

# TOBAM Global Blockchain Equity Strategy

Our mission: "Provide rational and professional solutions to long term investors in the context of efficient markets"

This presentation is marketing material and is not intended as a recommendation to buy or sell any particular asset class, security or strategy.

December 2024

1. Intro to TOBAM & cryptTOBAM

2. Bitcoin Investment Case

3. Accessing the Bitcoin opportunity

4. Conclusion

# THE COMPANY

Independent and employee-owned

- Created in 2005
- Part of CalPERS' EMD program (2011 - 2021)
- Approx. USD\$ 2 billion under management
- 31 financial professionals, 11 nationalities
- Regulated in France and SEC-registered

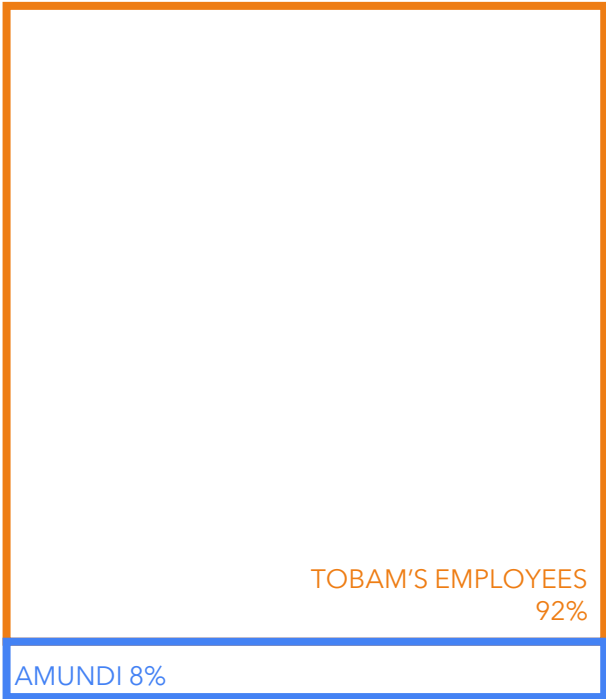
The Maximum Diversification® approach, supported by original research and a mathematical definition of diversification, provides investors with diversified core exposure, both in equity and fixed income markets.

## 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 Dec 31 2024.

# RESEARCH DRIVEN ASSET MANAGEMENT

42% of the team involved in  
portfolio management & research (13 people)

- Identify issues, create solutions, and guarantee the rationality of solutions
- Product research & development
- Implementation innovation

*" The team is encouraged to think out of the box in its approach to 'conventional wisdom' to the greatest extent possible. As such, the team's diversity is a critical part of how well it functions.*

*We have a large range of expertise, from mathematicians to engineers, economists and traders, all of which feeds in to the team's ability to look at problems or assumptions from a very broad spectrum of viewpoints.*

Tristan Froidure, Head of Research

31

employees

11

nationalities

03

locations

- Paris
- Dublin
- New York



“

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

**TOBAM\***  
CORE INVESTMENTS

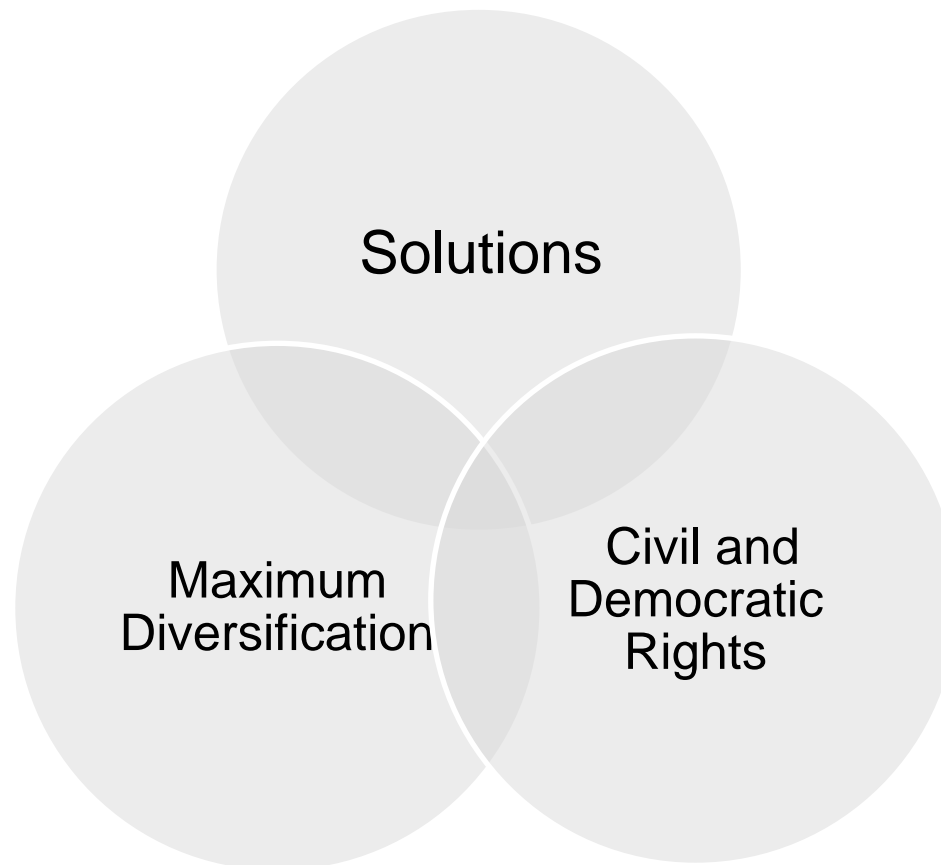


tobam\*  
unbiased.

.... To Multi-Core



CrypTOBAM



# 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



GRAND PRIX  
DE LA PHILANTHROPIE

## 2022

- 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



## 2021

- "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



## 2020

- 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

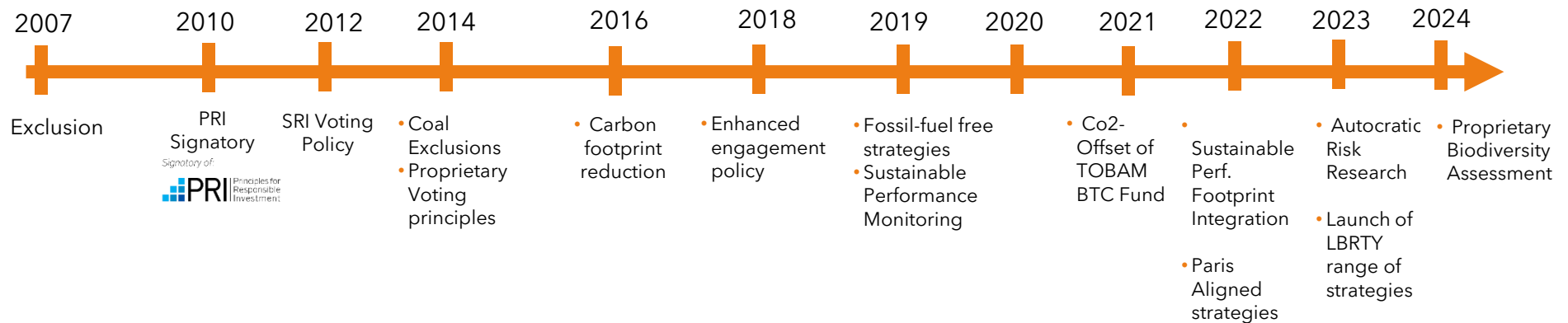


## Other Awards

- "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



## TOBAM'S SUSTAINABLE APPROACH (1) RESPONSIBLE INVESTMENT



### 01. EXCLUSION POLICY

Proprietary exclusion list (controversial products and behaviours)

### 02. SYSTEMATIC CARBON FOOTPRINT REDUCTION

Average 52% reduction across flagship Anti-Benchmark strategies\*

**100%** of Anti-Benchmark strategies are **SFDR Article 8** + **LBRTY strategies are Article 9**

### 03. SUSTAINABLE PERFORMANCE FOOTPRINT INTEGRATION

Using officially published data, monitoring of the key sustainability criteria for all listed companies of our universe, systematic matching of benchmark's sustainability performance footprint

**44%** of TOBAM'S AuM are **Paris Agreement Aligned**

**PRI Scores**

**5 stars on all pillars**

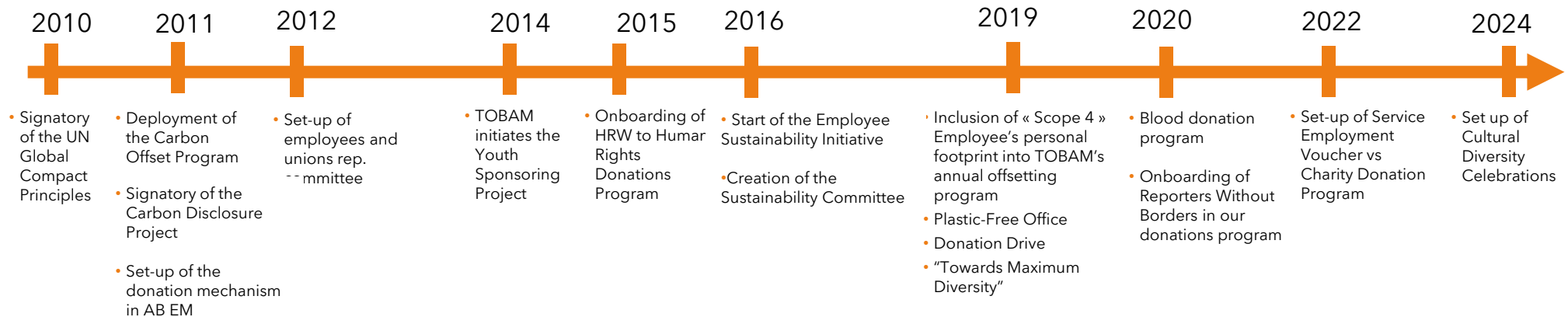
### 04. ACTIVE OWNERSHIP & ENGAGEMENT

Proprietary SRI Voting Policy & Direct & Collaborative Engagement

\*Weighted average carbon footprint reduction of 52% across our Anti-Benchmark® strategies versus their respective reference index. Strategies' realised reduction ranges between 24% and 72%.  
Source: TOBAM, Data as of Dec 2024.

Full PRI summary score card: <https://www.tobam.fr/wp-content/uploads/2024/01/Summary-Scorecard-TOBAM.pdf>  
Policy Governance & Strategy: \*\*\*\*\*  
Direct Listed Equity - Active Quantitative: \*\*\*\*\*  
Direct Fixed Income - Corporate: \*\*\*\*\*  
Confidence Building Measures: \*\*\*\*\*

## TOBAM'S SUSTAINABLE APPROACH (2) RESPONSIBLE COMPANY



### MANAGING TOBAM'S ENVIRONMENTAL IMPACT

- Measure / Mitigate / Offset
- In 2023, 230% of TOBAM's carbon footprint Scope 1/2/3 is offset via reforestation and renewable energy projects
- Pioneering by including "Scope 4" employees' personal emissions in TOBAM's total calculations

### PROMOTION OF HUMAN RIGHTS

- Human Rights NGOs donation mechanism in our EM equity fund

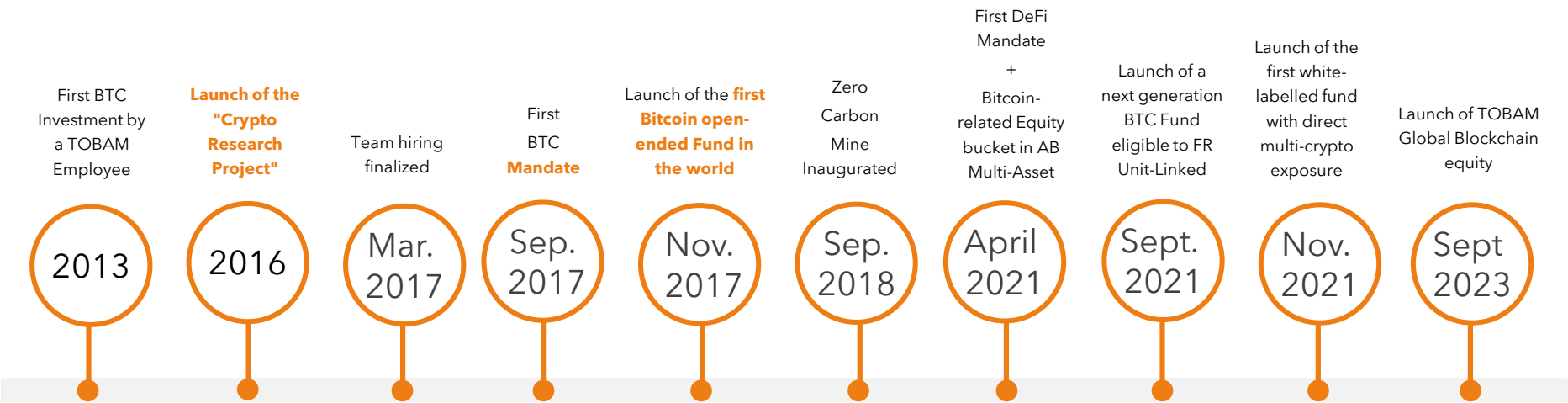


### EMPLOYEE PROGRAMS

- Employee shareholding program & alignment of interest
- Sustainability committee



# TOBAM'S JOURNEY INTO CRYPTO



- Research projects

Market impact      Forks      CO2      Time Diversification      Crypto Anti-Benchmarks      ...



## TOBAM – CRYPTOBAM: A UNIQUE COMBINATION

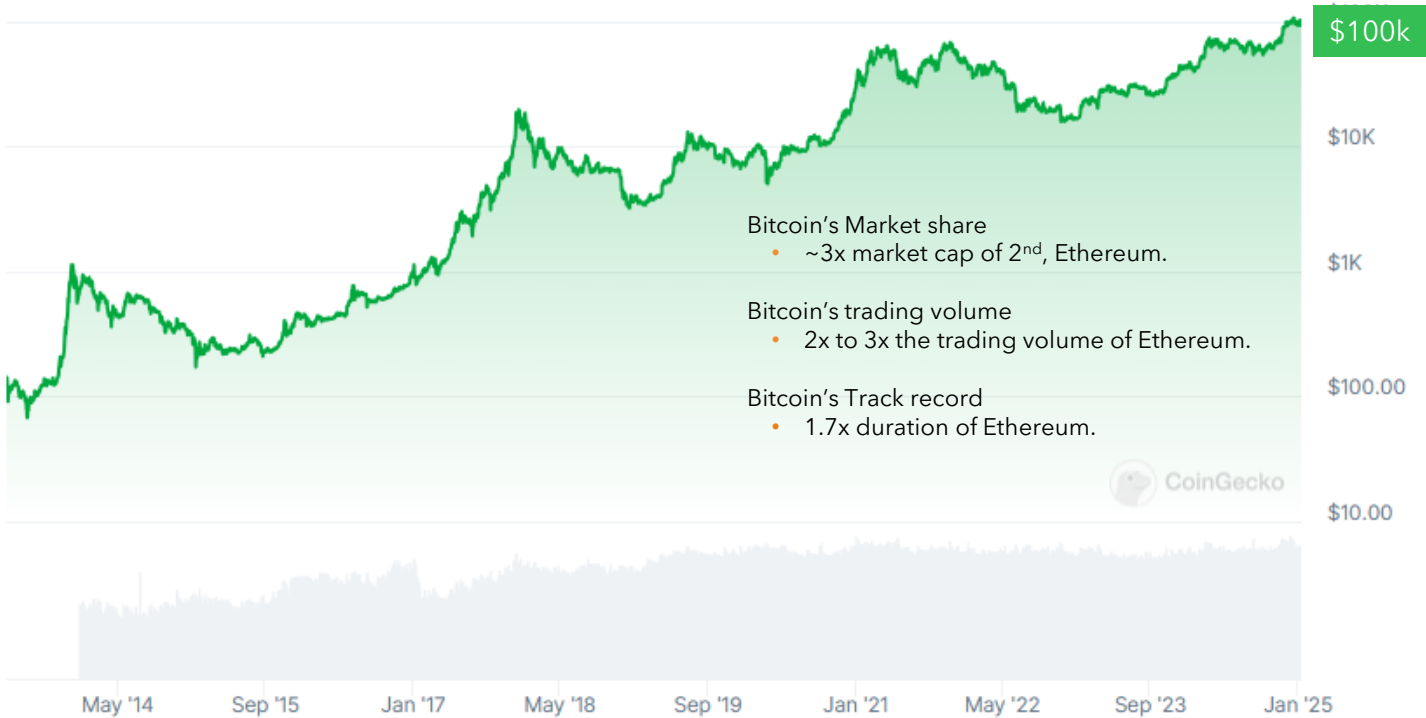
1. TOBAM is a global international institutional Asset Manager with a long track record (16 years) of serving the most demanding clients in the world.
2. TOBAM successfully entered the wealth management space 5 years ago via partnerships.
3. It has a strong track record as a Crypto asset manager.

Which other Asset Manager, has 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?**

1. Intro to TOBAM & crypTOBAM
2. **Bitcoin Investment Case**
3. Accessing the Bitcoin opportunity
4. Conclusion

WARNING: DIGITAL CURRENCIES ARE NOT EQUAL  
WE WILL ADRESS ONLY BITCOIN INVESTMENT CASE

- Market price of Bitcoin (USD)  
Since 2013



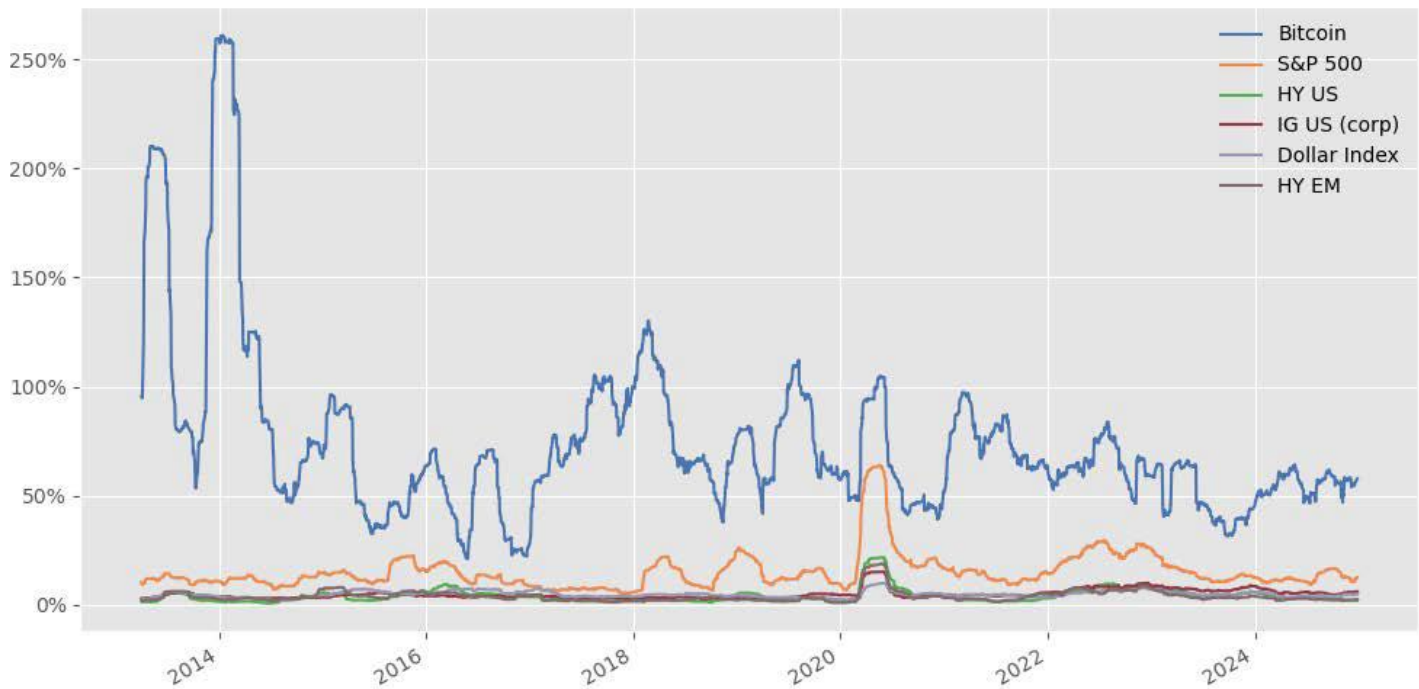
Source: CBOE, CME, coinmarketcap.com and coingecko.com, data as of Dec 31, 2024, considering major cryptocurrency platforms (Coinbase, Bitstamp, Kraken, Gemini) as well as futures.

Past performance, risk and behavior are not indicative of future performance, risk and behavior.

Bitcoin is the only digital currency already offering enough liquidity/  
capacity for institutional investors

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 31/12/2024.  
Past performance, risk and behaviour are not indicative of future performance, risk and behaviour.

## GOOD NEWS: INVESTORS ARE RISK TAKERS

### Theorem:

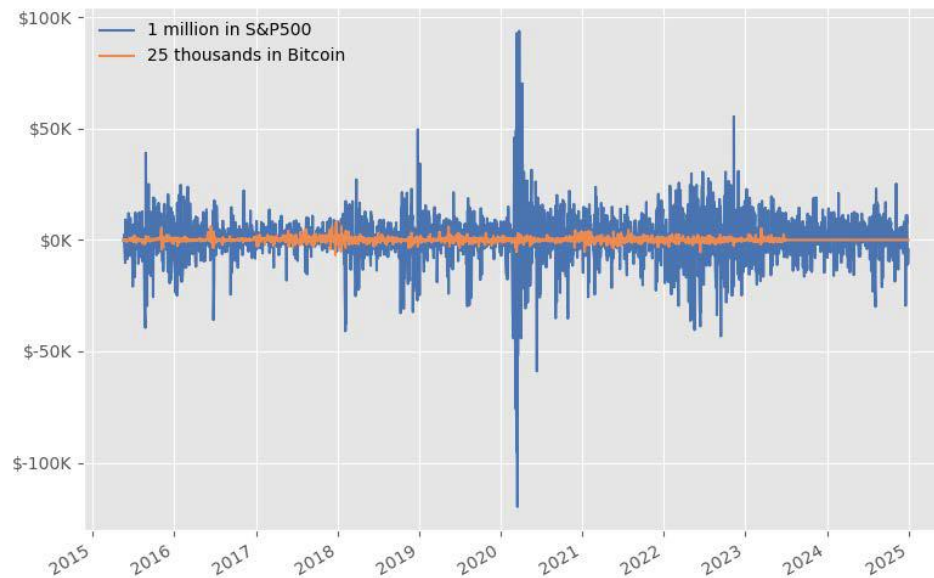
Risk is not relevant to the Investment case.

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 Dec 31, 2024 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.

## TOBAM'S BITCOIN INVESTMENT THESIS: A POTENTIAL NEW INTERNATIONAL STANDARD MEASUREMENT OF VALUE

Definition of a Standard:  
A unit used as a norm in measurement

- Meter: Standard of length
- Kilogram: Standard of mass
- Celsius: Standard of temperature
- Mole: Standard of quantity



Source: Bureau International des Poids et Mesures, Pavillon de Sèvres (France).

Bitcoin, candidate to become a standard unit of value?

- The economy is about production, exchange and storage of goods, services, risks, labour, innovations, contracts...
- In order for these activities to occur, we need a measurement of value. We need a *standard* of value.

# 1. Intro to TOBAM & crypTOBAM

## 2. Bitcoin Investment Case

- **Fundamental characteristics**
- Empirical characteristics

## 3. Accessing the Bitcoin opportunity

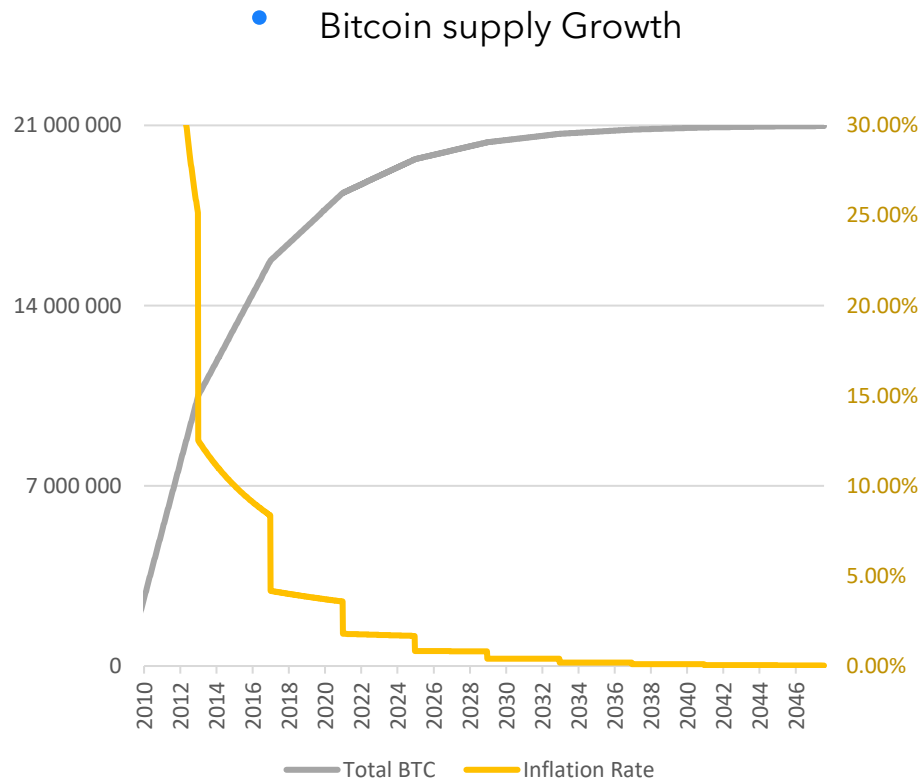
## 4. Conclusion



# BITCOIN INVESTMENT CASE: FUNDAMENTAL CHARACTERISTICS

## NOT MANIPULATED, NON-INFLATIONARY (1)

### LIMITED SUPPLY: « ONLY 21 MILLION »



- Worldwide currencies are, in fact, issuable in unlimited quantities
- 1 BTC= 100 million Satoshis
- Block reward:
  - 3.125 BTC/block (every 9-10 min) since 2024
  - Halved every 210k blocks, i.e. approximately every 4 years
  - Latest halving in April 24
- The amount of BTC to be issued is 21 million BTC, and its limit will be reached in 2140.

Source: TOBAM, as of 31/12/2024

# BITCOIN INVESTMENT CASE: FUNDAMENTAL CHARACTERISTICS

## NOT MANIPULATED, NON-INFLATIONARY (2)

### HISTORY OF STANDARDS COMPARISONS

- US\$ => Inflationary

Annual money supply growth +5.6% on average before 2008 and 20% per year on avg since then

- Roman Denarius => Inflationary

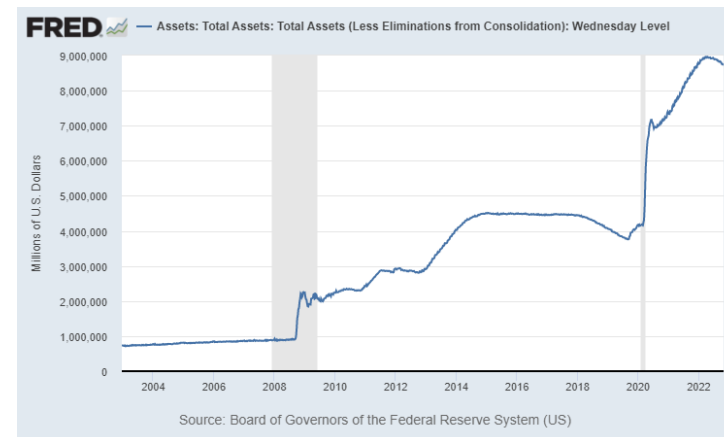
Debasement: % of silver in the Roman Denarius went from 4 g. of silver when it was first minted. By the time it was discontinued, it contained less than 0.1 gram. Number of coins multiplied (Bretton Woods 1.0?)

- Gold => Inflationary

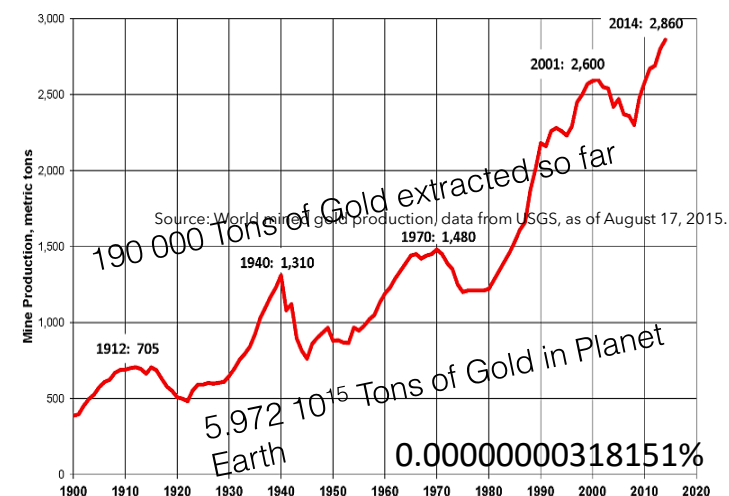
Money supply in Gold (btw 1.1% & 2.4% per year of added supply growth)

**Bitcoin => Non-Inflationary**

- US Federal Reserve total assets



- Gold mine production, metric tons



# 1. Intro to TOBAM & crypTOBAM

## 2. Bitcoin Investment Case

- Fundamental characteristics
- **Empirical characteristics**

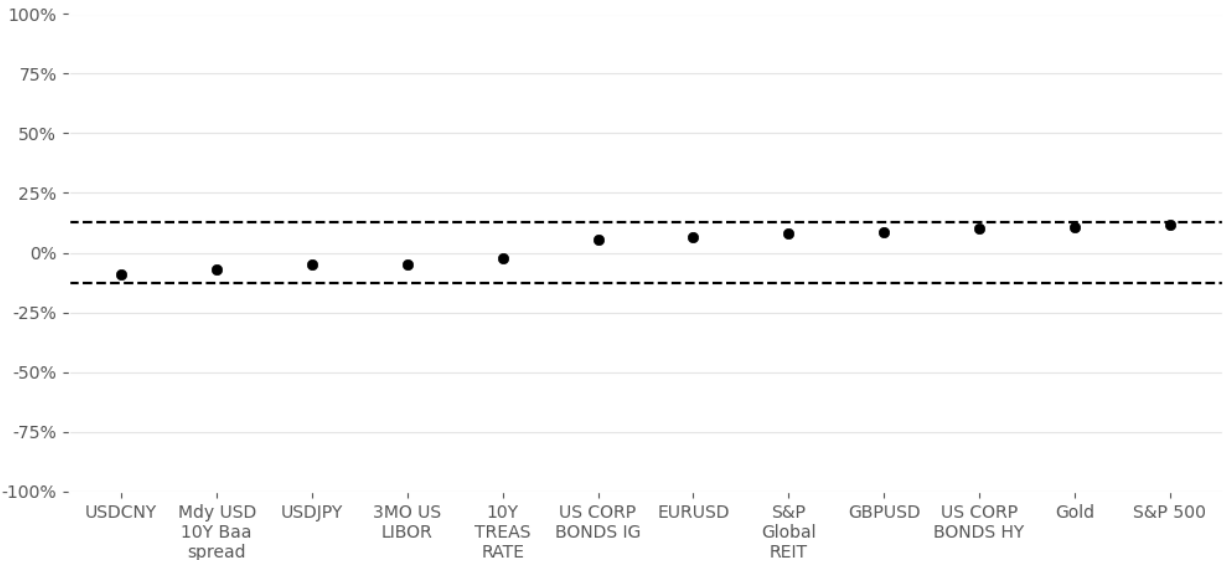
## 3. Accessing the Bitcoin opportunity

## 4. Conclusion

# BITCOIN INVESTMENT CASE: EMPIRICAL CHARACTERISTICS

## 2. BTC IS A DIVERSIFYING ASSET

- Correlation Spectrum: Bitcoin versus most asset classes



Insignificant or low correlation to any traditional assets

Source: TOBAM and Bloomberg.  
Weekly correlation with BTCUSD, 2-tailed deflated 95% confidence intervals around 0 (log normal assumption)  
Correlation calculations made from March 31, 2017 to Dec 31, 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.

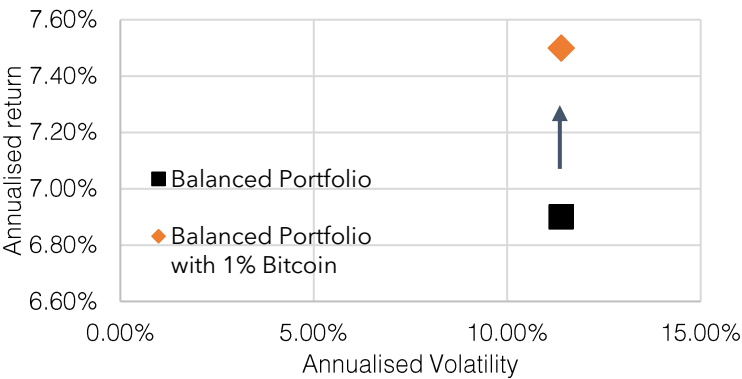
# BITCOIN INVESTMENT CASE: EMPIRICAL CHARACTERISTICS

## 3. BTC AS A DIVERSIFIER

TOBAM Research: Hypothetical 60/40 Balanced Portfolio<sup>1</sup>  
Period 2019-12-31 to 2024-12-31

- Diversification benefits of adding 1% of BTC

Summary Statistics	Balanced Portfolio	Balanced Portfolio with 1% Bitcoin	Difference
Annualized Return	6.9%	7.5%	0.6%
Annualized Volatility	11.4%	11.4%	0%
Sharpe Ratio	0.4	0.4	0.0
Max Drawdown	26.1%	26.2%	0.1%



The addition of 1% of Bitcoin in a balanced portfolio may improve returns by 0.6% with no increase in max. drawdown over the period

<sup>1</sup> - 60% ACWI market cap index/ 34% ML US Corporate + 6% ML US HY Index  
Source: TOBAM, and FRED. Hypothetical returns from Dec 31, 2019 to Dec 31, 2024 provided for illustrative purposes. - daily rebalancing Hypothetical results are for information purposes only. These hypothetical results are gross of tax and exclude costs of transaction and fee assumptions. 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.

1. Intro to TOBAM & crypTOBAM

2. Bitcoin Investment Case

3. **Accessing the Bitcoin opportunity**

- **TOBAM Bitcoin CO2 Offset Fund**
- TOBAM Global Blockchain Equity Strategy

4. Conclusion

# WHY TOBAM BITCOIN CO2 OFFSET FUND?

## THE GOOD NEWS: ACCURATE TRACKER OF BTC

- Gross Performance in USD and Tracking Error since inception (20/11/2017 - 31/12/2024)



**TOBAM BITCOIN CO2 Offset Fund**

Return:	1,044.68%
Annualized return:	40.88%
Hist vol:	71.32%
Sharpe ratio:	0.54
Sortino ratio:	0.91
Downside volatility:	42.43%

**Bitcoin CME CF Reference Rate chained NYXBT**

Return:	1,057.54%
Annualized return:	41.10%
Hist vol:	71.33%
Sharpe ratio:	0.54
Sortino ratio:	0.91
Downside volatility:	42.42%

Tracking error: 0.46%

Beta: 1.00  $r^2$  100.00%

Correlation: 100.00%

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
1) 21SHARES BI...	1.000	0.941	0.945	0.638	0.971
2) CME CF Bitcoi...	0.941	1.000	0.999	0.577	0.934
3) TOBAM BITCO...	0.945	0.999	1.000	0.604	0.939
4) GRAYSCALE B...	0.638	0.577	0.604	1.000	0.655
5) BITCOIN TRA...	0.971	0.934	0.939	0.655	1.000

Sources: TOBAM, Bloomberg. Returns reflect live data from November 20, 2017 to Dec 31, 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. 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 Fund gross annualized performance between November 20, 2017 to Dec 31, 2024 is 40.9%, while the performance net of fees and transaction costs is +37.4%.

# TOBAM BITCOIN CO2 OFFSET FUND

THE BAD NEWS: ACCESSIBLE FOR QUALIFIED INVESTORS ONLY, NON-UCITS

- From a distribution standpoint, the biggest challenge is:
  - the ability of investors (qualified and non-qualified) to access the fund, and
  - the ability of distributors to make the fund accessible to investors
- As of today, crypto assets do not qualify as an eligible UCITS asset.
- **The answer: an investment solution that facilitates exposure to Bitcoin, in a UCITS format**



1. Intro to TOBAM & crypTOBAM

2. Bitcoin Investment Case

3. **Accessing the Bitcoin opportunity**

- TOBAM Bitcoin CO2 Offset Fund
- **TOBAM Global Blockchain Equity Strategy**

4. Conclusion

## 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

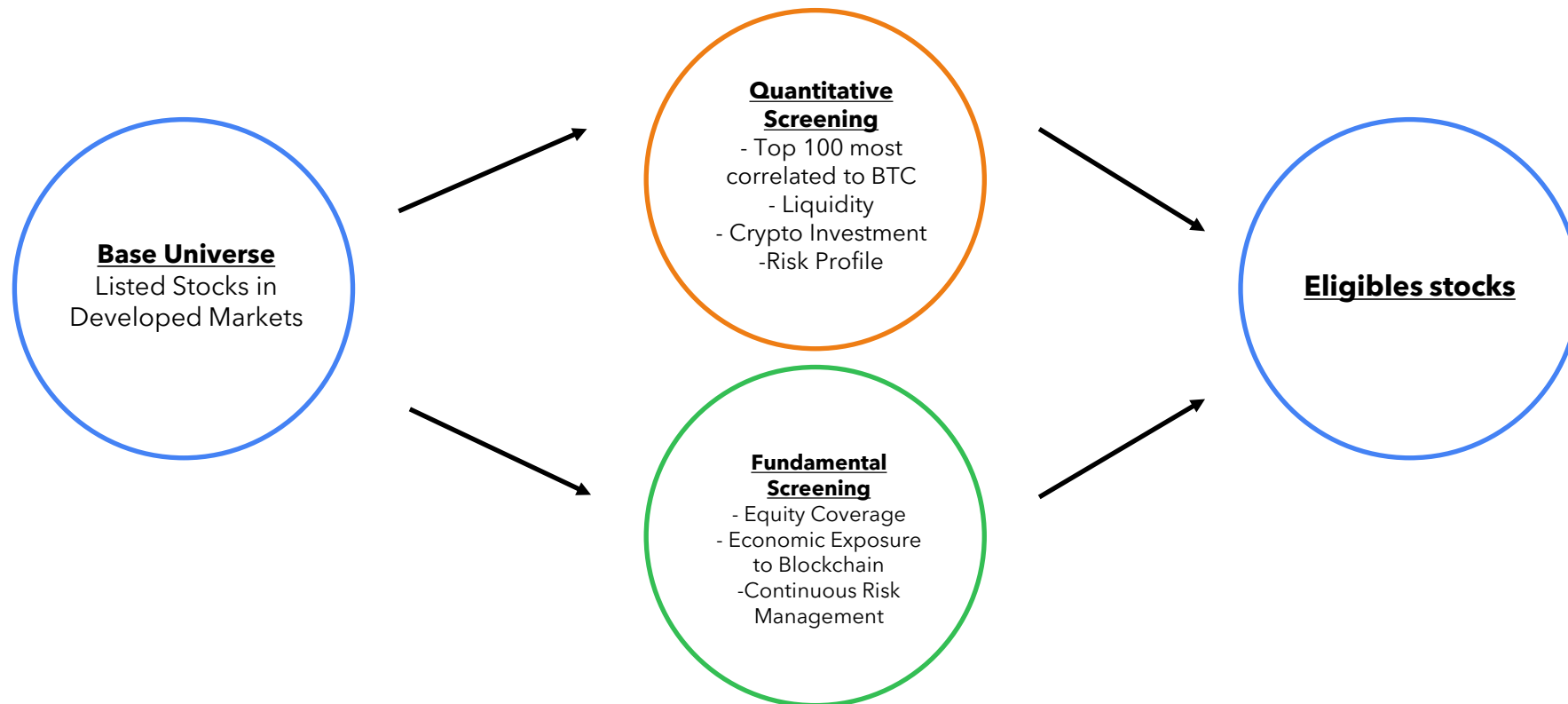
The solution:

- 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
- Take into account TOBAM's ESG guidelines and SFDR Article 8 requirements

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

## TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY PROCESS OVERVIEW (1/2) : INVESTMENT UNIVERSE

- The investment universe is defined by quantitative and fundamental filters:

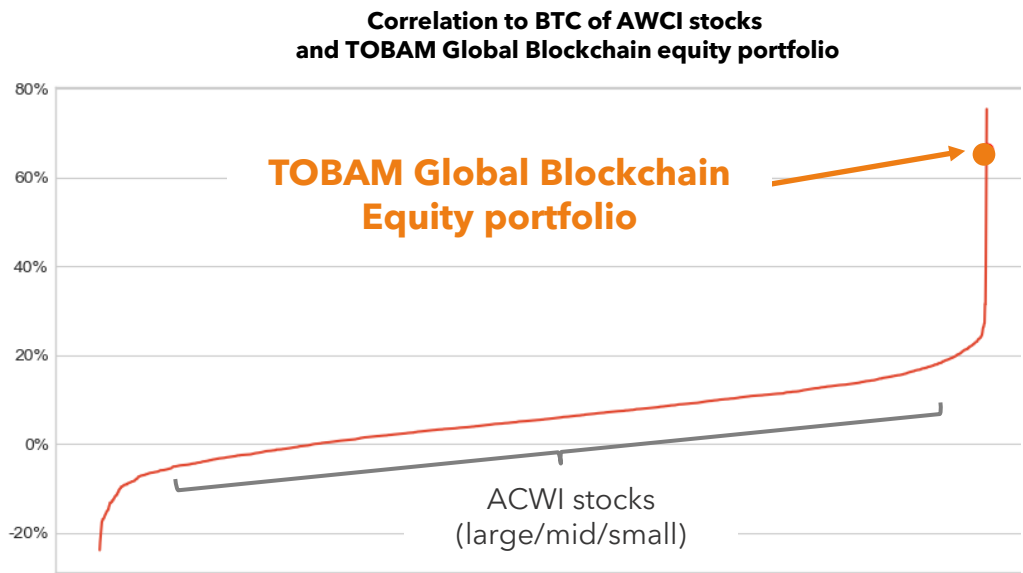


- Companies with an economic exposure to Blockchain and Bitcoin:
  - Companies with a business activity related to Bitcoin, e.g. mining, brokerage, hardware supply for mining activities
  - Companies holding Bitcoin on their balance-sheet
- Continuous Risk Management :
  - Analyst Coverage
  - Crisis Event management

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY PROCESS OVERVIEW (2/2) : PORTFOLIO CONSTRUCTION

- **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.
- The optimization problem is the following\* :

$$\begin{aligned} &\text{Minimize} \quad \|Rw - Rb\|_2^2 + \lambda \text{Turnover} \\ &\text{Sum}(w)=100\% \\ &w_i \leq 8.5\% \quad \forall i \in [1..N] \\ &\sum_{w_i > 4.5\%} w_i \leq 37.5\% \\ &w_{\geq 0} \end{aligned}$$



TOBAM Global Blockchain Equity portfolio  
is almost as correlated vs BTC as the  
universe's most correlated stock

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

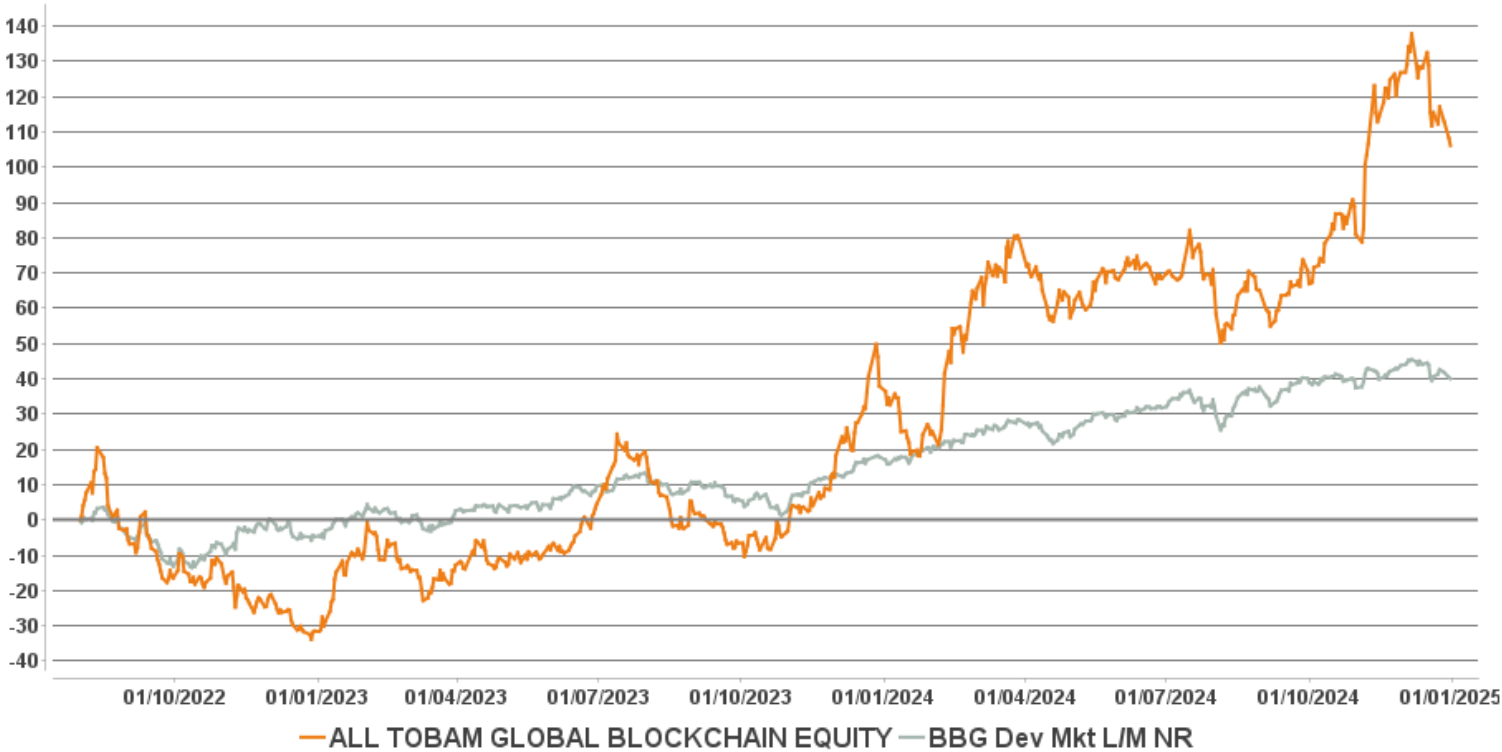
\*Where  $Rb$  is the weekly returns of the Bitcoin,  $R$  the returns of Investment Universe.  $w$  is the new portfolio

TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY  
SIMULATED + LIVE RESULTS (31/12/2019 - 31/12/2024)

Period : 31/12/19 to 31/12/24	TOBAM Global Blockchain Equity Strategy	World market cap benchmark	BTC
Annualized Gross Returns	32.9%	11.2%	67.4%
Volatility	41.2%	18.7%	65.5%
Correlation to Bitcoin	64.5%	26.8%	100.0%
Sharpe Ratio	0.7	0.5	1.0

Source: TOBAM and Bloomberg. Simulations were conducted between the 31/12/2019 and 01/08/2022 + live data until 31/12/2024. 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 Dec 31, 2024 is 32.9%, while the performance net of fees and transaction costs is 32.1%.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY ITD LIVE RESULTS (01/08/2022 - 31/12/2024) IN USD



**ALL TOBAM GLOBAL BLOCKCHAIN EQUITY**

Return:	106.08%
Annualized return:	34.88%
Hist vol:	36.94%

**BBG Dev Mkt L/M NR**

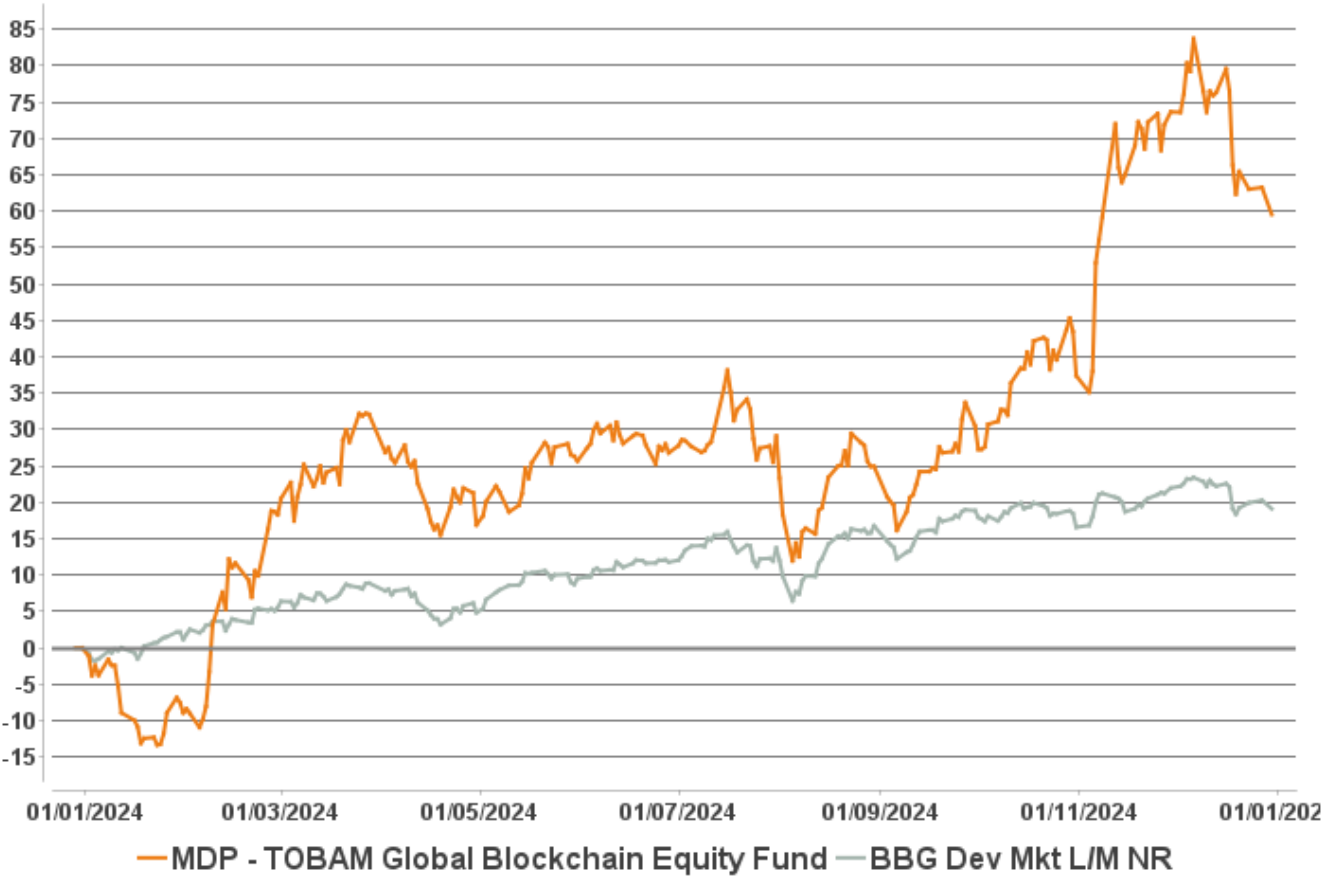
Return:	40.00%
Annualized return:	14.94%
Hist vol:	13.92%

- Correlation to Bitcoin: 60%

Source: TOBAM and Bloomberg. Live data from 01/08/2022 until 31/12/2024. Weekly correlation calculations. 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 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.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY

## 2024 PERFORMANCE IN USD



MDP - TOBAM Global Blockchain Equity Fund

Return: 59.53%  
Hist vol: 35.62%

BBG Dev Mkt L/M NR

Return: 19.12%  
Hist vol: 11.41%

- Performance : +60% in 2024 net of fees

Source: TOBAM and Bloomberg. Live data from 31/12/2023 until 31/12/2024. Weekly correlation calculations. 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 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.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY SIMULATED RESULTS - 2020-2024

## CORRELATION TO BTC

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%
31/12/2019 - 31/12/2024	64.5%	26.8%

- 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 31/12/2024. 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. 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 PORTFOLIO AS OF 31/12/2024

## Stocks

## Weight

ROBINHOOD MARKETS INC	8.7%
GALAXY DIGITAL HOLDINGS LTD	8.3%
MONEX GROUP INC	8.1%
COINBASE GLOBAL INC.	7.1%
NOTHERN TRUST CORP	4.7%
BROADRIDGE FINANCIAL Solutio	4.6%
BLACKROCK INC	4.6%
SBI HOLDINGS	4.6%
WISDOMTREE INC	4.5%
MASTERCARD INC	4.3%
Others	40.7%

## Key Highlights

No Stocks	26
Top 10 holding Weight	59.3%
Average Market Cap (\$Bn)	192
Annual Turnover	9%
<b>Geographical Allocation</b>	
North America	79.0%
EMEA	0.1%
Asia Pacific	20.9%

Source: TOBAM and Bloomberg.  
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.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY

## TOP TEN HOLDINGS AS OF 31/12/2024

Name	% Ptf (31/12/2024)	Description
ROBINHOOD MARKETS INC	8.7%	Robinhood Markets is a popular brokerage app that allows users to buy stocks, options, and cryptocurrencies. The company holds a large amount of crypto assets under custody, with crypto trading revenue now comprising a significant portion of overall sales.
GALAXY DIGITAL HOLDINGS LTD	8.3%	Galaxy Digital is a diversified financial services and investment management innovator in the digital asset, cryptocurrency, and blockchain technology sector.
MONEX GROUP INC	8.1%	Monex Group operates as an online financial service holding company. The Company manages online brokerage firms and crypto-asset exchanges both in Japan and abroad. Monex owns Coincheck Inc.
COINBASE GLOBAL INC.	7.1%	Coinbase Global is a regulated cryptocurrency company that provides customers with a platform for buying, selling, transferring, and storing digital assets. The Company offers a variety of products and services that enable individuals, businesses, and developers to participate in the cryptoeconomy.
NOTHERN TRUST CORP	4.7%	Northern Trust Corp is a financial holding company that provides investment management, asset and fund administration, fiduciary, and banking solutions for corporations, institutions, and affluent individuals. Standard Chartered and Northern Trust partner to launch Zodia, a cryptocurrency custodian for institutional investors. Standard Chartered and Northern Trust are the latest large financial firms to join the collection of banks linked to London-based cryptocurrency trading platform Pure Digital. Pure Digital, an institutional-grade platform for over-the-counter trading and clearing of digital currencies, announced Tuesday that it has conducted a live test trade of Northern Trust and Standard Chartered's Zodia Custody product.
BROADRIDGE FINANCIAL SOLUTIO	4.6%	Broadridge Financial Solutions, Inc. provides technology, communications, data, and analytics solutions for the financial services industry. The company has invested in blockchain technology, launching a private equity platform and a distributed ledger repo platform. Additionally, Broadridge is expanding into the cryptocurrency market and developing blockchain-based solutions for stockholder voting.
BLACKROCK INC	4.6%	BlackRock, Inc. provides investment management services to institutional clients and to retail investors through various investment vehicles. In January 2024, Blackrock's Bitcoin Spot ETF became one of the first to receive approval from the SEC.
SBI HOLDINGS	4.6%	The SBI Group is creating an ecosystem based on digital assets as one of their growth strategies. They believe that crypto-assets will evolve from mainly speculative demand toward a new stage of growth based on real demand, real uses, and investment, and that their digital asset-related businesses will start to contribute to the earnings of the SBI Group.
WISDOMTREE INC	4.5%	WisdomTree, Inc. is a global exchange-traded fund (ETF) and exchange-traded product (ETP) sponsor and asset manager with headquarters in New York. WisdomTree sponsors different ETFs that span asset classes and countries worldwide. Categories include: U.S. and International Equity, Currency, Fixed Income and Alternatives.
MASTERCARD INC	4.3%	Mastercard Inc., stylized as MasterCard from 1979 to 2016 and as mastercard from 2016 to 2019, is an American multinational payment card services corporation headquartered in Purchase, New York. It offers a range of payment transaction processing and other related-payment services (such as travel-related payments and bookings).
TOP 10 Holdings	59.9%	

Source: TOBAM and Bloomberg. 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.

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY

## SUSTAINABILITY CHARACTERISTICS

The strategy:

- Is aligned with SFDR Article 8 criteria
- Implements the following sustainable practices:

### 01. Exclusion policy

Proprietary exclusion list (controversial products and behaviours)

Full list of exclusions:

- Tobacco or tobacco products
- Conventional oil and gas companies
- Unconventional oil & gas production
- Nuclear energy activities
- Thermal coal
- Controversial weapons

### 02. Systematic Carbon Footprint Reduction

Systematic carbon emissions footprint reduction of at least 20% vs Benchmark.

Calculation of the carbon footprint based on scope 1 and 2 gas emissions

	ALL TOBAM GLOBAL BLOCKCHAIN EQUITY	ESG Benchmark
Carbon emissions footprint (in MT)*	2	24
<b>Reduction vs ESG Benchmark</b>	<b>-92%</b>	

### 03. Global ESG Footprint Integration

Strict E, S and G Monitoring for all listed companies in its investment universe; using officially published data from Bloomberg.

Proprietary methodology to compute the "ESG footprint" of each individual holding in the portfolio to determine the overall ESG Footprint of the portfolio.

\*Metric Ton per \$1m invested as of Dec, 31 2024

ESG Benchmark is the Solactive Digital Assets and Blockchain Equity . Source: TOBAM and Bloomberg. 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.

# 1. Intro to TOBAM & crypTOBAM

## 2. Bitcoin Investment Case

## 3. Accessing the Bitcoin opportunity

- TOBAM Bitcoin CO2 Offset Fund
- TOBAM Global Blockchain Equity Strategy

## 4. Conclusion

## CONCLUSION

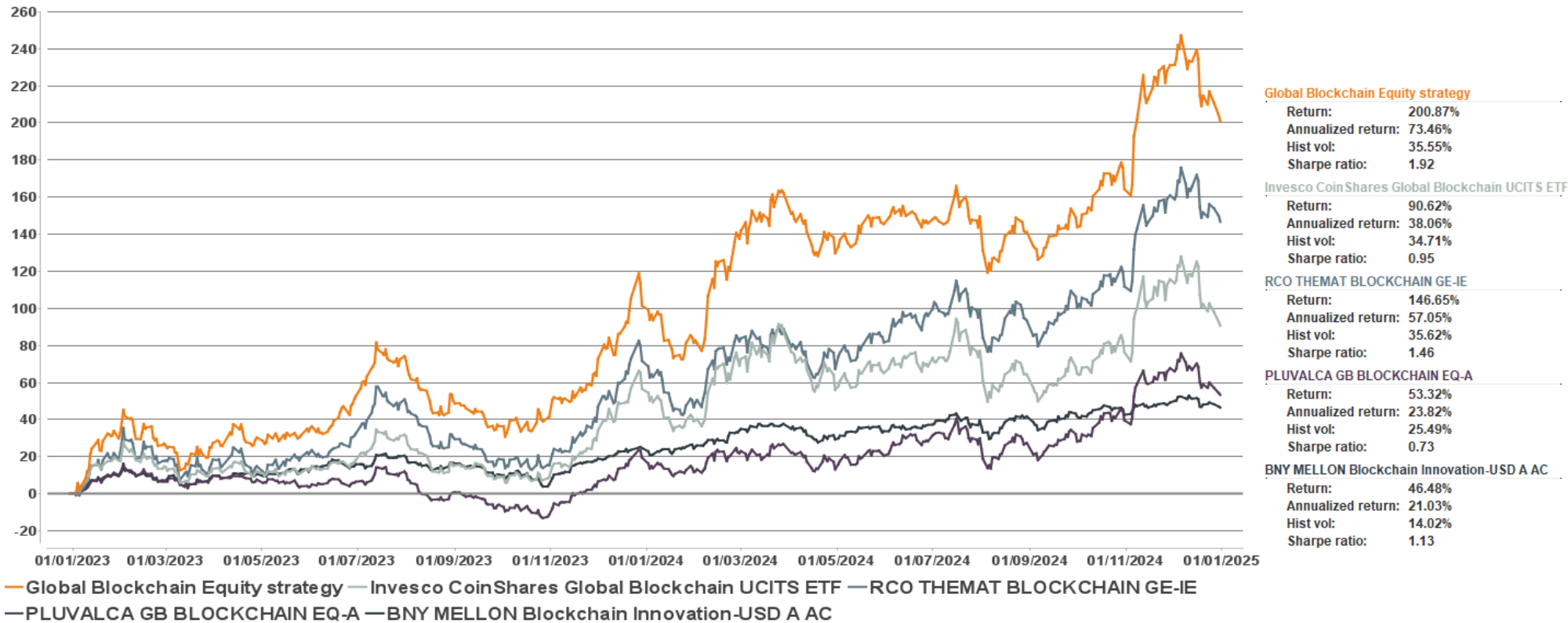
- TOBAM Global Blockchain Equity Strategy
  - aims to take advantage of the adoption of Bitcoin and Blockchain,
  - in a UCITS format available to all investors,
  - while meeting SFDR Article 8 criteria.
- What is unique about it?
  - A clear investment thesis based on TOBAM's research capabilities and live experience in cryptos, and
  - A proven expertise in systematic equity management

aimed at delivering a thematic equity strategy

  - Significantly correlated to Bitcoin,
  - Diversifying vs. other asset classes.

# APPENDIX

# TOBAM GLOBAL BLOCKCHAIN EQUITY STRATEGY PEER GROUP COMPARISON



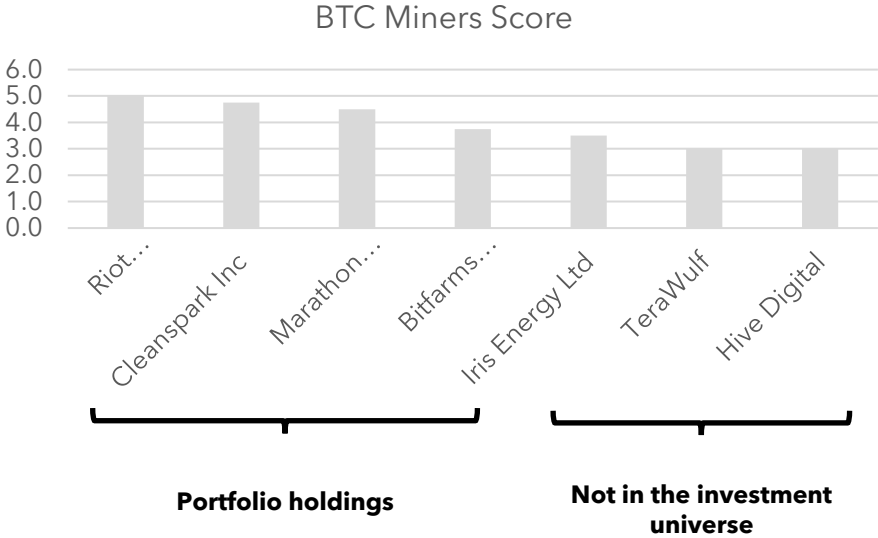
- TOBAM GLOBAL BLOCKCHAIN strategy stands out as it is aiming to minimise the Tracking Error to Bitcoin

Source: TOBAM and Bloomberg. Live data from 31/12/2022 until 28/06/2024. 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. 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.

# CASE STUDY : BITCOIN MINERS

## Situation :

- Bitcoin mining is essential for the cryptocurrency's ecosystem, ensuring the verification of transactions and their integration into the blockchain. Thus, bitcoin miners constitute a key holdings for strategies linked to the blockchain technology.
- The profitability of Bitcoin mining depends on various factors, including the BTC price, the miner's share of the network hashrate, current block rewards, energy consumption and other operational expenses.
- Given the high capital expenditure and variability of income in the sector, TOBAM's process has included periodic reviews of the specificities of Bitcoin miners since July 2022. By incorporating metrics such as indebtedness, average mining cost, and correlation to Bitcoin, these reviews aim to identify miners that more accurately reflect the unique exposure of this sector. TOBAM's analysis of Bitcoin miners could be represented by an aggregated score that combines all the various metrics examined.



## → Assessment of sector particularity

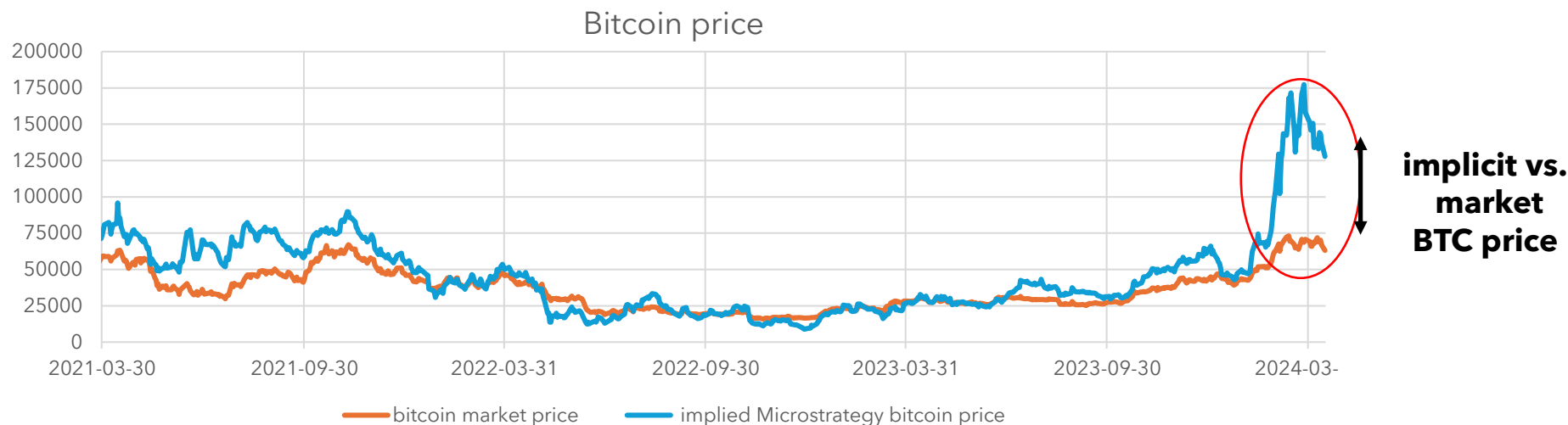
- TOBAM's investment strategy is developed to monitor Bitcoin miners, aiming to select those that best represent the specific characteristics of this sector. As of June 24, the year-to-date average return for the Bitcoin miners which had been included in this strategy since the beginning of the year stood at 0.3%, in contrast to the -5.57% average return seen among publicly listed Bitcoin miners.



## CASE STUDY : MICROSTRATEGY

### Current situation :

- MicroStrategy is a Software & Services company that has been acquiring aggressively bitcoin since March 2021. Today it holds over 1% of all the bitcoins.
- Bitcoins in MicroStrategy count for **more than 90% of the assets of the company** with a core business estimated at 1.5 Bio\$ and a market cap of 22 Bio\$.
- As of end of March 2024, **Implied Bitcoin Price in MicroStrategy is 125,000\$** versus Bitcoin trading at 63,200\$ : **98% more expensive :**



### → Premium risk management

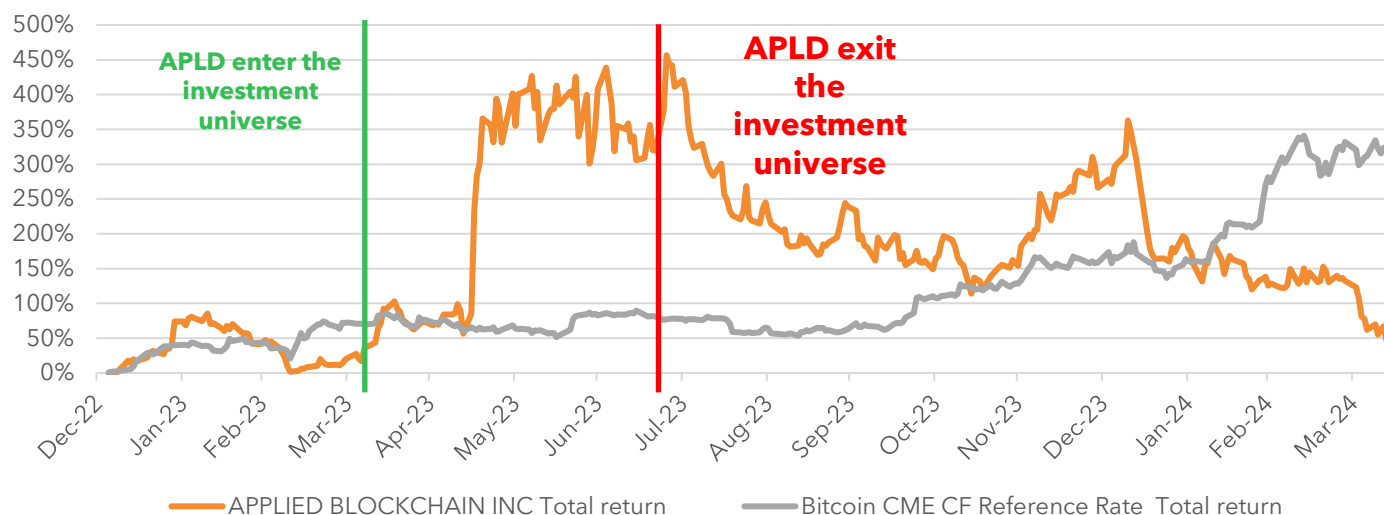
- TOBAM's strategy allocation to MicroStrategy is designed to **mitigate the risk** linked to **the implicit price deviation collapse** (max weight is modulated depending on the premium)

# COMPLEMENTARY MONITORING MANAGEMENT SYSTEM

## CASE STUDY : APPLIED DIGITAL

### Situation :

- Applied Digital Corporation is a builder and operator of data centers across North America which provide compute power to blockchain infrastructure and support Bitcoin mining.
- In April 2023, the company became investible as it met the investment quantitative criteria.
- By May, Applied Digital launched AI Cloud services.
- Following this event, quantitative metrics such as bitcoin correlation and volatility associated with this stock began to show a declining trend. In July, research indicated that the company's shift towards artificial intelligence might not be align with its business capabilities. The deterioration in the quantitative criteria used to evaluate companies, coupled with worries about adverse news flow, resulted in its exclusion from the strategy on July 20th.



### → Dual Monitoring Management Approach

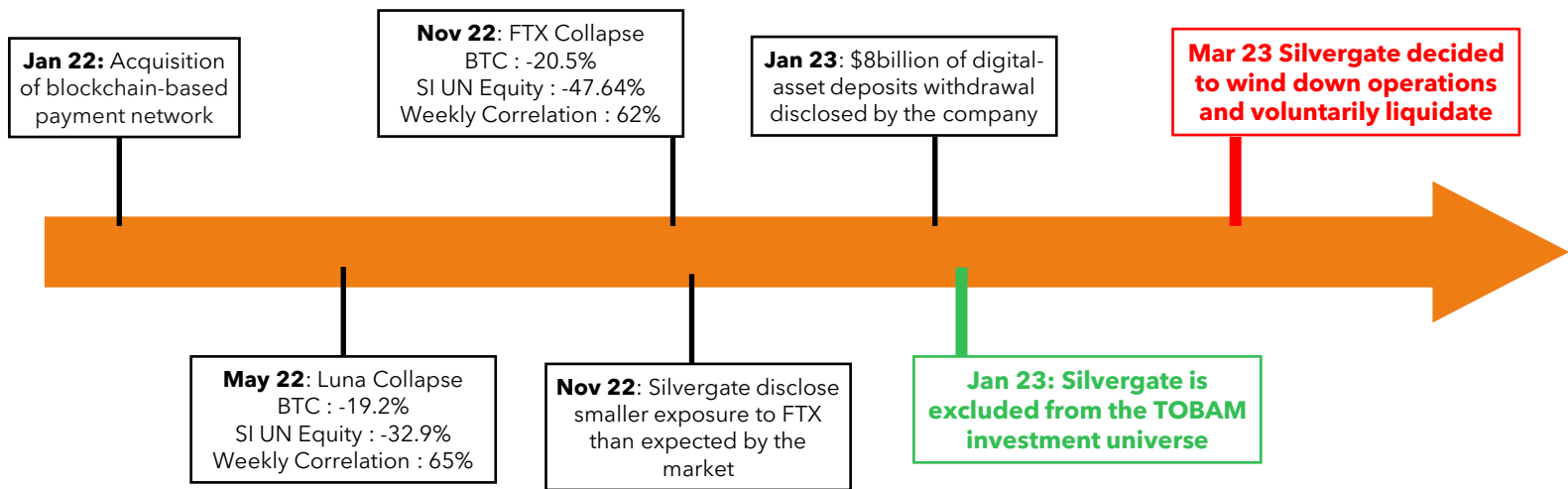
- TOBAM's strategy based on a **quantitative approach** helps investor gaining exposure to the **blockchain and cryptocurrency thematic**. By adding a more **fundamental layer**, TOBAM's strategy aims to **deliver a more robust risk management process on a highly volatile investment universe**.

# RISK MANAGEMENT : CRISIS EVENT MANAGEMENT

## CASE STUDY : SILVERGATE CAPITAL

### Situation :

- Silvergate Capital Corporation operates as a bank holding company. Through its subsidiary, Silvergate Bank, it offered a specialized banking platform designed specifically for clients engaged in the digital currency industry. In 2022, most of the bank's new deposits came from cryptocurrency exchange clients.



- Following Silvergate Bank's announcement regarding significant asset deposits withdrawal, an assessment of the situation was conducted. The goal was to assess the news's impact on the company and to determine if this development could influence the attributes of the equity that warranted its inclusion in the investment universe.
- This evaluation on the event's significance, stemmed by a collegial discussion, resulting of the exclusion of the company from the investment universe. The position represented 3.1% of the strategy and was sell on January 19<sup>th</sup>.

### ➔ News Monitoring on the investment universe

- TOBAM's investment process includes **monitoring of news flows related to our investment universe**. In instances of adverse news, a comprehensive assessment of the implicated company could be initiated. **This may result in the company's exclusion from our universe for risk management purposes.**

## APPENDIX: PRI ASSESSMENT REPORT

### VERSUS PRI MEDIAN

POLICY GOVERNANCE & STRATEGY



DIRECT LISTED EQUITY –  
ACTIVE QUANTITATIVE



DIRECT FIXED INCOME –  
CORPORATE



CONFIDENCE BUILDING MEASURES



## DISCLAIMER

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

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

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

**Risks linked to investment in Bitcoins:** the fund invests in a highly volatile and lowly regulated asset, and due to particular factors such as platforms disruptions or regulations, the fund 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 fund 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.

## 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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