

# BETTER BITCOIN EXPOSURES:

## TOBAM Bitcoin Enhanced and TOBAM Bitcoin Treasury Opportunities

"Exposures not yet offered by reference players."

For informational purposes only.

This presentation is provided for discussion purposes only and does not constitute investment advice, a recommendation, solicitation, offer, advice or invitation to enter in any transaction and should in no case be interpreted as such.

August 2025

# Important Disclosure

- TOBAM and various entities of the TOBAM group of companies
- Yves Choueifaty and various employees of TOBAM.
- Various strategies of the TOBAM Range

**Are shareholders of some of the funds and companies mentioned in this presentation!**

# 1. • Intro to TOBAM & ₿TOBAM

## 2. • « Conventional » and Better Ways of getting an exposure to Bitcoin

## 3. • ConclusionS

# THE COMPANY, RESEARCH DRIVEN ASSET MANAGER

Independent and employee-owned

- Created in 2005
  - Part of CalPERS' Emerging Manager Program (2011 - 2021)
  - 24 financial professionals, 9 nationalities
  - Regulated in France and SEC-registered
- Paris
  - Dublin
  - New York



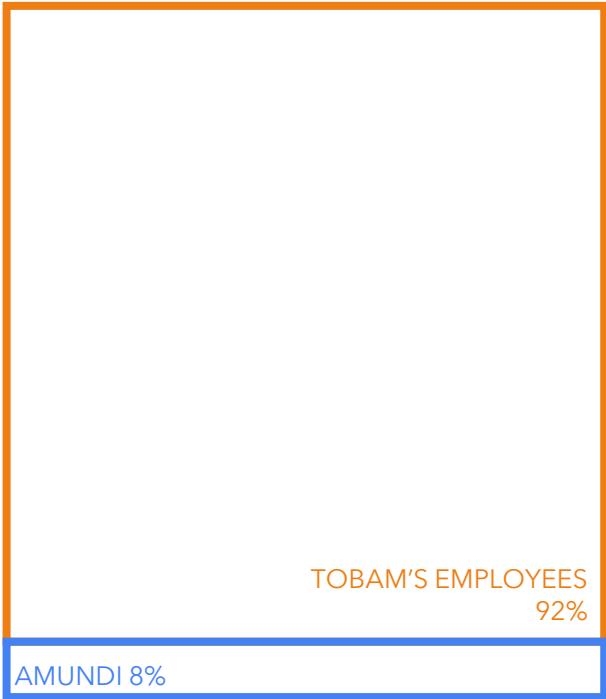
50% of the team involved in  
portfolio management & research (12 people)

## THE FOUNDER

Yves Choueifaty, President & CIO  
(30 years investment experience), previously:

- CEO of Credit Lyonnais Asset Management (AuM €70bn)
- Graduated in 1992 from ENSAE in Statistics, Actuarial Studies Finance and Artificial Intelligence

## SHAREHOLDERS STRUCTURE



Source: TOBAM. Figures as of Jun 30 2025.

## MIGRATING TOBAM FROM A MONO-CORE ...

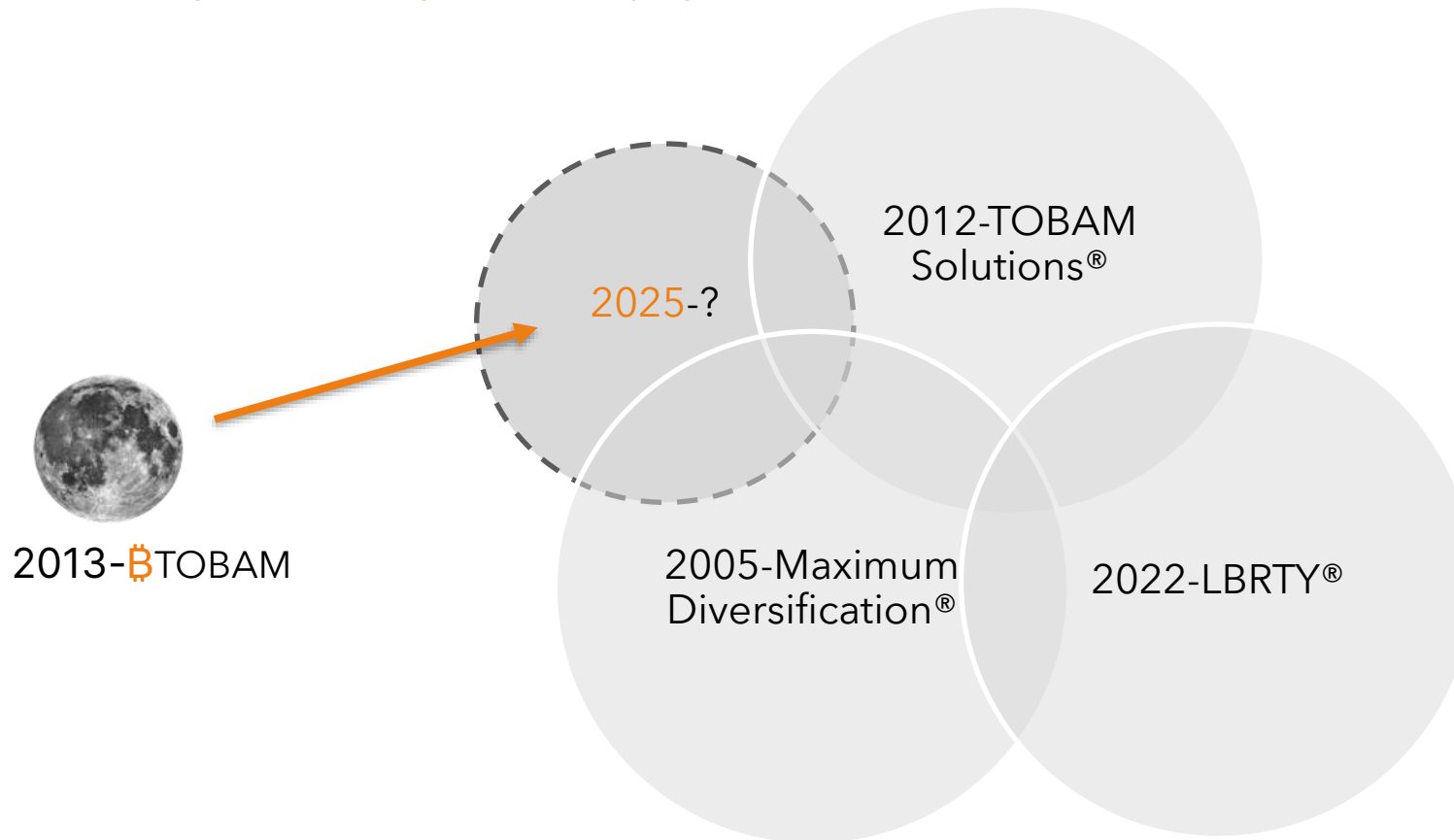
**TOBAM\***  
CORE INVESTMENTS



tobam\*  
unbiased.

.... To Multi-Core

"Exposures not yet offered by reference players."



# AWARDS

## 2023 - 2024

- "Best Fund Manager for Digital Assets"  
The Digital Banker, Oct 2024, Singapore
- "Equities Manager of the year"  
Wealth & AM Awards, May 2024, London
- Multi Asset Portfolio Awards  
CIO Industry Innovation Awards, Dec 2023, NYC
- "Grand Prix de la Philanthropie"  
"Justice and Peace" category, Fiacade  
Group, Nov 2023, Paris



- Multi Strategy investing Awards  
CIO Industry Innovation Awards, Dec 2022, NYC
- "Grand Prix de la Finance" US Equity  
"Best funds to choose in the next 12 months"  
H24 Finance, July 2022, Paris
- "Sustainability Provider of the Year"  
Asset Management Awards 2022  
MoneyAge, May 2022, London



- "Multi Asset Manager of the Year"  
European Pensions Awards 2021  
October 2021, London
- "Smart Beta Manager of the year"  
Pension and Investment provider Awards 2021  
June 2021, London
- "Multi Asset Manager of the Year"  
Asset Management Awards 2021  
MoneyAge, May 2021, London



- European Asset Management Firm of the Year"  
(assets under €20bn)  
Funds Europe Awards 2020, London
- TOBAM's Anti-Benchmark® Multi Asset:  
"Best Flexible Fund"  
Grands Prix de la Gestion d'Actifs 2020, Paris



## Other Awards

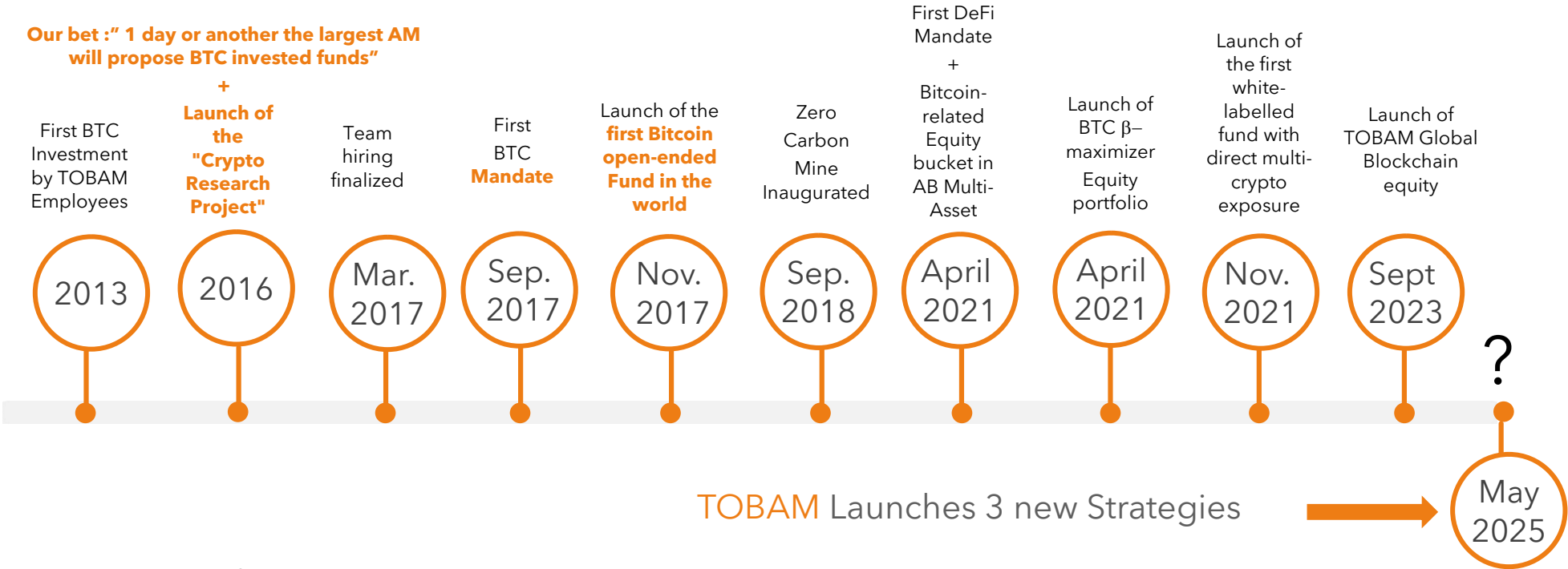
- "Most Sustainable Company in the Investment Industry"  
World Finance Sustainability Awards, 2019
- "Emerging Equity Manager of the Year"  
UK Pensions Awards 2019, London
- "European Smart Beta Manager of the Year"  
Funds Europe Awards 2018, London
- "European Asset Management Firm of the Year"  
Funds Europe Awards 2017, London
- "AM Leader of the Year"  
Grands Prix de la Gestion d'Actifs 2016, Paris
- "European Asset Manager of the Year"  
Funds Europe Awards 2016, London
- "Equities Manager of the Year"  
CIO Industry Innovation Awards 2015  
New York
- "CIO of the Year"  
Funds Europe Awards 2015
- "Profit for Non Profit Special Award, TOBAM  
Anti-Benchmark Emerging Markets Equity Fund"  
Profit for Non Profit Awards 2014, Paris



- "Emerging Equity Manager of the Year"  
Pension Age Awards 2020, London
- TOBAM's Deputy CIO elected in the Top  
25 Rising Stars of Asset Management  
Financial News, September 2020



# TOBAM'S JOURNEY INTO CRYPTO



- Some research projects:

Market impact

Forks

Time Diversification

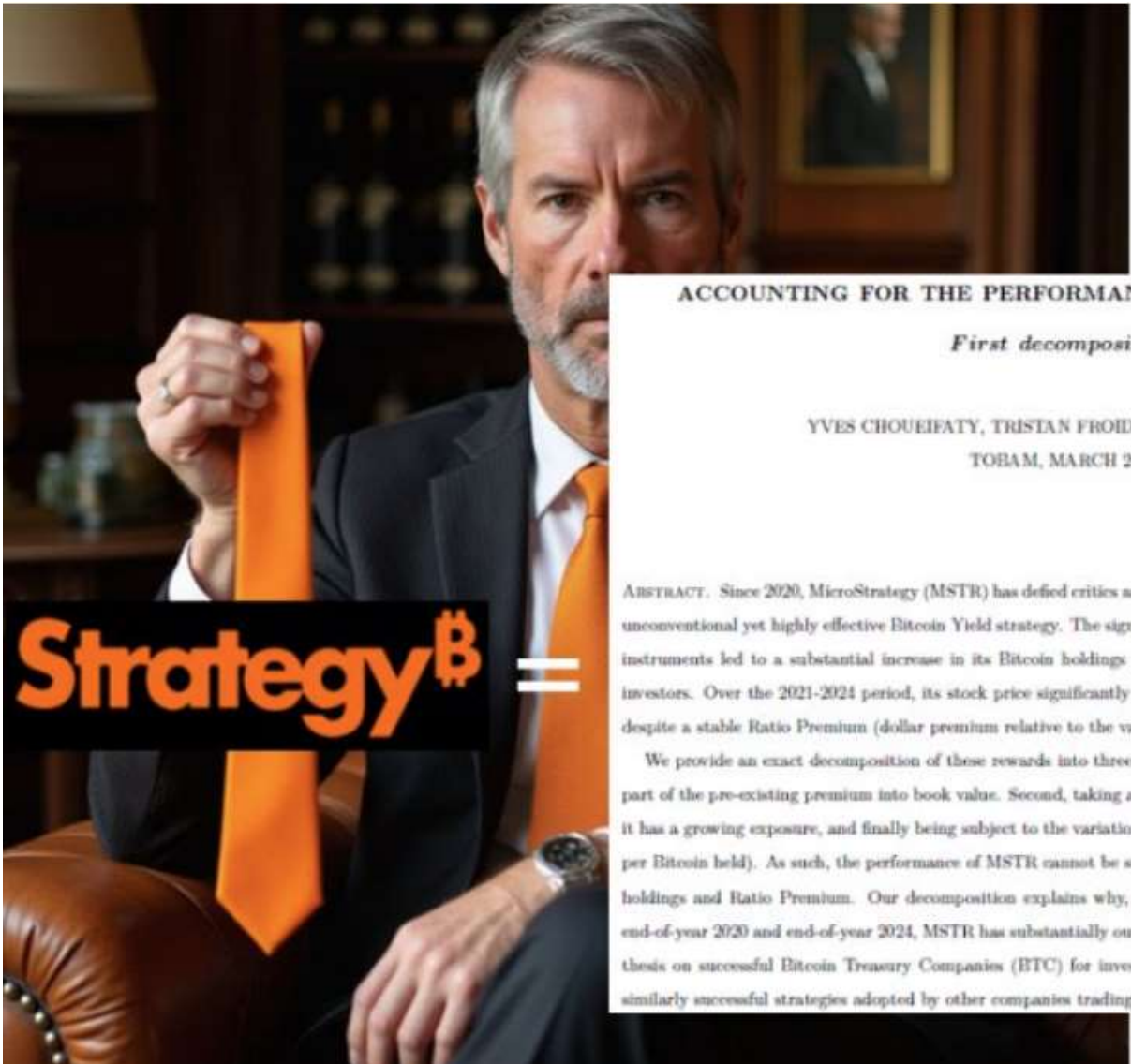
Crypto Anti-Benchmarks

BTC Yield ...





# EXAMPLE OF RECENT RESEARCH, MARCH 2025: ACCOUNTING FOR THE PERFORMANCE OF (MICRO)STRATEGY



ACCOUNTING FOR THE PERFORMANCE OF MICROSTRATEGY

*First decomposition*

YVES CHOUEIFATY, TRISTAN FROIDURE, AXEL CABROL.  
TOBAM, MARCH 2025.

ABSTRACT. Since 2020, MicroStrategy (MSTR) has defied critics and corporate finance pundits alike by adopting an unconventional yet highly effective Bitcoin Yield strategy. The significant issuance of shares, bonds, and convertible instruments led to a substantial increase in its Bitcoin holdings per share and delivered outsized rewards to its investors. Over the 2021-2024 period, its stock price significantly outperformed Bitcoin, growing 7.5x versus 3.2x despite a stable Ratio Premium (dollar premium relative to the value of its Bitcoin holdings).

We provide an exact decomposition of these rewards into three sources. First, the monetization of a significant part of the pre-existing premium into book value. Second, taking advantage of the performance of Bitcoin to which it has a growing exposure, and finally being subject to the variations in its Bitcoin Price Premium (dollar premium per Bitcoin held). As such, the performance of MSTR cannot be summarized solely by the variations in its Bitcoin holdings and Ratio Premium. Our decomposition explains why, despite an unchanged Ratio Premium between end-of-year 2020 and end-of-year 2024, MSTR has substantially outperformed Bitcoin. This suggests an investment thesis on successful Bitcoin Treasury Companies (BTC) for investors anticipating further Bitcoin growth, or on similarly successful strategies adopted by other companies trading at a premium.



« 1st most downloaded article in 60 days » in the field « History of finance »...





EX. OF RECENT RESEARCH, MARCH 2025:  
ACCOUNTING FOR THE PERFORMANCE OF  
(MICRO)STRATEGY

Data					
Date	S	B	s [mio]	b [k]	b/s
31Dec20	39	\$28,996	93	70	0.760
31Dec21	54	\$46,334	109	124	1.138
30Dec22	14	\$16,579	113	133	1.171
29Dec23	63	\$41,935	167	189	1.132
31Dec24	290	\$93,714	245	446	1.819

Key Variables computations									
Date	$\pi$	$B_s$	$\Delta s/s$	$\Delta b/b$	Bitcoin Yield	$\beta=1/\pi$	$\beta_0=1/\pi_0$	$\beta$	$\Delta B_s/B$
31Dec20	1.76	\$22,099				0.57			
31Dec21	1.03	\$ 1,504	18%	77%	50%	0.97	0.57	0.85	-93%
30Dec22	0.73	\$ (4,487)	4%	7%	3%	1.37	0.97	1.00	-398%
29Dec23	1.33	\$13,876	48%	43%	-3%	0.75	1.37	1.33	-409%
31Dec24	1.70	\$65,537	47%	136%	61%	0.59	0.75	1.21	372%
Full Period			165%	533%	139%		0.57	1.36	197%

(Micro)Strategy  
outperforms Bitcoin Despite  
a decreasing premium and  
an extremely low leverage...

Bitcoin & MSTR Returns		
Date	Bitcoin	MSTR
31Dec21	60%	40%
30Dec22	-64%	-74%
29Dec23	153%	346%
31Dec24	123%	359%
Full Period	223%	645%

Contribution to MSTR Performance		
Bitcoin Yield	Bitcoin Performance	Bitcoin Price Premium
50%	51%	-60%
3%	-64%	-13%
-3%	203%	147%
61%	149%	149%
139%	303%	203%

$$r_s = y_b + \beta \times r_b + \beta \times \frac{B\pi - B_{\pi,0}}{B_0}, \text{ with } \beta = \beta_0 (1 + y_b)$$

- In words, the return of an investment in shares of MSTR over a given period is the sum of:
  - (1) Its **Bitcoin Yield** over the period
  - (2) The **Bitcoin performance**  $r_b$ , to which it had **realized exposure**  $\beta$  over the period
  - (3) The change of its **Bitcoin Price Premium** relative to the initial Bitcoin price, with realized exposure  $\beta$  over the period

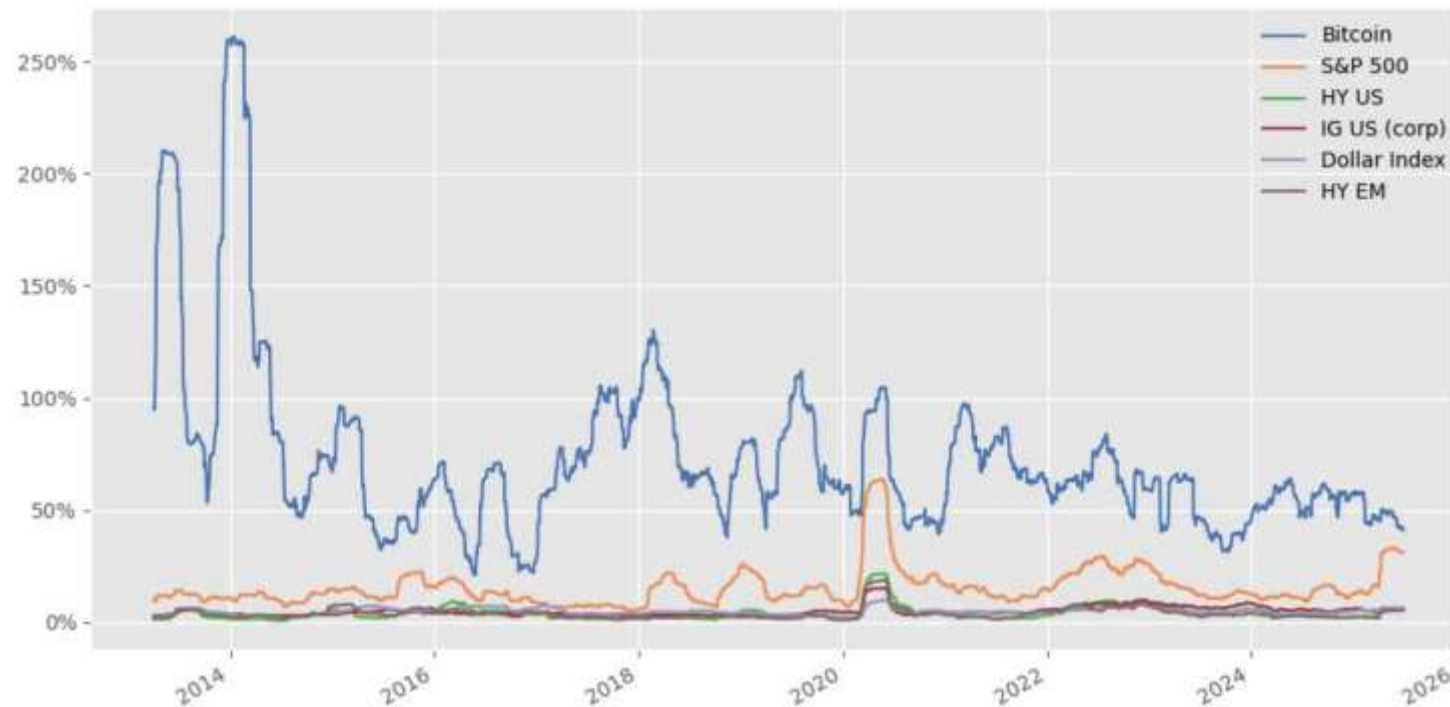
1. Intro to TOBAM & ₿TOBAM

2. CONVENTIONAL AND BETTER WAYS of getting an exposure to BITCOIN

3. Conclusion

# WARNING: BAD NEWS, BITCOIN IS A VERY VERY VERY RISKY ASSET

- Rolling 3 month volatility



Source: TOBAM, FRED. 3-month volatility calculated on daily returns from, 29/03/2013 to 30/06/2025.  
Past performance, risk and behaviour are not indicative of future performance, risk and behaviour.

## GOOD NEWS: INVESTORS ARE RISK TAKERS

### Theorem:

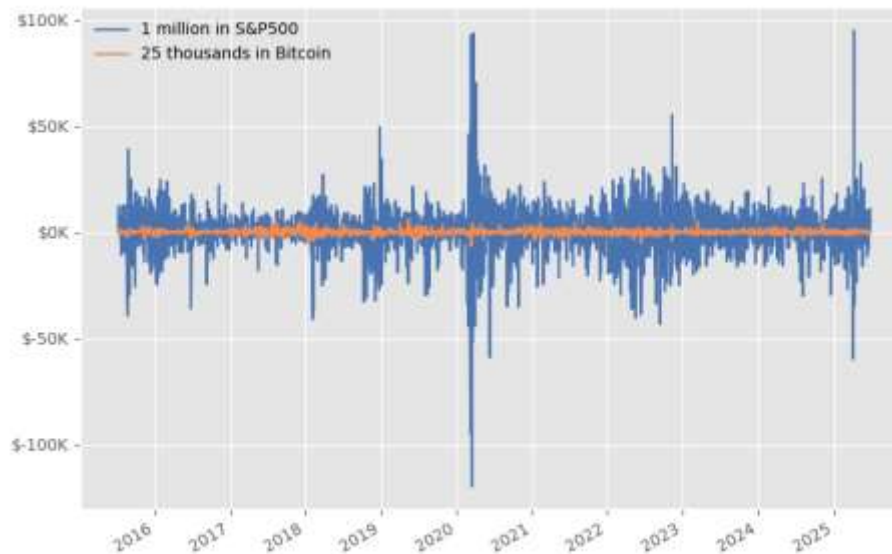
Risk is not relevant to the Investment case.

Risk should only determine the Investment size.

US\$ 1 million at 10% volatility is far riskier than US\$ 25 000 at 80% volatility

% volatility is not relevant, what is relevant is the \$ volatility.

“Size matters!”




- The risk of an asset should determine the size of the investment, not whether to invest or not.
- We should not be able to say “it is too risky for me”

Source: TOBAM and FRED. Hypothetical returns from March 31, 2017 to Jun 30, 2025 provided for illustrative purposes. Hypothetical results do not represent the results of actual trading using client assets. Warning: Past performance is not an indicator or a guarantee of future performance.

# WHAT IS THE BITCOIN? THE SIMPLEST FINANCIAL ASSET IN THE WORLD!

*Hint: nobody needs to explain thermodynamics in order to define a car!*

The itcoin value proposal:

1. Digital	(like	\$ €)
2. Solid, unforgeable	(like	\$ €)
3. Peer to peer	(like	\$ €)
4. Decentralized Governance	(unlike	\$ €)
5. Max 21 000 000	(max $\infty$ for	\$ €)

# THE LONGEST TRACK RECORD IN THE WORLD: TOBAM BITCOIN ENHANCED STRATEGY, First Open-Ended BITCOIN vehicle

- Gross Performance in USD  
since inception (20/11/2017 - 31/7/2025)



TOBAM BITCOIN Enhanced Fund	
Return:	1,816.93%
Annualized return:	46.80%
Hist vol:	70.92%
Sharpe ratio:	0.63
Sortino ratio:	1.06
Downside volatility:	41.90%
Bitcoin CME CF Reference Rate chained NYXBT	
Return:	1,334.18%
Annualized return:	41.37%
Hist vol:	69.69%
Sharpe ratio:	0.56
Sortino ratio:	0.94
Downside volatility:	41.50%
Excess return:	482.74%
Excess annual. return:	5.43%
Tracking error:	12.50%
Info ratio:	0.43
Beta:	1.00 $r^2$ 96.89%
Correlation:	98.43%
Jensen's alpha:	480.56%
Treynor ratio:	0.44

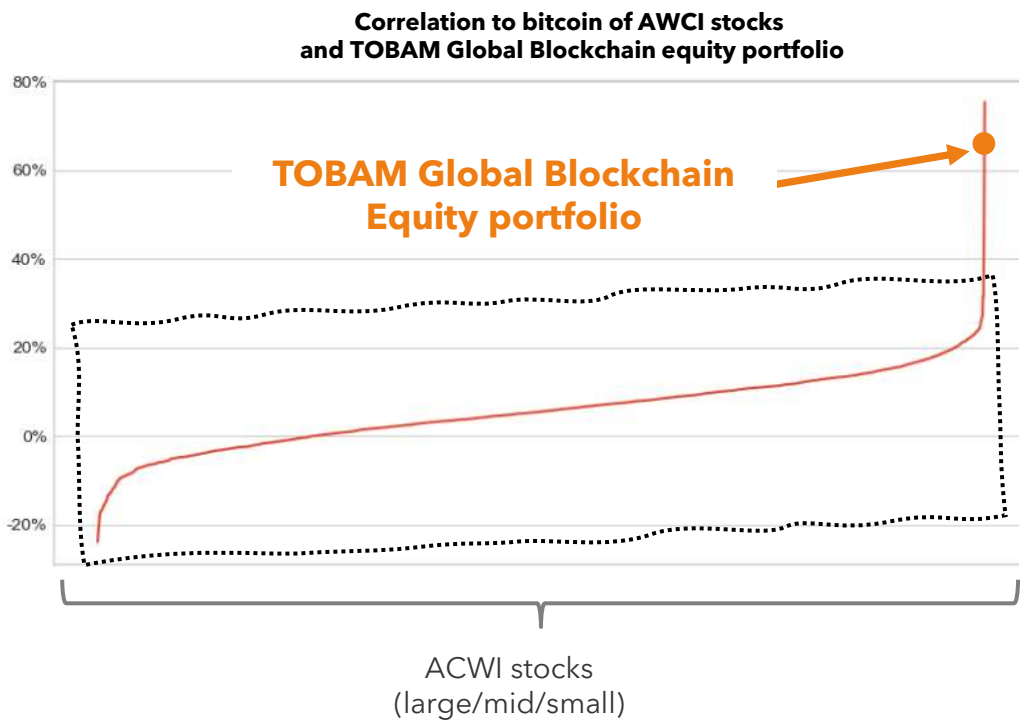
12/30/2022	-	12/30/2024	Daily	Calculation	Correlation	USD
<Filter>						
Correlation Matrix (5 Rows x 5 Columns)						
Security	21SHARES BITCOIN SINGLE	CME CF Bitcoin Ref. Rate	TOBAM BITCOIN-A2	GRAYSCALE BITCOIN TRUST BTC	BITCOIN TRACKER ONE EUR	
11) 21SHARES BI...	1.000	0.941	0.945	0.638	0.971	
12) CME CF Bitcoi...	0.941	1.000	0.999	0.577	0.934	
13) TOBAM BITCO...	0.945	0.999	1.000	0.604	0.939	
14) GRAYSCALE B...	0.638	0.577	0.604	1.000	0.655	
15) BITCOIN TRA...	0.971	0.934	0.939	0.655	1.000	

Source: TOBAM, Bloomberg. For informational purposes only. This material is provided for discussion purposes only and does not constitute investment advice, a recommendation, solicitation, offer, advice or invitation to enter in any transaction and should in no case be interpreted as such.

Sources: TOBAM, Bloomberg. Returns reflect live data from November 20, 2017 to July 31, 2025.  
Warning: Past performance is not an indicator or a guarantee of future performance. The value of your investment and income received from it can go down as well as up and you may not get back the full amount invested. Performance details provided are in USD. Performance returns and/or charts illustrating performance provided on this page are gross of management fees, sales charges and other commissions, other taxes and relevant costs to be paid by an investor are not included in the calculations. The risk free rate of return is calculated using the one month USD LIBOR rate. TOBAM Bitcoin gross annualized performance between November 20, 2017 to July 31, 2025 is 46,8%, while the performance net of fee is 43,7%.

# 2020 : TOBAM BTC EQUITY FUNDS

- Portfolio Construction :** The TOBAM Global Blockchain Equity portfolio is defined as the portfolio comprised of eligible stocks that minimize the tracking error to bitcoin while:
  - limiting turnover/market impact and constraining trades sizes.
  - complying with UCITS concentration guidelines 5/10/40 rule.



TOBAM Global Blockchain Equity portfolio is roughly as correlated to bitcoin as the universe's most correlated stock to it

Source: TOBAM. Data from 31/12/2022 to 31/12/2024.



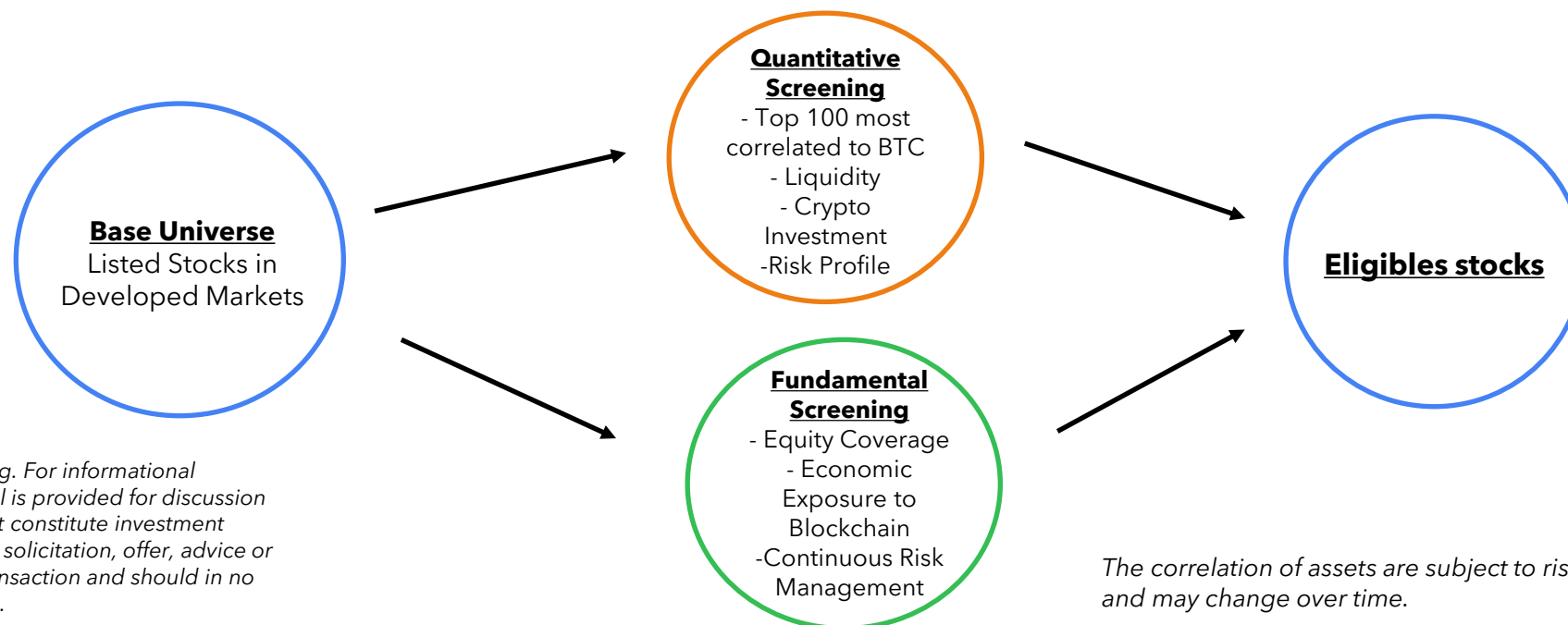
# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY DESCRIPTION

The idea: take advantage of the adoption of Bitcoin and Blockchain via listed equities:

- Eligible UCITS financial instruments
- With sufficient liquidity
- Highly correlated to the price of Bitcoin

The solution:

- Identify listed equities that have an economic exposure to BTC and Blockchain
- Select them according to fundamental and quantitative criteria
- Combine them in a way that minimizes the TE to the price of BTC



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The correlation of assets are subject to risk and may change over time.

GROSS PERFORMANCE IN USD (21/09/2023 – 31/07/2025)



TOBAM Global Blockchain Equity Strategy

July 31, 2025

Characteristics

**BENCHMARK**  
BBG Dev Mkt L/M NR

**BENCHMARK BLOOMBERG TICKER**  
DMN Index

**PORTFOLIO MANAGER**  
Team Managed

**BASE CURRENCY**  
USD

**AVAILABLE STRUCTURES**

- Luxembourg vehicle
- Segregated mandate

**LIQUIDITY**  
Daily

Marketing Document  
For Professional Investors Only

Monthly Gross Returns (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
													Strat.	Index
2025	9.47	-11.12	-8.66	8.51	30.59	20.08	-0.81						49.99	10.55
2024	-8.87	29.94	11.70	-11.47	7.55	0.94	1.86	-3.19	4.51	5.33	26.42	-8.09	60.33	19.12
2023									-0.88	3.83	15.67	23.30	46.78	10.23

Summary Statistics

	Global Blockchain Equity Strategy	BBG Dev Mkt L/M NR
Gross Return (Sept '23 - Jul '25)	252.99 %	45.16 %
Annualized Gross Return	97.19 %	22.22 %
Volatility	37.77 %	14.17 %
Sharpe ratio	2.44	1.22
Downside deviation	19.64 %	8.68 %
Sortino ratio	4.69	1.98
Correlation to index	0.67	
Beta to index	1.78	

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Performance returns and/or charts illustrating performance provided on this page are gross of fees. Sales charges and other commissions, other taxes and relevant costs to be paid by an investor are not included in the calculations. Performance may also be affected by currency fluctuations.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY SIMULATED + LIVE RESULTS (31/12/2019 – 31/07/2025)

Period : 31/12/19 to 31/07/25	TOBAM Global Blockchain Equity Strategy	World market cap benchmark	BTC
Annualized Gross Returns	36.7%	11.9%	65.2%
Volatility	40.7%	18.3%	63.4%
Correlation to Bitcoin	63.5%	26.3%	100.0%
Sharpe Ratio	0.8	0.5	1.0

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Source: TOBAM and Bloomberg. Simulations were conducted between the 31/12/2019 and 01/08/2022 + live data until 31/07/2025. Weekly correlation calculations made from 31/12/2019 to 31/12/2024. Warning: Past performance is not an indicator or a guarantee of future performance. The value of your investment and income received from it can go down as well as up and you may not get back the full amount invested. Performance details provided are in USD and do not include reinvested dividends. Performance returns and/or charts illustrating performance provided on this page are Gross of management fees, sales charges and other commissions, other taxes and relevant costs to be paid by an investor are not included in the calculations. Benchmark returns reflect the Bloomberg Dev Market L/M NR Index after July 29, 2022 and to date. Benchmark returns prior to July 29, 2022 reflect the MSCI World Index. The returns of the two Reference Indices have been chained accordingly. TOBAM Global Blockchain Equity Strategy gross annualized performance in USD between Dec 31, 2019 and July 31, 2025 is 36.7%, while the performance net of fees and transaction costs is 36.1%.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY SIMULATED + LIVE RESULTS (31/12/2019 - 31/07/2025)

## CORRELATION TO BITCOIN

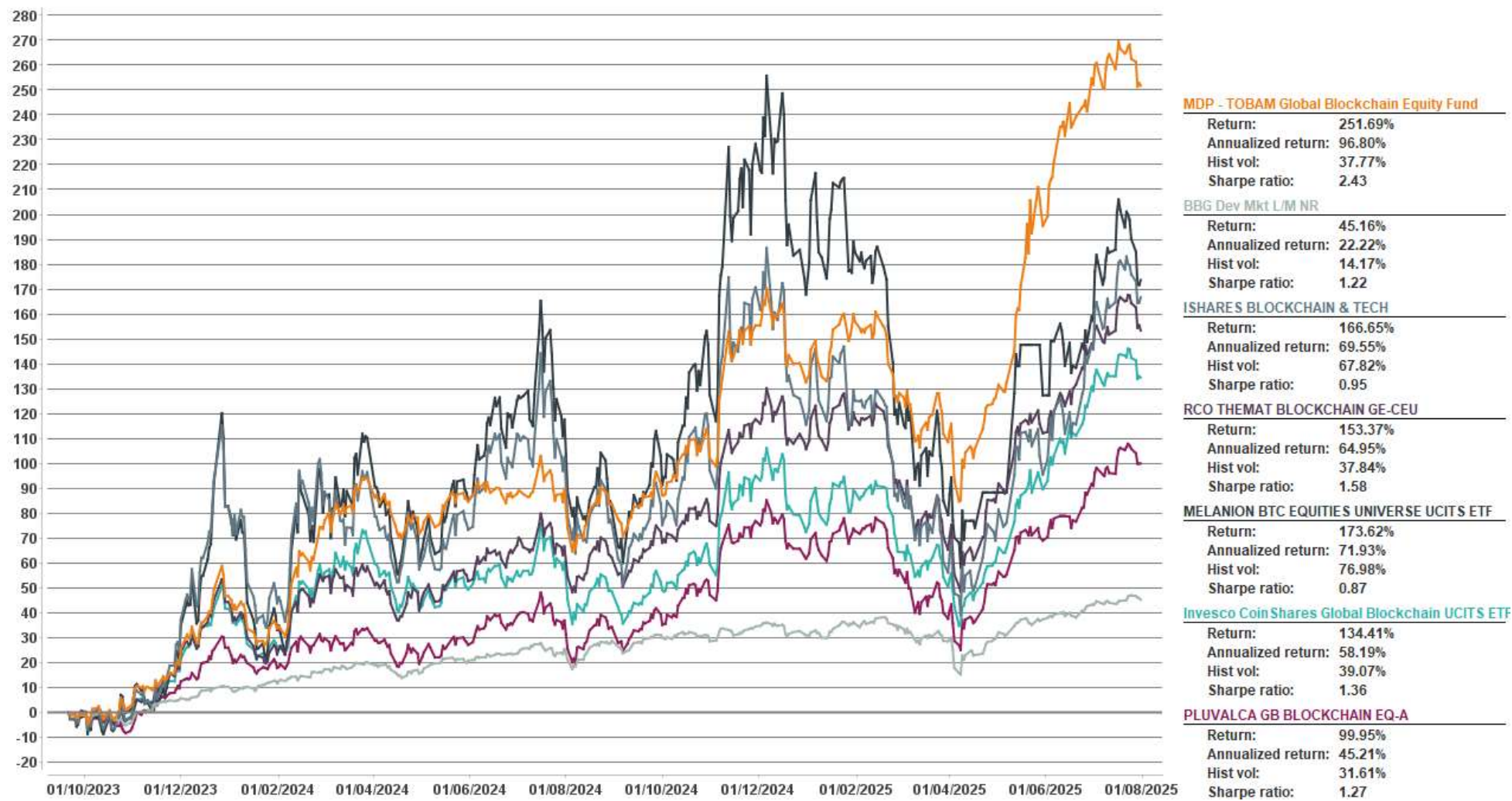
Period	TOBAM Global Blockchain Equity Strategy	World market cap benchmark
2020	52.1%	40.7%
2021	69.6%	20.1%
2022	69.2%	36.5%
2023	60.9%	4.6%
2024	62.6%	13.6%
YTD 2025	42.0%	20.8%
31/12/2019 - 30/06/2025	63.5%	26.3%

- Bitcoin-related stocks show consistent correlation with Bitcoin.
- No such things can be observed between global equities and Bitcoin.

Source: Simulations were conducted between the 31/12/2019 and 01/08/2022 + live data until 31/07/2025. Weekly correlation calculations made from 31/12/2019 to 31/07/2025.  
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# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY

## PEER GROUP COMPARISON



- **TOBAM GLOBAL BLOCKCHAIN** stands out as it has always been **focused on Bitcoin** !

Source: TOBAM and Bloomberg. Live data from 21/09/2023 . Warning: Past performance is not an indicator or a guarantee of future performance. The value of your investment and income received from it can go down as well as up and you may not get back the full amount invested. Performance details provided are in USD. Performance returns and/or charts illustrating performance provided on this page are Net of management fees. Sales charges and other commissions, other taxes and relevant costs to be paid by an investor are not included in the calculations.

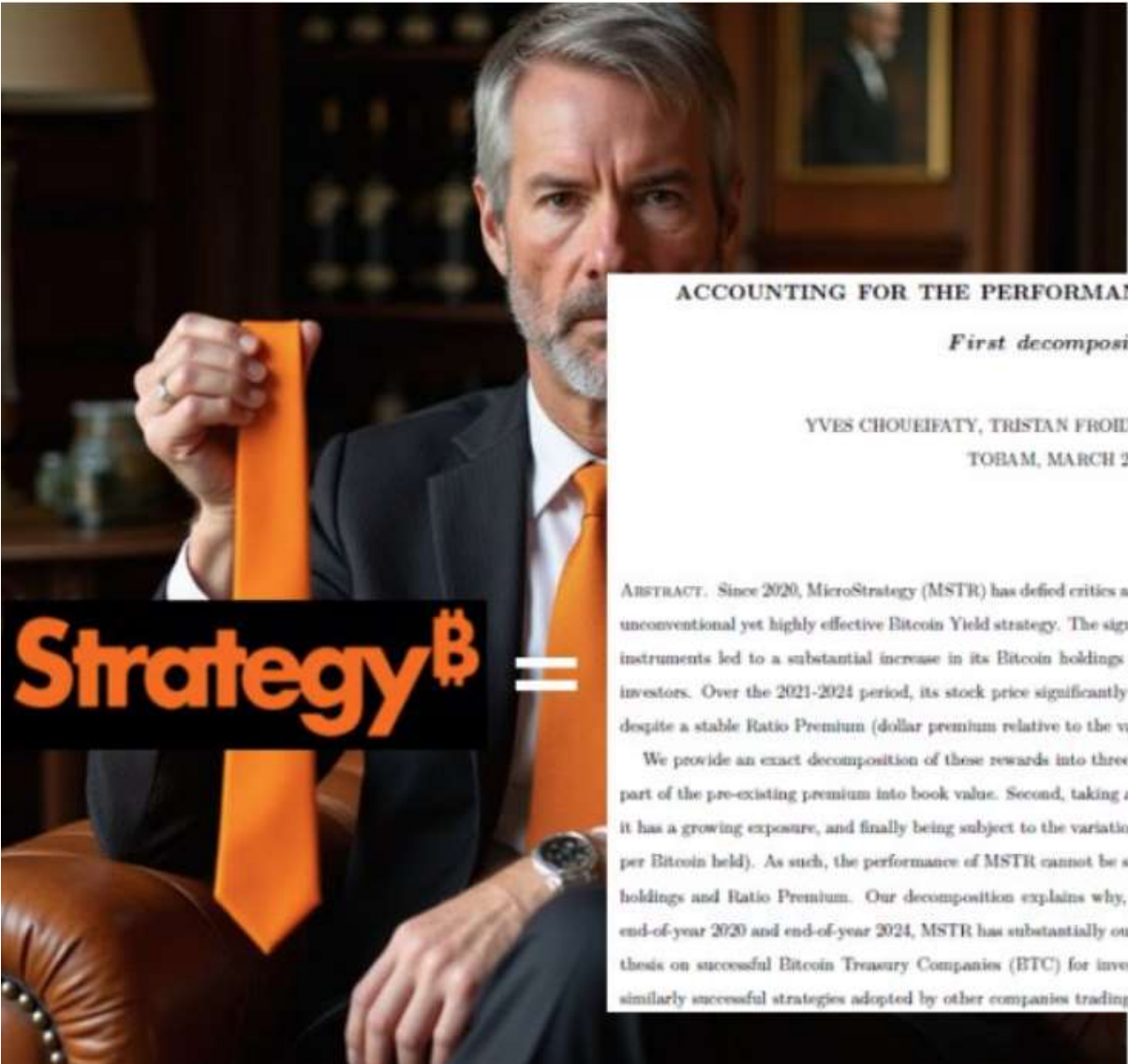
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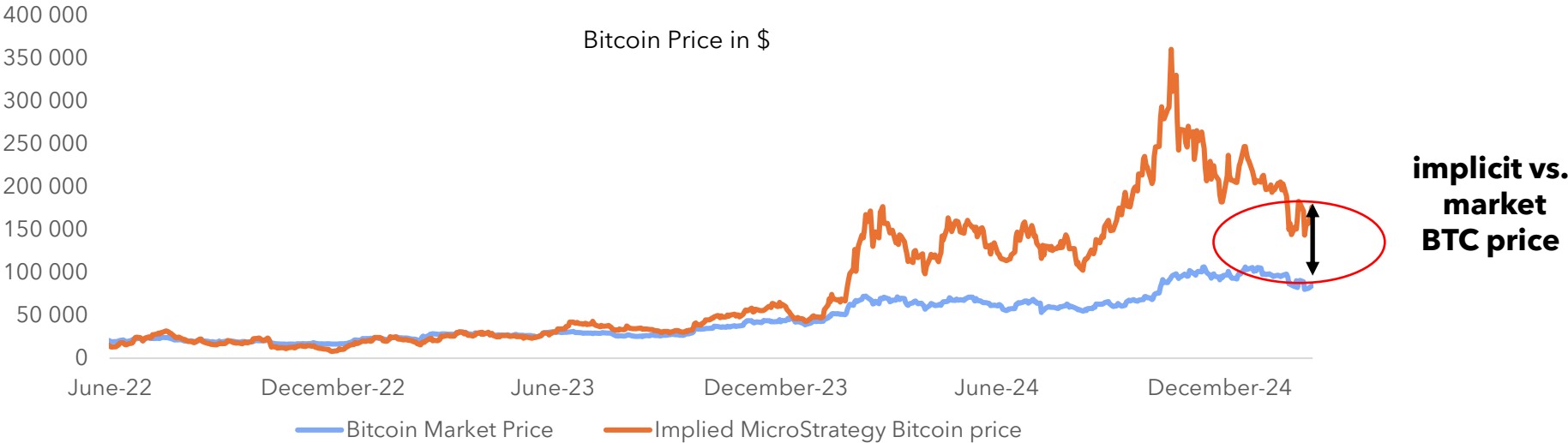


3<sup>rd</sup> most downloaded article in 60 days ... after only 30 days ...



# BITCOIN TREASURY COMPANIES

- **MSTR** is a Software & Services company that has been acquiring aggressively bitcoin since March 2021. Today it holds over 2.5% of all bitcoins.
- Bitcoins in MSTR count for **more than 90% of the assets of the company** with a core business estimated at 1.5 Bio\$ and a market cap > \$100 Bio.
- As of Q1 2025, **Implied Bitcoin Price in MicroStrategy was 165,700\$** versus Bitcoin trading at 84,200\$



- How to make sense of this premium ?
- What are the financial implications?


Strategy<sup>B</sup>

MSTRSTROSTRFBTCDEBT CREDITASSETS OPTIONS

Bitcoin Price

\$113,551

Bitcoin Count

597,325

Bitcoin NAV (\$M)

\$67,827

BTC Yield QTD

0.0%

BTC Yield YTD

19.7%

BTC Yield 2024

74.3%

# WHY WOULD THERE BE A BITCOIN YIELD?

## BITCOIN TREASURY COMPANIES

### ACCOUNTING FOR THE PERFORMANCE OF MICROSTRATEGY

Date	S	B	Date	$\pi$	$B_t$	$\Delta s/s$	$\Delta b/b$	Bitcoin Yield	$\beta$	$\Delta B_t/B$
31Dec20	39	\$28,996	31Dec20	1.76	\$22,099					
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#### Contribution to MSTR Performance


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3%	-64%	-13%
-3%	203%	147%
61%	149%	149%
139%	303%	203%

- In the four years to 2024, MSTR outperformed Bitcoin by around 400%, with the Bitcoin Yield created by monetizing its premium contributing more than 100% to it.
- Also, MSTR realized exposure (Beta) of 1.36 contributed to its outperformance vs. Bitcoin.

## WHY WOULD THERE BE A BITCOIN YIELD? BITCOIN TREASURY COMPANIES


### ACCOUNTING FOR THE PERFORMANCE OF MICROSTRATEGY

- An investment case can be made for investing in MicroStrategy as an alternative to Bitcoin, considering the following decomposition of the return of its shares:


$$r_s = y_b + \beta \times r_b + \beta \times \frac{B_\pi - B_{\pi,0}}{B_0}$$

Bitcoin Yield	Bitcoin Exposure	Bitcoin Price Premium
------------------	---------------------	--------------------------

- Provided a high enough Bitcoin Yield achieved issuing new shares to buy Bitcoin, and a stable Bitcoin Price Premium, MSTR can be seen as “mechanically” outperforming Bitcoin by monetizing its premium
- Furthermore, the Bitcoin Yield naturally leads to an increase in the realized Beta of the company to Bitcoin:


$$\beta = \beta_0 (1 + y_b)$$

# BITCOIN TREASURY COMPANIES

- We currently monitor 60 companies holding BTC on their Balance sheet\*
- In this universe only a few names are fully dedicated to the Bitcoin Yield Strategy: many miners, payment services or software companies are included
- (Micro)Strategy accounts for 76% of the total Bitcoin held by all listed companies in the World

## Universe screening

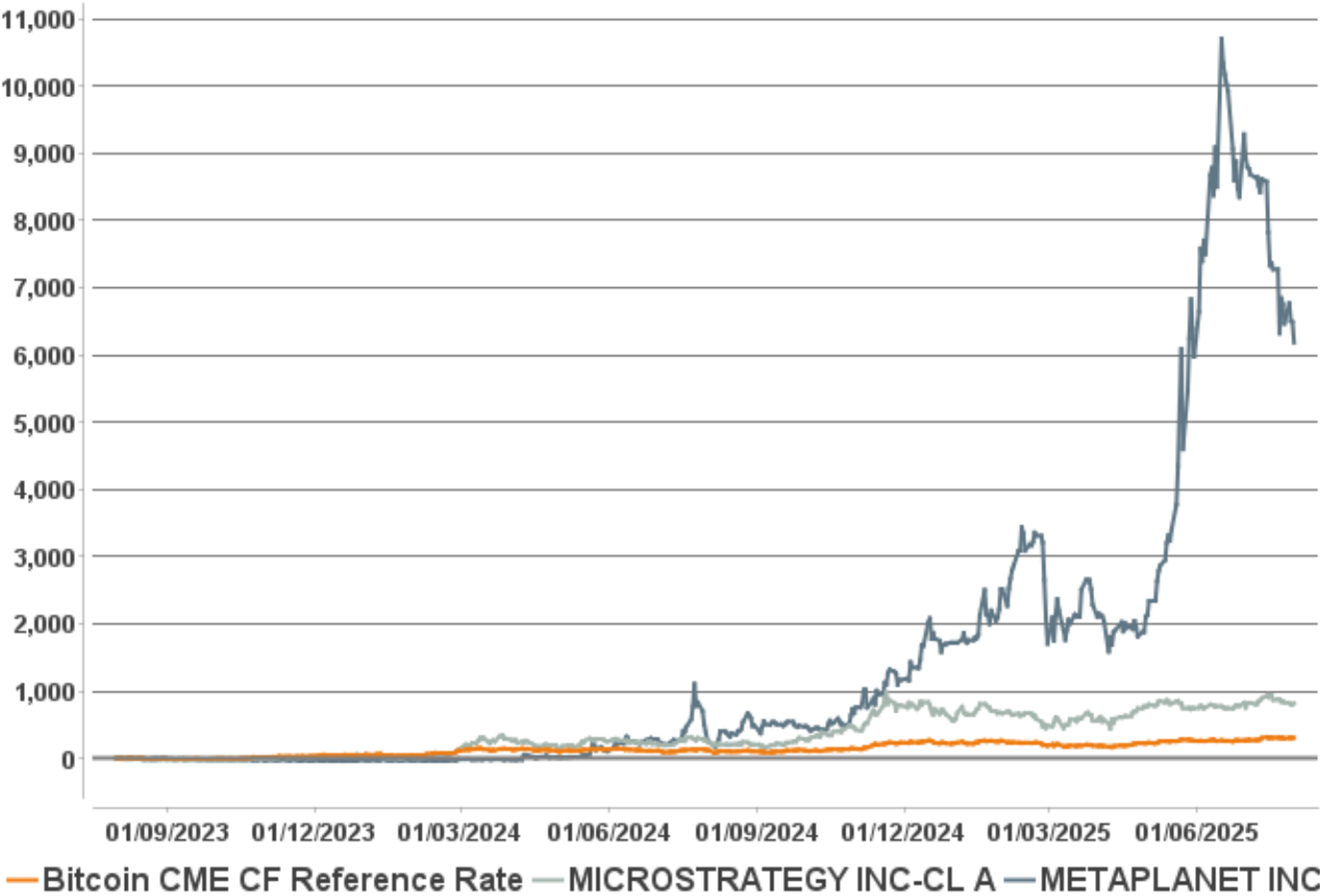
Company	Market Capitalisation \$m	BTC / Mkt Cap	BTC / 1000sh	BTC premium	Net Debt \$m	Leverage risk	Operational Profitability Risk	FCF / sh
MicroStrategy	72,491	59%	2.14241	0.14	7,220	0.3	0.0	-0.3
Marathon Digital Holdings Inc	4,060	95%	0.13745	0.09	2,059	1.1	2.2	-3.2
Riot Platforms, Inc.	2,378	66%	0.05489	0.12	206	0.3	0.0	-3.4
CleanSpark Inc	2,002	48%	0.04227	0.17	(55)	0.0	0.0	-1.4
Tesla, Inc	786,583	0%	0.00329	68.35	(22,940)	0.0	0.1	1.1
Hut 8 Corp	1,237	67%	0.09890	0.12	261	0.6	0.0	-2.1
Coinbase Global, Inc.	43,063	2%	0.03292	4.78	(4,010)	0.0	#N/A	10.3
Block, Inc.	32,777	2%	0.01333	3.86	(2,029)	0.0	0.0	2.5
Galaxy Digital Holdings	3,563	18%	0.05700	0.44	(2)	0.0	#N/A	-0.2
Metaplanet Inc.	1,174	29%	0.00878	0.28	70	0.4	0.0	0.0
Bitcoin Group SE	182	171%	0.76600	0.05	(12)	0.0	#N/A	#N/A
Semler Scientific	313	83%	0.33262	0.10	(15)	0.0	0.0	3.4
HIVE Digital Technologies	235	76%	0.01337	0.11	12	0.1	2.1	#N/A
BitFuFu, Inc.	698	22%	0.01147	0.38	(45)	0.0	0.7	#N/A
NEXON Co. Ltd	11,992	1%	0.00205	6.98	(3,878)	0.0	0.0	0.8
Exodus Movement Inc	1,175	9%	0.04055	0.90	(38)	0.0	#N/A	-0.5
Canaan Inc.	195	54%	0.00032	0.15	(94)	0.0	2.6	0.0
Bitdeer Technologies Group	1,469	6%	0.00802	1.27	(90)	0.0	0.1	-3.6
Brooker Group's BROOK (BKK)	97	97%	0.00011	0.08	(0)	0.0	5.0	0.0
Bitfarms Limited	377	25%	0.00238	0.33	(36)	0.0	1.8	-1.2
Cipher Mining	803	10%	0.00286	0.78	51	1.2	0.0	-1.2
Meitu	2,875	0%	0.00000	2874.56	(192)	0.0	0.0	0.0
Bit Digital, Inc.	327	18%	0.00406	0.44	(84)	0.0	0.0	-0.8
SOS Limited	5	1017%	0.57792	0.01	(279)	0.0	0.2	10.8
KULR Technology Group, Inc.	344	16%	0.00235	0.52	(28)	0.0	0.0	-0.1
Phunware, Inc.	51	101%	0.03123	0.08	(112)	0.0	0.0	-1.2
NFT Investments PLC	20	248%	0.00059	0.03	(1)	0.0	#N/A	0.0
The Blockchain Group	53	95%	0.00664	0.09	3	0.1	#N/A	0.0
Ming Shing Group Holdings Limited (	44	92%	0.03922	0.09	6	0.3	0.1	0.1
Alliance Resource Partners	3,333	1%	0.00375	6.91	352	18.0	0.0	2.9
DMG Blockchain Solutions Inc.	31	121%	0.00225	0.07	9	0.5	#N/A	0.0
Remixpoint, Inc.	303	12%	0.00358	0.68	(86)	0.0	0.1	0.1

\*According to the bitcointreasury website run by BitBo  
Source: Bitbo

# BITCOIN TREASURY COMPANIES

Over the last 2 years, new Bitcoin Treasury Companies emerged as an efficient alternative to create Bitcoin exposure

**Strategy and Metaplanet total return compared to Bitcoin**  
from July 2023 to July 2025



**Bitcoin CME CF Reference Rate**

Return:	302.98%
Annualized return:	100.74%
Hist vol:	46.16%
Sharpe ratio:	2.07

**MICROSTRATEGY INC-CL A**

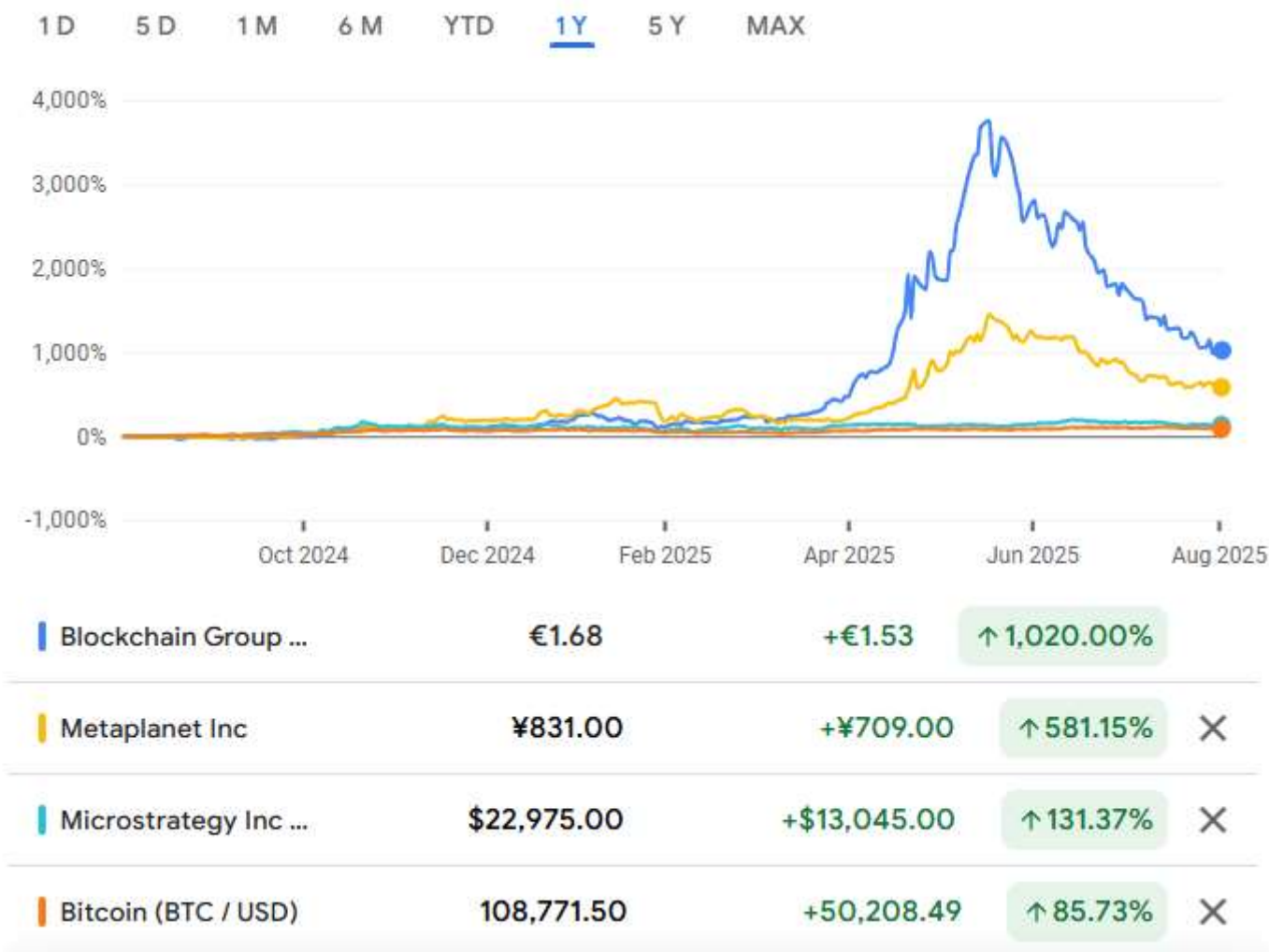
Return:	817.74%
Annualized return:	202.94%
Hist vol:	93.35%
Sharpe ratio:	2.12

**METAPLANET INC**

Return:	6,181.16%
Annualized return:	692.54%
Hist vol:	154.58%
Sharpe ratio:	4.45

# BITCOIN TREASURY COMPANIES

There is an advantage to emerging BTC treasury companies



The Blockchain Group (ticker ALTBG), which became a bitcoin treasury company more recently than Metaplanet, outperformed (especially in terms of Sharpe Ratio) Metaplanet.

Source: Google Finance, as of sept 1<sup>st</sup> 2025

Past performance are not indicative of future performance...

# BITCOIN TREASURY COMPANIES

The Bitcoin Treasury Strategy is predicated on a **credible commitment to accumulate Bitcoin over time**

- Business risk:
  - When companies are backed by business operations – weak operational profitability can weaken the Bitcoin Treasury accumulation commitment
  - Cash Flow – negative cash flow – even justified by investments in profitable businesses – can create the need for unplanned sales of Bitcoin
- Leverage
  - Leverage on Bitcoin can be positive for shareholders if sustainable
  - Strong Loan-to-Value (Net Debt / BTC held) is necessary to ensure reasonable costs
  - Creative Financing can be icing on the cake: ex. MSTR low interest charge linked to convert
- Liquidity
- Quantitative filters
  - BTC / Market Cap
  - Operational Profitability
  - LTV



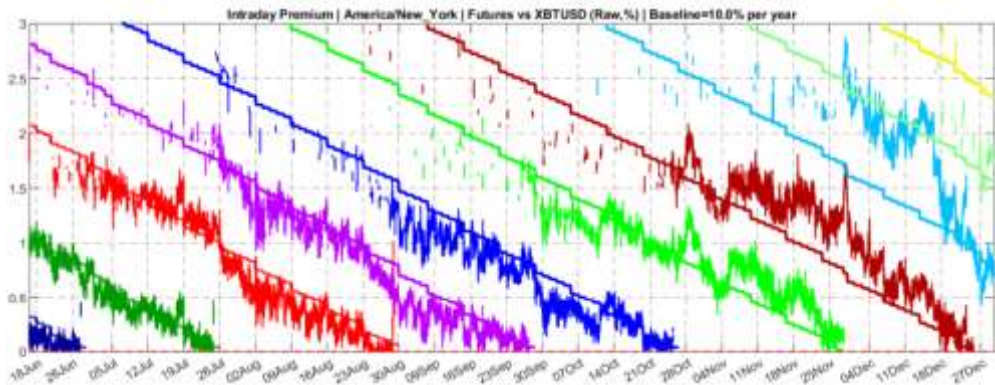
# BITCOIN TREASURY COMPANIES

How to pick the right Bitcoin Treasury Companies ?

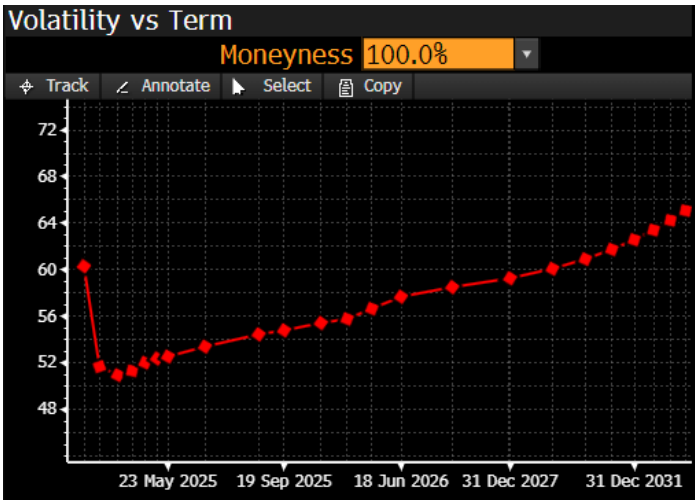
- Unaltered and credible Bitcoin strategy
  - Solid operations is not enough – marginal to no impact is better (ex. TSLA, MercadoLibre)
  - Legal / requalification risk – we need some operations or financial structure that makes it different from a closed end Fund
  - Miners not always a perfect fit (ex. BitFarms Ltd – structurally negative cash flow)
  - Abrupt change of strategy is a risk to be monitored (ex. Meitu)
- Reasonable debt levels
  - Convertible vs. conventional bonds
  - Monetizing implied volatility (a la MSTR) can be attractive
- Key future performance driver is the exposure to Bitcoin
  - Future Bitcoin Yield : is there a guidance ? Is there a capital increase pre-defined strategy? Is it a mining yield (value will depend more on mining margins that are linked to Hash rate and capex) ?
- Initial Premium:
  - above 1x is a sign of Shares attractivity
  - 1 to 2x : can the Bitcoin Yield make up for the lower beta exposure to Bitcoin ?
  - Above 2x : risk linked to the maintenance of a high premium

....GOING FURTHER

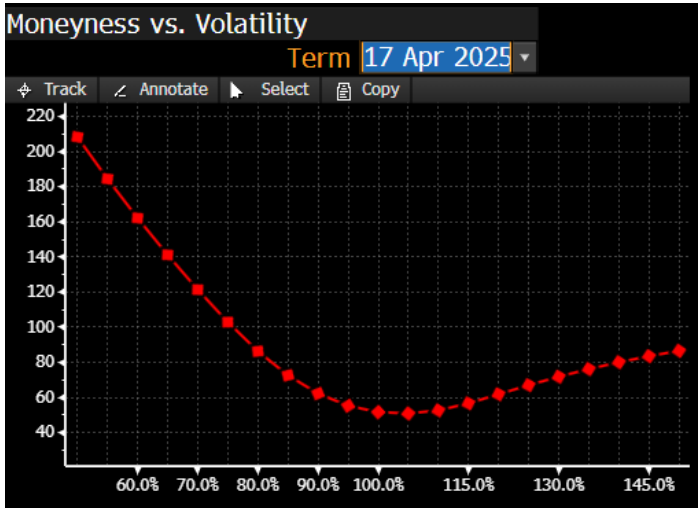
- Apart from the obvious averaging possibility
- CME Futures have historically traded at an annualized premium of ~8% since their creation



- Short term downside IBIT implied volatility can be three times higher than at the money



One Week  
Maturity !



# EXAMPLE OF PORTFOLIO PROPOSAL AS OF APRIL 2025

Available strategies:

$\beta$  :

- Allocation to **BTC**
- Portfolio of **BTC Treasury Companies**

$\alpha$  :

- BTC **Pure arbitrage** enhancement
- Stock picking companies** (emerging BTC Treasury companies)
- Stock picking issues** not only issuers

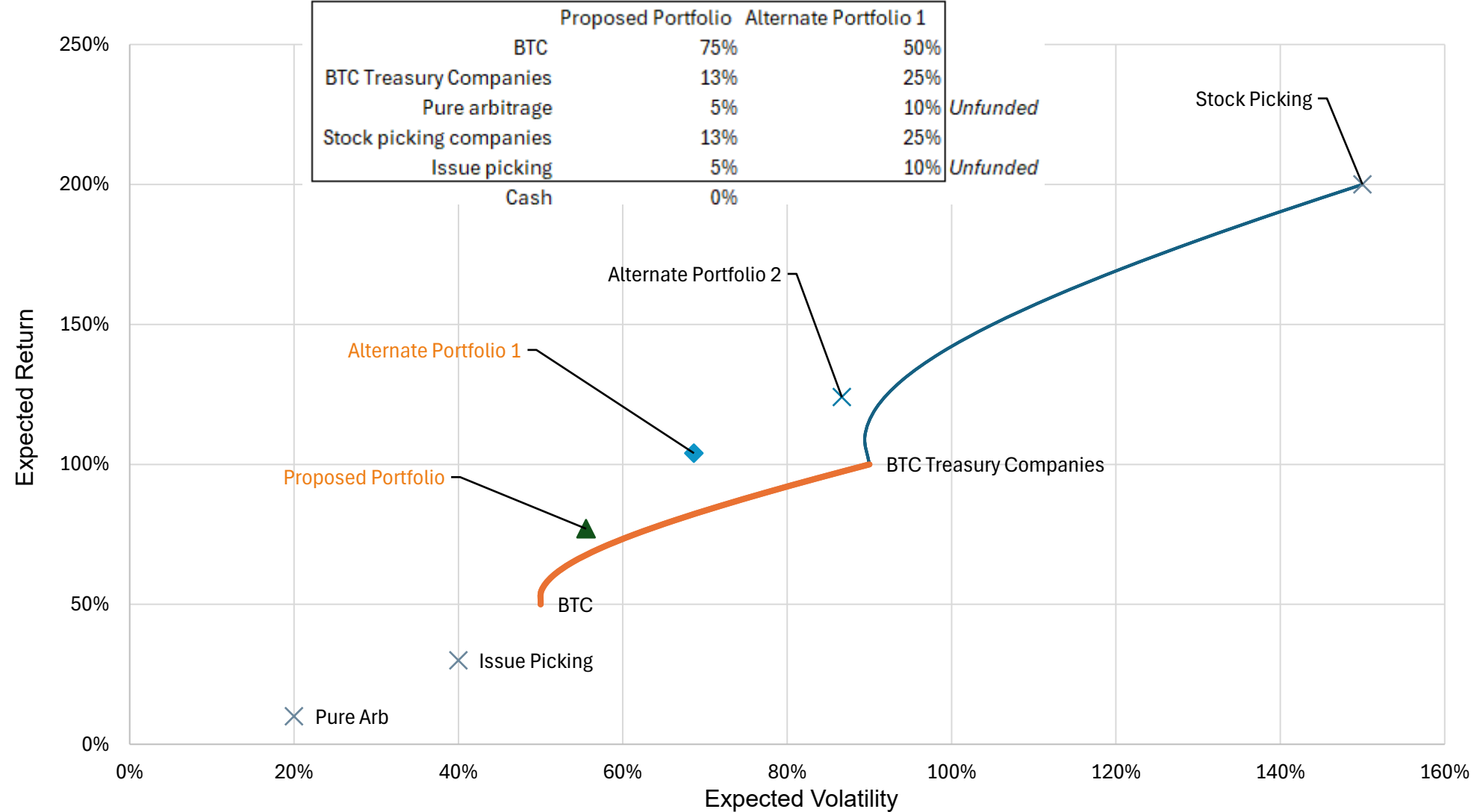
If

Expected Expected Expected  
Returns Volatility Correlation

BTC	50%	50%	100%	50%	40%
BTC Treasury Companies	100%	90%	50%	100%	50%
Pure arbitrage	10%	20%		100%	
Stock picking companies	200%	150%	40%	50%	100%
Stock picking issues	30%	40%			100%
Cash	0%	0%			100%

Then...

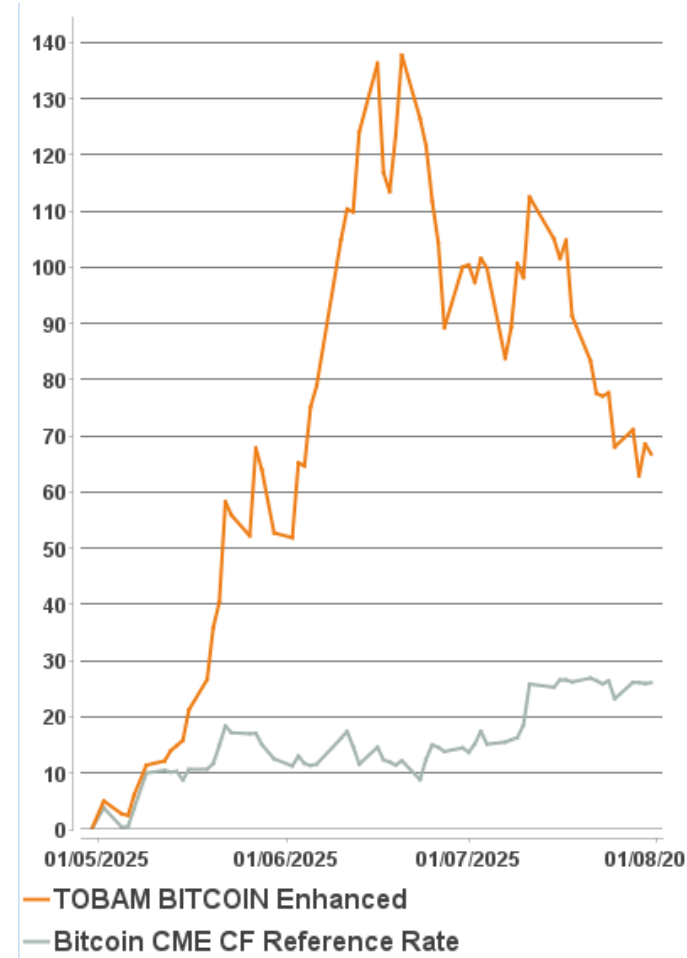
# EXAMPLE OF PORTFOLIO PROPOSAL AS OF APRIL 2025



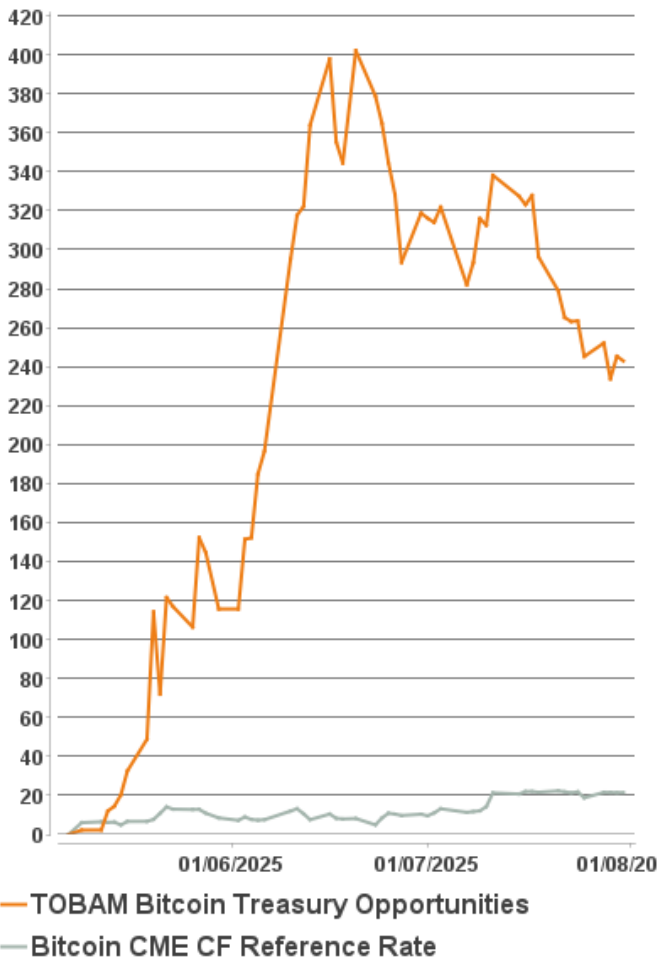
“TOBAM Bitcoin Enhanced” implements “Proposed portfolio”  
targeting over the LT 110% of BTC’s  $\sigma$  and aims at a BTC x 150% return

“TOBAM Bitcoin Treasury Opportunities” implements “Alternate portfolio 1”  
targeting over the LT 140% of BTC’s  $\sigma$  and aims at a BTC x 200% return

# UPDATE ON PERFORMANCE (3M AND ITD) AS OF 31/07/2025, USD NET OF FEES



TOBAM BITCOIN Enhanced	
Return:	66,75 %
Hist vol:	79,89 %
Bitcoin CME CF Reference Rate chained NYXB1	
Return:	26,08 %
Hist vol:	31,92 %
Excess return:	40,67 %
Tracking error:	69,88 %
Beta:	1,24    r² 24,38 %
Correlation:	49,37 %
Jensen's alpha:	34,77 %
Treynor ratio:	5,41



TOBAM Bitcoin Treasury Opportunities	
Return:	242,90 %
Hist vol:	173,85 %
Bitcoin CME CF Reference Rate	
Return:	21,51 %
Hist vol:	30,96 %
Excess return:	221,39 %
Tracking error:	167,38 %
Beta:	1,65    r² 8,65 %
Correlation:	29,41 %
Jensen's alpha:	208,03 %
Treynor ratio:	119,65

Source: TOBAM, Bloomberg. For informational purposes only. This material is provided for discussion purposes only and does not constitute investment advice, a recommendation, solicitation, offer, advice or invitation to enter in any transaction and should in no case be interpreted as such.

Past performance ... is not indicative of future performance...

# STRATEGY UPDATE 1/3: CAPITAL B (EX BLOCKCHAIN GROUP) ATM

Press Release  
June 9, 2025, 08:00 CET



## The Blockchain Group Launches a €300 Million “ATM-type” Capital Increases Program with TOBAM

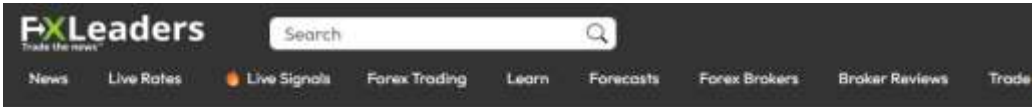
The Program allows TOBAM, on a daily basis, to subscribe to ordinary shares of the Company by submitting a subscription request after market close. Each request is subject to pricing and volume limits based on the market conditions of the previous trading day:

- The subscription price is set at the higher of (i) the closing price or (ii) the volume-weighted average price (VWAP) of the trading day preceding the request; and
- The number of shares requested may not exceed 21% of the trading volume of the trading day preceding the request.

**-> Ability to generate non-directional performance**



# STRATEGY UPDATE 2/3: NEW CONVERTIBLES INVESTMENTS



Home / News / Smarter Web Secures \$21M from TOBAM via Bitcoin Convertib...

## Smarter Web Secures \$21M from TOBAM via Bitcoin Convertible Bond Launch

Smarter Web has launched Smarter Convert, a bitcoin denominated convertible bond fully subscribed by TOBAM for \$21m.

Written by: Arslan Butt • Thursday, August 7, 2025 • 2 min read

• Last updated: Thursday, August 7, 2025



06 August 2025

**The Smarter Web Company PLC**  
("The Smarter Web Company" or "Company")

**Smarter Convert - \$21 Million Subscription**

### Quick overview

- Smarter Web has launched Smarter Convert, a \$21 million bitcoin denominated convertible bond fully subscribed by TOBAM, marking a first in capital markets.
- The bond allows conversion into equity at a 5% premium and includes a forced conversion option after 6 months if the stock price rises significantly.
- If not converted within 12 months, Smarter Web will repay 98% of the bond's value adjusted for bitcoin's price at maturity, linking repayment to BTC performance.
- The company plans to use the proceeds to increase bitcoin reserves while capping holdings at 30% of its treasury to manage volatility risks.

-> Almost a perfect "best-of" between BTC and SWC stock = very cheap gamma !

Source: TOBAM



STRATEGY UPDATE 3/3: ATTRACTIVE mNAV LEVELS?

Bitcoin Price Premium ("mNAV") appreciation is an important contributor to BTC stocks performance:



Contribution to MSTR Performance

Bitcoin Yield	Bitcoin Performance	Bitcoin Price Premium
50%	51%	-60%
3%	-64%	-13%
-3%	203%	147%
61%	149%	149%
139%	303%	203%

1.56x

-> Current mNAV levels of MSTR and peers (ALTBG, SWC, ...) are low when compared to historical averages.

# WHICH INCORPORATION?

- Example of a Mutual Fund Structure with segregation of duties

Daily NAVs, no lock up period, incorporated in the most regulated country of the world, perf fees over bitcoin’s performance

Administrator	Custodian	Auditor	Asset Manager
			
<div>Calculates daily NAV by accessing:</div> <ul style="list-style-type: none"><li>• Cash account</li><li>• Public keys of the portfolio in the blockchain</li></ul>	<ul style="list-style-type: none"><li>• Centralizes subscription &amp; redemption</li><li>• Audit of the holdings of the portfolio</li><li>• Holds the financial assets</li></ul>	<ul style="list-style-type: none"><li>• Certifies accounts produced by custodian</li><li>• Audit by PwC General Risk Management of TOBAM’s set up and procedures</li></ul>	<ul style="list-style-type: none"><li>• Fundamental &amp; empirical research</li><li>• Fork management</li><li>• Notified by CACEIS of any subs/ redemption</li><li>• Management of the vehicle, BTC trading, choice of the platforms</li><li>• In charge of cybersecurity procedure, and secured investment process</li></ul>

Source: TOBAM, Bloomberg. For informational purposes only. This material is provided for discussion purposes only and does not constitute investment advice, a recommendation, solicitation, offer, advice or invitation to enter in any transaction and should in no case be interpreted as such.

## SOME OF THE POINTS THAT MATTER THE MOST?

end-of-year 2020 and end-of-year 2024, MSTR has substantially outperformed Bitcoin. This suggests an investment thesis on successful Bitcoin Treasury Companies (BTC) for investors anticipating further Bitcoin growth, or on

- **Purity of the model:**
  - BTC only
  - Systematic use of proceeds
  - Externalized audited secured (insured) custody
  - Profitable legacy business (no cash flow leakage)
  - Tax audit
  - Regulatory audit
- **Transparency**
- **Existence of a premium**
- **Strong ability to raise capital in proportion of market cap (and in proportion of mNAV):**
  - Powerful cap table
  - Seasoned exec team with financial engineering capability
  - Anchored in a powerful retail market
- **...**

1. Intro to TOBAM & ₿TOBAM

2. « Conventional » and Better Ways of getting an exposure to Bitcoin

3. CONCLUSIONS

## TOBAM : 2 STRATEGIES PROVIDING YOU WITH A BETTER EXPOSURE TO BITCOIN

### Both :

- have daily liquidity with minimal market impact through specific constraints and monitoring
- focus on Bitcoin (no alt-coin)
- high beta to Bitcoin (min 90%)
- do not carry any on-chain risk
- have highest institutional standards in implementation

1. Our passive strategy has been transformed into → "TOBAM Bitcoin Enhanced"  
it implements "Proposed portfolio"  
Maximum 110% of BTC's volatility and aims at a BTC x150% return
2. We have launched a new strategy → "TOBAM Bitcoin Treasury Opportunities"  
it implements "Alternate portfolio 1"  
Maximum 140% of BTC's volatility and aims at a BTC x200% return

## TOBAM : A UNIQUE COMBINATION

1. TOBAM is a global international institutional Asset Manager with a long track record (19 years) of serving the most demanding clients in the world.
2. Our track record starts (officially, much earlier in fact) in 2017 as a Crypto asset manager

Which other Asset Manager, has had around 60% of its AuM sourced from the **most sophisticated clients in the world** (Public entities: SWF, Central Banks And Public Pensions) **and is a reference player in Cryptos?**

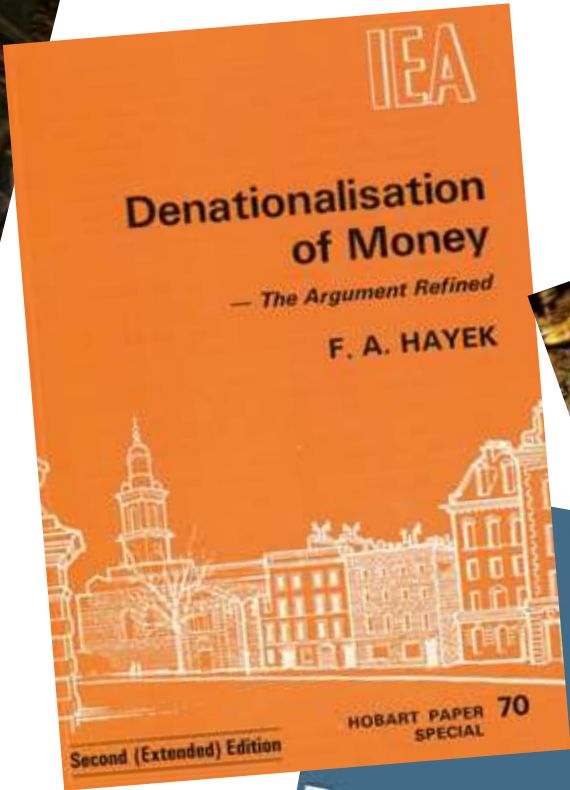
# THE FUTURE OF MONEY... A POSSIBLE SCENARIO



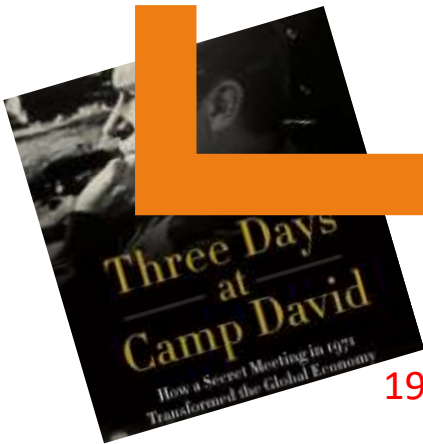
1694



1800



1976-English



1971



2015-French



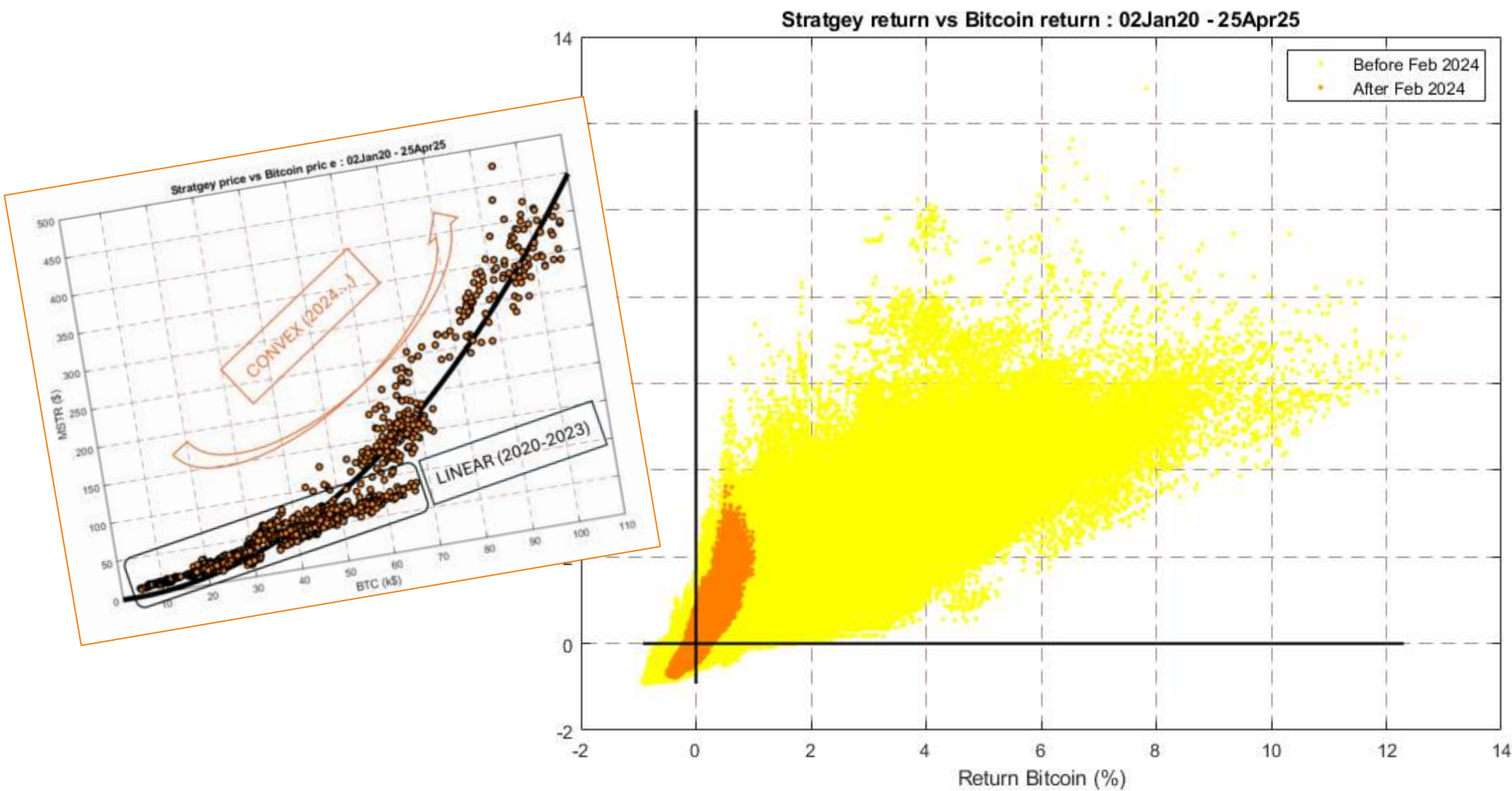
# ACCOUNTING FOR THE PERFORMANCE OF MICROSTRATEGY

## "PART II : RISKS CHARACTERIZATION"

$$r_s = y_b + \beta \times r_b + \beta \times \frac{B_{\pi} - B_{\pi,0}}{B_0},$$

**with**

$$\beta = \beta_0 (1 + y_b)$$



IMAGINE THEY DISCOVER OIL IN ABU DHABI...



# DISCLAIMER

## Some of the risks:

**Risk of capital loss:** the investment strategy does not benefit from any guarantee or capital protection. There is a risk that investors will not get back the full amount or any of the capital originally invested.

**Liquidity Risk:** the investment strategy may involve investing in assets (i.e. Bitcoin, stocks, derivatives ) whose liquidity may decline sharply. In these conditions, volatility may widen significantly.

**Volatility Risk:** the investment strategy invests in Bitcoin and Blockchain related equity. There is a risk that the investment strategy will demonstrate high levels of volatility.

**Risks linked to investment in Bitcoins:** the investment strategy invests in a highly volatile and lowly regulated asset, and due to particular factors such as platforms disruptions or regulations, the investment strategy presents a greater degree of risk than that generally associated with investments on the major financial markets or assets.

**Cybersecurity Risk:** cryptocurrencies and platforms can be subject to cyber attacks and risks of hacking. The investment strategy by investing essentially in bitcoin might also be subject to such attacks.

**Counterparty Risk:** the risk that the principal will not be returned due to the health and solvency of the party that holds the assets.

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Past performance and simulations based on backtests are not reliable indicators of future performance, forecast or prediction. Backtested data may reflect the application of the strategy methodology to historical data, and thus the strategies were constructed with the benefit of hindsight and has inherent limitations. TOBAM has continued and will continue its research efforts amending the investment process from time to time accordingly. TOBAM reserves the right of revision or change without notice, of the universe, data, models, strategy, guidelines, constraints and opinions.

The constraints and fees applicable to an actual portfolio would affect the results achieved. The value and the income produced by a strategy may be adversely affected by exchange rates, interest rates, or other factors. This material, including backtests, is based on sources that TOBAM considers to be reliable as of the date shown, but TOBAM does not warrant the completeness or accuracy of any data, information, opinions or results.

The carbon impact shown is the weighted average of carbon emissions corresponding to scopes 1 and 2 of the GHG Protocol. Data on emissions used is obtained from a number of sources including company reports, CDP questionnaire (Carbon Disclosure Project) or the estimation model. The data does not take into account all emissions induced by the firm.

TOBAM's quantitative investment process is supported by extensive proprietary computer code. TOBAM's researchers, software developers, and IT teams follow a structured design, development, testing, change control, and review processes during the development of its systems and the implementation within our investment process. These controls and their effectiveness are subject to regular internal reviews. However, despite these controls it is possible that errors may occur in coding and within the investment process, as is the case with any complex software or data-driven model or any investment process, and no guarantee or warranty can be provided that any quantitative investment model or investment strategy is free of errors. Any such errors could have a negative impact on investment results. We have in place control systems and processes which are intended to identify in a timely manner any such errors which would have a material impact on the investment process.

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# ABOUT TOBAM

TOBAM is an asset management company offering innovative capabilities designed to maximize the benefits of scientific research to build efficient investment exposures. TOBAM's expertise relies on 3 core pillars:

- TOBAM's Maximum Diversification® approach, supported by original, patented research and a mathematical definition of diversification, provides clients with diversified core exposure, in equity and fixed income markets.
- A research driven, *Solutions* division (TOBAMSolutions®), dedicated to build customized solutions and services to sophisticated institutional investors,
- A *LBRTY*® strategy range, which aims to help investors substantially mitigate their exposure to autocratic regimes in their portfolio.

In line with its mission statement and commitment to diversification, TOBAM also launched a satellite activity (CRYPTOBAM®) on cryptocurrencies in 2017.

TOBAM Maximum Diversification®, TOBAMSolutions®, TOBAM LBRTY® and CRYPTOBAM® illustrate TOBAM's systematic "out of box" dedication to demanding investors.

TOBAM manages north of USD 2 billion (as of 31 December 2024). Its team includes 31 finance professionals based in Paris, New York and Dublin.

For more information, please visit [www.tobam.fr](http://www.tobam.fr) or [tobamdirect.com](http://tobamdirect.com)

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