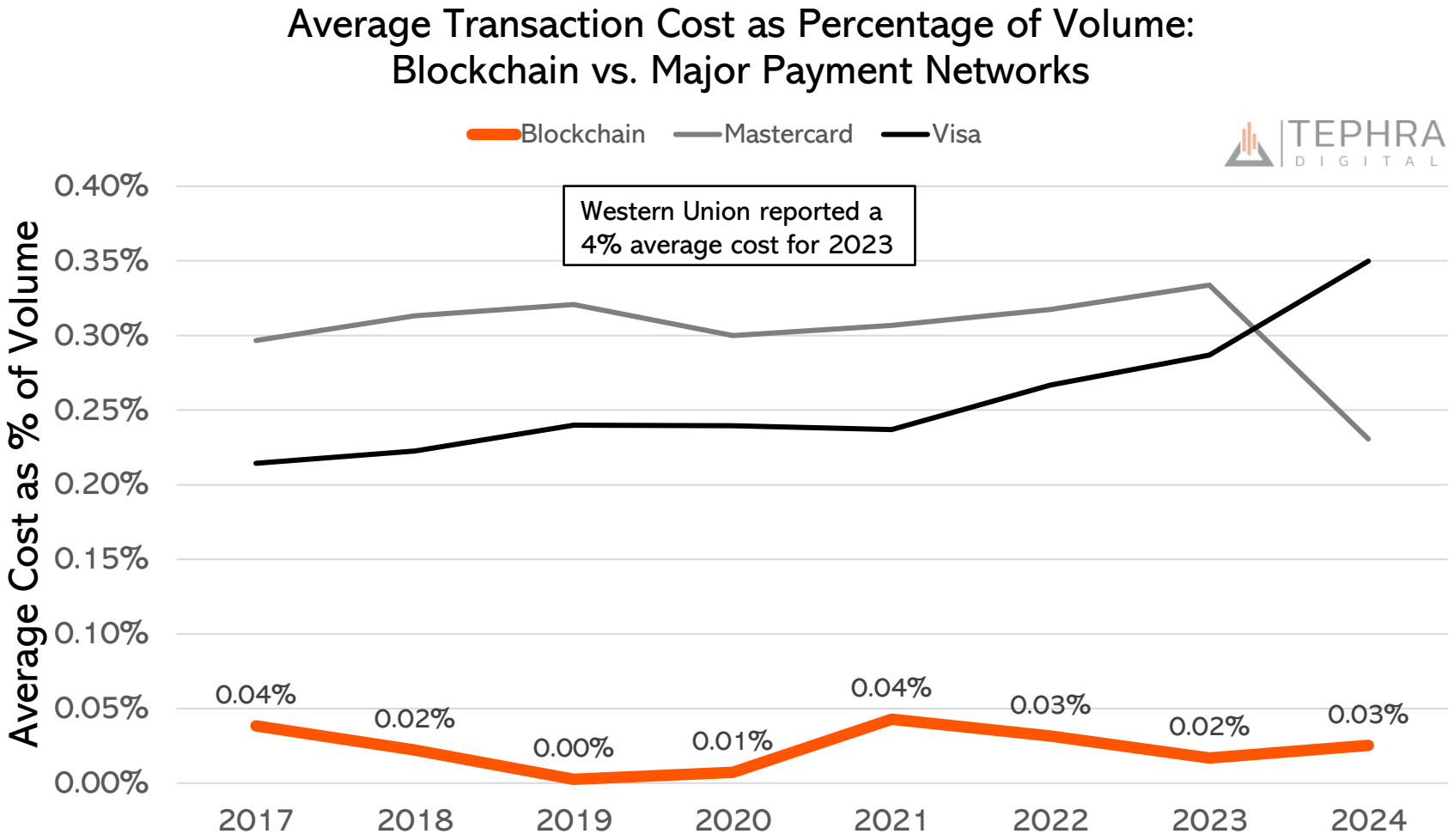
Beyond Stablecoins, Tokenized Real-World Assets Also Appear to Be Growing Rapidly



Note: Carry Trades refers to Ethena Synthetic Dollar backing. Data is as of 8/16/2024.
Sources: Messari, RWA.xyz and Dune Analytics (@Steakhouse, @21co)

CHART #34

Even As Block Settlement Times and User Features Have Significantly Improved, Transaction Costs on Major Blockchains Appear to Be Much Cheaper than Some Traditional Payment Rails

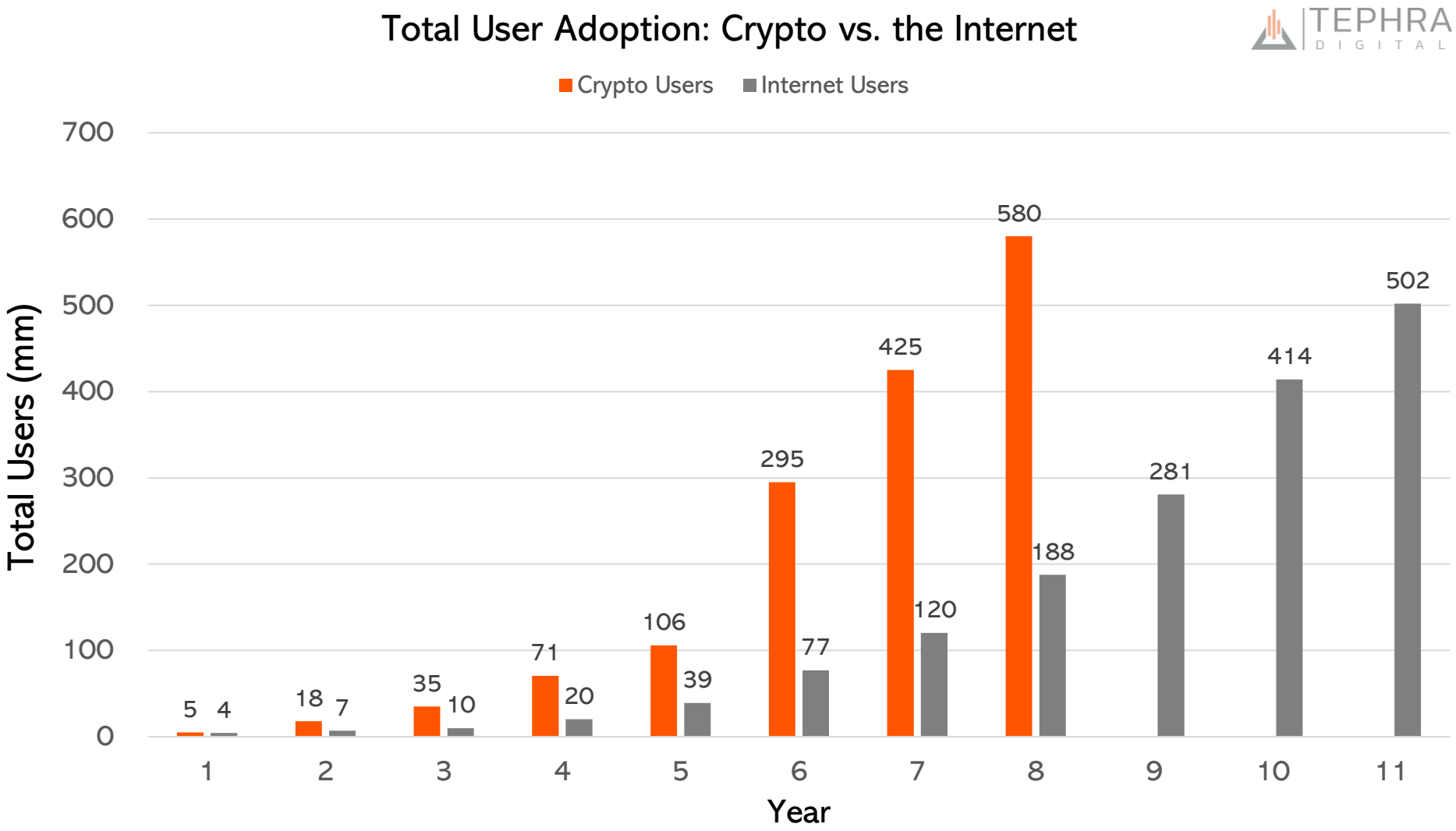


Note: Average transaction cost for Mastercard and Visa is calculated by dividing the annual payments-based revenue by the total annual transaction volume. Average blockchain transaction cost is calculated by dividing the total annual transaction fees by total settlement volume across eight blockchains. Blockchains include Bitcoin (BTC), Ethereum (ETH), Arbitrum (ARB), Avalanche (AVAX), Base, Near (NEAR), Polygon (POL) and Solana (SOL). Mastercard and Visa 2024 figures refer to year-to-date totals through 6/30/2024. Blockchain 2024 figures refer to year-to-date totals through 9/12/2024. Western Union figures refer to the 2023 ESG Report by Western Union.

Sources: Artemis, Mastercard and Visa.

CHART #35

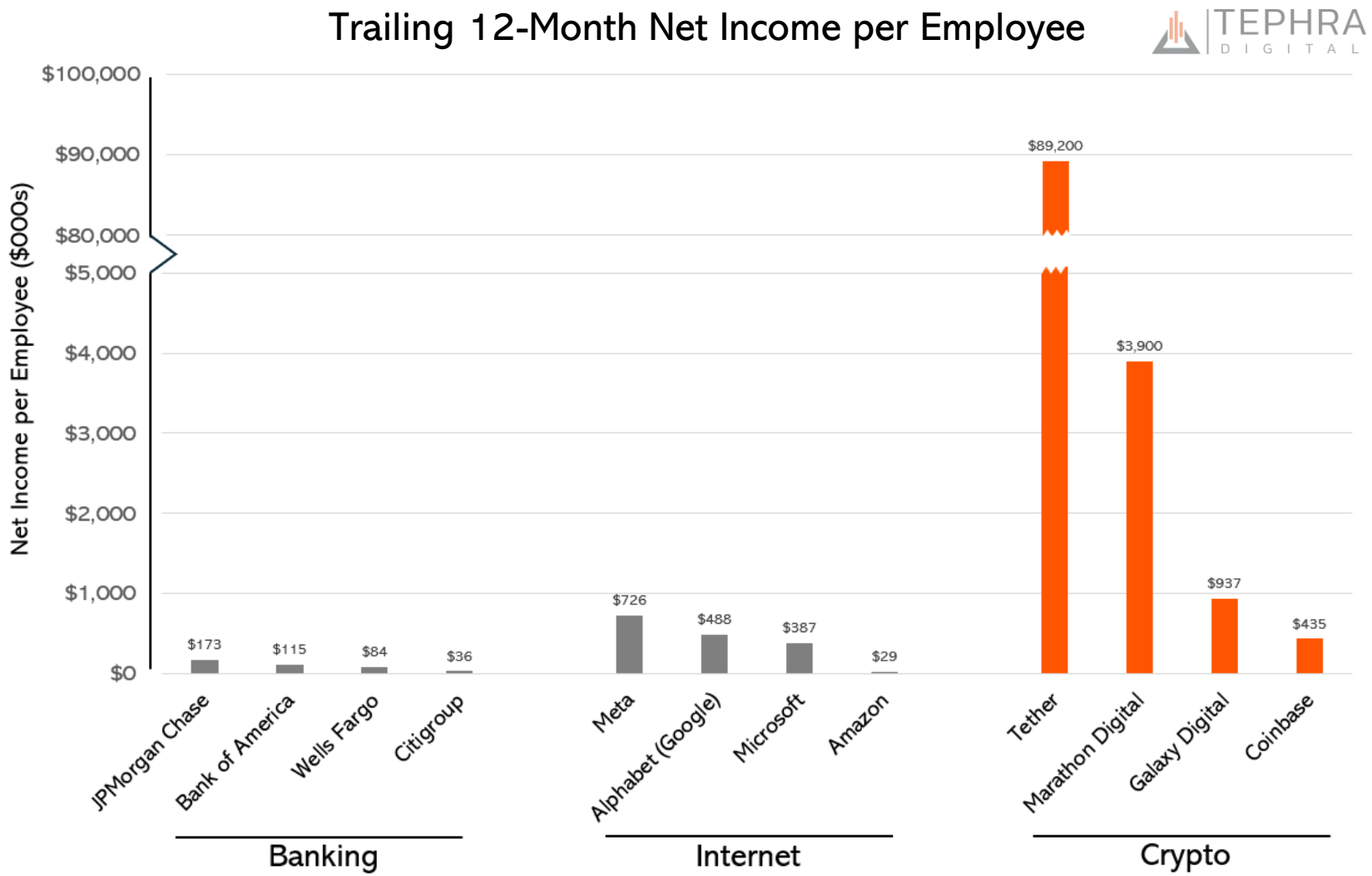
Crypto User Adoption Appears to Be Outpacing Early Internet User Adoption Based on Historical Comparisons



Note: Year corresponds to 1991 through 2001 for Internet Users and 2016 through 2026 for Crypto Users. Crypto User figures refer to University of Cambridge data for 2016 through 2018 and Crypto.com data for 2020 through 2023. 2019 Crypto User figures are an estimate, calculated as the average between 2018 and 2019 figures.
Sources: Crypto.com, the International Telecommunications Union and University of Cambridge.

CHART #38

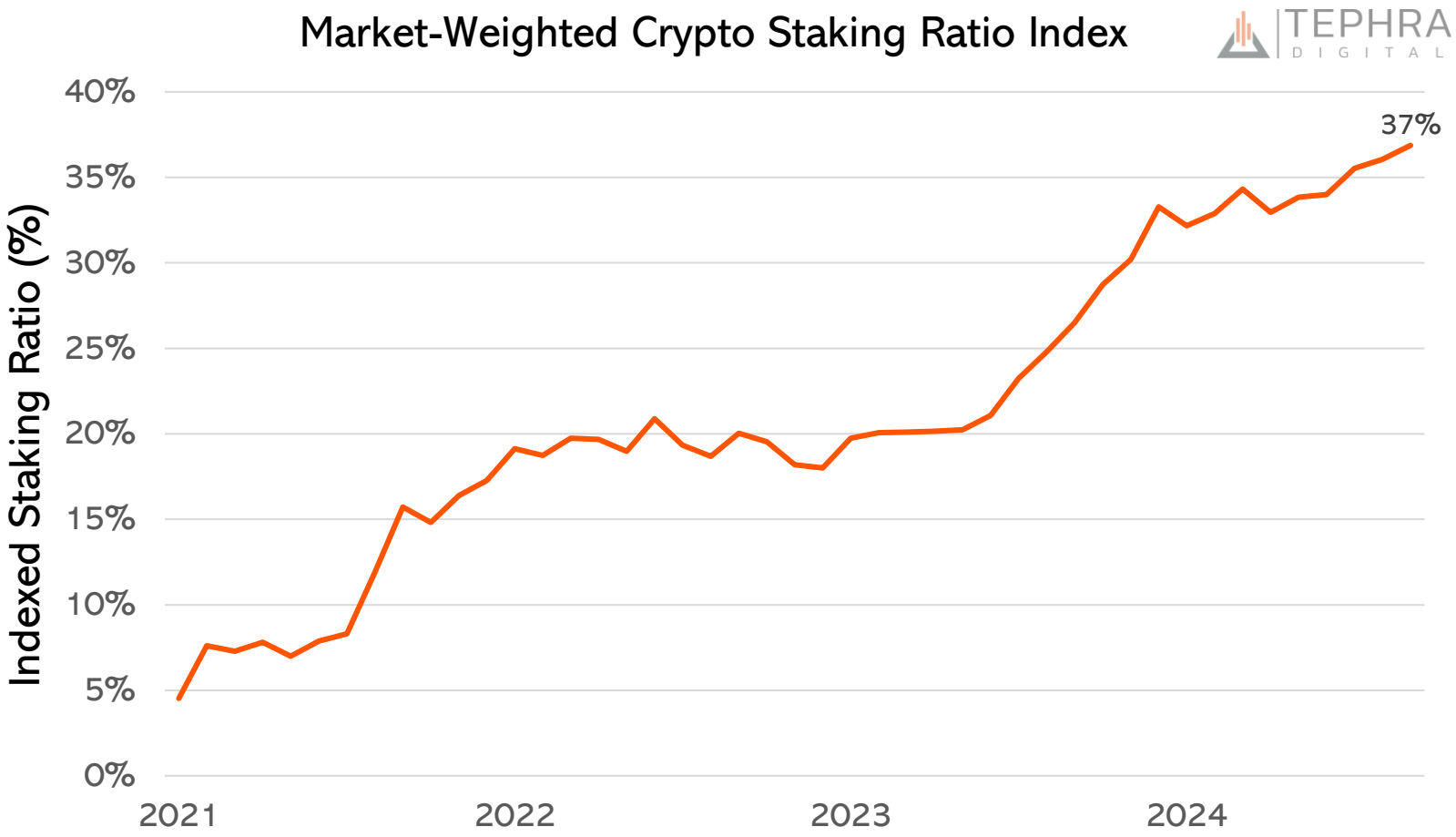
The Crypto Industry Already Features Some Highly Profitable and More Efficient Business Models Versus Financial Services and Technology Incumbents; As Crypto Achieves Even Greater Scale, These Advantages May Grow



Note: Last 12-Month Net Income is aggregated from fiscal quarters ending 9/30/2023 through 6/30/2024. Employee figures are as of 6/30/2024, except for Nvidia and Coinbase, which refer to 12/31/2023. Tether figures assume a total of 100 employees, as estimated from multiple sources. Data is as of 9/27/2024.
Sources: JPMorgan Chase, Bank of America, Wells Fargo, Citigroup, Meta, Alphabet (Google), Microsoft, Amazon, Tether Holdings, Marathon Digital, Galaxy Digital and Coinbase.

CHART #42

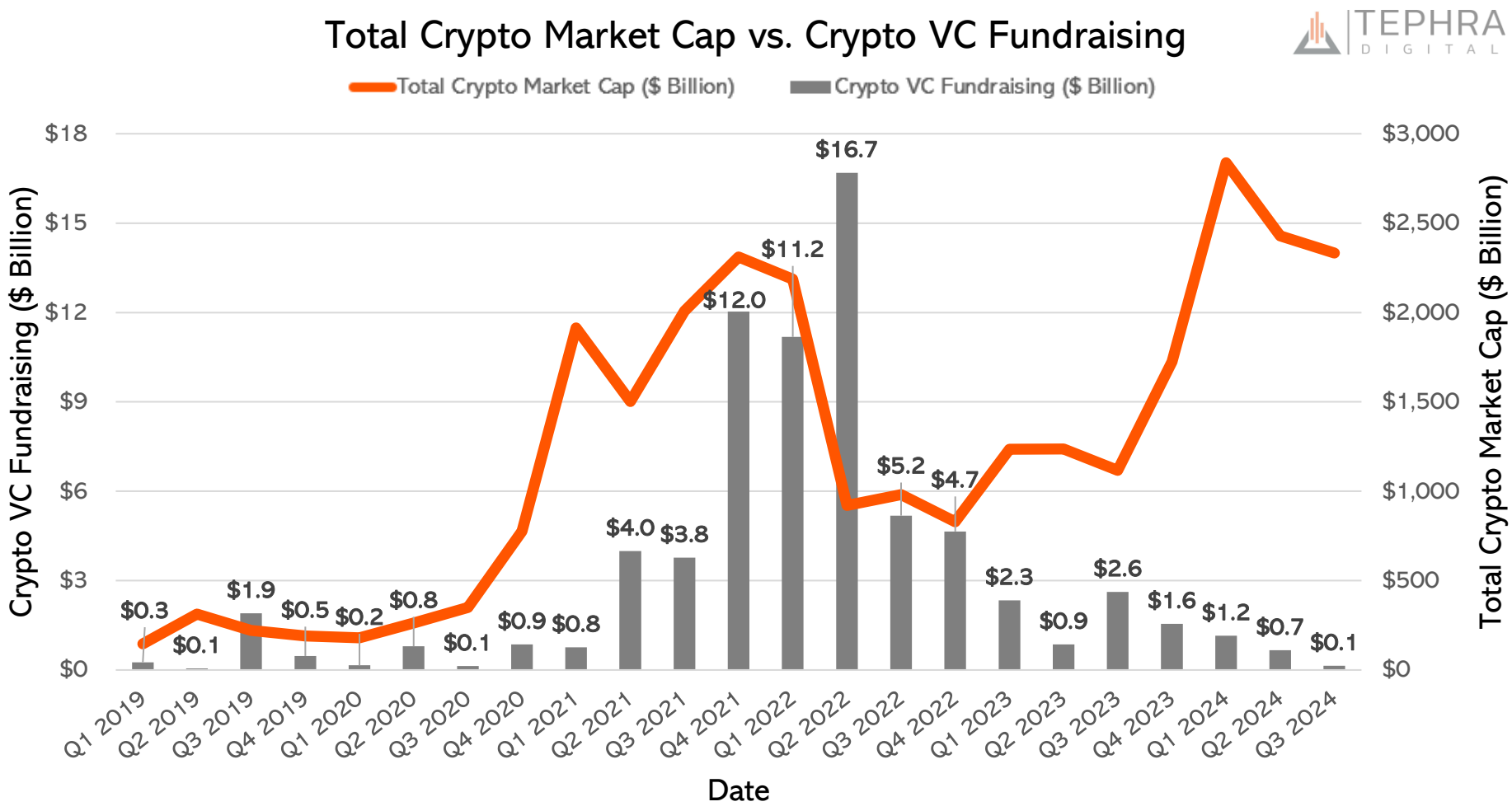
The Proportion of Digital Assets Being Staked Appears to Have Increased Significantly in Recent Years. Importantly, Staking Allows Users to Receive Token Rewards, While Blockchains Benefit from Greater Network Security and Transaction Efficiency as a Result



Note: The index includes blockchains with readily-accessible staking data: Ethereum (ETH), Solana (SOL), Tron (TRX), Toncoin (TON), Avalanche (AVAX), Polkadot (DOT), Near (NEAR) and Injective (INJ). Binance (BNB) and selected other protocols are excluded due to unavailable data. The index uses market-cap-weighted staking ratios of included blockchains, calculated at month-end. Data for NEAR, DOT, and INJ starts in January 2022, while TON begins in January 2024. Data is as of 10/11/2024.
Sources: Artemis, Avalanche, Dune Analytics (@21co), Glassnode, Staking Rewards, Ton Stat and Tronscan.

CHART #45

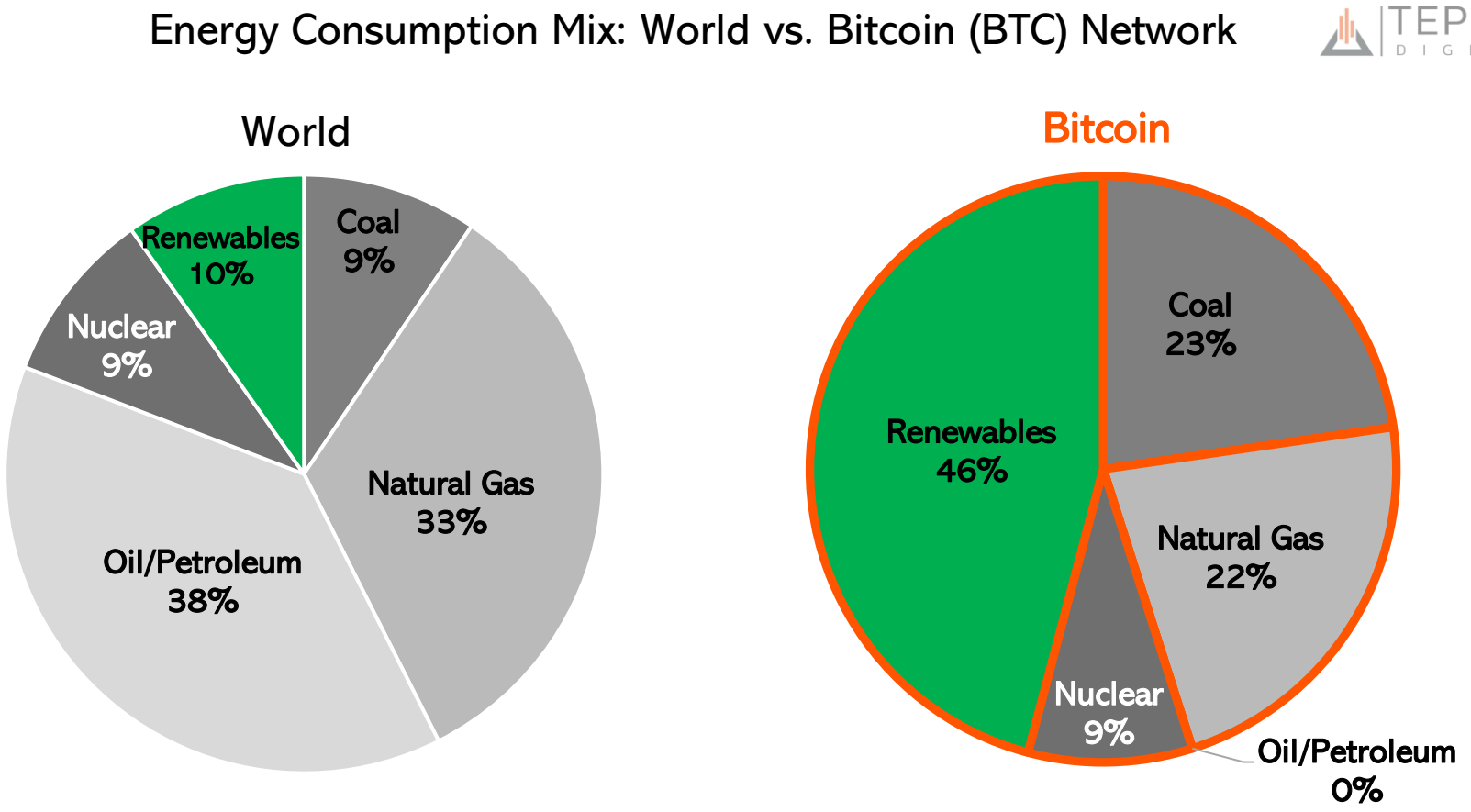
Crypto Venture Capital Fundraising Has Dwindled, Even as Digital Assets Have Seen a Resurgence. Instead of Deploying Capital in Private Markets at the Peak, Investors May Be Better Served by a Long-Term, Risk-Managed and Liquid Investment Strategy



Note: Total VC fundraising is an aggregated metric sourced over each quarter. Crypto market cap data is a point-in-time metric sourced from the end of each quarter. Data is as of 10/16/2024.
Sources: VisionTrack by Galaxy Research and CoinGecko.

CHART #46

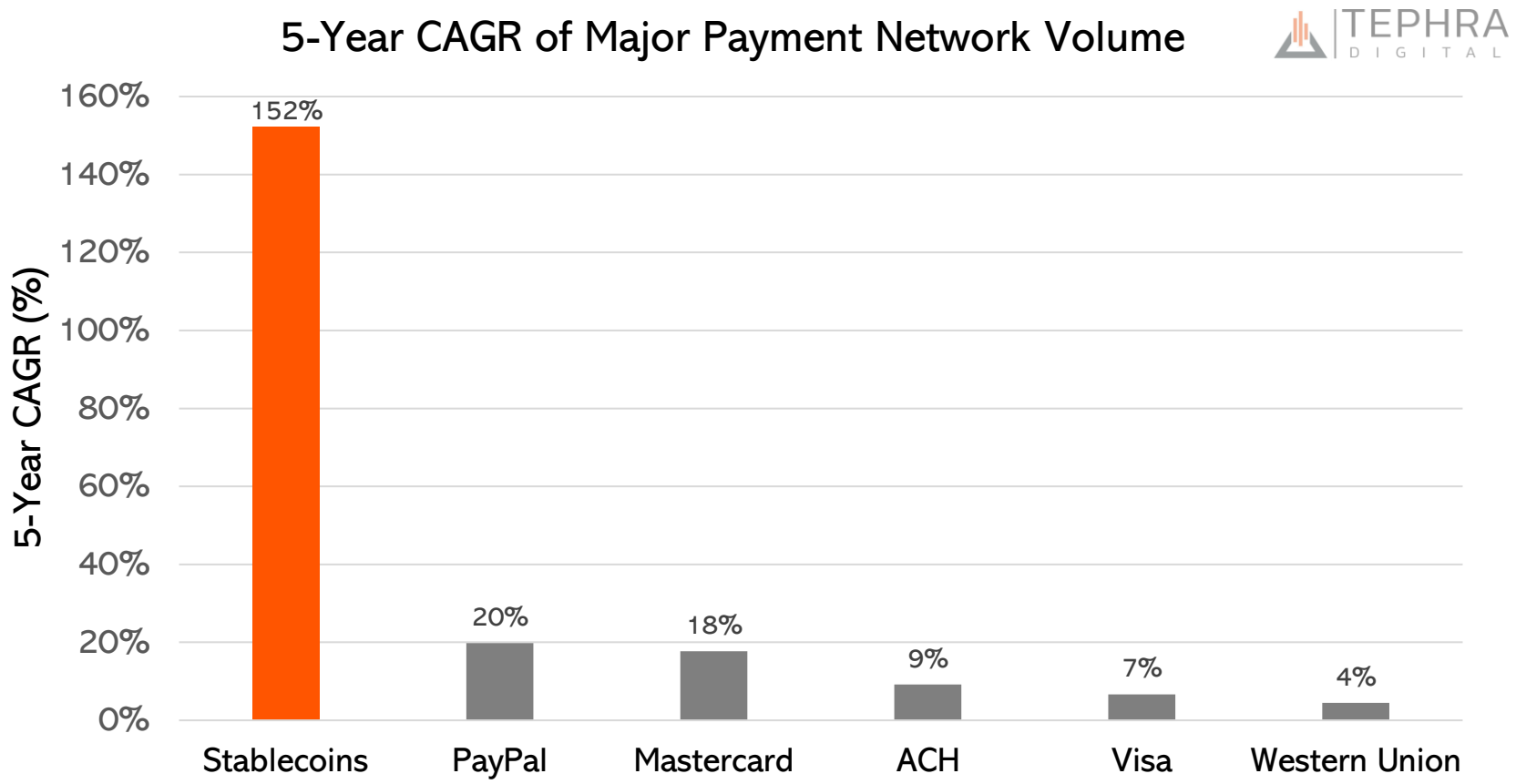
The Perception? Bitcoin Mining Is Not Environmentally Friendly. The Reality? The Bitcoin Network Appears to be Far More Environmentally Friendly than the World Overall. Environmental Concern Regarding Bitcoin Seems to be Misplaced, as Data Suggests that Bitcoin Is Actually Stabilizing Energy Grids and May be Fueling Renewable Energy Demand



Note: World figures refer to point-in-time estimates from 6/30/2024. Bitcoin (BTC) Network figures refer to point-in-time estimates from 10/17/2024. Renewables includes biofuel, biomass, geothermal, hydro, solar and wind energy. All data is as of 10/18/2024.
Sources: The US Energy Information Administration and the Bitcoin Energy and Emissions Sustainability Tracker.

CHART #49

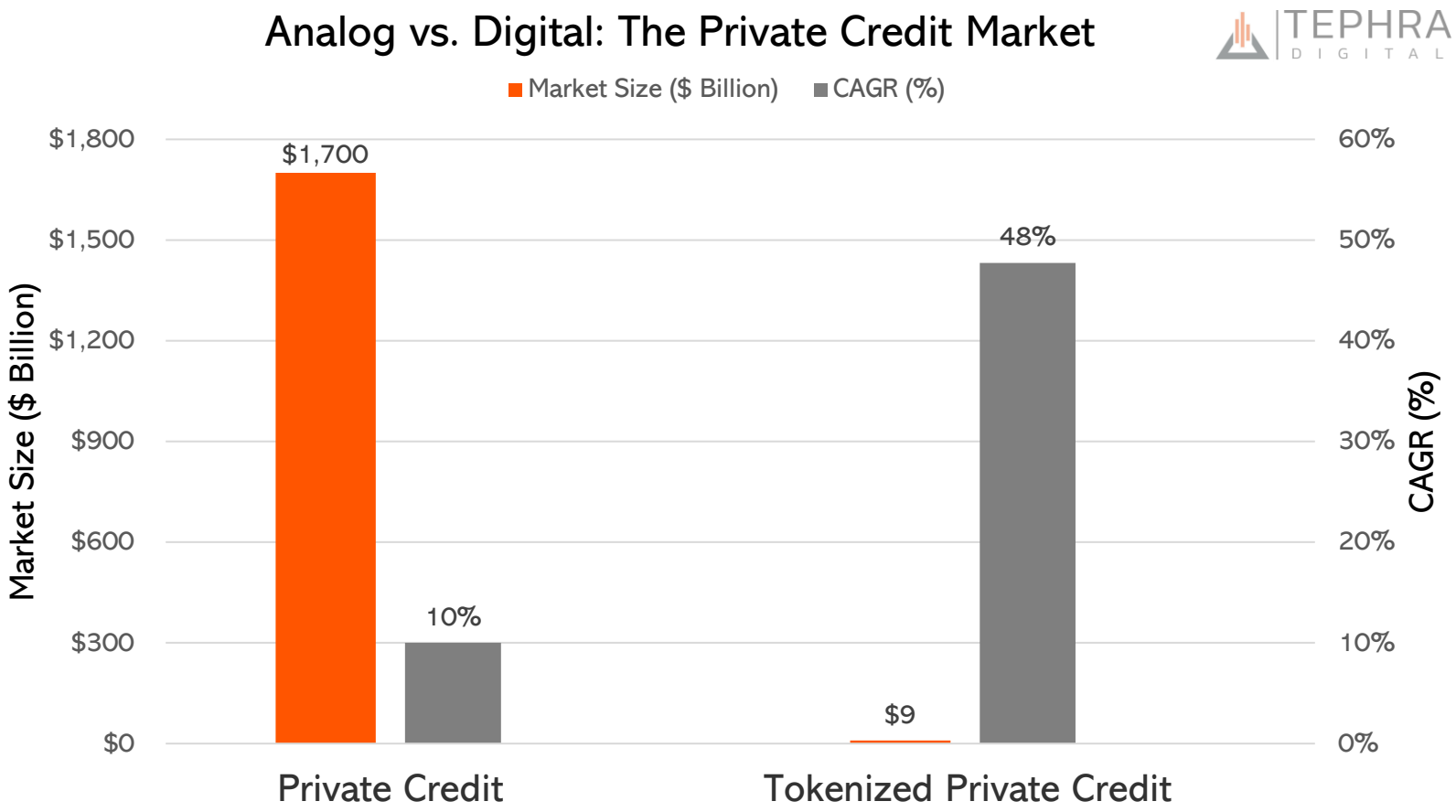
Stablecoins (Digital Assets Pegged to Traditional Currencies or Collateral Baskets) Appear to be Growing Payment Volumes at 8x to 38x the Rate of Existing Networks. Recent Acquisition Activity and the Blockchain Integration Announcements of Global Banks and Credit Card Companies Suggest that the Mass Adoption Phase for Stablecoins May Be Beginning



Note: The 5-year CAGR is calculated based on the growth rate of year-to-date totals compared to the same periods in 2019. Stablecoin figures represent the year-to-date total settlement volume through 10/21/2024, across Arbitrum, Avalanche, Base, BNB Chain, Celo, Ethereum, Optimism, Polygon, Solana, Toncoin, and Tron. PayPal, Mastercard, Visa, and Western Union figures reflect year-to-date totals through 6/30/2024, while ACH figures represent totals through 9/30/2024. All data is as of 10/21/2024.
Sources: Artemis, PayPal, Visa, Mastercard, the National Automated Clearing House Association and Western Union.

CHART #52

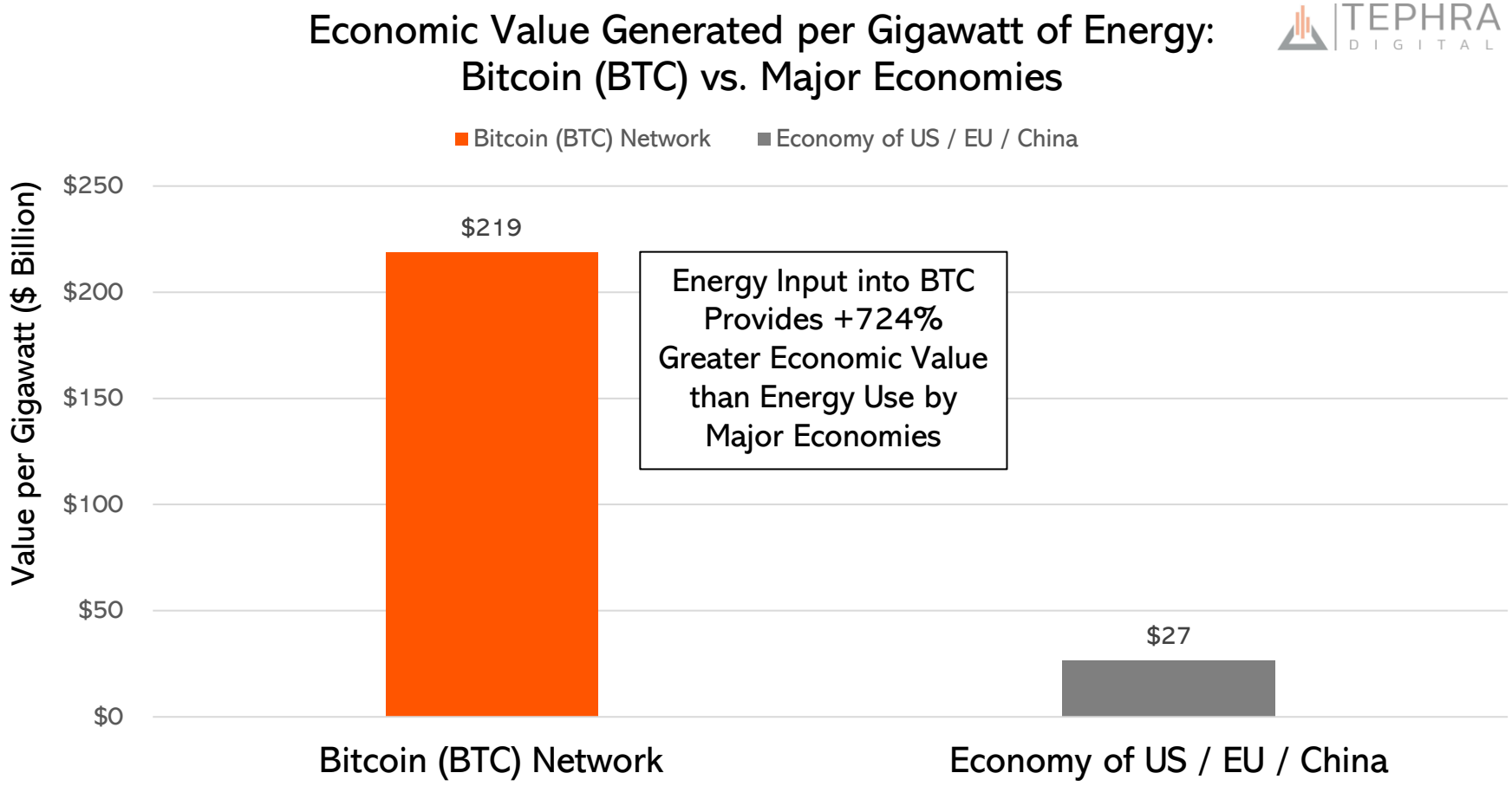
Private Credit is Booming - and Tokenized Private Credit Could Redefine It. Blockchain-Based (or "Tokenized") Assets Can Have Compelling Benefits for Investors and Issuers: Higher Transparency, Enhanced Liquidity, Greater Security, Cost Efficiency and Customization



Note: Tokenized Private Credit figures represent active loans from Figure, Centrifuge, Goldfinch, TrueFi, Curve, and Credix. Private Credit market size and CAGR figures are estimates from S&P Global. Tokenized Private Credit market size is point-in-time data from RWA.xyz on 10/29/2024, with its CAGR reflecting two-year growth up to that date. All data is as of 10/30/2024.
Sources: S&P Global, "Tokenized Private Credit: A New Digital Frontier for Real World Assets" and RWA.xyz.

CHART #53

Data Indicates that the Bitcoin (BTC) Network Delivers Greater Economic Value from Each Incremental Gigawatt of Energy Use than Major Economies

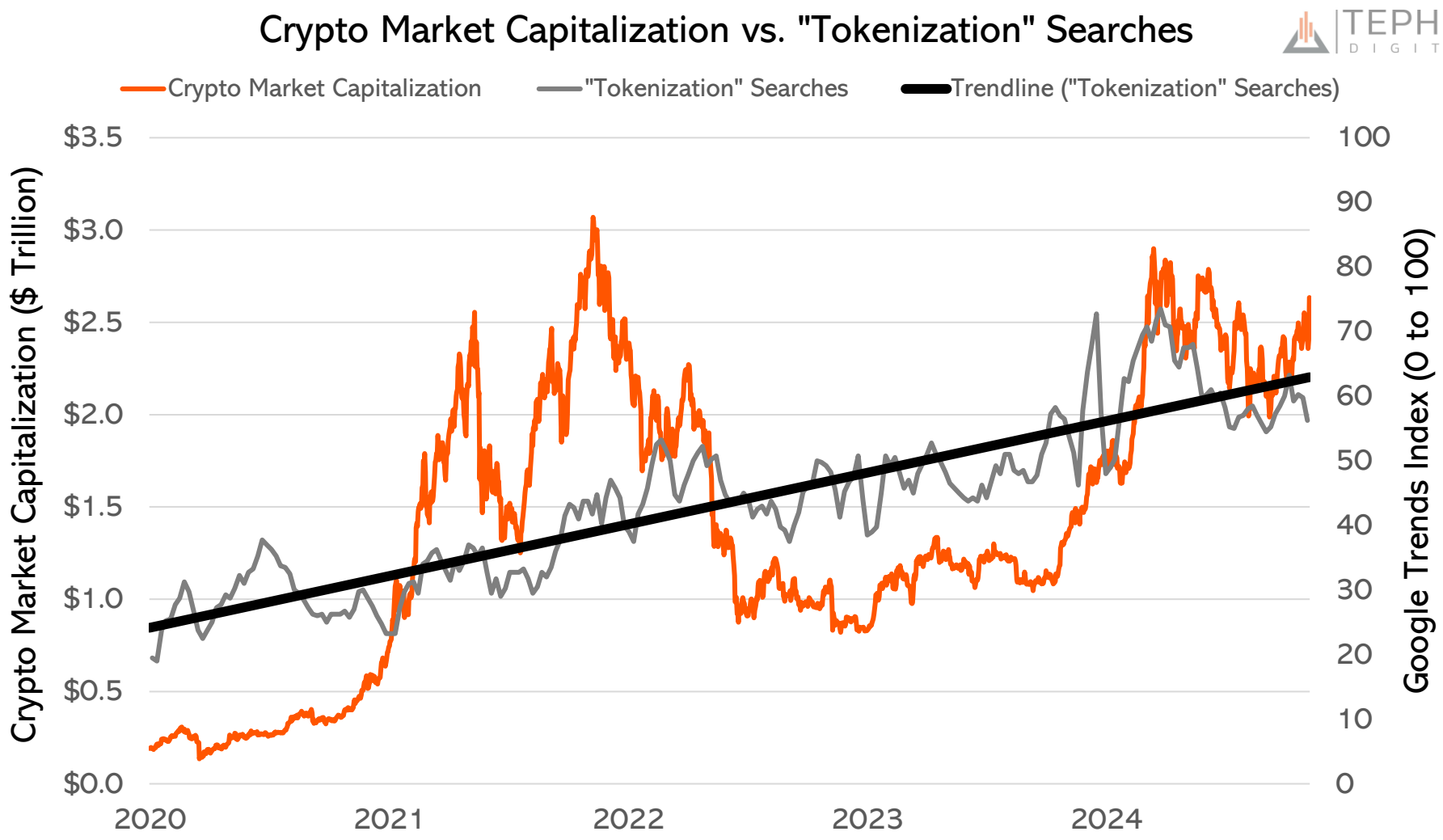


Note: The Bitcoin (BTC) Network figure was calculated by taking Bitcoin's market capitalization at the market close on 10/31/2024 and subtracting the market capitalization from the date when the Bitcoin network's energy consumption was one gigawatt lower. The energy consumption data for the Bitcoin network is based on a one-year moving average provided by the Cambridge Bitcoin Electricity Consumption Index. The US/EU/Chinese figure was calculated by averaging the GDP growth for the United States, European Union, and China over fiscal years 2020 to 2023, then dividing that by the average increase in continuous gigawatt usage for these same countries over the calendar years 2020 to 2023. Gigawatt usage was determined by dividing total gigawatt-hours by the number of hours in each year. All data is as of 10/31/2024.

Sources: Artemis, Eurostat, the Federal Reserve Bank of St. Louis, the State Council of the People's Republic of China, the University of Cambridge Centre for Alternative Finance and the US Energy Information Administration.

CHART #56

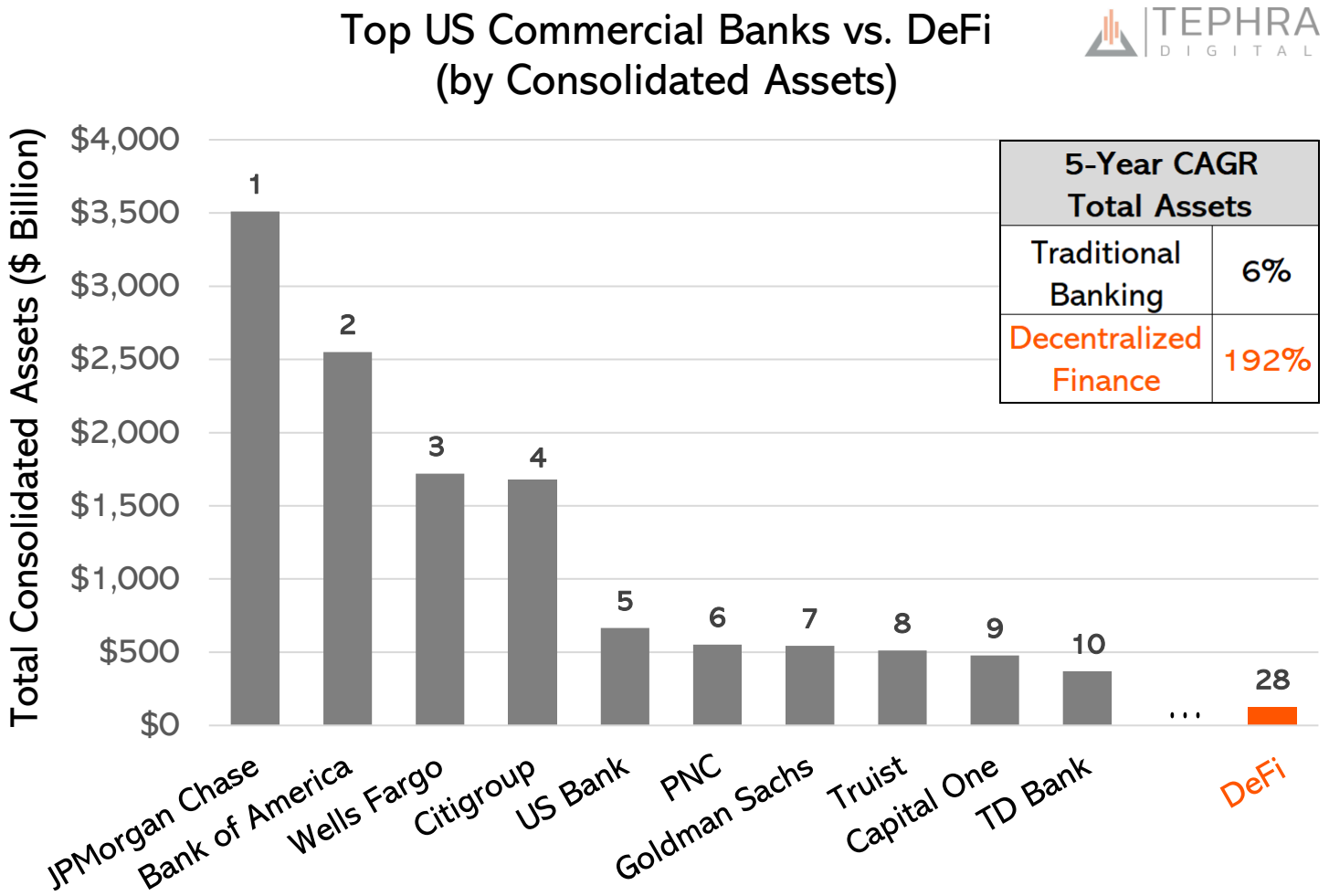
Interest in Tokenization Has Demonstrated a Steady Ascent Since 2020, Even Though Periods of Crypto Market Volatility



Note: Crypto Market Capitalization reflects the value of over 15,000 cryptocurrencies. "Tokenization" Searches represents a four-week moving average from Google Trends' index, tracking search interest in tokenization. Data is as of 11/6/2024.
Sources: CoinGecko and Google Trends.

CHART #60

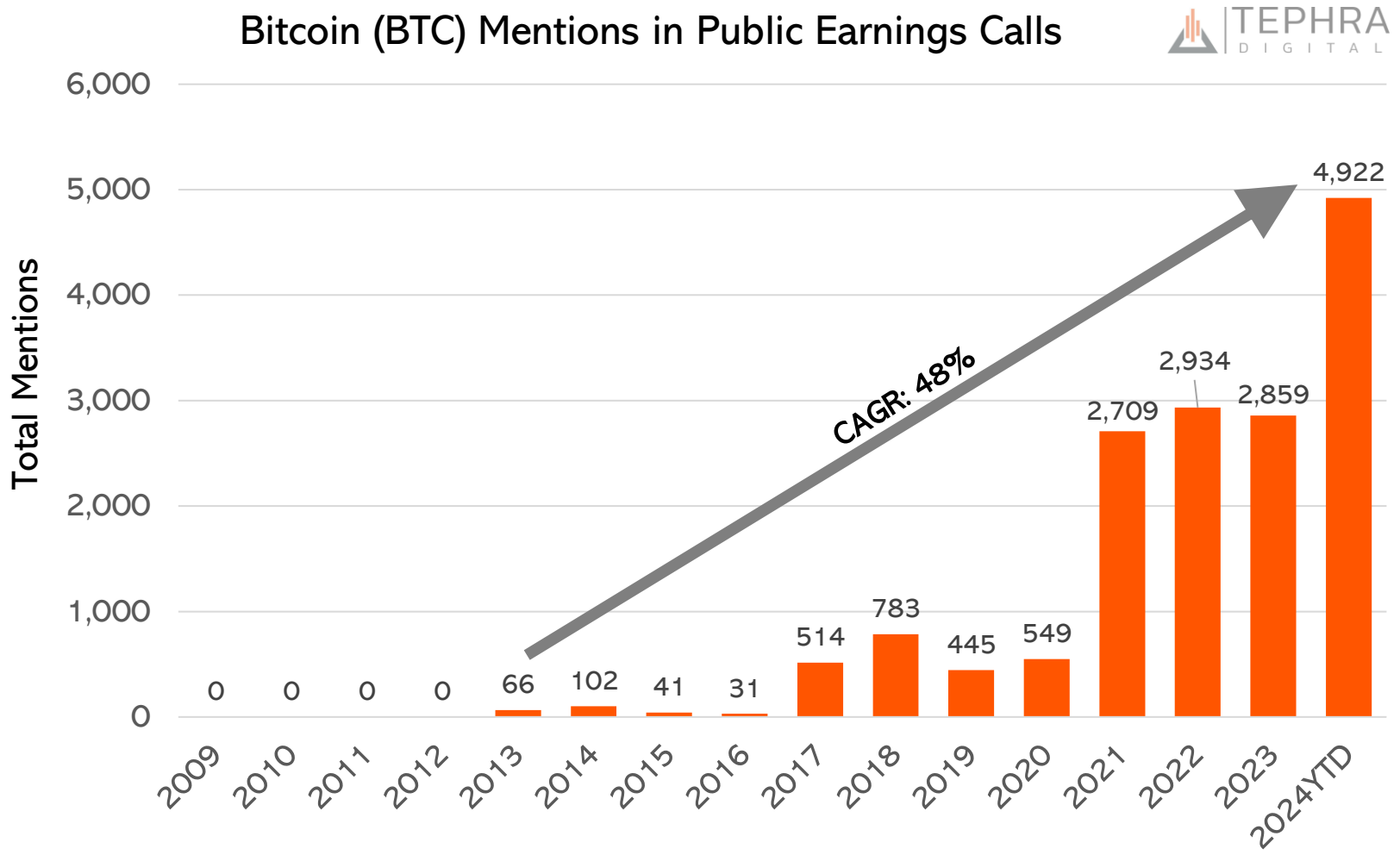
Blockchains Have Many Uses Cases, Including Decentralized Finance (DeFi). DeFi Acts Like a Bank with No Bankers; Software Does the Job. DeFi Appears to be the 28th Biggest Bank in the U.S. Based on Total Assets; While Incumbents Grew Assets 6% Annually, DeFi Has Grown at 192% Annually the Last Five Years



Note: DeFi figures represent the total value locked (TVL) as of 11/12/2024, while bank figures correspond to total consolidated assets as of 06/30/2024. The 5-year CAGR is calculated based on the compounded annual growth from five years prior to each respective observation period. All data is current as of 11/12/2024.
Sources: DeFiLlama and the U.S. Federal Reserve.

CHART #66

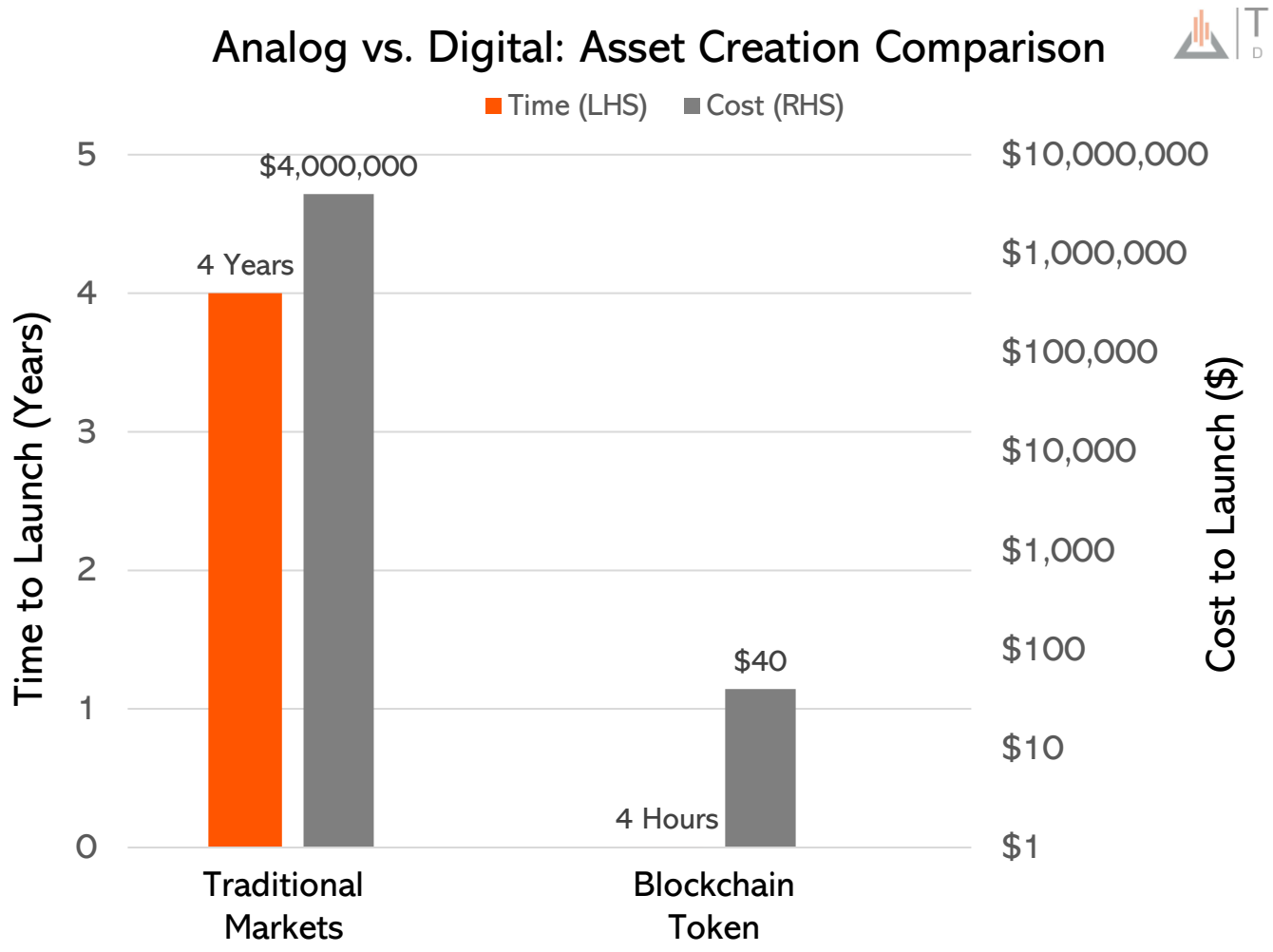
Public Companies are Paying Attention...and Investors Should as Well. Bitcoin (BTC) Is Only Held on the Balance Sheet of One S&P 500 Index Constituent Today (Tesla), But an Analysis of Worldwide Public Company Earnings Call Transcripts Suggests that an Inflection Point in Adoption Might be Approaching



Note: Figures refer to total mentions of Bitcoin (BTC) in global public company earnings call transcripts. 2024 figures refer to year-to-date totals through 11/25/2024.
Source: Bloomberg.

CHART #68

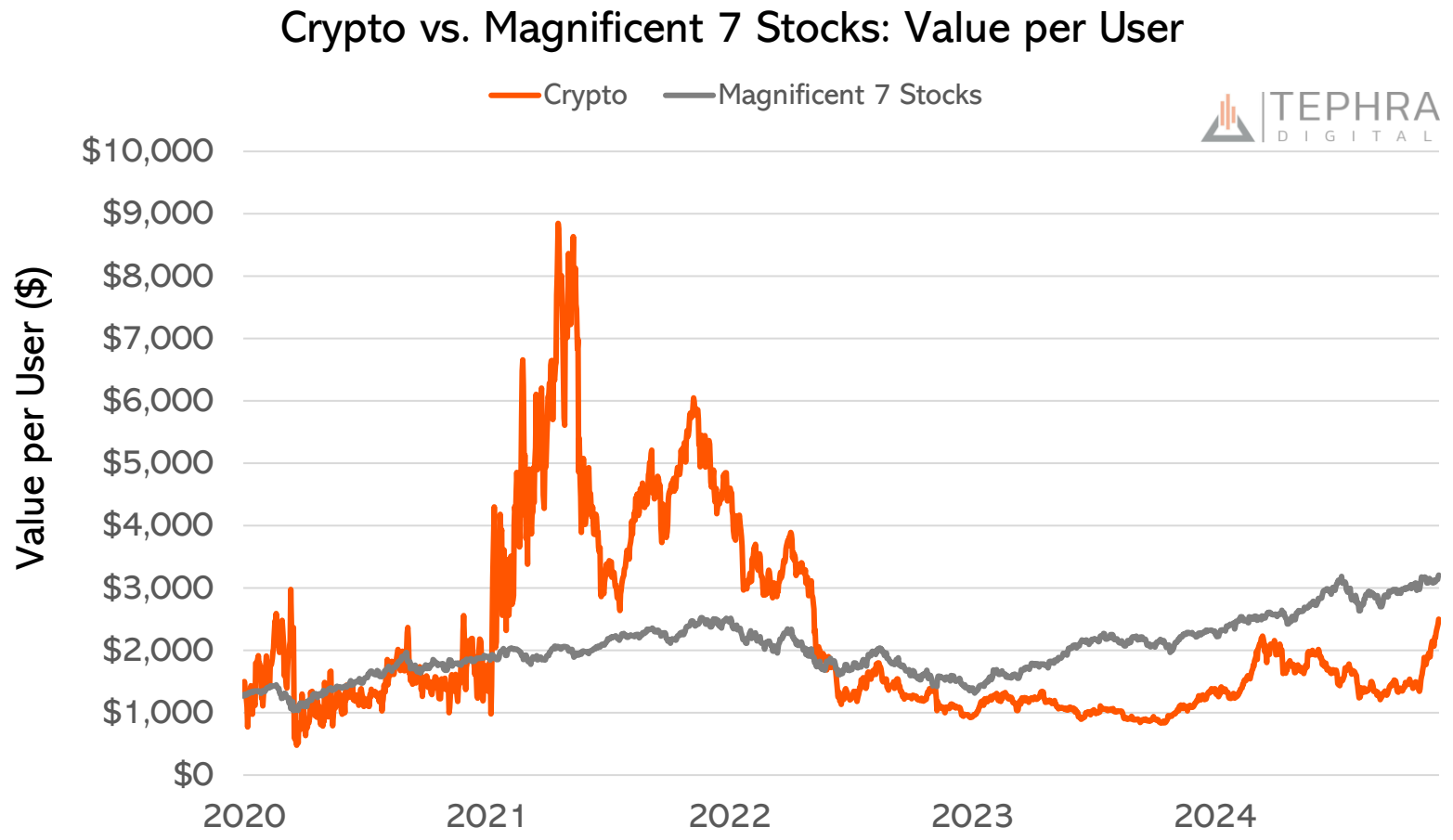
The Traditional Financial System Must Adapt to Blockchain Technology, Otherwise it Risks Being the Post Office in a World that is Choosing Email. It Typically Requires 4 Years and Approximately $40 Million in Costs to Create a Traditional Security. However, the Issuance of a Digital, Blockchain Native-Token Typically Requires 4 Hours and $40



Note: Figures represent the approximate time and cost to launch an asset in traditional capital markets (analog) versus on blockchain platforms (digital). Data is as of 11/14/2024.
Source: MicroStrategy Investor Presentation at Cantor Fitzgerald on 11/14/2024.

CHART #69

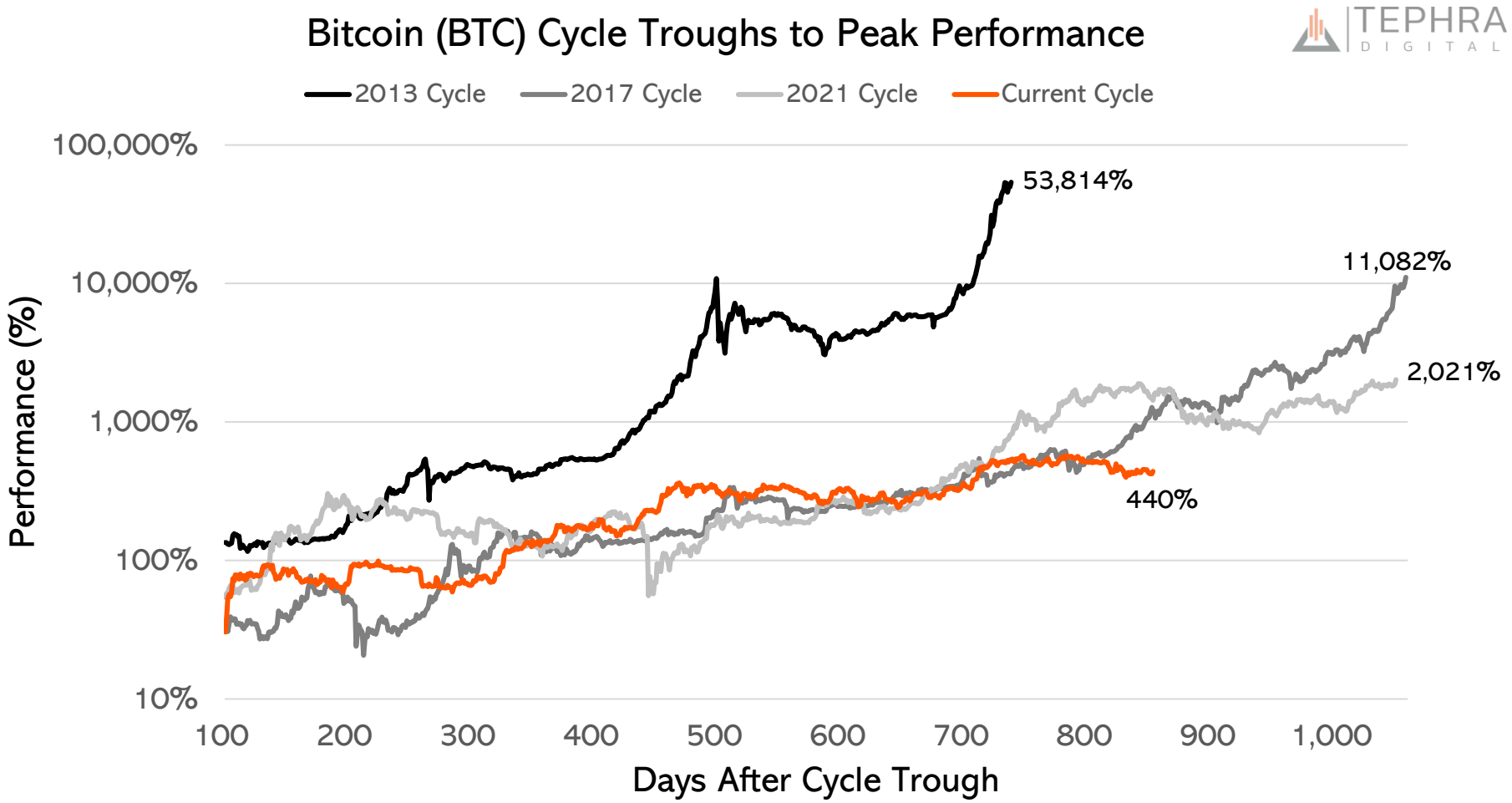
Is Crypto Expensive? Excluding Bitcoin (BTC) and Stablecoins, the Value per User of Crypto Continues to be Far Below its 2021 Peak. Relative to the "Magnificent 7" Stocks, Crypto Is Cheaper on a per User Basis, Despite Having a Growth Trajectory and Margin Structure that Appear to be Superior



Note: Crypto value per user is calculated by dividing the total daily closing market cap of cryptocurrencies (excluding BTC and major stablecoins: USDT, USDC, USDe, DAI, FDUSD, USDD, and PYUSD) by the total number of crypto users. Crypto user figures are based on periodic estimates from Crypto.com. Magnificent 7 Stocks value per user is calculated by dividing the total daily closing market cap of the Magnificent 7 stocks (AAPL, AMZN, GOOGL, META, MSFT, NVDA, and TSLA) by the total number of internet users. Internet user figures are sourced from annual point-in-time estimates by the International Telecommunication Union. Gaps in user data are interpolated using a daily linear progression between available annual figures. Data is as of 12/4/2024.
Source: Bloomberg, CoinGecko, Crypto.com and the International Telecommunication Union.

CHART #73

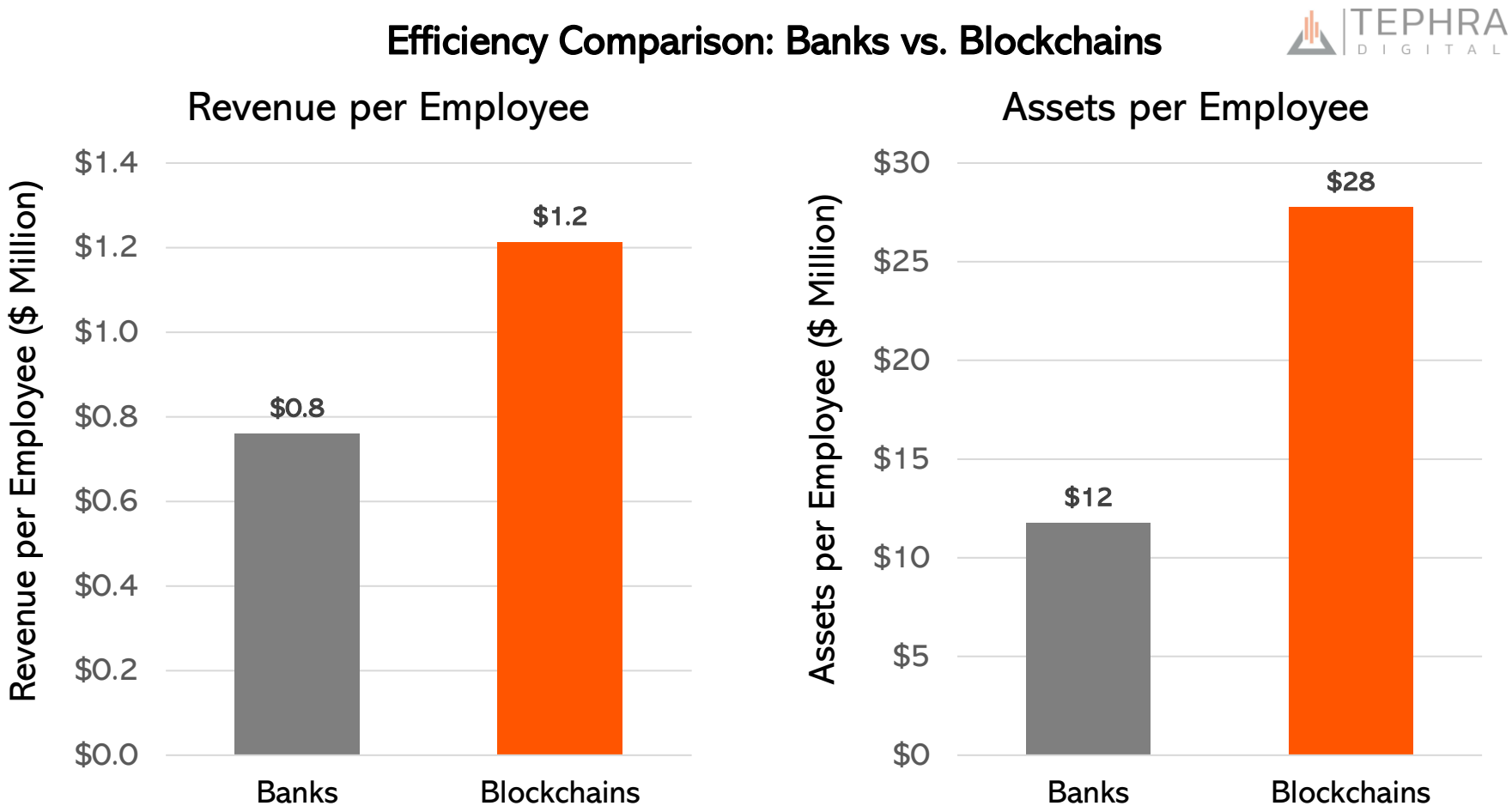
Think You Missed the Bitcoin (BTC) Bull Market? Prior Cycles Suggest a Meaningful Continuation of the Trend, and Unique Factors Regarding the Current Cycle (Such as Rising Nation-State, Corporate and Institutional Adoption) May Serve as Added Tailwinds



Note: Figures are calculated as the percent change in daily Bitcoin (BTC) closing price from the trough of each Bitcoin (BTC) cycle to the next peak. Data is as of 4/1/2025.
Source: Coin Metrics.

CHART #74

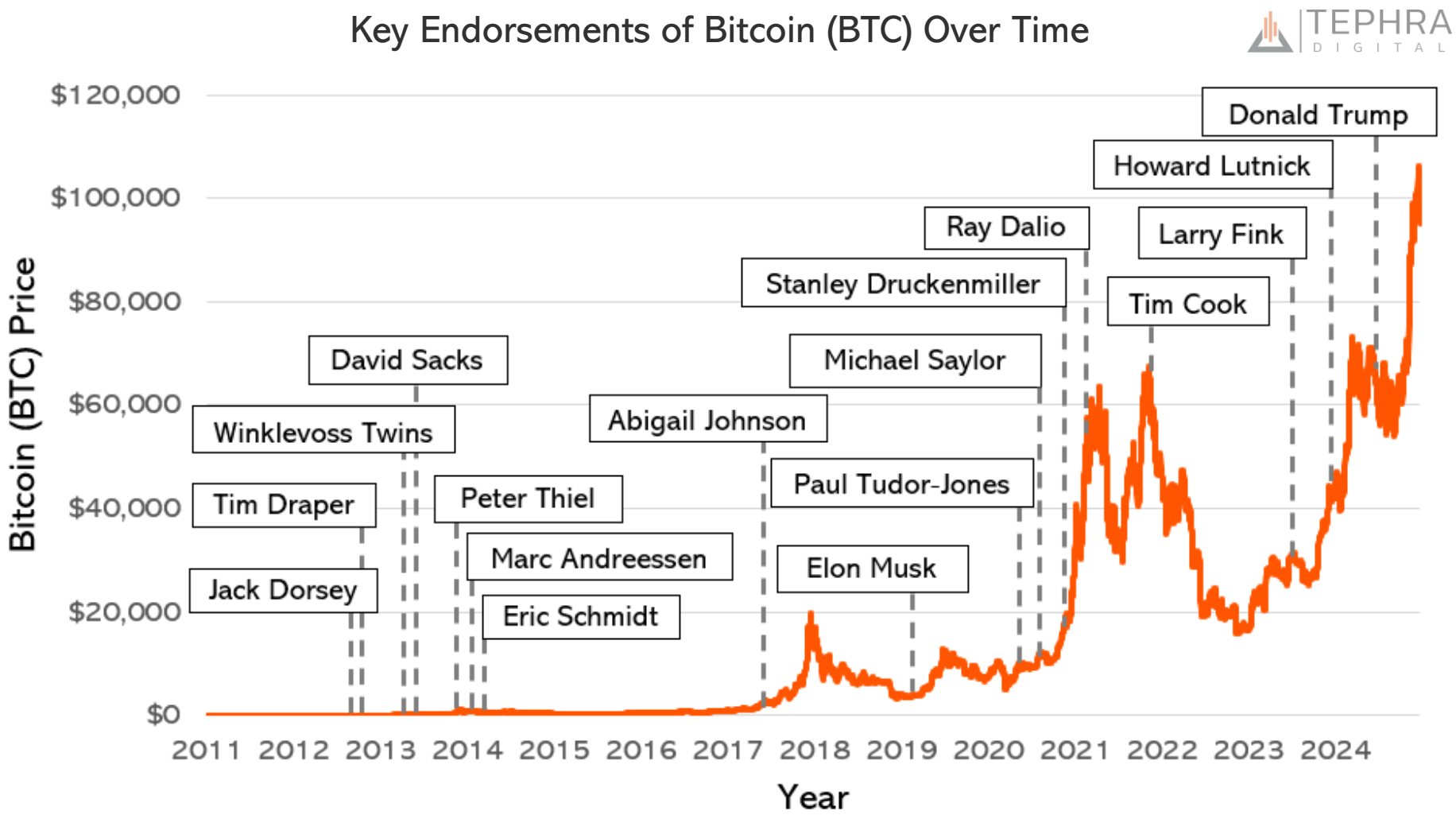
The Banking System Could Really Use a Software Update. Despite Having Such Significant Scale Advantages, Banks Still Have Lower Revenues and Assets per Employee than Blockchain Platforms that are in the Early Stages of Growth



Note: Blockchain network "revenue" refers to TTM total fees of the top 10 blockchains by Total Value Locked (TVL), and "assets" refers to the TVL (similar to deposits) of the same blockchains. Blockchain "employees" denotes the number of full-time developers who contributed code on 10 or more days in the most recent month. Blockchains include Bitcoin (BTC), Ethereum (ETH), Solana (SOL), Tron (TRX), BNB Chain (BNB), Base, Arbitrum (ARB), Sui (SUI), Avalanche (AVAX) and Aptos (APT). All bank figures are sourced from the FDIC's Quarterly Banking Profile, covering over 4,500 commercial banks and savings institutions. Bank revenues reflect TTM figures as of 9/30/2024, while assets and employee figures are point-in-time as of 9/30/2024. Data is as of 12/17/2024. Sources: Artemis, Bloomberg, DeFi Llama and the Federal Deposit Insurance Corporation.

CHART #76

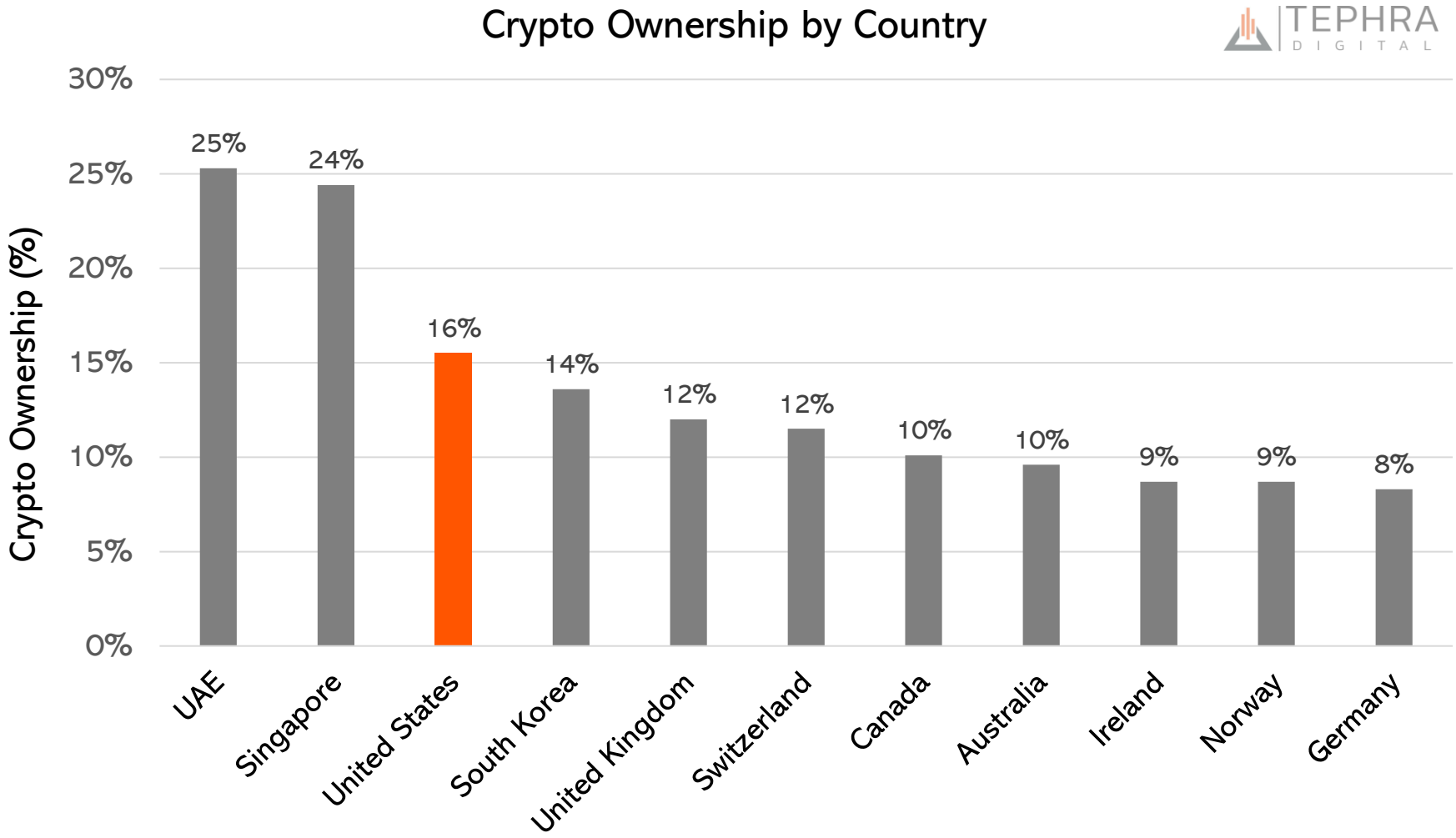
The Journey Is as Important as the Destination! Bitcoin (BTC) and Digital Assets Continue to Gain Support from Leading Voices, and the Process of Discovery May Accelerate as Macroeconomic and Policy Imperatives Drive Further Support and Adoption



Note: This chart highlights the moments when influential figures publicly expressed positive sentiment about Bitcoin (BTC) for the first time. Data is as of 12/23/2024.
Sources: a16z, Bitcoin Magazine, Bloomberg, CNBC, Coindesk, Forbes and Yahoo Finance.

CHART #77

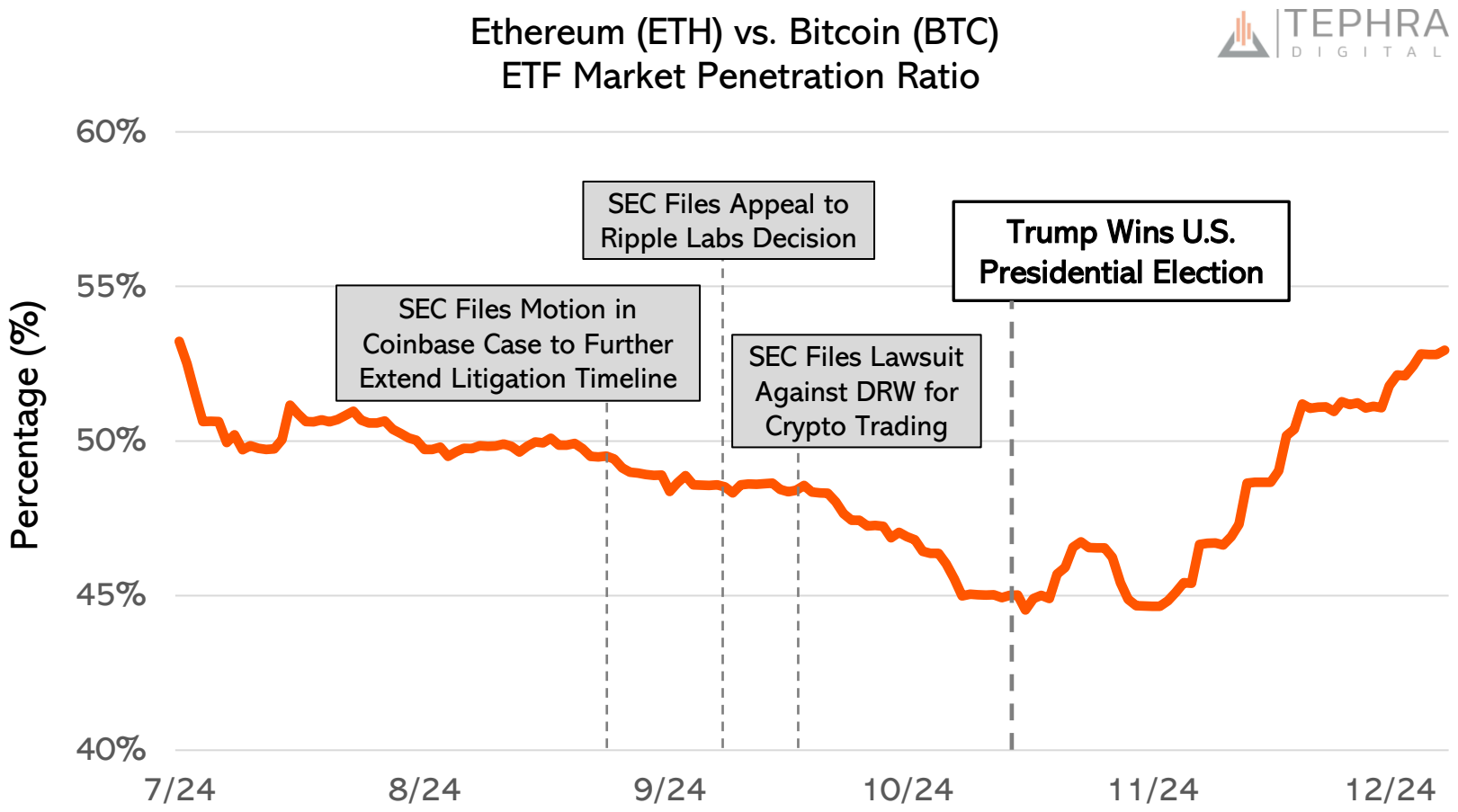
The United States Has Been a Leader in Crypto Adoption, Despite Regulatory Uncertainty and a Lack of Integration with the Banking System. As Global Crypto Penetration Increases, Adequate Reforms Could Accelerate Both Individual and Institutional Adoption, Particularly in the United States



Note: All figures represent the estimated share of each country's population that owns cryptocurrency. Data for the United Kingdom is from August 2024. All other data is from May 2024.
Sources: Citigroup, the UK Financial Conduct Authority and Triple-A, "The State of Global Cryptocurrency Ownership in 2024."

CHART #78

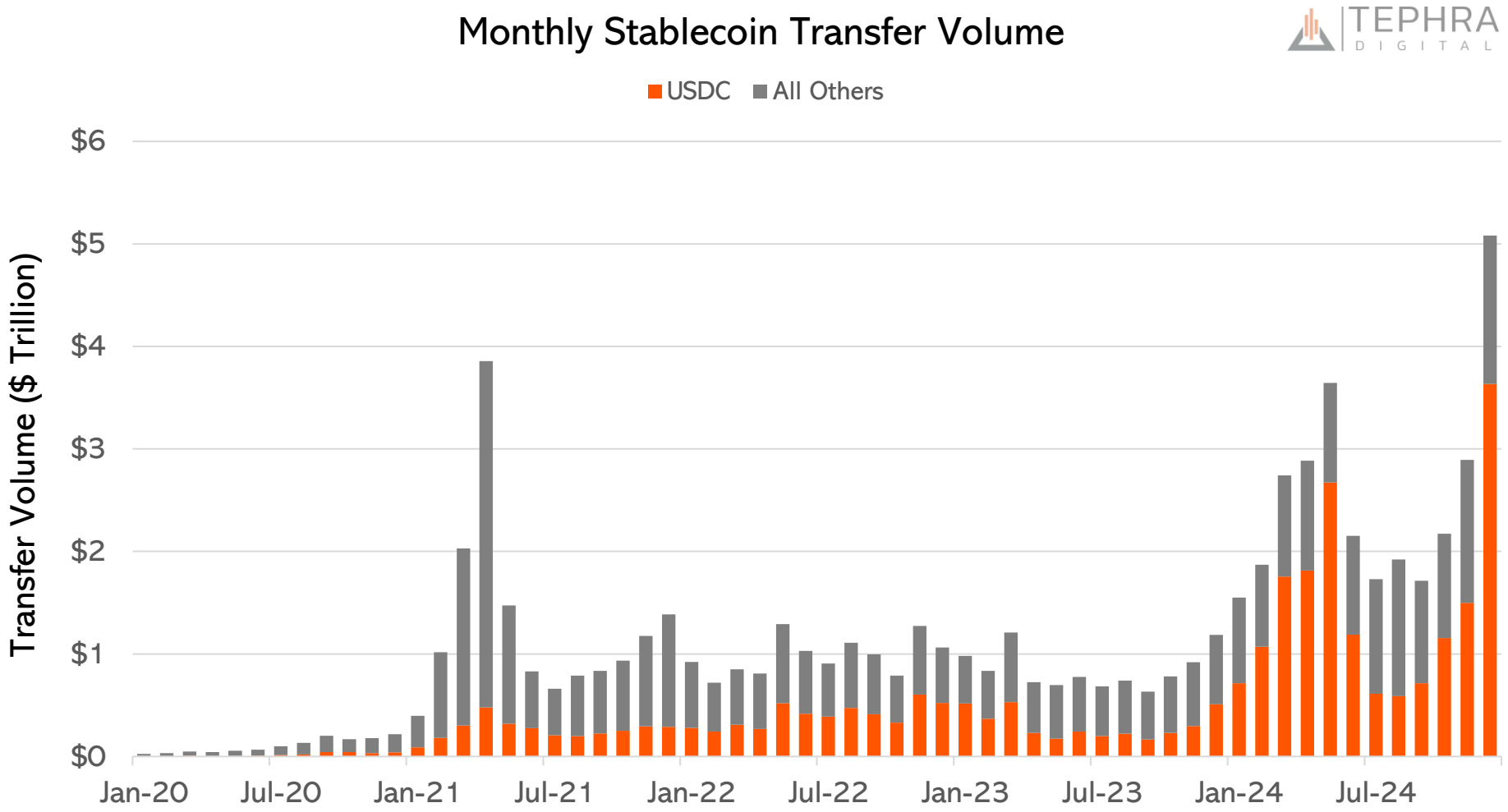
Ethereum (ETH) ETFs Are Approximately Half the Market Penetration Rate of Bitcoin (BTC) ETFs, Based on Relative Market Capitalization. As Regulatory Headwinds Abate in 2025, and Investor Education and Institutional Adoption Grow, the Market Penetration Ratio of Ethereum ETFs Could Climb Higher



Note: The Ethereum (ETH) vs. Bitcoin (BTC) ETF Market Penetration Ratio equals the market value of Ethereum (ETH) ETFs as a percentage of Bitcoin (BTC) ETFs, divided by Ethereum (ETH) market cap as a percentage of Bitcoin (BTC) market cap. Bitcoin (BTC) ETFs include tickers IBIT, GBTC, FBTC, ARKB, BITB, BTC, HODL, BRRR, BTCO, EZBC and BTCW. Ethereum (ETH) ETFs include tickers ETHE, ETHA, ETH, FETH, ETHW, ETHV, QETH and CETH. Data is as of 12/30/2024.
Sources: Artemis and Bloomberg.

CHART #80

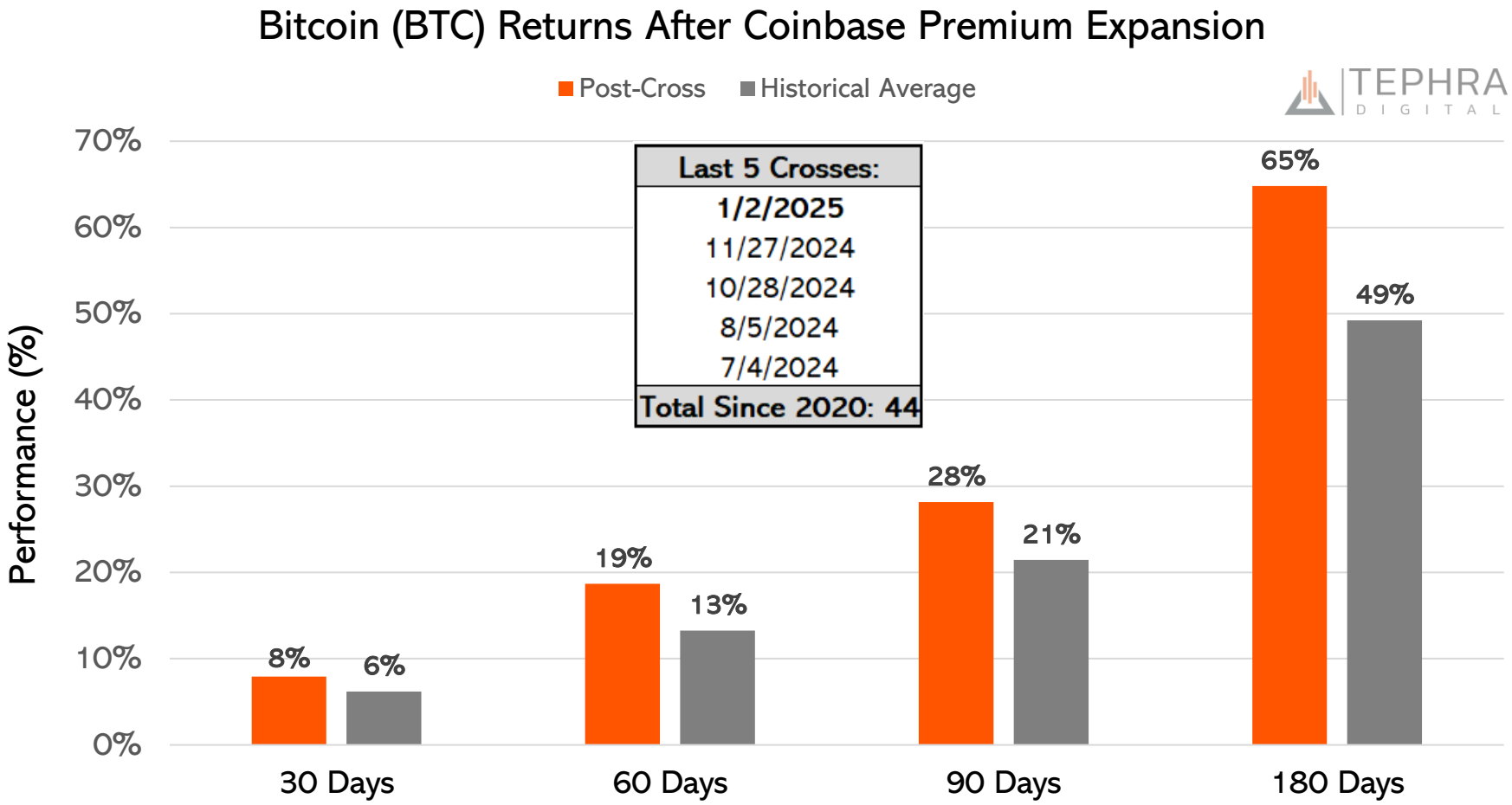
Stablecoin Transfer Volume Exceeded $5 Trillion in December 2024 and Reached a Monthly All-Time High. Stablecoins, which are Pegged to Fiat Currencies, are a Fast and Cheap Way to Directly and Digitally Transfer Value



Note: All Others includes stablecoins AUSD, BUS, cEUR, cKES, cREAL, cUSD, DAI, EURC, FDUSD, PYUSD, USDGLO, USDe, USDP, USDS, and USDT. Data is as of 1/2/2024.
Source: Artemis.

CHART #81

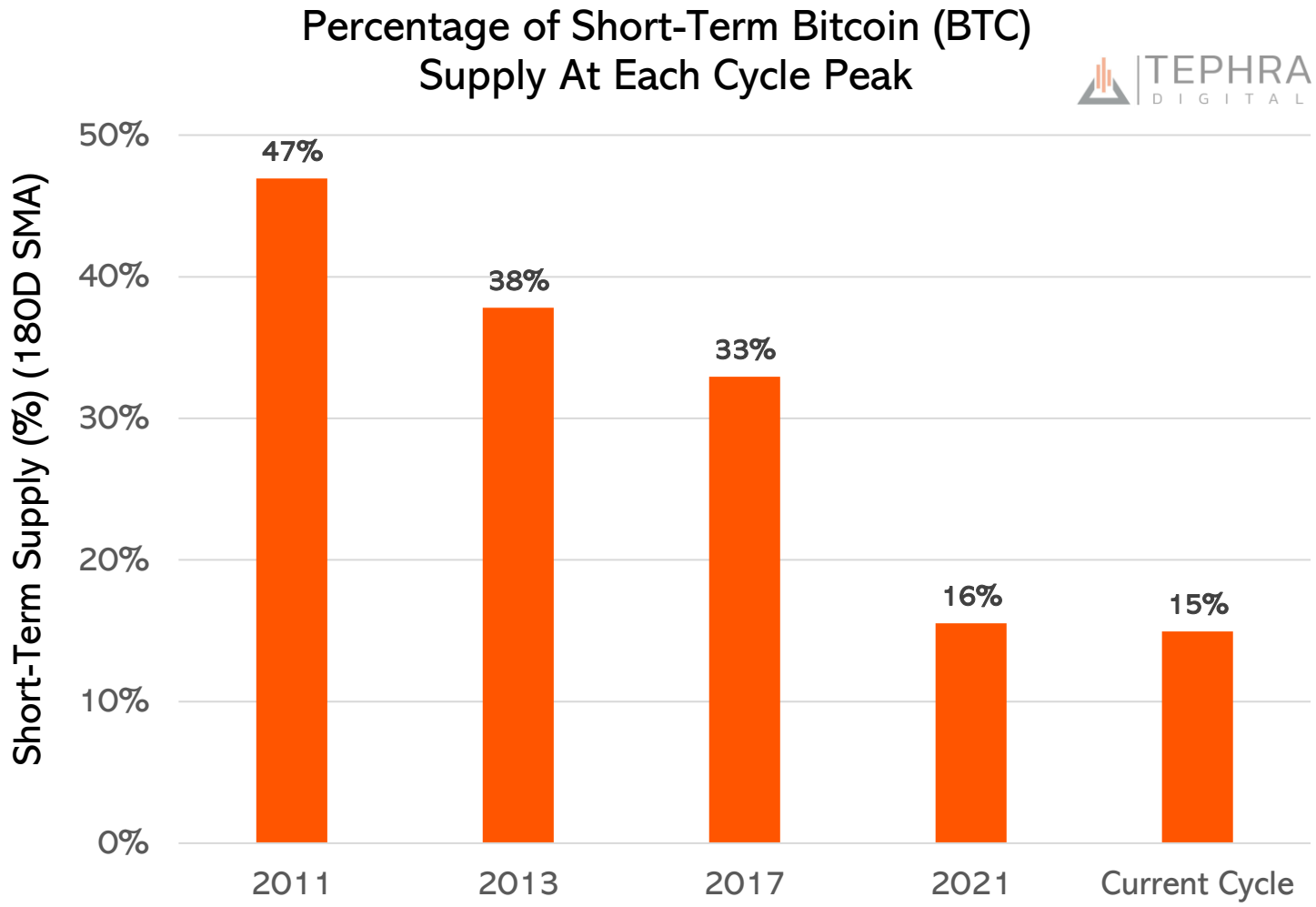
Higher Execution Prices of Bitcoin (BTC) on the Coinbase Exchange, Versus the Global Market, May Reflect Periods of Greater US-Based and Institutional Demand ("Coinbase Premium Expansion"). Analysis Indicates Higher than Average Returns for Bitcoin (BTC) Result in these Periods ("Coinbase Premium Expansion")



Note: Coinbase Premium Expansion occurs when the Coinbase Premium, after falling to a critical threshold (≤ –0.1% below its 14-day moving average), recovers and moves back above that 14-day average. Post-Cross performance measures Bitcoin (BTC) returns over various timeframes after this event. The Historical Average reflects average BTC performance across similar timeframes since 01/01/2020. All calculations are based on data from 01/01/2020 through 01/07/2025.
Sources: Artemis and CryptoQuant.

CHART #82

Bitcoin (BTC) Supply Dynamics Appear to Be Consistently Improving. Even Though the Bitcoin (BTC) Price Is Higher Versus Prior Cycles, the Upside Potential Due to Supply Scarcity May be Increasing as Well



Note: Figures represent the 180-day moving average of Short-Term Bitcoin (BTC) Supply as a percentage of the total circulating supply at each cycle peak closing price. Short-Term Supply is defined with respect to the entity's averaged purchasing date, with weights given by a logistic function centered at an age of 155 days and a transition width of 10 days. Data is as of 1/9/2025.
Source: Glassnode.

CHART #84

JP Morgan CEO Jamie Dimon's Historical Bitcoin (BTC) Statements: A Journey Through Time and Bitcoin Price. Presented Without Comment

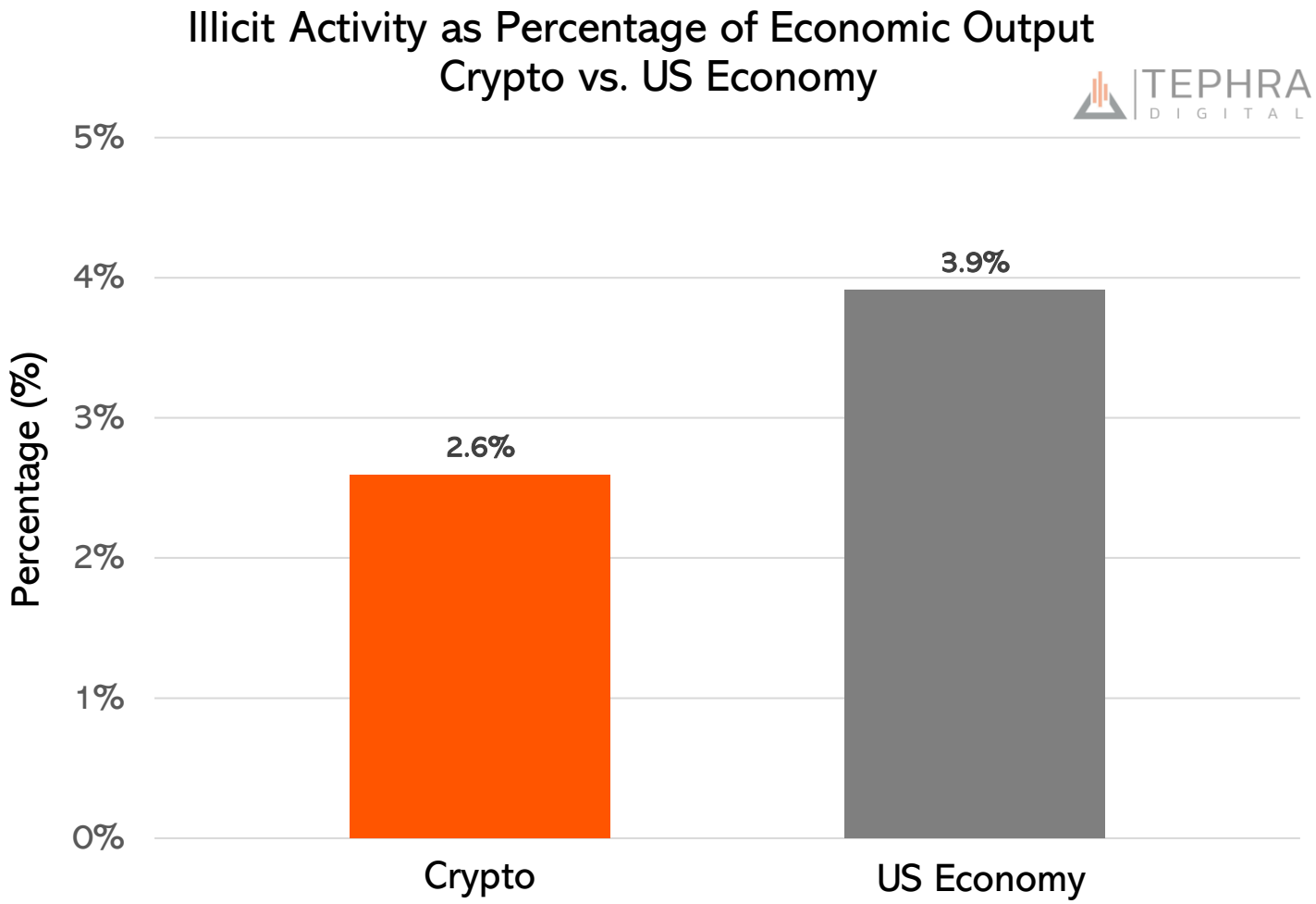
JP Morgan CEO Jamie Dimon's Historical Bitcoin (BTC) Statements

Date	Statement	Bitcoin Price ($)
1/23/14	"Terrible store of value" "Can be replicated over and over" "A lot of it will be used for illicit purposes" "[Bitcoin] doesn't have standing with the government"	$808
11/4/15	"There will be no real non-controlled currency in the world" "There is no government that will put up with it for long" "[Blockchain] technology will be used, but it will be US Dollars" "Wasting your time"	$387
9/17/17	"I would fire [employees trading Bitcoin] in a second" "[Bitcoin] is a **fraud**" "It's worse than tulip bulbs"	$4,012
10/13/17	"I couldn't care less about Bitcoin" "I have an issue with a non-fiat currency" "I don't personally understand the value of something that has no actual value" "If you're stupid enough to buy it, you'll pay the price for it one day" "Who cares about about Bitcoin?" "Governments are going to crush it one day" **"My last time talking about Bitcoin, because I don't care"**	$5,679
1/9/18	I "regret" calling Bitcoin a **fraud**	$15,509
8/4/18	"Cryptocurrency is a **scam**" "I have no interest in Bitcoin" "Bitcoin, Ethereum, 'Bitcoin 2', Litecoin, 'Change Coin'… it gets replicated" "The bigger it gets, the more governments are going to shut it down" **"If you were in Venezuela, Cuba, or a bunch of other countries, you're better-off having Bitcoin than the local currency"**	$7,009
5/4/21	"I'm not a Bitcoin supporter… I don't care about Bitcoin. I have no interest in it"	$53,464
10/4/21	"[Bitcoin] has no intrinsic value… Regulators are going to regulate the hell out of it"	$49,260
12/6/23	"I've always been deeply opposed to crypto, Bitcoin, etc." "ONLY true use case is [for] criminals, money laundering and tax avoidance" "If I were the government I would close it down"	$43,788
1/17/24	"Bitcoin is a pet rock" "Use cases are AML, **fraud**, tax avoidance..." "I defend your right to do Bitcoin" **"This is the last time I will ever talk about [Bitcoin] on CNBC"**	$42,714
3/12/24	"I'll defend your right to buy Bitcoin"	$71,467
4/17/24	"I've always said [Bitcoin] is a **fraud**" "Public, decentralized **ponzi scheme**"	$61,329
1/12/25	"Bitcoin has no intrinsic value" "Used heavily by... money launderers, ransomware" "I applaud your ability to want to buy and sell [Bitcoin]"	$94,455

Note: Data is collected from a variety of public news articles and interviews since Bitcoin (BTC) inception. Data is as of 1/15/2025.

CHART #85

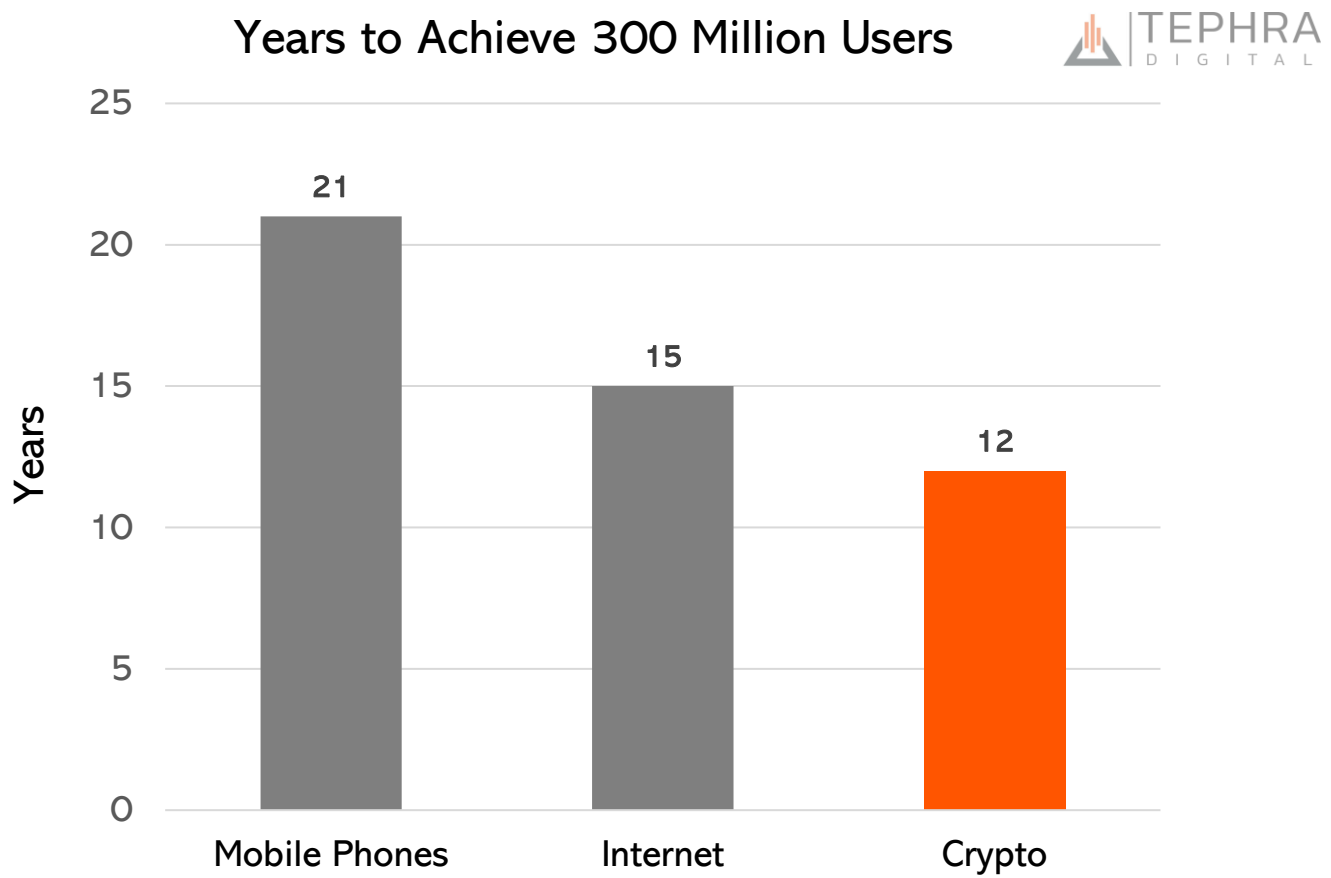
When it Comes to Fighting Financial Crime, Is Crypto Actually the Solution, Not the Problem? Data Suggests there Is Approximately 50% More Illicit Activity on Average with Fiat Currency than Crypto - Contrary to the Popular Perception



Note: Crypto figures are calculated by dividing the total illicit blockchain activity from 2020 through 2024 by the average total crypto market cap during the same period. US Economy figures are based on illicit fund flows for 2023 divided by the U.S. GDP for that year. Data is as of 1/17/2025.
Sources: Chainalysis, CoinGecko, Nasdaq Verafin, "2024 Global Financial Crime Report" and the US Bureau of Economic Analysis.

CHART #86

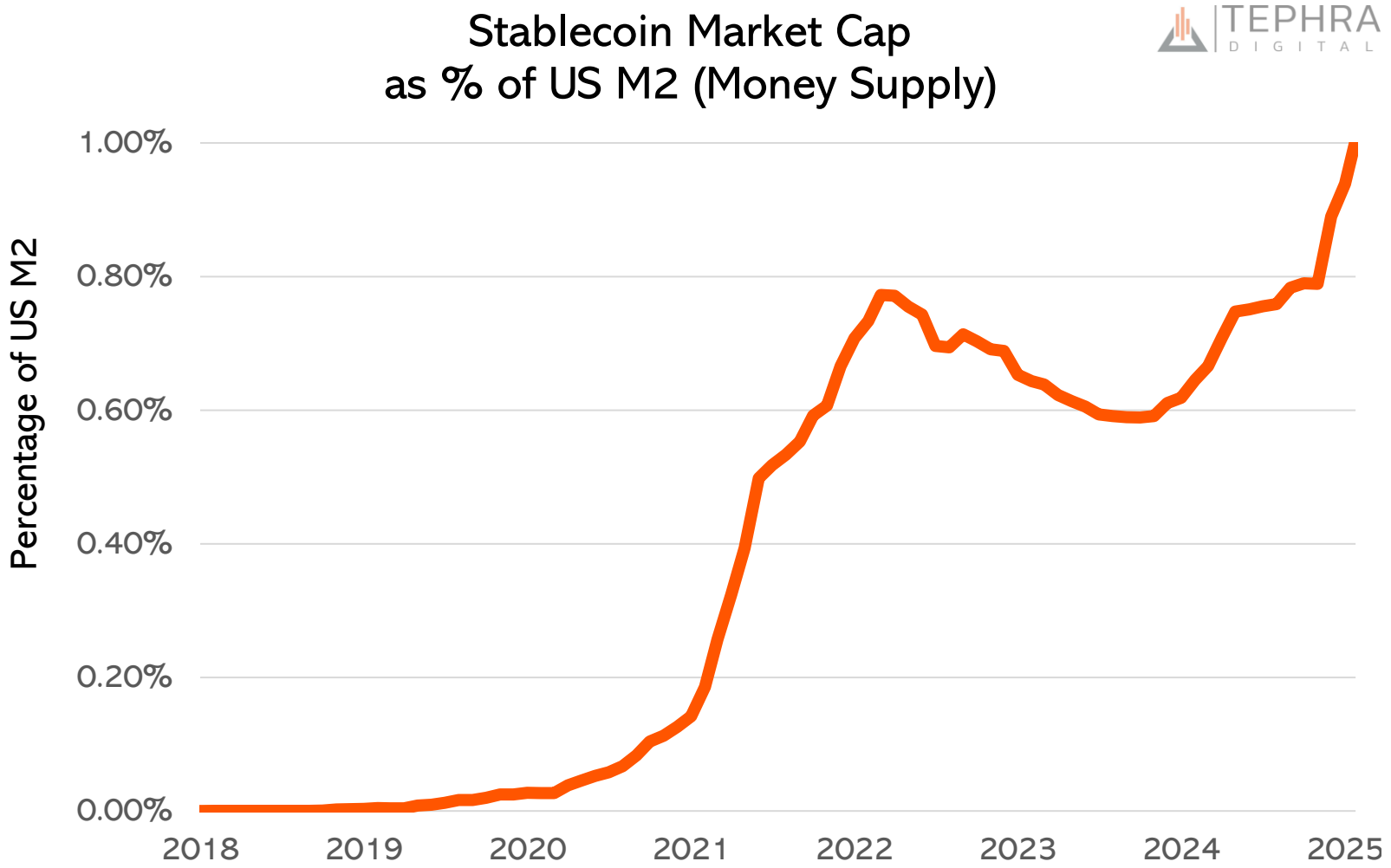
When it Comes to Fighting Financial Crime, Is Crypto Actually the Solution, Not the Problem? Crypto Reached 300 Million Users Approximately 20% Faster than the Internet and 40% Faster than Mobile Phones, Despite Facing Several Years of Intense Regulatory Headwinds. Supportive Regulation, with Innovation as a National Priority in the US, May Serve as a Long-Term Tailwind for Crypto User Growth



Note: The first mobile phone was used in 1973. The internet was first used in 1983. The first exchange-rate for Bitcoin (BTC) is recognized in 2010. Mobile phone user data is from Our World in Data. Internet user data is from University System of Georgia and Our World in Data. Crypto user data is from Crypto.com. Chart inspired by BlackRock. Data is as of 1/17/2025.
Sources: BlackRock, Crypto.com, Our World in Data and University System of Georgia.

CHART #88

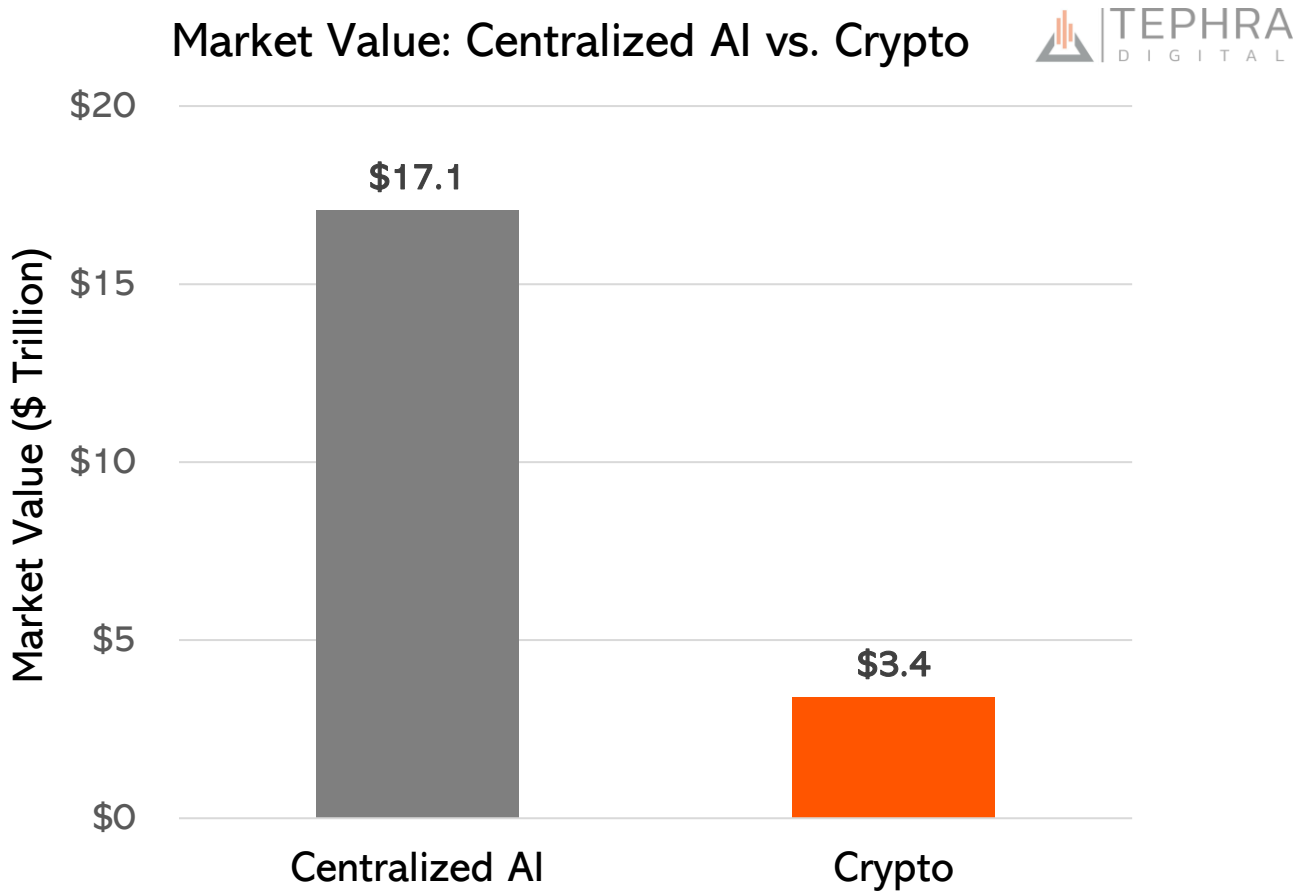
The Digitization of Money Appears to Have Begun. We Believe Investors Should Recognize that this Trend - Regardless of Crypto Market Cycles and Macroeconomic Shifts - May Accelerate Going Forward



Note: Figures represent point-in-time calculations taken on the first day of each month, starting from 1/1/2018. The final data point is an exception as it reflects current data from 1/24/2025. For dates after 11/1/2024, stablecoin market cap percentages are calculated using the US M2 value as of 11/1/2024, since more recent US M2 data is unavailable.
Sources: Artemis, DeFi Llama and the Federal Reserve bank of St. Louis.

CHART #90

Over the Last Few Days, the Public and Private Market Valuations of Major Artificial Intelligence (AI) Companies Have Been Significantly Impacted by Major Advances in Open-Source Systems and Software (Specifically, by DeepSeek). We Believe Digital Assets are a Potential Beneficiary and a Validation of the Shift to Open-Source AI, Since Blockchains Function as Autonomous and Open-Source Software



Note: Centralized AI market value represents the combined market capitalization of 36 public companies involved in centralized AI development, chip manufacturing, power generation, data centers, and AI hosting, along with two private centralized AI development companies valued based on their most recent funding rounds. The crypto market value reflects the total cryptocurrency market capitalization. Data is as of 1/28/2025 at market close.
Sources: CoinMarketCap, Nasdaq and the Wall Street Journal.

CHART #98

Human Financial Advisors and Wealth Management Platforms Should Take Notice: The Leading Artificial Intelligence (AI) Models are Recommending Bitcoin as a Top Asset for Investors Over the Long-Term. Moreover, these AI Models are Suggesting Portfolio Allocations that are Substantially Higher than Many Market Participants Currently Envision

AI Models are Recommending Bitcoin (BTC)

Prompt: "Choose one asset to own over the next __ year"

	1Y	3Y	5Y	10Y
ChatGPT 4o	Bitcoin	Bitcoin	Bitcoin	Bitcoin
Grok 3	Bitcoin	Nvidia	Tesla	Amazon
DeepSeek r1	S&P 500	Global Equity Fund	Global Equity Fund	Vanguard World ETF
Gemini 2.0 Flash	Bitcoin	Bitcoin	Bitcoin	Bitcoin
Llama 3.3	U.S. Total Market Fund	Global Equity Fund	Global Equity Fund	Global Equity Fund

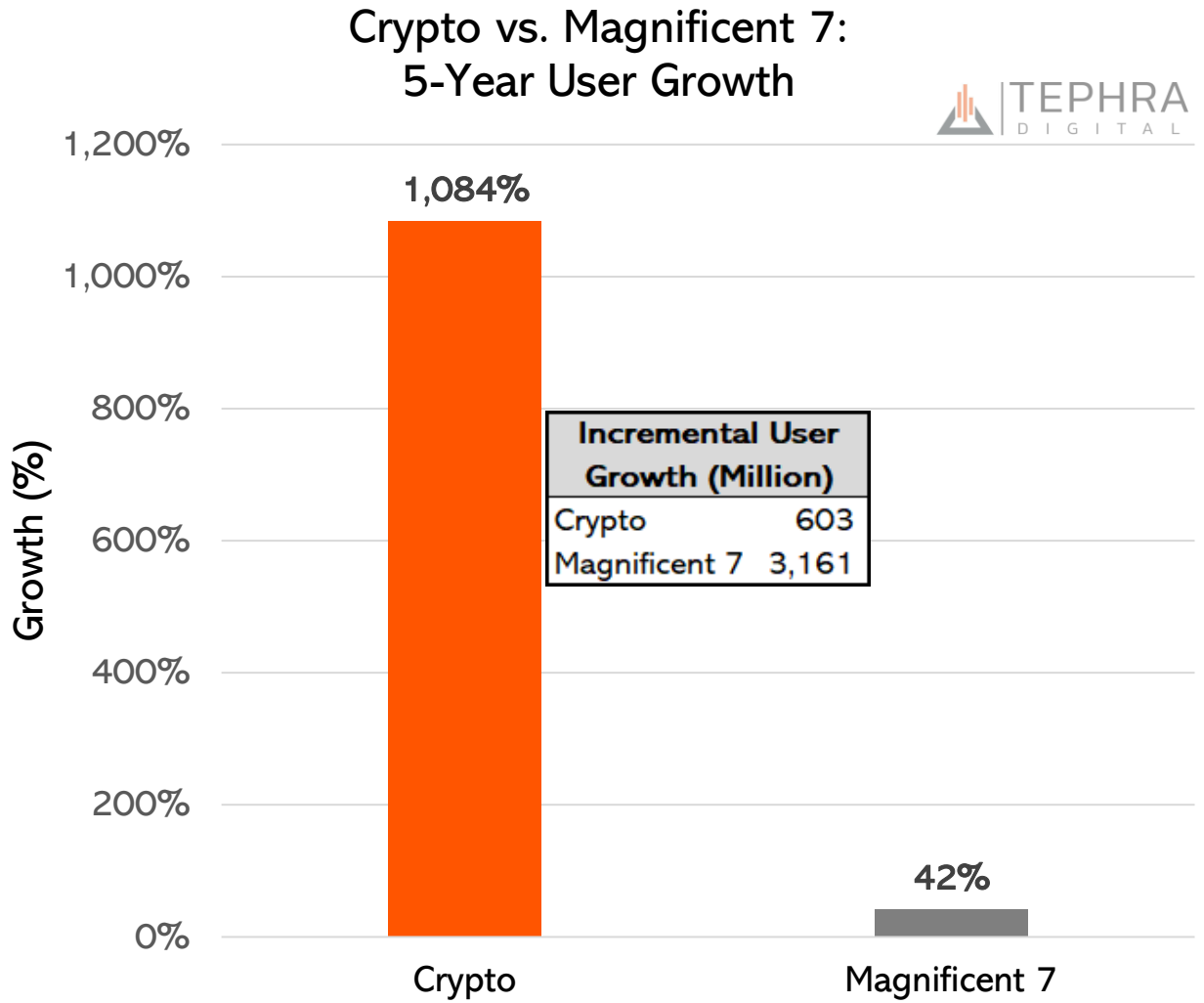
Prompt: "What is the optimal portfolio allocation to **Bitcoin** for a __ year investment horizon?"

	1Y	3Y	5Y	10Y
ChatGPT 4o	7.5%	15.0%	25.0%	35.0%
Grok 3	3.0%	7.5%	12.5%	20.0%
DeepSeek r1	3.5%	7.5%	12.5%	17.5%
Gemini 2.0 Flash	4.0%	6.5%	10.0%	15.0%
Llama 3.3	1.0%	3.5%	7.5%	12.5%
Average	**3.8%**	**8.0%**	**13.5%**	**20.0%**

Note: Models were asked each question once on 2/20/2025, and the response was recorded. Optimal portfolio allocation figures refer to the median number within a given range.
Sources: ChatGPT 4o, DeepSeek r1, Gemini 2.0 Flash, Grok 3 and Llama 3.3 reasoning models.

CHART #99

The User Growth Rate of Digital Assets has Exceeded that of the Major Internet Platforms (the "Magnificent 7") Over the Last 5 Years, and the Industry Scaled Significantly Over that Period Despite Regulatory Headwinds

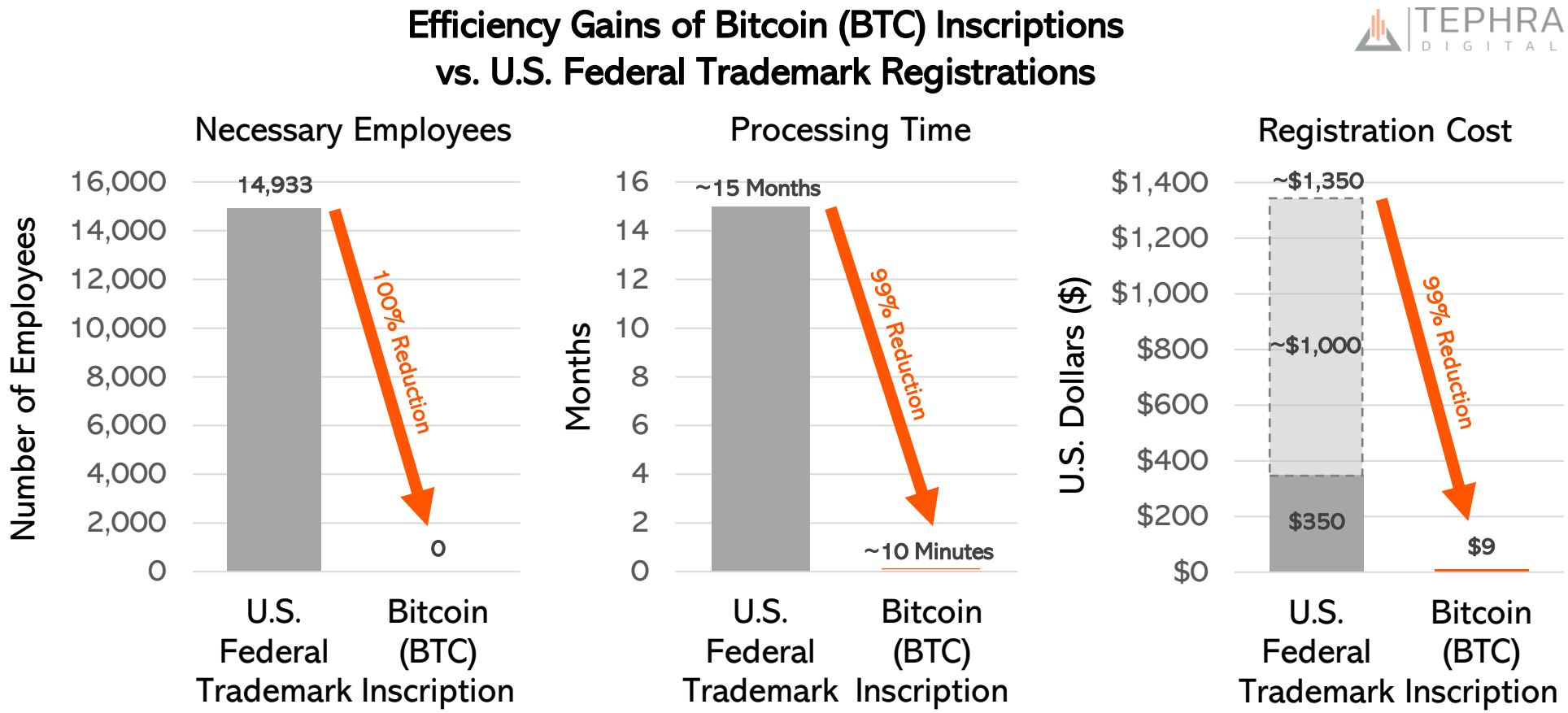


Note: Figures represent user growth from 12/31/2019 to 12/31/2024, with incremental growth reflecting the net change in users. Crypto user estimates are based on reports from Crypto.com and the University of Cambridge, with 2019 data interpolated between sources. Magnificent 7 user growth includes estimated increases in Amazon Prime subscribers, iPhone users, Google users, Meta "family of apps" users, and Microsoft Office 365 users. Data is as of 2/20/2025.

Sources: Backlinko, Crypto.com, DataReportal, eMarketer, Exploding Topics, Meta, Microsoft, Skillademia, University of Cambridge, and Yaguara.

CHART #103

The Tephra Digital Logo Is Now Permanently Inscribed on the Bitcoin Blockchain. Using a Third-Party Platform, the Process Took Just 10 Minutes, Cost $9, and Required No Technical Expertise—Demonstrating How the Combination of Artificial Intelligence, Automation, and the Bitcoin Blockchain Could Dramatically Streamline Legacy Systems Like the United States Patent and Trademark Office (USPTO)



Note: Processing Time figures refer to the average Bitcoin (BTC) block settlement time of ~10 minutes and the average of the 12–18 month estimated processing time from the USPTO for federal trademark registrations. Bitcoin (BTC) cost estimates are based on the median Sat/vB cost for inscribing a 20kB file on the Bitcoin (BTC) blockchain at Bitcoin's price as of 11 AM EST on 3/5/2025. The U.S. Federal Trademark Registration Cost refers to the base $350 application fee for registering a trademarked logo in one class of goods or services, plus a conservative estimate of $1,000 for legal fees. Necessary Employee figures refer to USPTO estimates for the fiscal year of 2025. Data is as of 3/5/2025.

Sources: Artemis, Mempool.Space, the U.S. Department of Commerce and the U.S. Patent and Trademark Office.

CHART #104

Technology Paradigm Shifts Seem Obvious After the Fact – But Even Luminaries Miss Them in the Moment. Please See Below for a Table of Historical Figures Who Would Likely Request a Ctrl+Z (Undo) Function for their Prior Statements. At Present, We Highlight Some Notable Bitcoin Skeptics Who May Benefit from a Deeper Study of Digital Assets

TEPHRA DIGITAL

Incumbents and Experts Often Initially Misjudge Emerging Technologies

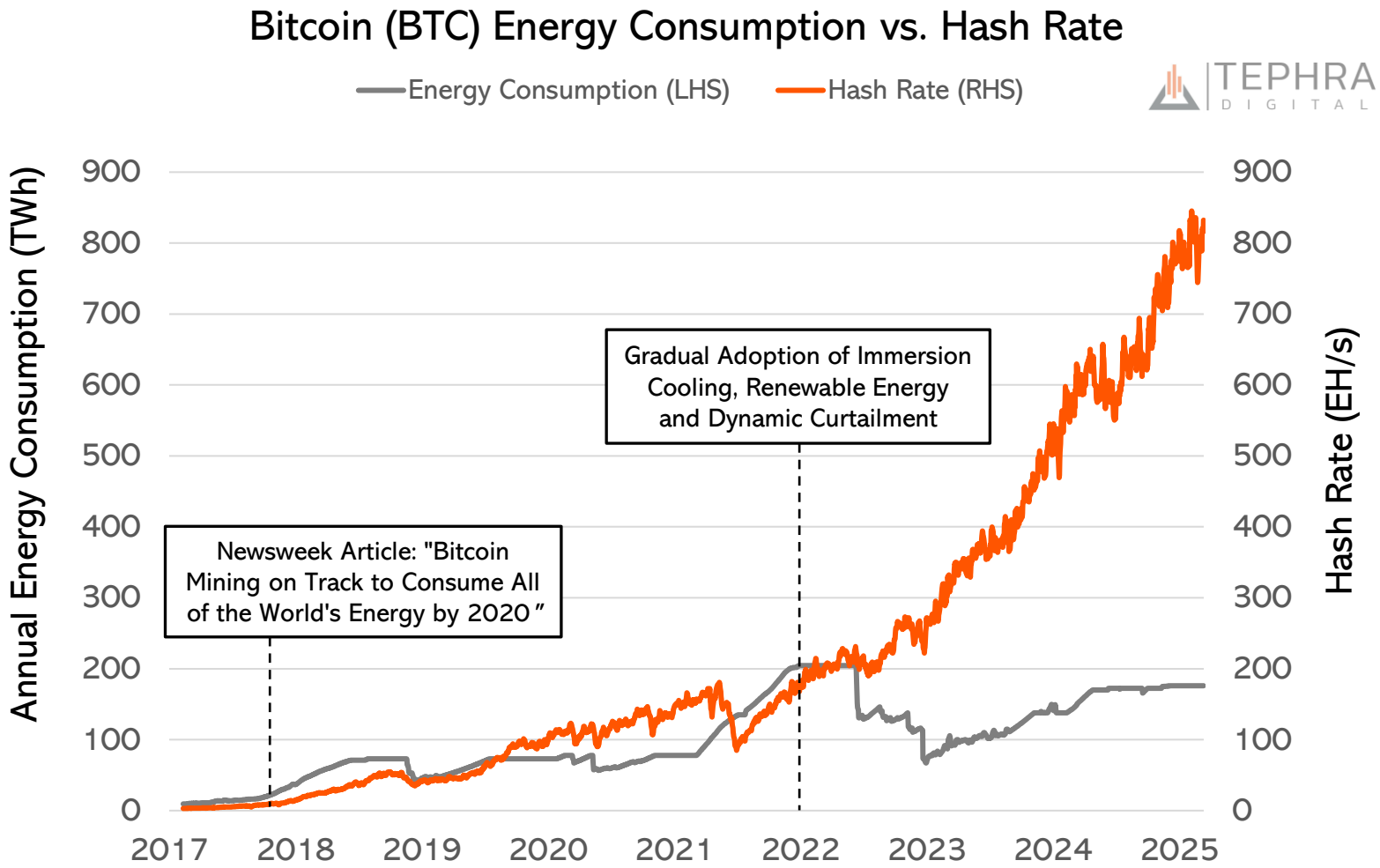
Year	Then
1876	"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us." -**Western Union internal memo**
1889	"Fooling around with alternating current is just a waste of time. Nobody will use it, ever." -**Thomas Edison, Inventor**
1903	"The horse is here to stay, but the automobile is only a novelty—a fad." -**Horace Rackham, President of the Michigan Savings Bank**
1927	"Who the hell wants to hear actors talk?" -**Harry Warner, Co-Founder of Warner Bros.**
1977	"There is no reason anyone would want a computer in their home." -**Ken Olsen, Founder of Digital Equipment Corporation**
1993	"The internet? We are not interested in it." -**Bill Gates, Microsoft Founder**
1995	"The internet will collapse in 1996." -**Robert Metcalfe, Co-Inventor of Ethernet**
2006	"Apple will probably never come out with a cell phone." -**David Pogue, The New York Times**
2007	"There's no chance that the iPhone is going to get any significant market share." -**Steve Ballmer, Microsoft CEO**

Year	Now
2017	"**Bitcoin** is a more obvious bubble than housing was." -**Paul Krugman, Nobel Laureate in Economics**
2017	"Avoid **Bitcoin** like the plague. Did I make myself clear? **Bitcoin** has no underlying rate of return. You know bonds have an interest coupon, stocks have earnings and dividends, gold has nothing. There is nothing to support **Bitcoin** except the hope that you will sell it to someone for more than you paid for it." -**John Bogle, Founder of The Vanguard Group**
2018	"**Bitcoin** is probably rat poison squared." -**Warren Buffet**
2024	"**Bitcoin** is a hyped-up fraud. It's a pet rock." -**Jamie Dimon**
2025	"**Bitcoin** serves no purpose other than to allow people to speculate and engage in illicit activities. Its intrinsic value is zero, and it's only a matter of time before it becomes worthless." -**Eugene Fama, Nobel Laureate in Economics**

Note: Data is as of 3/11/2025.
Source: All quotes are from publicly-available statements.

CHART #106

The Bitcoin Network Seems to Have Delivered a Masterclass in Energy Efficiency. The Hash Rate of Bitcoin (a Measure of its Compute Power and Network Security) Has Significantly Outpaced its Energy Consumption Following Major Advances in Energy Efficiency from Hardware and Software Improvements by Bitcoin Miners



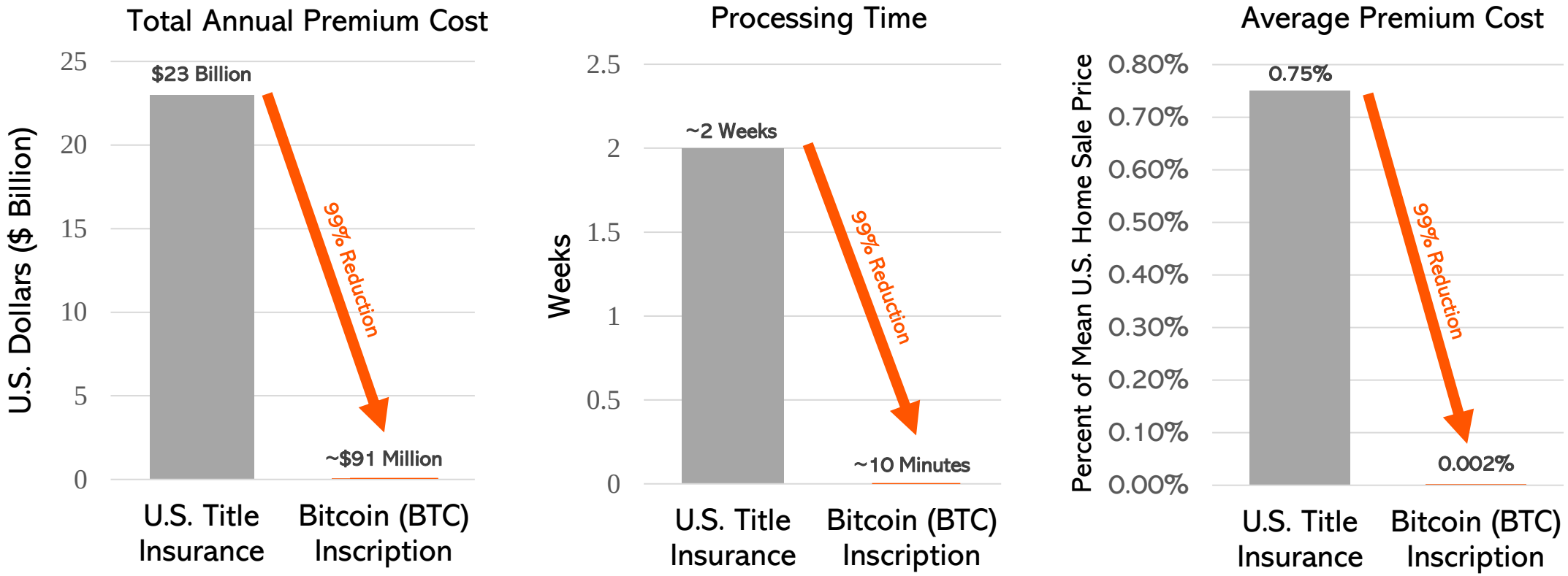
Note: Bitcoin (BTC) energy consumption represents estimated annual figures in terawatt-hours (TWh) based on Digiconomist data. Hash rate figures reflect the 7-day moving average from Coin Metrics. Data is as of 3/12/2025.
Source: Coin Metrics and Digiconomist.

CHART #107

Title Insurance Appears to be Antiquated Given Blockchain Technology. Data Suggests that Homebuyers Pay 0.5% to 1.0% of the Home Purchase Price for Title Insurance, Which Impairs Affordability and Adds Complexity. The $23 Billion a Year Spent Annually on Premiums, and 2-Week Typical Waiting Period for Title Insurance, May be Reduced by 99% Using Blockchain

Efficiency Gains of Bitcoin (BTC) Inscriptions vs. U.S. Title Insurance

TEPHRA DIGITAL

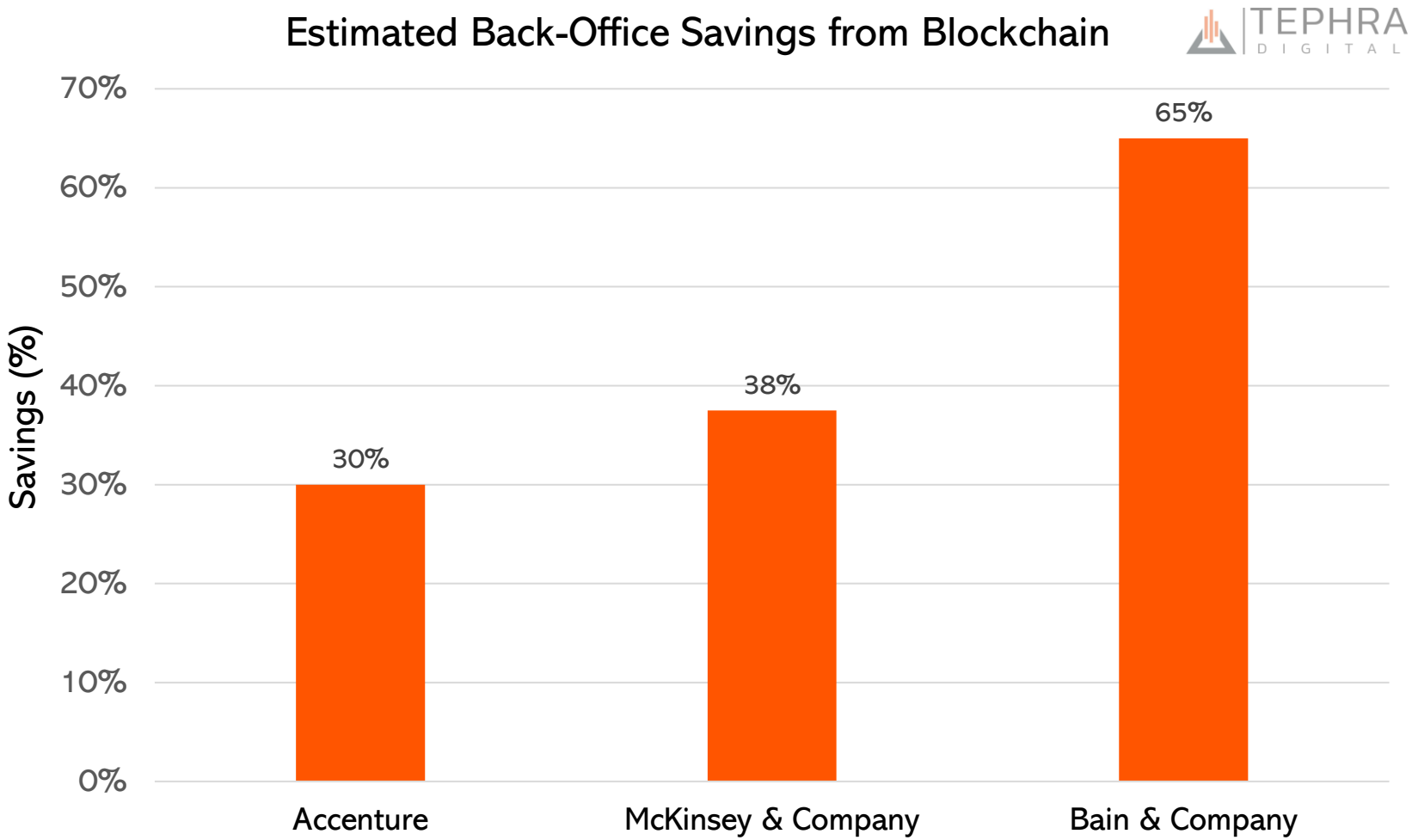


Note: Title Insurance Total Annual Premiums are based on estimates from IBISWorld, while Bitcoin (BTC) figures are calculated by multiplying the average Bitcoin (BTC) inscription cost by the total number of annual policies. Processing Time figures reflect the average Bitcoin (BTC) block settlement time of ~10 minutes and an estimated two-week period for U.S. title insurance processing. Title Insurance Average Premium Cost is derived from industry estimates, while Bitcoin (BTC) cost estimates are based on the median Sat/vB price for inscribing a 20kB file on the Bitcoin (BTC) blockchain as of 3/16/2025, divided by the Q4 2024 mean U.S. home sale price. Data is as of 3/17/2025.

Sources: Artemis, Bankrate, First American Financial Corporation, IBISWorld and Mempool.Space.

CHART #109

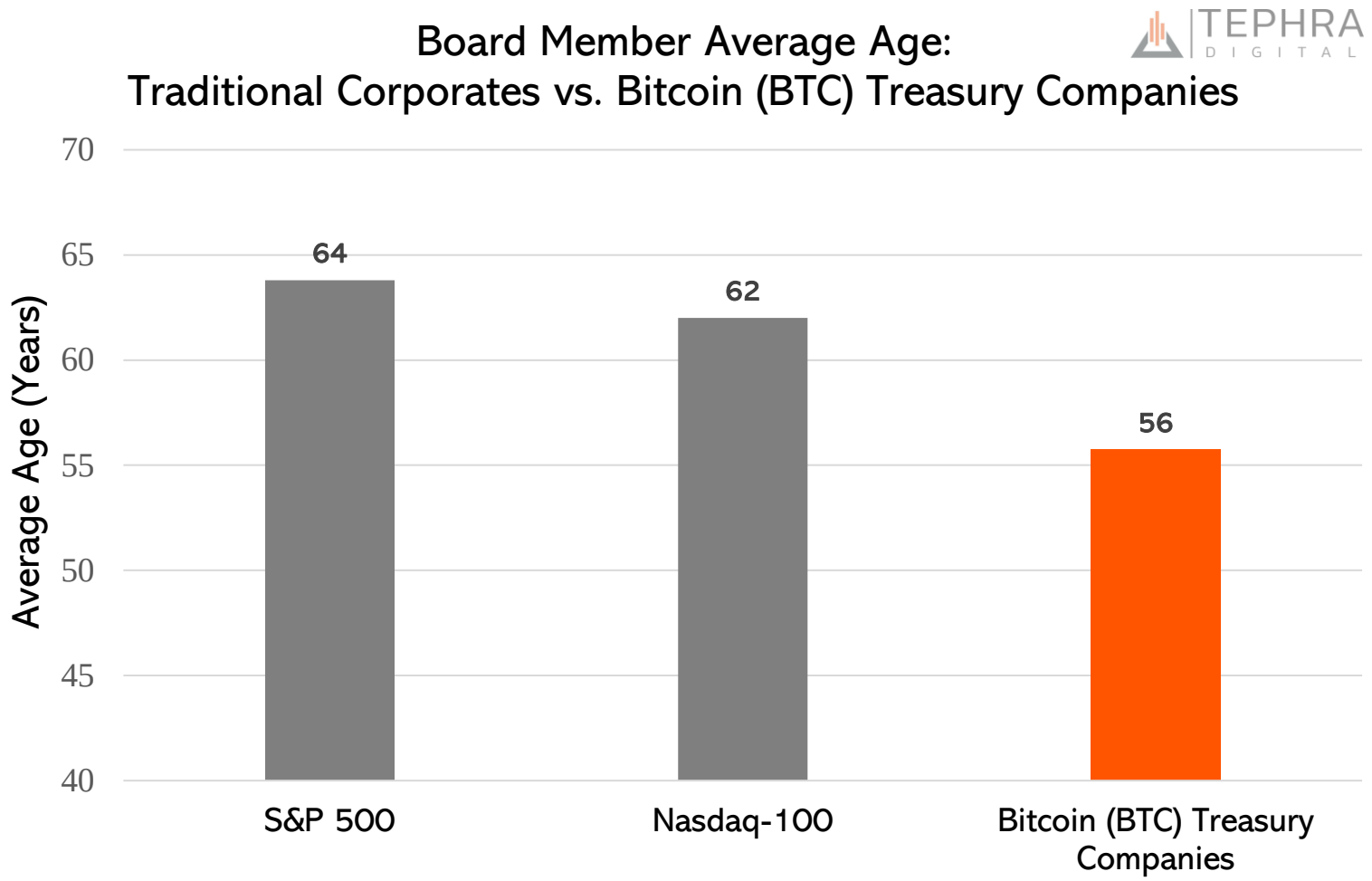
The Public Sector – Not Just the Private Sector – Could Benefit from Using Blockchain. As Shown in the Chart Below, Major Consulting Firms Estimate Significant Back-Office Cost Reductions (Primarily Labor) from Implementing Blockchains for Transactional Functions and Activities



Note: Research estimates are from leading consulting firms, primarily reflecting labor reductions through process automation. Data is as of 3/23/2025.
Sources: Accenture: "Blockchain Technology Could Reduce Investment Banks' Infrastructure Costs by 30 Percent," McKinsey & Company: "Blockchain and Retail Banking: Making the Connection" and Bain & Company: "A Wolf in Sheep's Clothing: Disruption in Transaction Banking."

CHART #110

Demographic Tailwinds for Digital Assets Apply to the Corporate World - Not Just to Investors. Newer Generations Tend to Lead the Charge When it Comes to Innovation, and Corporate Governance and Treasury Strategies Appear to be No Exception



Note: Bitcoin (BTC) Treasury Companies are those that have explicitly adopted or plan to adopt a Bitcoin (BTC) treasury strategy. This includes: Strategy, GameStop, Genius Group, KULR Technologies, MARA Holdings, Metaplanet, Nano Labs, Rumble, Semler Scientific, Solidion Technology, and Worksport. Average board member age is based on the latest available filings. Data is as of 3/27/2025.
Source: Bloomberg and publicly-available SEC filings.

CHART #111

If the Dam Finally Breaks at Major Brokerages, the Bitcoin Wave May be Amplified. Major Brokerages Still Restrict Client Exposure to Bitcoin ETFs. If a BlackRock-Suggested 2% Allocation to Bitcoin was Instituted Across these Platforms, it Implies 22x the Net ETF Inflows Seen in 2024

Bitcoin (BTC) Exposure Restrictions Across Major Brokerages

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Brokerage	Allows Exposure	Limitations	Advisor Recs Allowed	Total AUM ($bn)
Fidelity	Yes	No	Yes	$15,100
Vanguard	No	N/A	N/A	$10,400
Schwab	Yes	No	Yes	$10,101
Morgan Stanley	Yes	Yes	Yes	$7,860
UBS	Yes	Yes	No	$6,087
JP Morgan	Yes	Yes	No	$5,932
Merrill/BofA	Yes	Yes	No	$4,252
Goldman Sachs	Yes	Yes	No	$3,137
Wells Fargo	Yes	No	Yes	$2,293
Citi	No	N/A	N/A	$587

Restricted Capital ($bn):	**$38,255**
2% Allocation ($bn):	**$765**

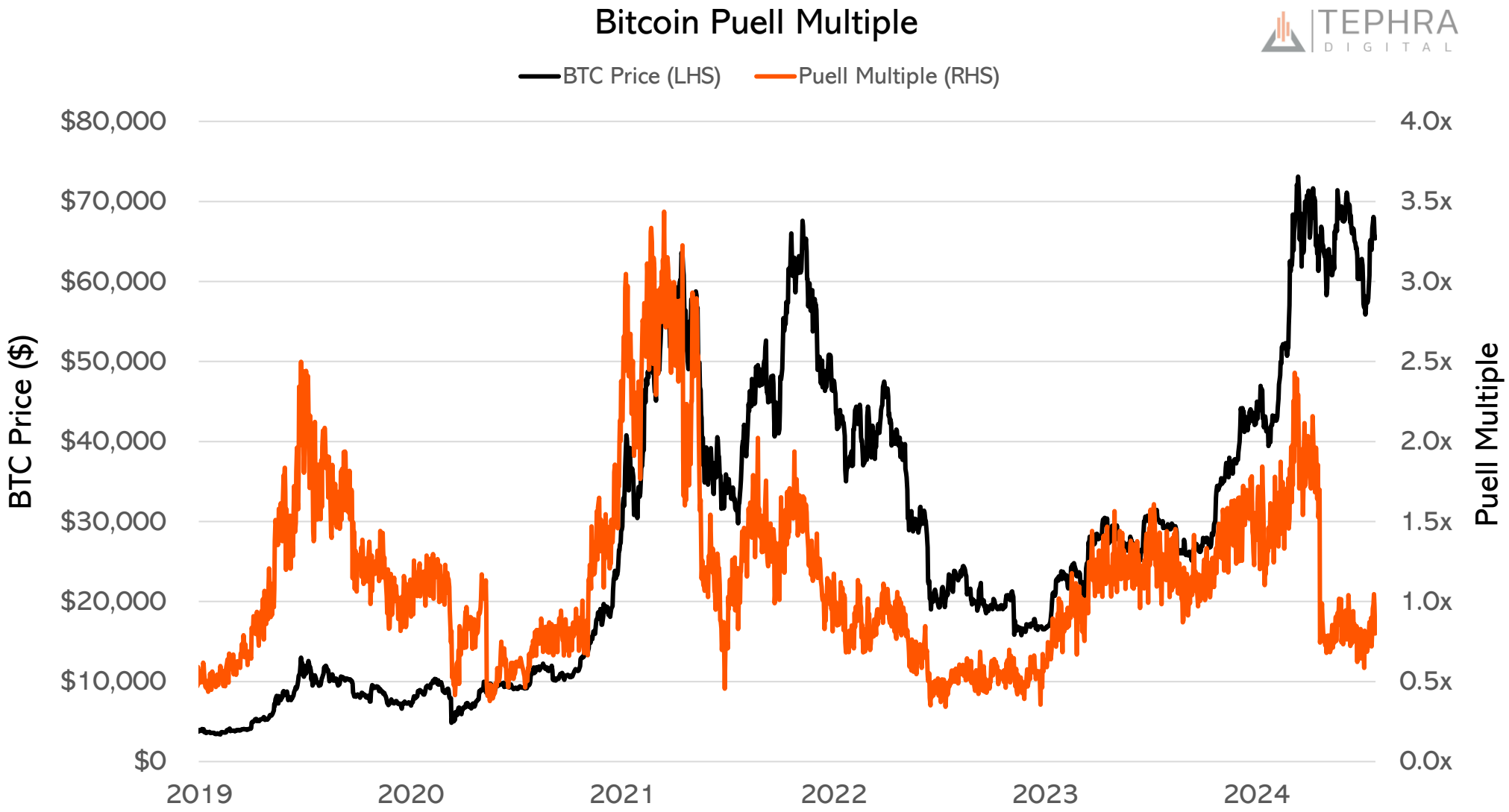
~22x 2024 Bitcoin (BTC) Net ETF Inflows

Note: Data is based on private conversations with advisors at each brokerage regarding exposure to Bitcoin (BTC) ETFs. Limitations may include restricted account access, exposure caps, net worth requirements, and applicable waivers. Total AUM reflects investable assets as of Q4 2024, including proprietary products, administrative and deposit accounts, and custodied assets across wealth and asset management divisions. Orange cells indicate a permissive stance toward Bitcoin exposure, while gray cells indicate a restrictive approach. Data is as of 3/31/2025.
Sources: Advisor conversations, company websites and public filings.

SPECIFIC (TOKEN/ASSET)

CHART #8

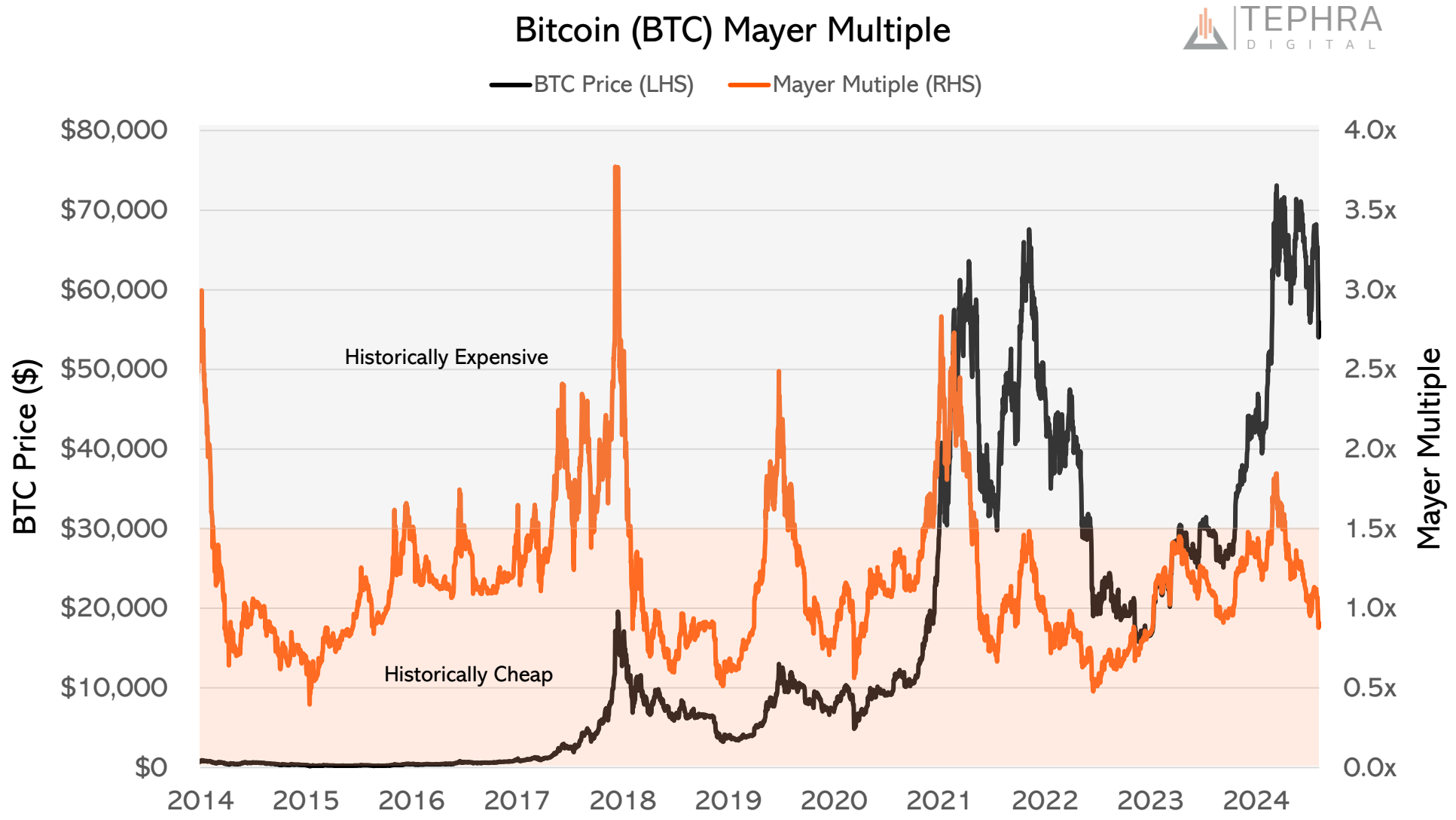
Historically, a Low Puell Multiple Has Preceded Significantly Higher Bitcoin (BTC) Prices



Puell Multiple Calculation: Daily issuance value of Bitcoin (in USD) divided by the 365-day moving average of the daily issuance value.
Note: Data is as of 7/24/2024.
Source: Glassnode.

CHART #14

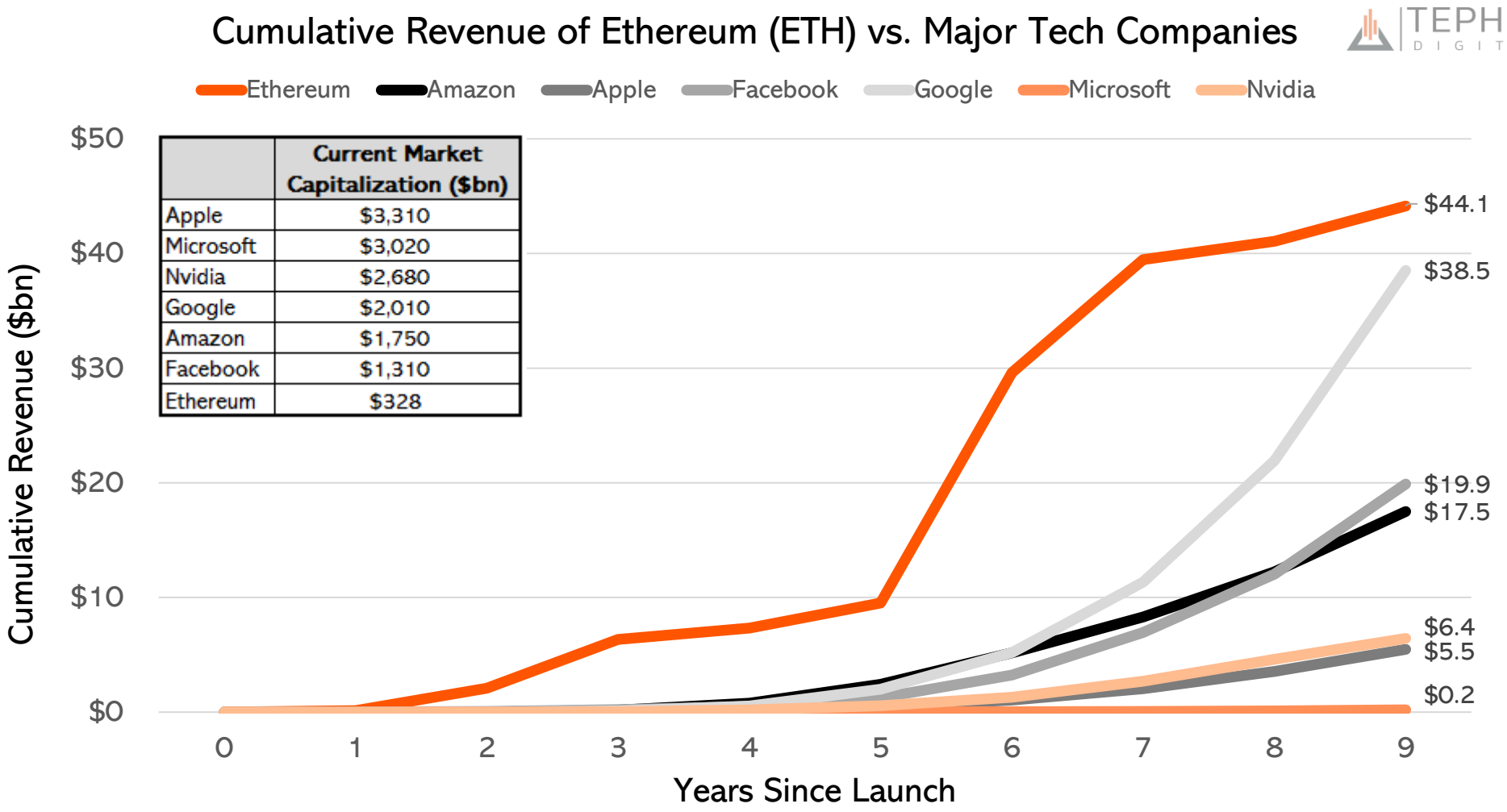
Historically, a Mayer Multiple Below 1.5x Has Provided Potentially Attractive Entry Points in Bitcoin (BTC)



Mayer Multiple Calculation: Ratio between the daily price of Bitcoin and the 200-day moving average price.
Note: Data is as of 8/7/2024.
Source: Glassnode.

CHART #15

The Growth and Scale of Ethereum May Attract Institutions that Invest in Leading Technology Franchises Over the Long-Term

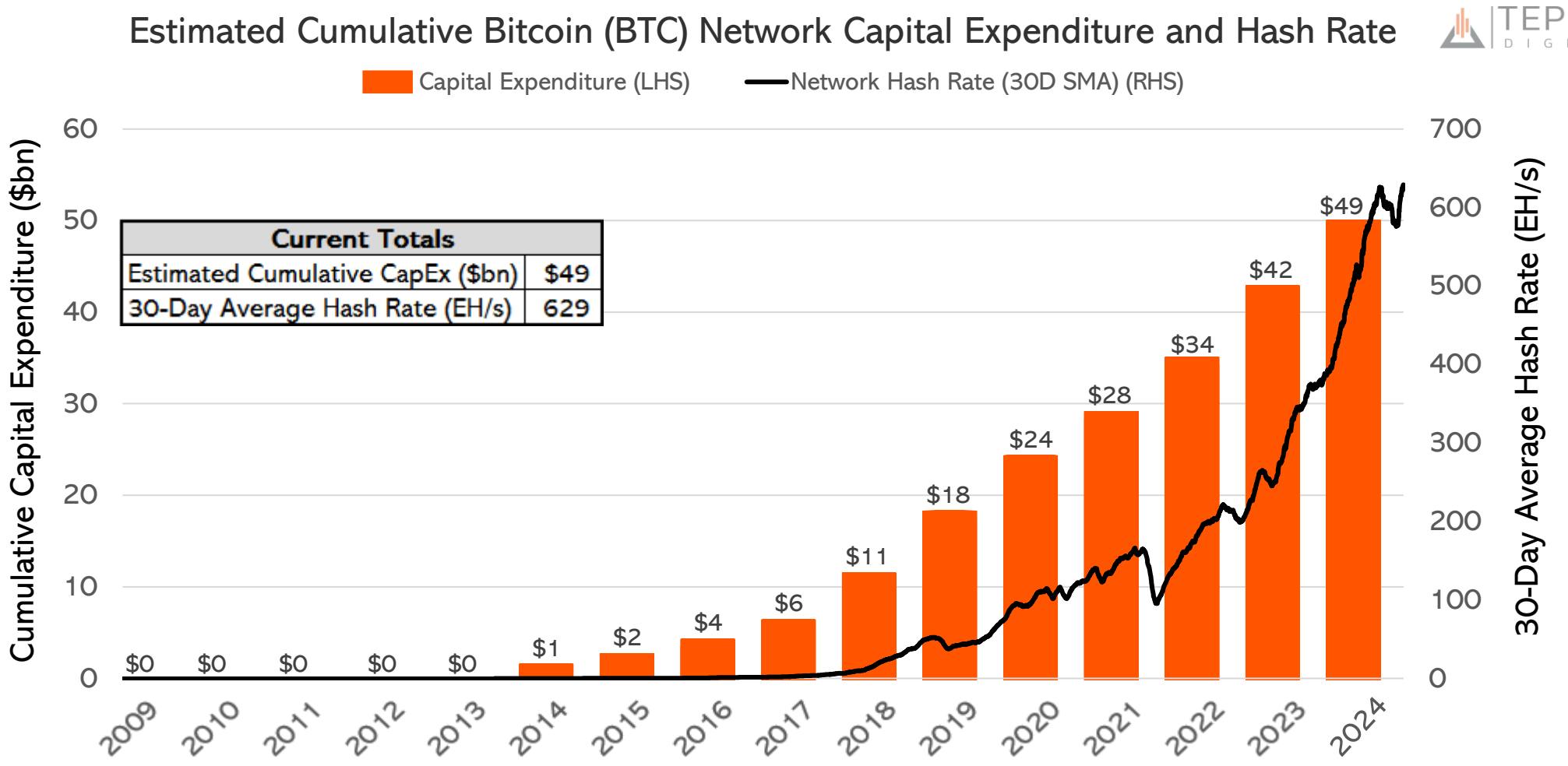


Note: "Years Since Launch" correspond to 2015 through 2024 for Ethereum, 1994 through 2003 for Amazon, 1976 through 1985 for Apple, 2004 through 2013 for Facebook, 1998 through 2007 for Google, 1975 through 1984 for Microsoft and 1994 through 2003 for Nvidia. Ethereum 2024 revenue is annualized based on year-to-date data through 8/11/2024. All data is as of 8/11/2024.

Sources: Glassnode, The Block, Amazon, Apple, Facebook, Google, Microsoft and Nvidia.

CHART #16

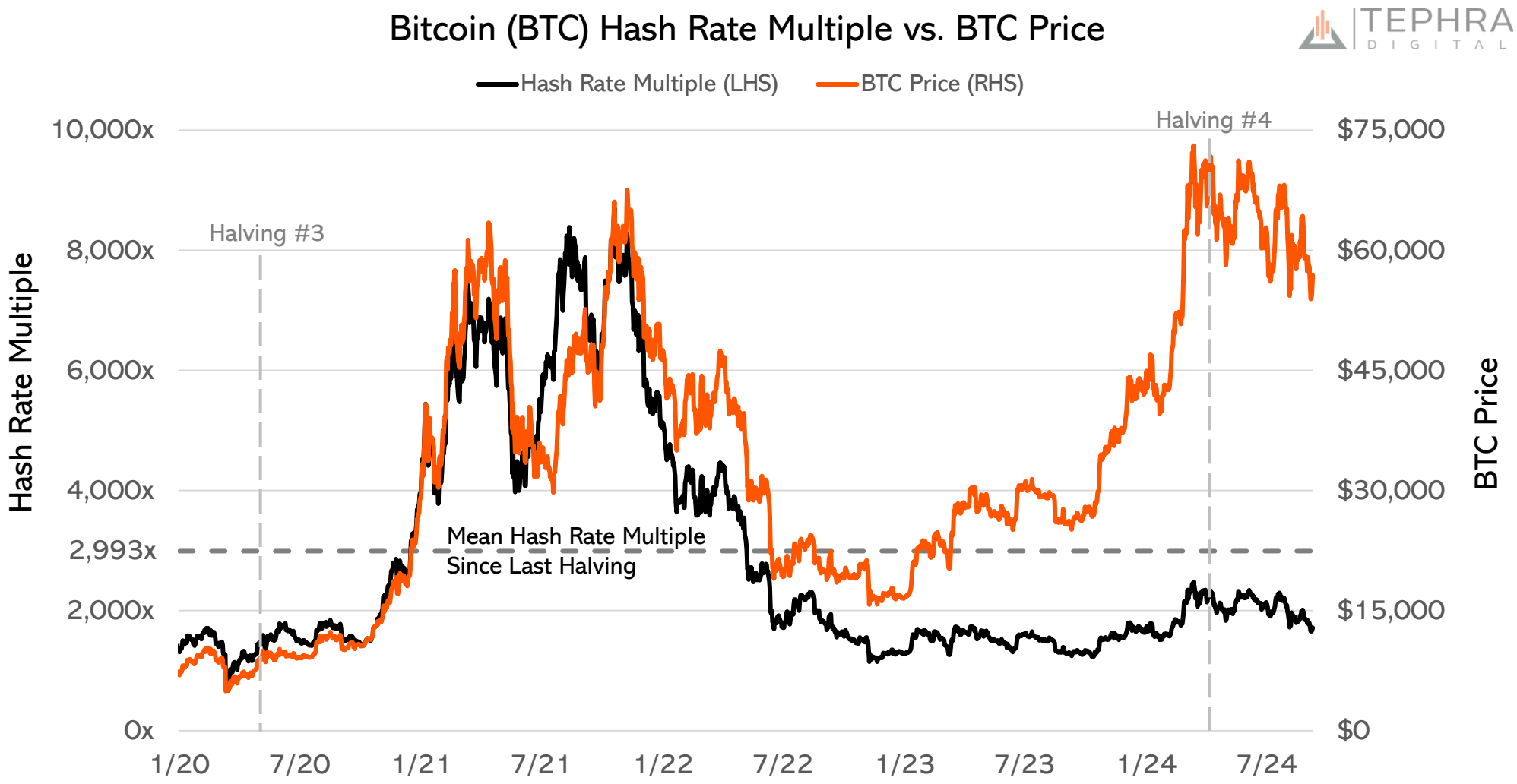
Bitcoin (BTC) Is Backed by Significant and Growing Capital Expenditure, Which Appears to Be Driving Higher Network Activity and Security



*Note: Figures are estimates from Glassnode, "Estimating the Cost of Bitcoin Production," and include ASICs, necessary hardware and total energy consumption. Estimated Bitcoin capital expenditure calculation: CapEx = Difficulty Price Regression * Total BTC Issuance, where Difficulty Price Regression is a regression between Market Capitalization and Difficulty yielding an R^2 value above 0.95. Capital Expenditure for 2024 is annualized based on year-to-date figures through 8/12/2024. All data is as of 8/12/2024.*
Sources: Glassnode and Coin Metrics.

CHART #26

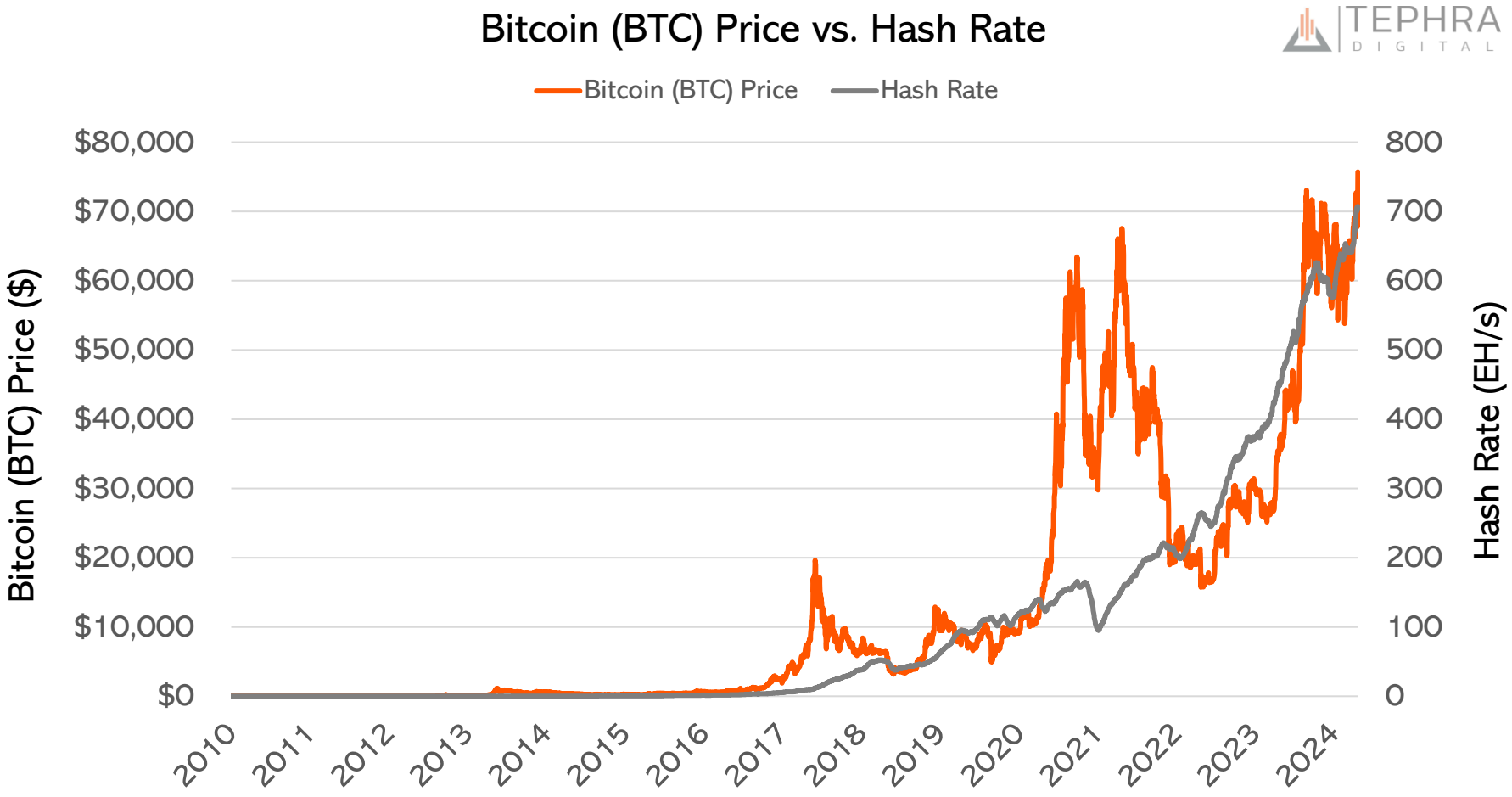
Bitcoin (BTC) Price Has Rebounded Strongly Since 2022, But it Appears to be Just as Cheap on a Hash Rate Multiple Basis



Note: Bitcoin (BTC) Hash Rate Multiple is calculated by dividing the USD-denominated market capitalization of Bitcoin (BTC) by the 30-day moving-average network hash rate. Data is as of 8/28/2024.
Source: Artemis and Coin Metrics.

CHART #57

Bitcoin Prices Have Risen Along with Hash Rate, Which Represents Bitcoin's Computing Power and Network Security. As More Energy and Mining Equipment Are Added to the Bitcoin Network, Bitcoin's Hash Rate Can Continue to Soar, Driving a Corresponding Rise in Bitcoin Price



A time-lapse video chart is available upon request or on our LinkedIn page (Tephra Digital).

Note: Bitcoin (BTC) Price refers to daily closing price as of 0:00 UTC. Hash Rate refers to the 30-day moving average of daily average network hash rate. Data begins on 7/18/2010 and runs through 11/7/2024.

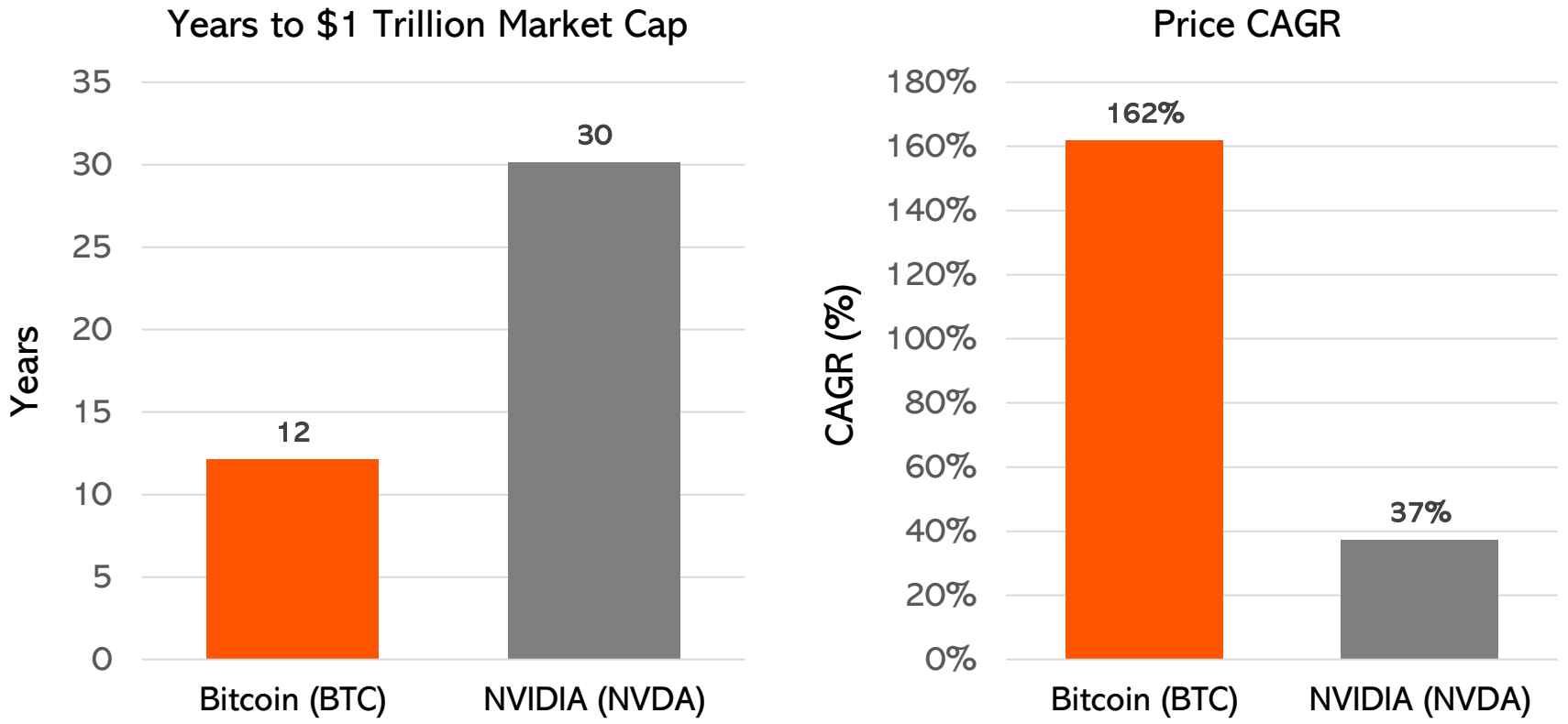
Source: Coin Metrics.

CHART #58

Bitcoin (BTC) Reached $1 Trillion of Market Cap Over 2x Faster than Nvidia (NVDA). Bitcoin (BTC) Has Generated Compounded Returns that Are Over 4x Greater than Nvidia (NVDA). It Appears the Time and Attention of Investors Could Benefit from a Reallocation

TEPHRA DIGITAL

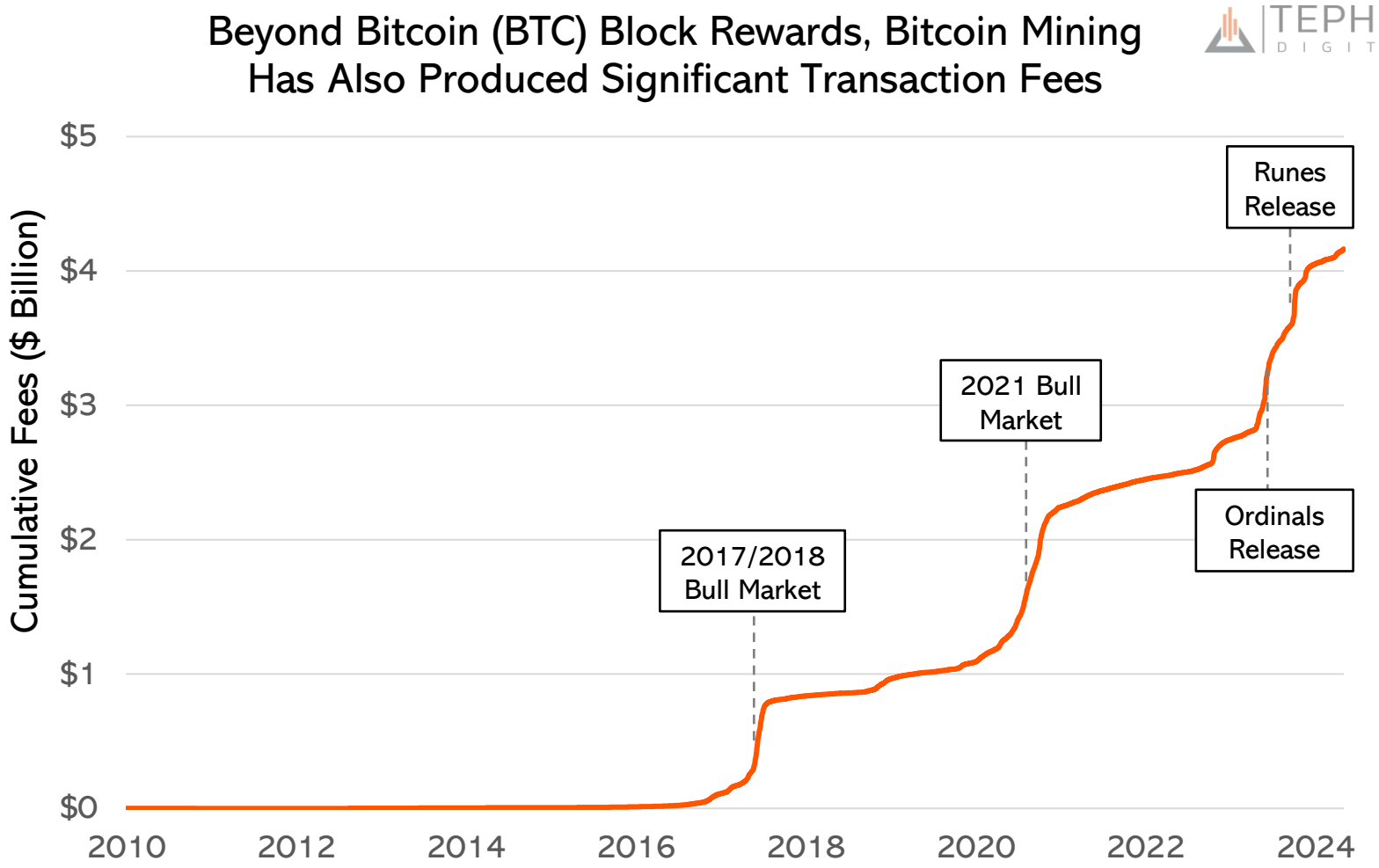
Bitcoin (BTC) vs. NVIDIA (NVDA):
Years to Reach $1 Trillion Market Cap and Price CAGR



Note: Years to $1 Trillion Market Capitalization figures are defined as the period from an asset's inception to the first time its market capitalization crosses $1 trillion. For NVIDIA (NVDA), this starts on 4/5/1993, and for Bitcoin (BTC), on 1/3/2009. The CAGR refers to the annualized growth rate of the asset's price from its first recognized trading date (1/22/1999 for NVDA, and 7/18/2010 for BTC) up to 12:00 PM EST on 11/11/2024.
Sources: Artemis and Bloomberg.

CHART #62

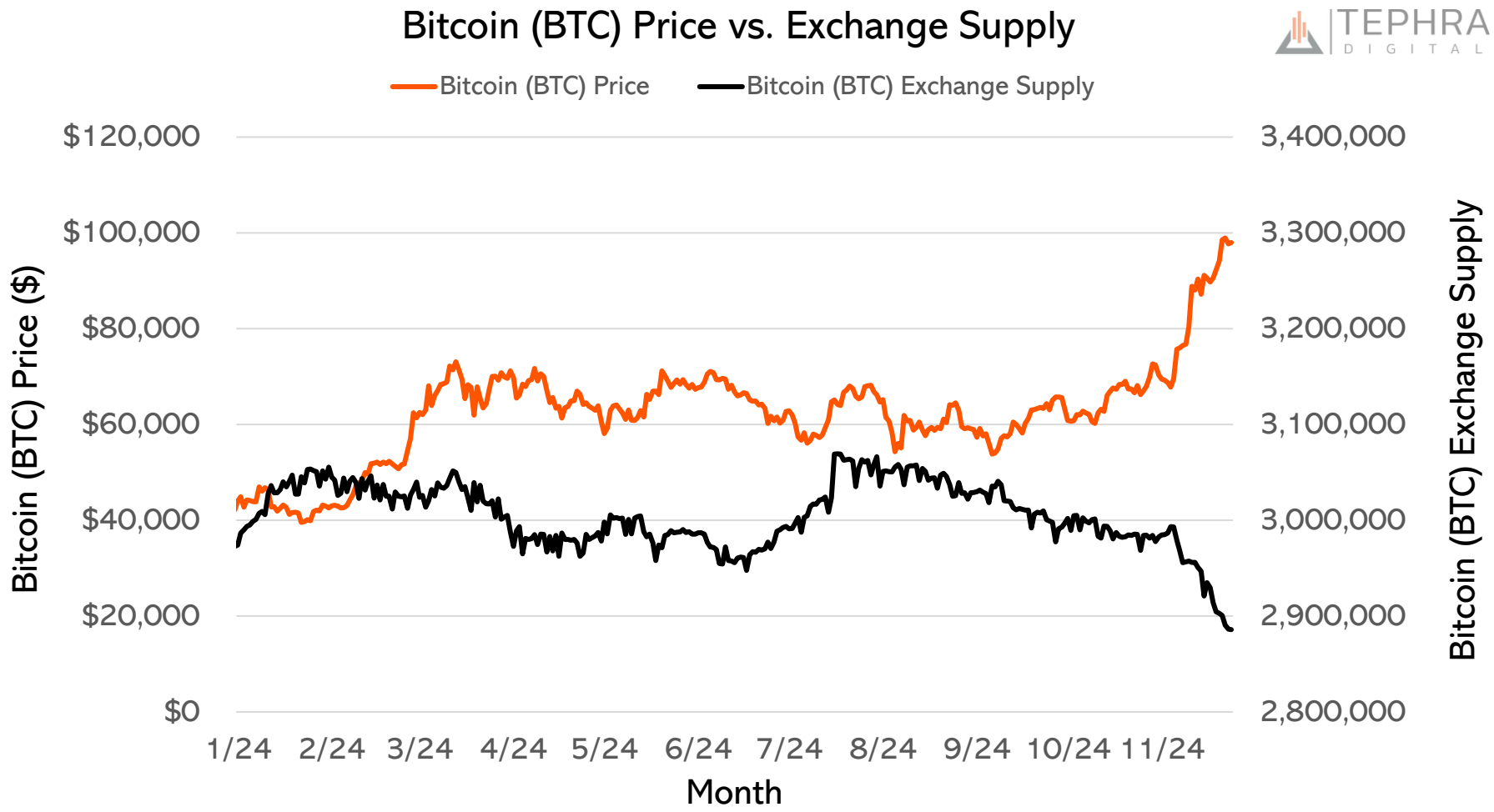
The Bitcoin (BTC) Network Has Demonstrated Continued Innovation. Bitcoin Miners Have Not Only Produced Block Rewards, But Also Garnered an Estimated $4 Billion in Cumulative Transaction Fees from the Inscription of Data within Blocks Confirmed to the Bitcoin Blockchain



Note: Figures represent the cumulative transaction fees for Bitcoin (BTC) in US Dollar terms. Data is as of 11/17/2024.
Source: Coin Metrics.

CHART #65

The Jaws of Bitcoin (BTC) Exchange Supply Versus Bitcoin Price Have Widened. After a Temporary Supply Overhang in the Summer of 2024, the Exchange Supply of BTC Has Continued to Shrink and Appears to Support Further Price Appreciation Ahead



Note: Bitcoin (BTC) Exchange Supply represents the estimated total BTC held on exchanges, based on tagged wallet addresses from over 25 exchanges. Data is as of 11/24/2024.
Source: Glassnode.

CHART #70

Bitcoin (BTC) Performance in Recent Months Has Tended to be Weak Initially, Followed by Significant Strength at Month End; December 2024 May be Exhibiting Such a Pattern

TEPHRA DIGITAL

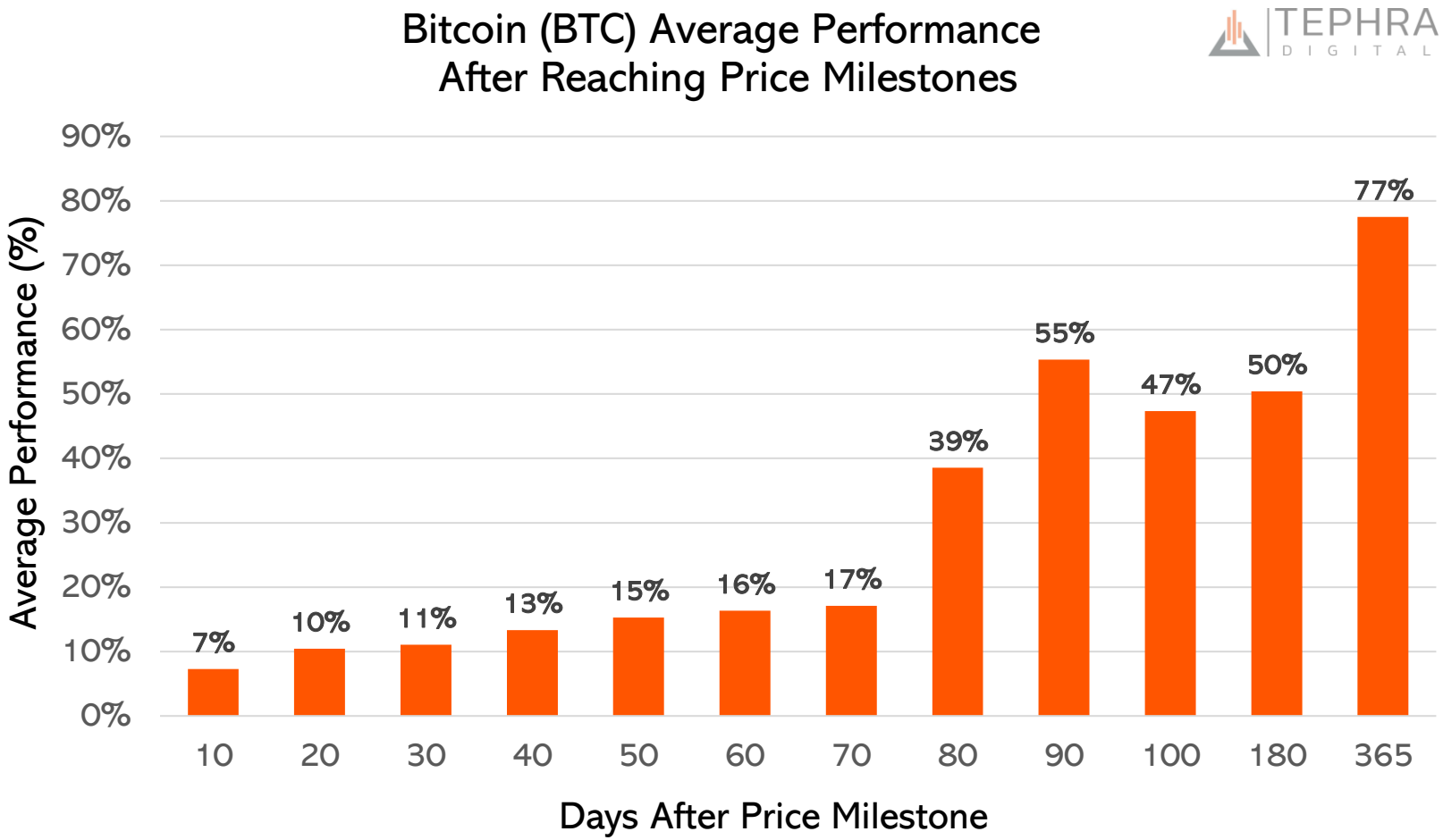
Bitcoin (BTC) Intra-Month Performance

	First 5 Days	First 10 Days	Through Month-End
July	(10%)	(8%)	3%
August	(17%)	(6%)	(9%)
September	(5%)	(2%)	7%
October	(2%)	(5%)	11%
November	(1%)	15%	37%
December	1%	?	?
Average	(6%)	(1%)	10%

Note: Calculations are based on the closing price at the end of each timeframe relative to the closing price at the start of the month. All calculations refer to Bitcoin (BTC) closing prices at 0:00 UTC. Data is as of 12/6/2024.
Source: Artemis.

CHART #71

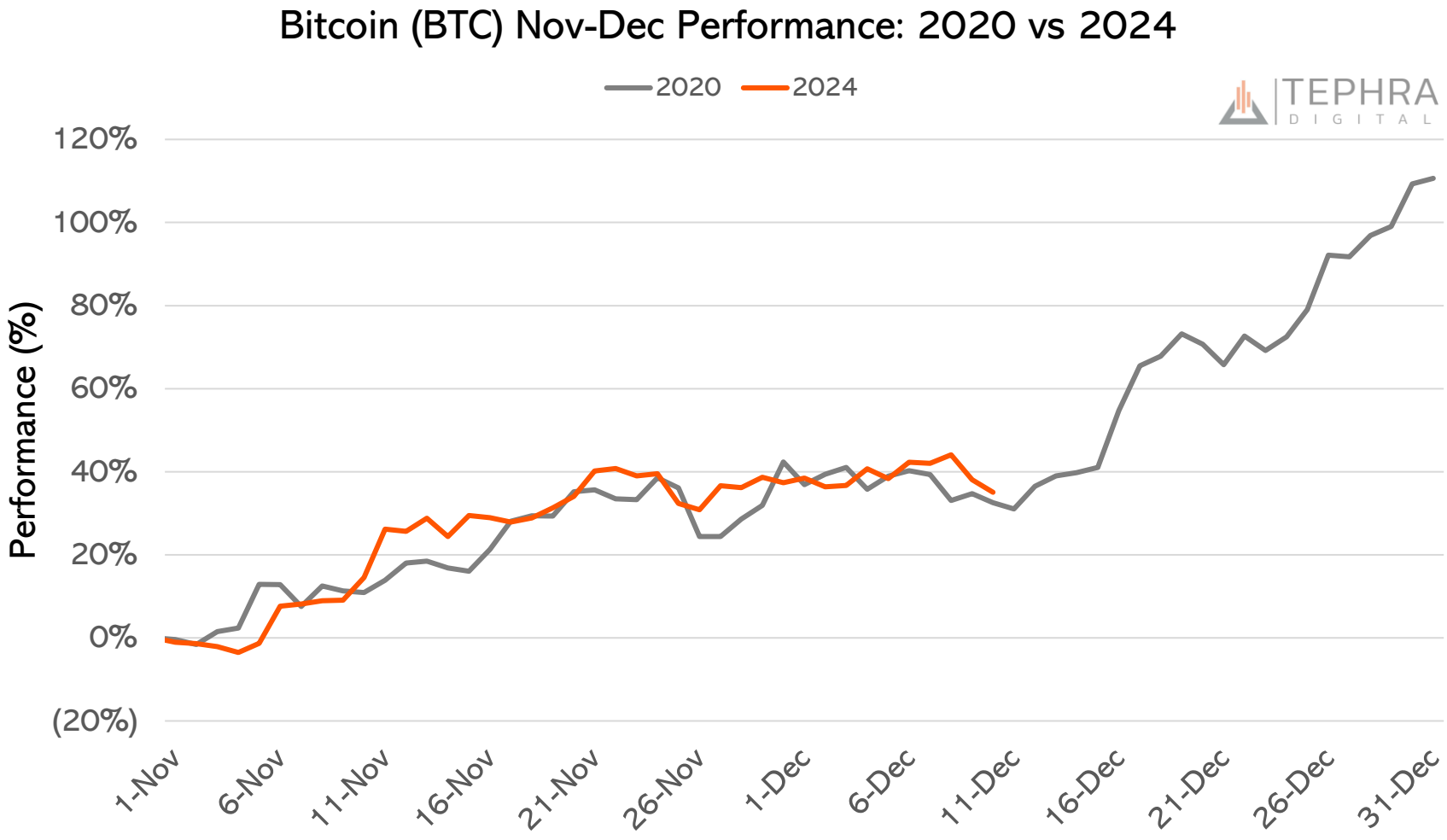
An Analysis of Bitcoin (BTC) Price Performance Following Historical Milestones Suggests that, on Average, Meaningful Positive Returns Continue Thereafter. It Appears that Bitcoin (BTC) Crossing $100,000 Could Signal Another Period of Strong Returns Over the Long-Term



Note: Price milestones are defined as each instance where the Bitcoin (BTC) price first closed above $1, $10, $100, $1k, $10k, $20k, $30k, $40k, $50k, $60k, $70k, $80k, $90k and $100k. Average Performance represents the historical average percentage change in the closing price of BTC after a specified number of days, relative to the closing price on the date the milestone was initially reached. Data is as of 12/9/2024.
Source: Artemis.

CHART #72

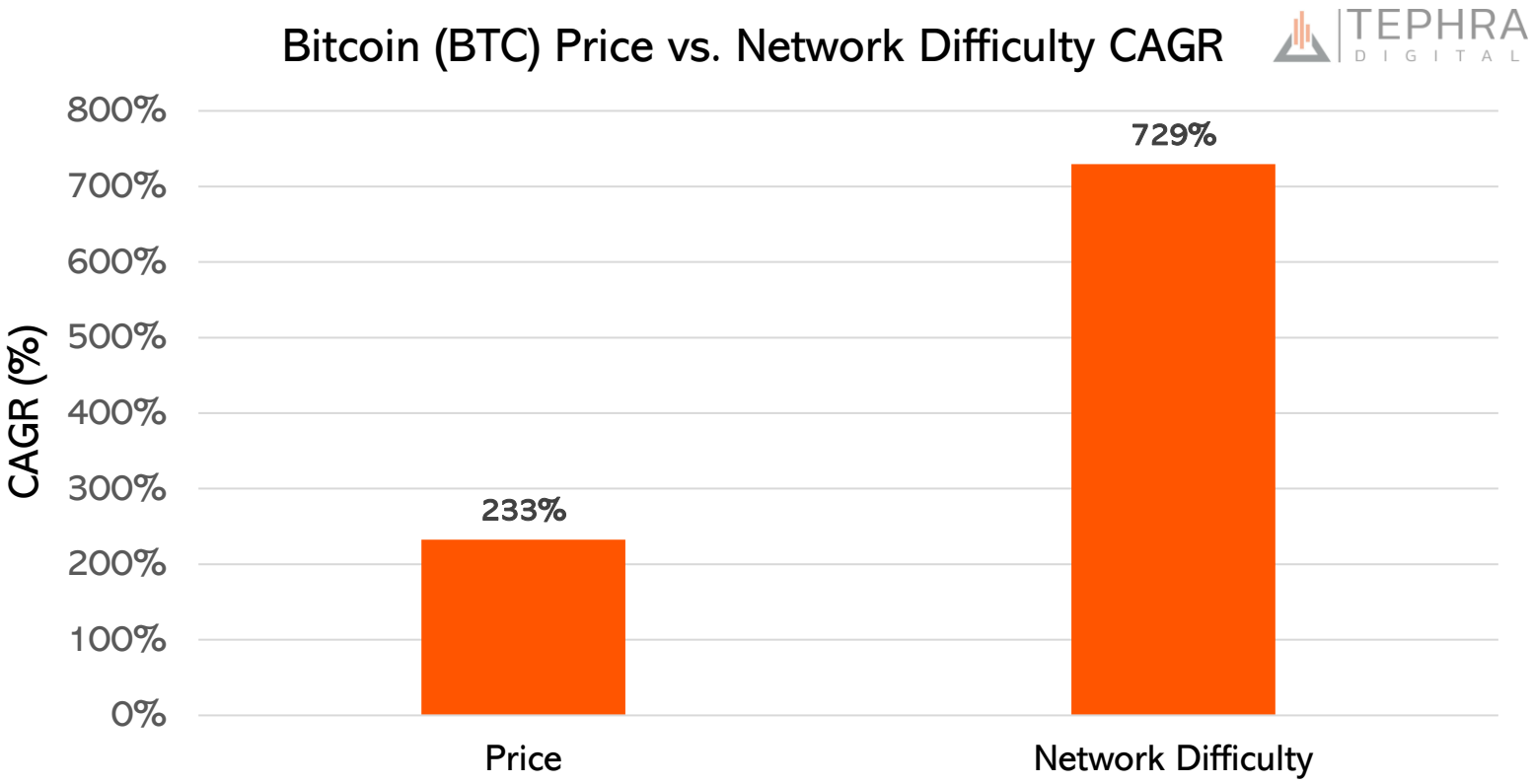
History Rhymes: Particularly Stanzas that are Four Years Apart. Bitcoin (BTC) Seasonality in 2024 Appears to be Informed by Patterns Seen in 2020



Note: Bitcoin (BTC) performance is measured by comparing each day's closing price during November and December to the closing price at 0:00 UTC on November 1 of that same year (2020 and 2024) Data for 12/10/2024 refers to Bitcoin (BTC) price at 2pm EST. Data is as of 12/10/2024.
Source: Artemis.

CHART #83

What Is Bitcoin (BTC) Network Difficulty? It Measures the Relative Compute Power Required from Bitcoin Miners to Earn a Block Reward. Network Difficulty Is Dynamically Adjusted Every 2,016 Blocks, Ensuring Block Times and Bitcoin Issuance Remain Precise and Consistent. While the Bitcoin Price Has Achieved a CAGR of 233% Since 2009, Bitcoin Network Difficulty Has Had a CAGR of 729%, Suggesting that Bitcoin's Compute Power Has Had Even More Exponential Growth

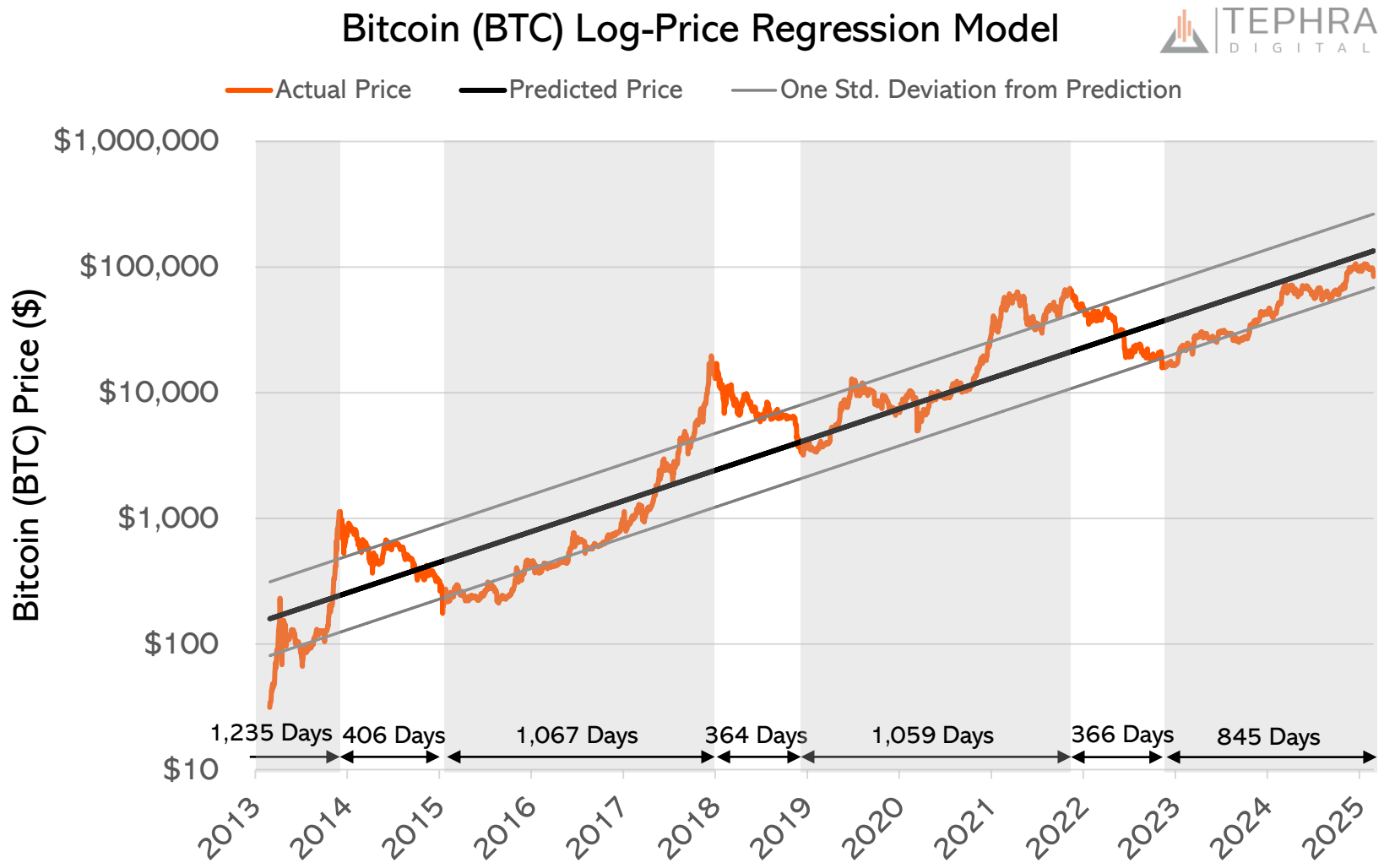


	2009	Current
Bitcoin (BTC) Price in US Dollars	$0.00099	$94,418
Bitcoin (BTC) Network Difficulty	1	110,451,907,374,649

Note: Price and Difficulty CAGR refer to compound annual growth rates from 10/5/2009, the date of the first recorded Bitcoin (BTC) transfer for US Dollars, through 1/13/2025.
Source: Blockworks and Coin Metrics.

CHART #102

The Bitcoin Log-Price Regression Model Puts Recent Volatility into Perspective. The Log-Price Channel Suggests a Wide Range for Bitcoin Prices, But Also Reinforces the Potential Long-Term Asymmetric Upside



Note: The Bitcoin (BTC) Log-Price Regression Model is derived from a simple regression of daily log Bitcoin (BTC) closing prices, using data from the last 12 years to reduce the impact of early volatility. Bull markets are shaded in light gray, while bear markets appear in white. Although the model excludes data from the very early trading period, it recognizes the initial bull market which lasted 1,235 days from initial exchange trading. Data is as of 3/3/2025.
Source: Artemis and Coin Metrics.

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RISK FACTORS REGARDING DIGITAL ASSETS

DIGITAL ASSETS

Digital Assets are loosely regulated and there is no central marketplace for currency exchange. Supply is determined by a computer code, not by a central bank, and prices can be extremely volatile. Digital Asset exchanges have been closed due to fraud, failure, or security breaches. Any of the Fund's funds that reside on an exchange that shuts down may be lost. Several factors may affect the price of Digital Assets, including, but not limited to: supply and demand, investors' expectations with respect to the rate of inflation, interest rates, currency exchange rates or future regulatory measures (if any) that restrict the trading of Digital Assets or the use of Digital Assets as a form of payment. There is no assurance that Digital Assets will maintain their long-term value in terms of purchasing power in the future, or that acceptance of Digital Asset payments by mainstream retail merchants and commercial businesses will grow. Digital Assets are created, issued, transmitted, and stored according to protocols run by computers in the Digital Asset network. It is possible these protocols have undiscovered flaws which could result in the loss of some or all assets held by the Fund. There may also be network scale attacks against these protocols which result in the loss of some or all of assets held by the Fund. Some assets held by the Fund may be created, issued, or transmitted using experimental cryptography which could have underlying flaws. Advancements in quantum computing could break the cryptographic rules of protocols which support the assets held by the Fund. The Fund makes no guarantees about the reliability of the cryptography used to create, issue, or transmit assets held by the Fund.

DIGITAL ASSETS EXCHANGES

The Fund expects to mainly use Coinbase, Inc., ("Coinbase") as the Fund's primary Digital Assets exchange but may use other Digital Asset Exchanges in its sole discretion. While Coinbase is a registered broker-dealer, Digital Assets, in general, are relatively new and largely unregulated and may therefore be more exposed to theft, fraud and failure than established, regulated exchanges for other products. In general, Digital Asset exchanges may be start-up businesses with limited operating history and limited publicly available financial information. Exchanges generally require cash to be deposited in advance in order to purchase Digital Assets, and no assurance can be given that those deposit funds can be recovered. Additionally, upon sale of a Digital Asset, cash proceeds may not be received from the exchange for several business days. The participation in exchanges requires users to take on credit risk by transferring Digital Assets from a personal account to a third-party's account. The Fund will take credit risk of an exchange every time it transacts (including Coinbase). Digital Asset exchanges may impose daily, weekly, monthly, or customer-specific transaction or distribution limits or suspend withdrawals entirely, rendering the exchange of Digital Assets for fiat currency difficult or impossible. Additionally, Digital Asset prices and valuations on Digital Asset exchanges have been volatile and subject to influence by many factors including the levels of liquidity on exchanges and operational interruptions and disruptions. The prices and valuation of Digital Assets remain subject to any volatility experienced by Digital Asset exchanges, and any such volatility can adversely affect an investment in the Fund. Digital Asset exchanges are appealing targets for cybercrime, hackers, and malware. It is possible that while engaging in transactions with various Digital Asset exchanges located throughout the world, any such exchange may cease operations due to theft, fraud, security breach, liquidity issues, or government investigation. In addition, banks may refuse to process wire transfers to or from exchanges. Over the past several years, many exchanges have, indeed, closed due to fraud, theft (e.g., Mt. Gox voluntarily shutting down because it was unable to account for over 850,000 Bitcoin), government or regulatory involvement, failure or security breaches (e.g., the voluntary temporary suspensions by Mt. Gox of cash withdrawals due to distributed denial of service attacks by malware and/or hackers), or banking issues (e.g., the loss of Tradehill's banking privileges at Internet Archive Federal Credit Union). Any financial, security or operational difficulties experienced by such exchanges may result in an inability of the Fund to recover money or Digital Assets being held by the exchange, or to pay investors upon withdrawal. Further, the Fund may be unable to recover Digital Assets awaiting transmission into or out of the Fund, all of which could adversely affect an investment in the Fund. Additionally, to the extent that the Digital Asset exchanges representing a substantial portion of the volume in Digital Asset trading are involved in fraud or experience security failures or other operational issues, such Digital Asset exchanges' failures may result in loss or less favorable prices of Digital Assets, or may adversely affect the Fund, its operations and investments, or the Limited Partners.

RISKS OF BUYING OR SELLING DIGITAL ASSETS

The Fund may transact with private buyers or sellers or virtual currency exchanges. The Fund will take on credit risk every time it purchases or sells digital currency or Digital Assets, and its contractual rights with respect to such transactions may be limited. Although the Fund's transfers of Digital Assets or cash will be made to or from a counterparty which the Investment Manager believes is trustworthy, it is possible that, through computer or human error, or through theft or criminal action, the Fund's Digital Assets or cash could be transferred in incorrect amounts or to unauthorized third parties. To the extent that the Fund is unable to seek a corrective transaction with such third party or is incapable of identifying the third party which has received it, the Fund may incur a loss. Tephra may at any time adjust, increase, decrease or eliminate any of the targets, depending on, among other things, conditions and trends, general economic conditions and changes in Tephra's investment philosophy, strategy and expectations regarding the focus, techniques and activities of its strategy. Fund's Digital Assets or cash (through error or theft), the Fund will be unable to recover incorrectly transferred Digital Assets or cash, and such losses will negatively impact the Fund.

RISK FACTORS REGARDING DIGITAL ASSETS (CONTINUED)

CUSTODY OF FUND ASSETS

With respect to Digital Assets, the Investment Manager primarily maintains custody of the Fund's Digital Assets with Fidelity Digital Assets Services and Coinbase, however the General Partner, at its sole discretion and without prior notice to Limited Partners, may select other custodians in the future. Fidelity Digital Asset Services, LLC is a New York State-chartered limited liability trust company. Coinbase is a registered broker-dealer. The Investment Manager may also maintain custody of the Fund's Digital Assets with other third-party custodians selected by the Investment Manager, including the use of multiparty computation custodians or on or within "hot wallets" on exchanges. The Investment Manager may also utilize proprietary storage methods developed by the General Partner or Investment Manager. Digital Asset exchanges may also require the Investment Manager to provide control of the private keys when the exchange is utilized by the Fund. The Investment Manager may not be able to obtain control of the private keys generated by the exchanges utilized by the Fund, because each exchange may use different methodologies and security systems. The General Partner and Investment Manager are not liable to the Fund or to Limited Partners for the failure or penetration of the security system absent gross negligence, fraud or criminal behavior.

SYSTEMS AND OPERATIONAL RISK

The Fund's investment strategy relies extensively on computer programs and systems to trade, clear, and settle Digital Assets transactions, to evaluate certain Digital Assets based on real-time trading information, to monitor its portfolio and net capital, and to generate risk management and other reports that are critical to oversight of account activities. In addition, certain of the General Partner's and Investment Manager's operations interface with or depend on systems operated by third parties, including its prime brokers and market counterparties and their sub-custodians and other service providers, and the General Partner and Investment Manager may not be in a position to verify the risks or reliability of such third-party systems. These programs or systems may be subject to certain defects, failures, or interruptions, including, but not limited to, those caused by worms, viruses and power failures. Any such defect or failure could have a material adverse effect on the Fund's portfolio.

COMPUTER MALWARE, VIRUSES, BUGS, ETC.

Computer malware, viruses, and computer hacking and phishing attacks have become more prevalent in the industries in which the Digital Assets exchanges (including Coinbase) operate and may occur on Coinbase's or other Digital Assets exchanges' systems or technologies. Though it is difficult to determine what, if any, harm may directly result from any specific interruption or attack, any failure to maintain performance, reliability, security, and availability of Coinbase's, or other Digital Asset exchanges' products and technical infrastructure may harm such Coinbase's, or Digital Asset exchanges' reputations, their ability to retain existing users and attract new users, and their results of operations. Digital Assets exchange (including Coinbase) products and internal systems generally rely on software that is highly technical and complex, and such internal systems depend on the ability of such software to store, retrieve, process, and manage immense amounts of data. Such software may now or in the future contain undetected errors, bugs, or vulnerabilities. Some errors may only be discovered after the code has been released for external or internal use. Errors or other design defects within such software may result in a negative experience for users and marketers who use Coinbase, or other exchange products, delay product introductions or enhancements, or result in measurement or billing errors. Any errors, bugs, or defects discovered in Coinbase's, or another Digital Asset exchange's software could result in damage to Coinbase, or such other Digital Asset exchanges' reputations, loss of users, loss of revenue, or liability for damages, any of which could adversely affect such exchanges and could result in significant losses.

HIGHLY VOLATILE MARKETS

The prices of Digital Assets in which the Fund may invest can be highly volatile. Price movements of Digital Assets in which the Fund's assets may be invested are influenced by, among other things, interest rates, changing supply and demand relationships, trade, fiscal, monetary and exchange control programs and policies of governments, and national and international political and economic events and policies. The Fund is subject to the risk of failure of any of the centralized exchanges on which their positions trade.

HIGH RISK INVESTMENTS

While investments in Digital Assets offer the opportunity for significant capital gains, such investments involve a high degree of business, financial, technological and regulatory risk, which can result in substantial losses. Moreover, the Fund's portfolio may include investments particularly subject to increased risk because they are in Digital Assets at an early stage of development. As a result, the Fund may experience substantial volatility and potential for loss. The Investment Manager believes that its investment program and research techniques moderate this risk through a careful selection of Digital Assets and other financial instruments. However, no guarantee or representation is made that the program will be successful.

TEPHRA DIGITAL

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