

TOBAM **LBRTY** Strategies

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

December 2024

MIGRATING TOBAM FROM A MONO-CORE ...

TOBAM^{*}
CORE INVESTMENTS

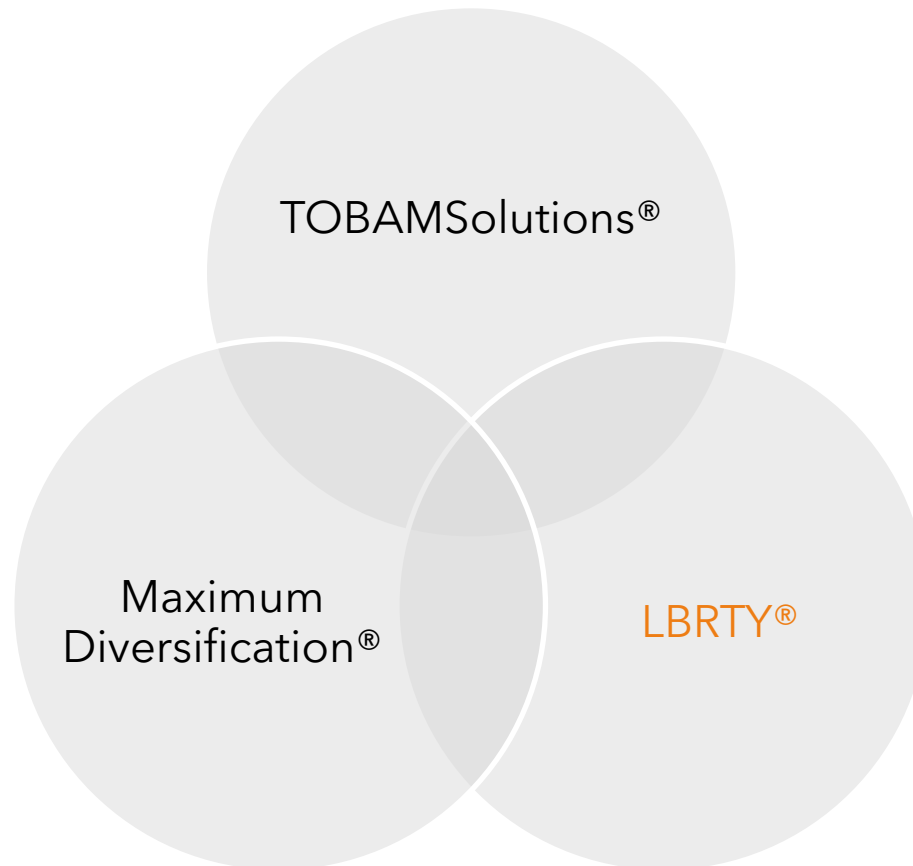


tobam^{*}
unbiased.

.... To Multi-Core



CrypTOBAM®



WARNING

The presentation herein is not an offer nor a solicitation to invest and is for discussion only.

Its purpose is to present work in progress to get feedback and commentary for further discussion on the subject and research topic.

Moreover, it is being provided as a means to discuss research and thoughts conducted to date at TOBAM.

1 ● Introduction to TOBAM and Anti-Benchmark

2 ● Investment Philosophy - The case for Civil and Democratic Rights

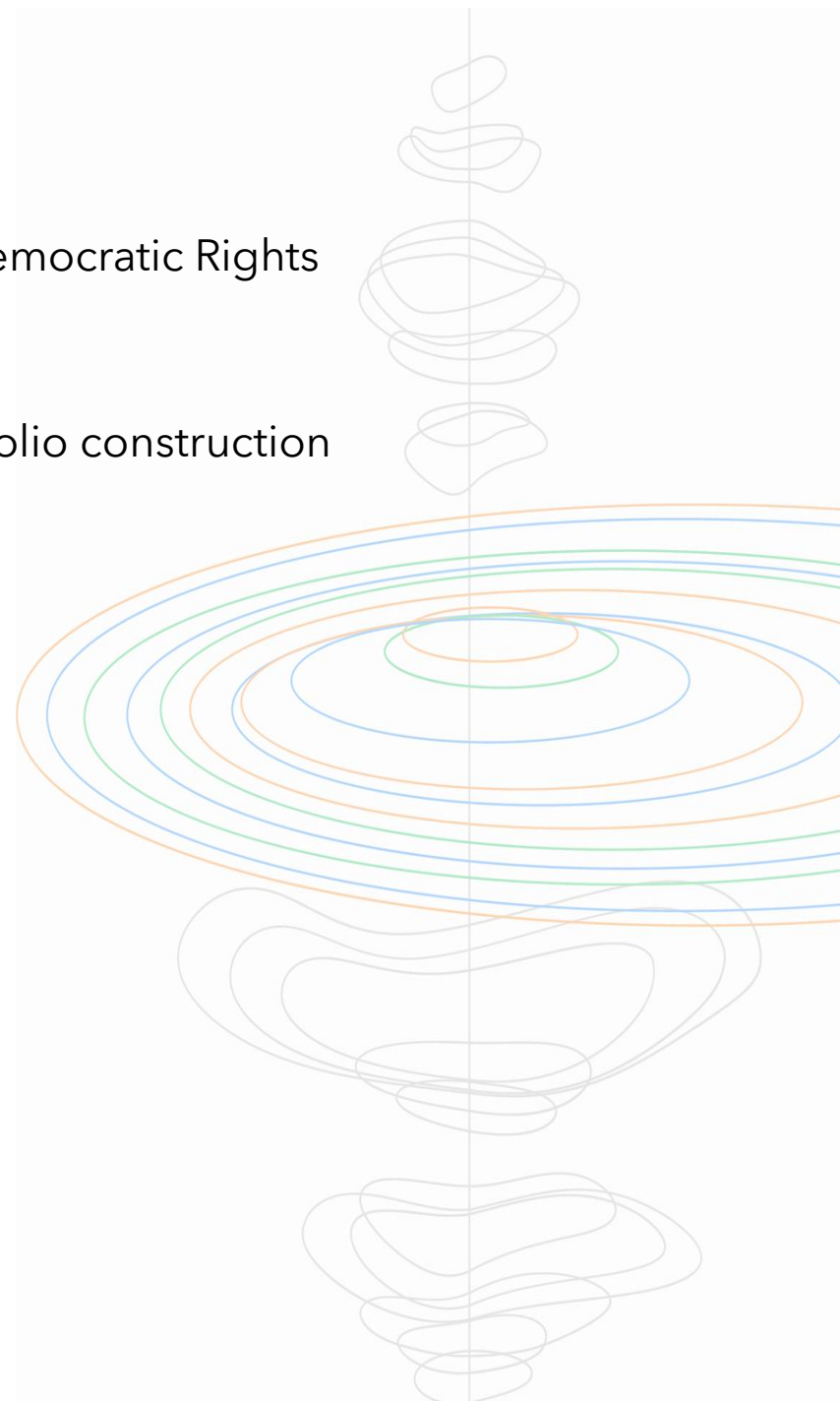
3 ● Measuring Civil and Democratic Rights and portfolio construction

4 ● Empirical results

5 ● Products

6 ● Conclusion

7 ● Appendix



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

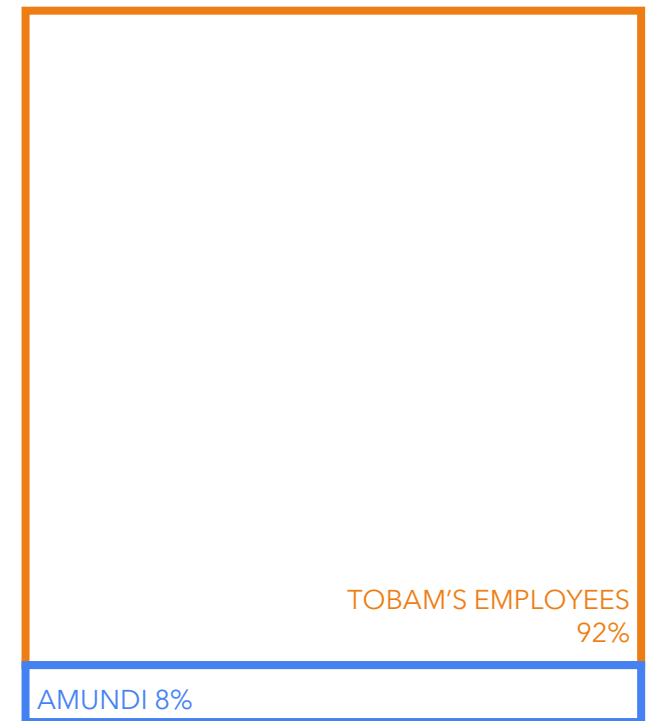
The Maximum Diversification® approach, supported by original research and a mathematical definition of diversification, provides investors with diversified core exposure, both in equity and fixed income markets.

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

SHAREHOLDER 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 into 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

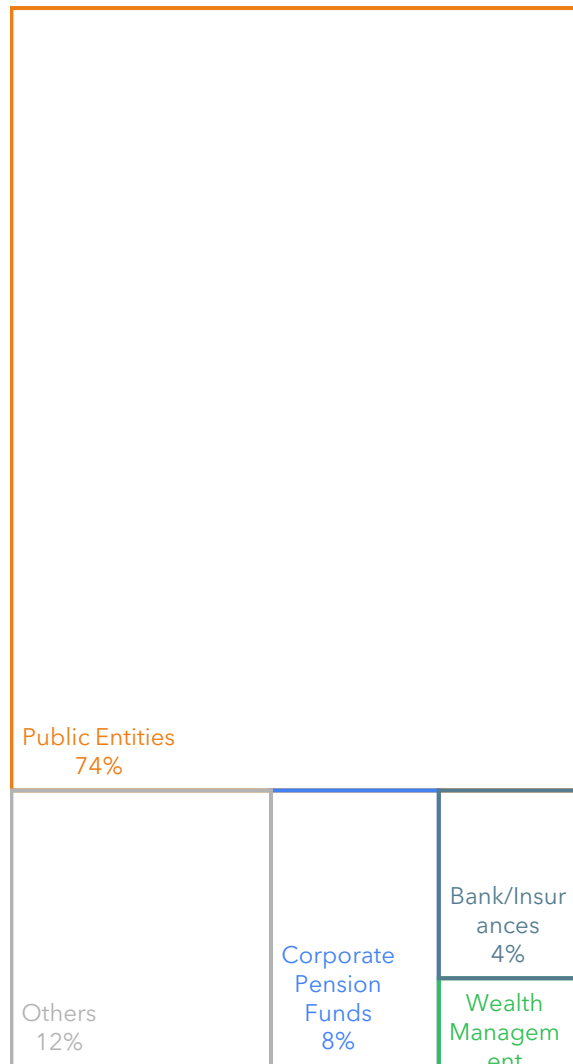
locations

- Paris
- Dublin
- New York

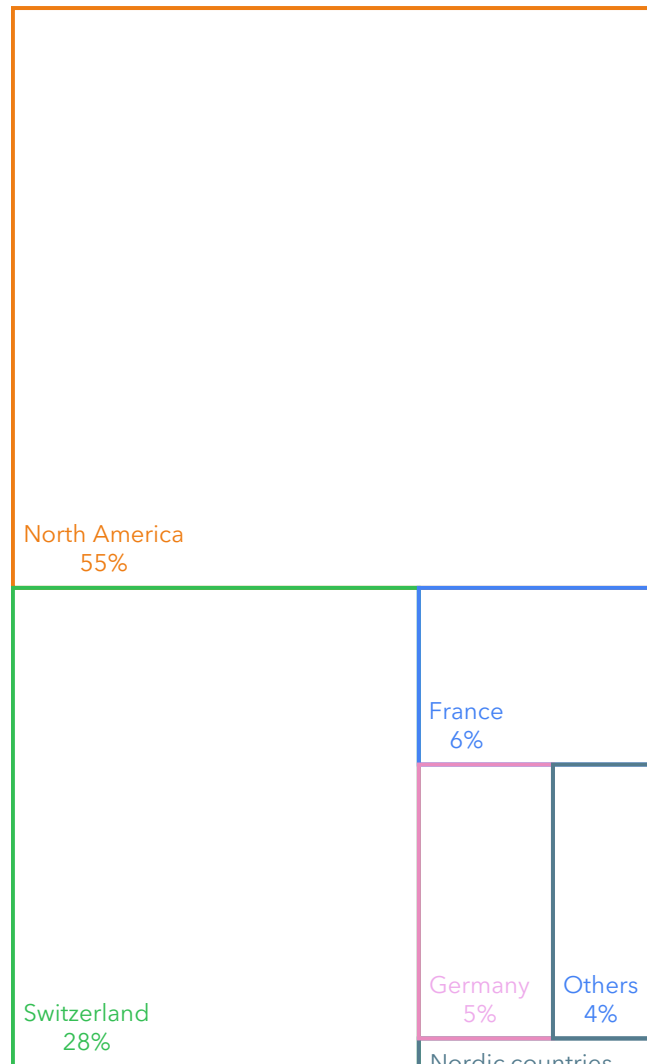


ASSETS UNDER MANAGEMENT

AuM by **Clients Type**



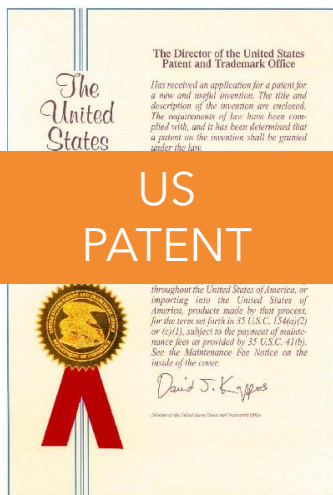
AuM By **Clients Geography**



Strategies	AUM in \$ million
US Equities	775
of which open-ended funds	151
Global Developed Equities	391
of which open-ended funds	159
Global Developed ex US Equities	216
of which open-ended funds	-
Global EM Equities	98
of which open-ended funds	98
World ex Swiss Equities	71
of which open-ended funds	71
Swiss Equities	65
of which open-ended funds	65
Euro Equities	16
of which open-ended funds	16
ACWI Equities	15
of which open-ended funds	15
Japan Equities	13
of which open-ended funds	13
Other Equities	10
of which open-ended funds	10
Canada Equities	6
of which open-ended funds	6
Total Equities	1 676
Global IG Credit	50
of which open-ended funds	50
Global HY Credit	38
of which open-ended funds	38
Total Fixed Income	88
Multi-Asset	59
of which open-ended funds	59
Total Multi Asset	59
Crypto Assets	63
of which open-ended funds	42
Total Crypto Assets	63
Total AUM	\$2B
of which open-ended funds	793

Key Risks: The value of your investment and the income from it will vary and your initial investment amount is not guaranteed. Allocations are subject to change.
Data as of Dec 31, 2024

GRANTED PATENTS



US PATENT



AUSTRALIAN PATENT



JAPANESE PATENT



CANADIAN PATENT



AWARDS

2023 - 2024

- "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, Ficade
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

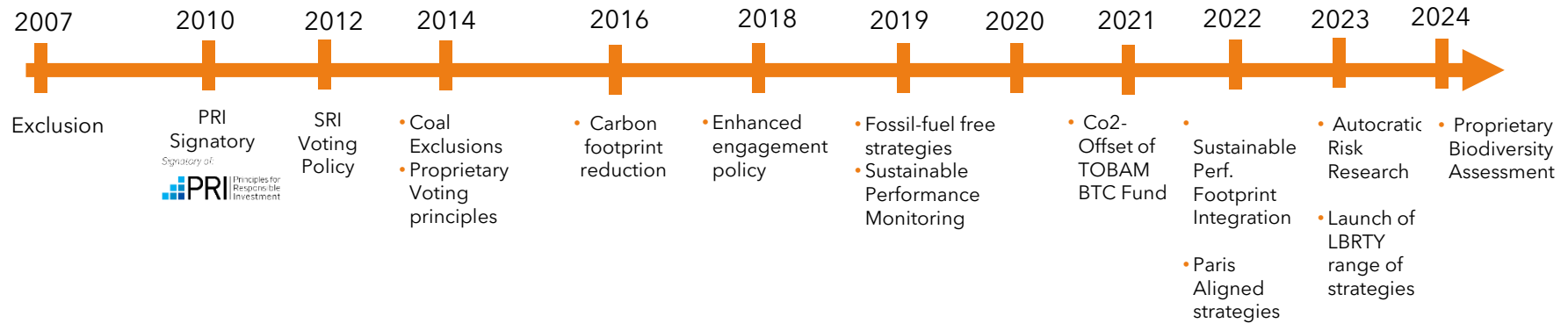


Other Awards

- "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

04. ACTIVE OWNERSHIP & ENGAGEMENT

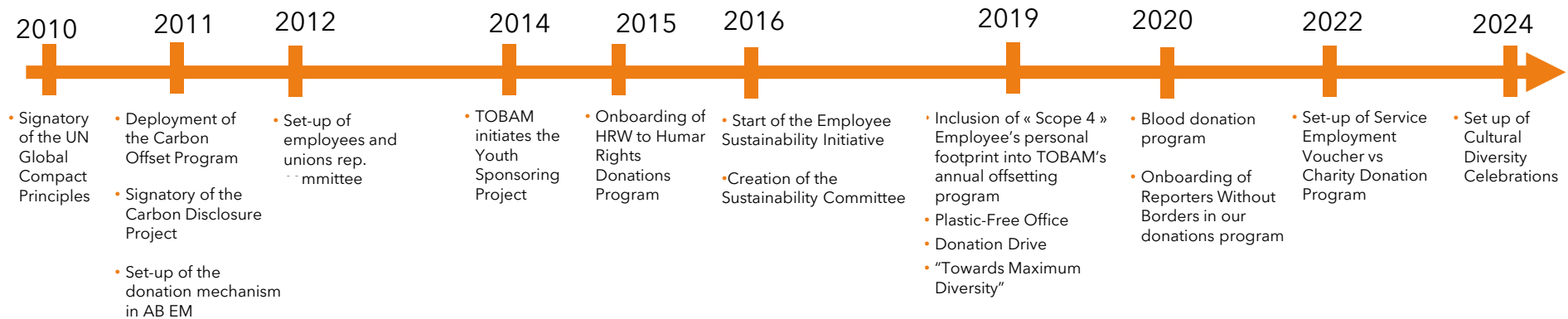
Proprietary SRI Voting Policy & Direct & Collaborative Engagement

PRI Scores
5 stars on all pillars

*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 COMMITMENT TO HUMAN RIGHTS ADDRESSING THE AUTOCRACY RISK

TOBAM's Journey into Human Rights

2009

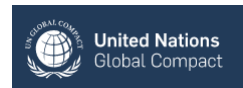
TOBAM chooses Human Rights as its philanthropy field.



2010

First donation to **Amnesty International**

TOBAM becomes signatory of the **United Nations Global Compact**



2011

Set up Systematic Revenue-Linked Donation Program (AB EM)



2015

Onboarding of **Human Rights Watch** In TOBAM's Donation Process
Ukraine project

2016

Promotion and Education around Human Rights Key Challenges

2018

Conferences, Interviews, Webinar, Internal presentation

2019

Onboarding of **Reporters without Borders**
Fundraising Campaign after the Blast in Beirut

2020

Fundraising Campaign for Ukraine in coordination with HRW

2021

2023

Launching LBRTY®, first fund focused on Civil Rights & Democracy



TOBAM'S COMMITMENT TO CIVIL RIGHTS & DEMOCRACY *ADDRESSING THE AUTOCRACY RISK DRIVER ... BECAUSE IT WORKS*

Our convictions:

Not “Good” vs “evil”
But “what works” vs “what doesn't work”

- It is about creating value in the long run
- It is not about being philanthropic with investors' money
- It is about integrating what contributes to value creation and removing what contributes to value destruction
- It is not about discriminating between evil and good; it is about promoting what works, what lasts and will survive on the long run and what will create value

Democracy, Respect of Human Rights, Freedom of Speech, Promotion of Diversity and Pluralism are key to innovation, creativity and economic growth

1 • Introduction to TOBAM and **Anti-Benchmark**

2 • Investment Philosophy - The case for Civil and Democratic Rights

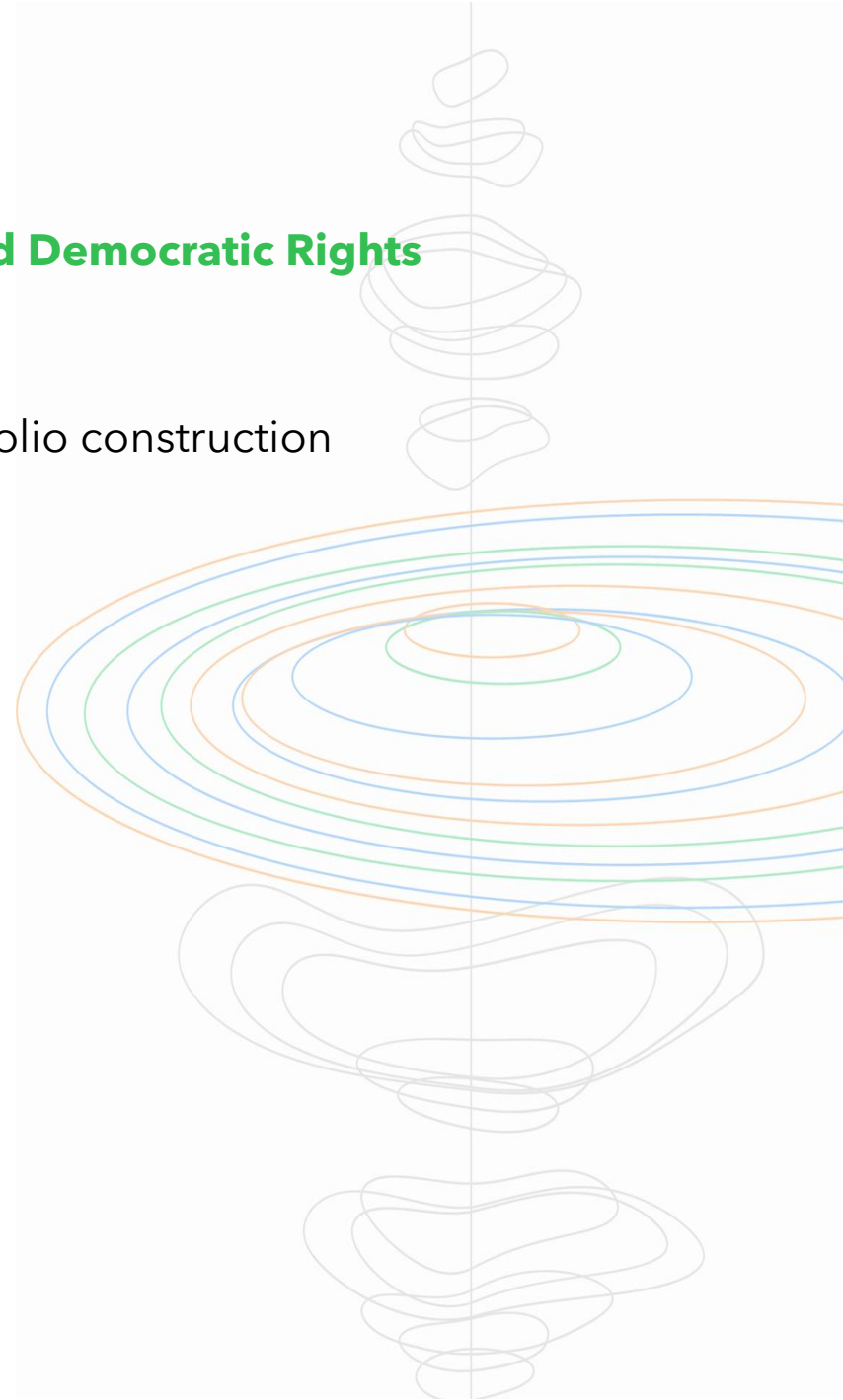
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • Empirical results

5 • Products

6 • Conclusion

7 • Appendix



INVESTMENT PHILOSOPHY

- In the long-run investors in countries with oppressive regimes and arbitrary rules are exposed to unrewarded risks.
- **Notably due to arbitrary state behaviour, uncompensated expropriations, social unrest, corruption, war....** In the long run they will underperform others.

Numerous research have demonstrated the cost of dictatorship and lack of civil liberties

2 The Economic Effects of Dictatorships

JOSE MARIA MARAVALL

JOURNAL ARTICLE

Dictatorial Institutions and their Impact on Economic Growth

JENNIFER GANDHI

The Dictator Effect: How Long Years in Office Affects Economic Development in Africa and the Near East

May 2012 - [Journal of Institutional Economics](#)

Authors:



Kostadis Papaioannou
The London School of Economics and Political Science



Jan Luiten van Zanden
Utrecht University

The Economic Effects of Human Rights

[Kyklos, Vol. 60, No. 4.](#)

30 Pages

Posted: 26 Oct 2007

[Lorenz Blume](#)

Phillips University Marbu

[Stefan Voigt](#)

University of Hamburg - Institute of Law & Economics; CESifo (Center for Economic Studies and Ifo Institute)

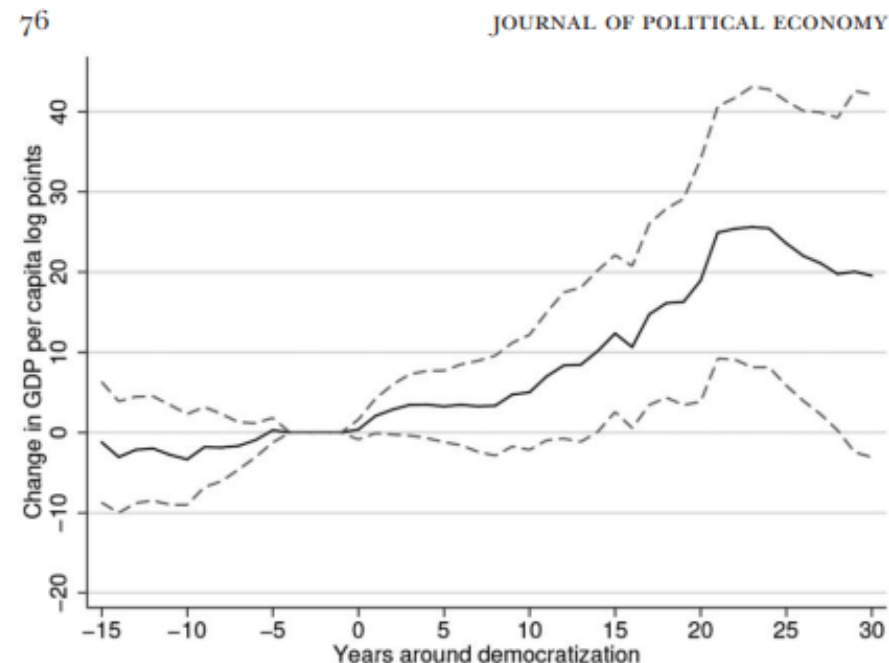
The economic costs of a discriminatory ideology

Kilian Huber, Volker Lindenthal, Fabian Waldinger / 8 Oct 2018

DEMOCRACY DOES CAUSE GROWTH (ACEMOGLU, ROBINSON & AL. 2019)...

Acemoglu & al (2019) identify 122 democratizations and 71 reversals from democracy based on data from 1960 until 2010 and show that:

- There is a positive causal effect of democracy on economic growth.
- A country that transitions from nondemocracy to democracy achieves about 20 percent higher GDP growth per capita in the next 25 years than a country that remains a nondemocracy.
- It drives greater investments in capital, schooling, and health.
- The effect of democracy does not depend on the initial level of economic development/level of income.



The solid line plots the estimated average effect on GDP per capita on countries that democratized (in log points), with a 95 percent confidence interval in dashed lines

BUSINESS WILL EXIT CHINA AS AUTOCRACIES HINDER THEIR OPERATIONS



BlackRock's Fink calls for Western firms to question ties with China :

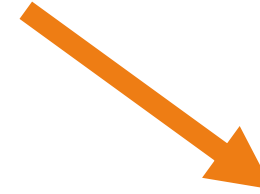
- "Each country, each company, has to reassess what that means"
- "We all have to re-evaluate that, like we have to re-evaluate a risk in liquidity traps, a risk in everything" when operating in autocratic regions



"We have businesses in China, I'm sure everybody here has some businesses in China [...] We all have to re-evaluate that"

*BlackRock CEO Larry Fink, 1st October 24
Berlin Global Dialogue conference*

Source: John Lamparski via
Getty Images



Inside Goldman Sachs' years-long power struggle over its China venture

Source: FT, November 14, 2024

A cautionary tale for Western institutions:

- Goldman Sachs partnered with Fang a Chinese investment banker, expecting the alliance to last briefly until they could directly own their Chinese securities and investment banking business...
- ...The deal lasted two decades, benefiting Fang and leaving Goldman eager to exit.

LAUNCHING FIRST FUND FOCUSED ON CIVIL RIGHTS & DEMOCRACY *ADDRESSING THE AUTOCRACY RISK*

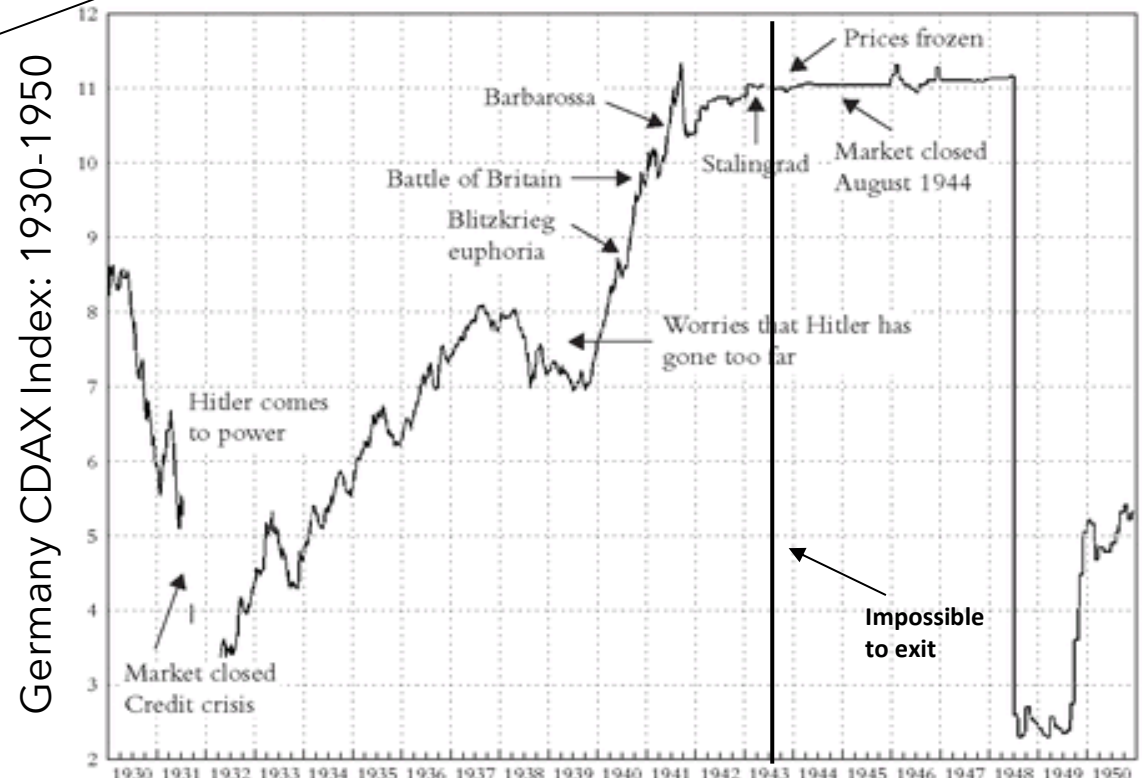
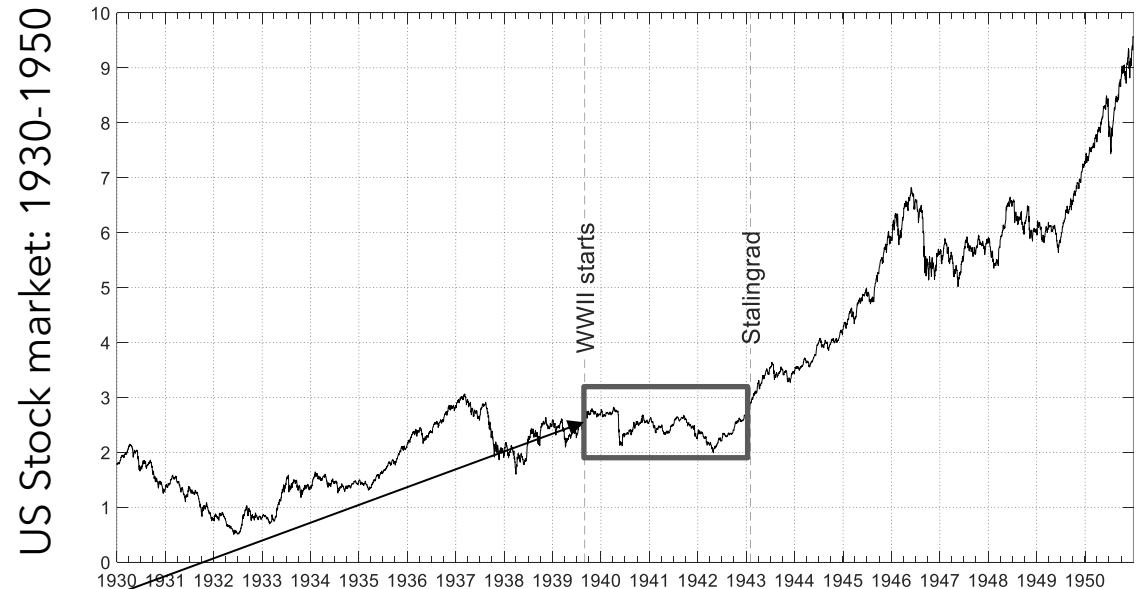
- Identifying the “autocracy risk driver”
- Building a portfolio under exposed to the autocracy risk

1. There is an autocracy risk driver
2. This risk driver is negatively rewarded
3. Most of the exposure to the autocracy risk driver is indirect
4. The autocracy risk driver is independent from other risk drivers

Yves Choueifaty: "BEING EXPOSED TO AUTOCRACY, CONSIST INTO BEING EXPOSED TO A REVERSE J-CURVE."

Example of Reverse J-Curve: Germany 1933-1943

- Germany's stock market experienced a sharp rise from 1939 to 1943.
- This rise was not present in the US market.
- From 1944, prices were frozen, and it was impossible to get out from the German stock market.
- The German stock market reopened in mid-1948 with a fall of ~80% (+inflation).

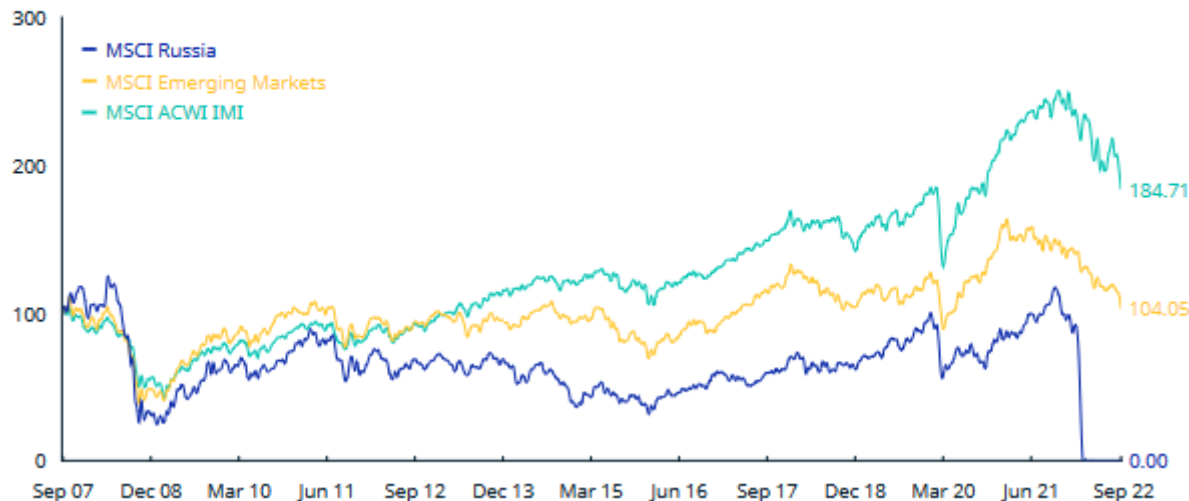


Source: *Wealth, war and wisdom*, by Biggs, Barton, John Wiley & Sons, 2009.

Reverse J-Curve: THE CASE OF RUSSIA

- The potential instability of non-democratic countries makes them more susceptible to black swan events.
- One of the most recent example being Russia where direct investments in stocks/bonds of companies in Russia or in companies located elsewhere but with significant economic ties to Russia have been a very painful experience for investors.
- Russia is a country classified as authoritarian since 2011.

**CUMULATIVE INDEX PERFORMANCE – NET RETURNS (USD)
(SEP 2007 – SEP 2022)**



Source: TOBAM, MSCI

DEMOCRACIES AND WARS IN THE 20TH CENTURY ACCORDING TO... CHATGPT



number of wars in the 20th century



It is difficult to give an exact number of wars that occurred in the 20th century, as there is some debate over what constitutes a "war." However, some estimates suggest that there were around 180 armed conflicts that took place during the 20th century. This includes both major international wars and smaller, less well-known conflicts.

The number of wars also depend on how they are defined or categorized. Some sources might include civil war and other internal conflicts, while others might only consider conflicts between nation-states to be "wars."

However, it is important to highlight again that the number may vary depending on how conflicts are defined and categorized, giving a exact number is hard.



how many wars opposed 2 independant democratic countries during the 20th century?



There were very few instances of two independent, democratic countries engaging in war with each other during the 20th century.

One notable example is the War of the Pacific (1879-1883) fought between Chile, Bolivia and Peru. Chile was considered a democratic country during this time and all the three countries were independent

Another notable example was the the Football War (1969) between Honduras and El Salvador, which was a 100 hour-long conflict, the cause of the war were not just the Football but also caused by disputes over land, economic issues and immigration. Both countries were democratic but not fully consolidated democracies.

Those are the main examples that comes to mind when it comes to fully independent democratic countries fighting each other, however this is a very rare ocurrence in history.

WEAR YOUR CORRELATION GLASSES ! ! !



Over 1,000 Companies Have Curtailed Operations in Russia—But Some Remain

November 28, 2022



Source: Yale University, as of Nov 28th, 2022

\$240 billion: The cost of abandoning Russia for global corporations



by Ansh Pandey — October 9, 2022 in Europe, Geopolitics Reading Time: 4 mins read

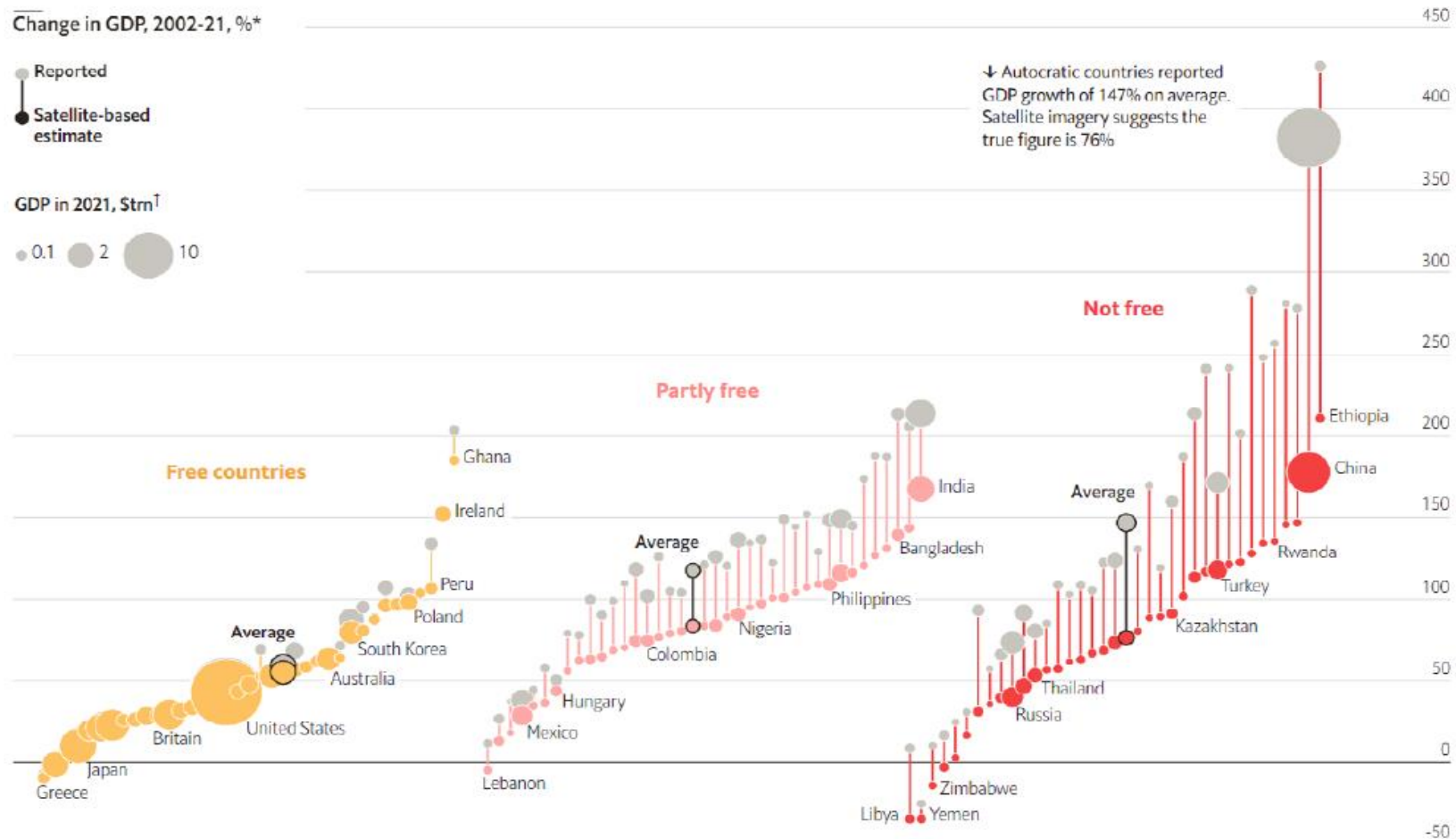


Source: <https://tfiglobalnews.com/>

We should not trust the dictators' GDP growth estimates (L.R. Martinez, 2022)

- GDP growth reported by autocracies are **inflated by up to 35%** per annum on average.
- In the long run, the **reported GDP growth** numbers nearly **doubled** the autocracies' **actual** economic **growth**.

Change in GDP, 2002–2021

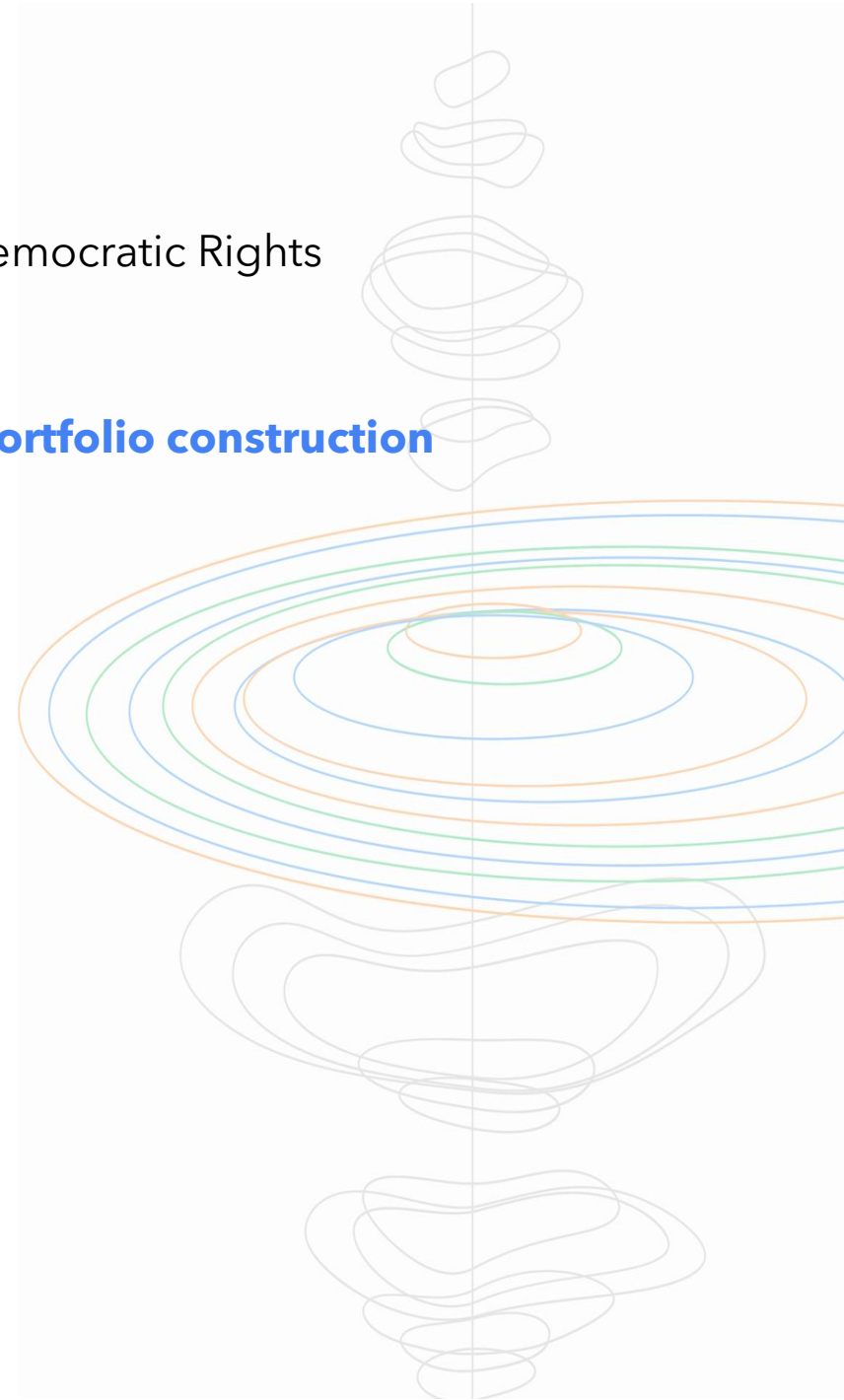


Source: *The Economist*, 1–7 October 2022, p.77; “How much should we trust the dictators’ GDP growth estimates?”, L.R. Martinez, 2022; Freedom House; World Bank.

*In 2021 USD at market exchange rates, assuming reported 1992 GDP figures are accurate.

†Countries with over 5 million people, freedom status in 2021.

1. Introduction to TOBAM and **Anti-Benchmark**
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TOBAM USES 7 DIFFERENT DATASETS.

EXAMPLE OF DATASET: THE V-DEM PROJECT

- Founded in 2011, Varieties of Democracy (V-Dem) is a unique approach to conceptualizing and measuring democracy. It provides a multidimensional and disaggregated dataset **dating back to before 1789** that reflects the complexity of the concept of democracy as a system of rule that goes beyond the simple presence of elections.
- The V-Dem project distinguishes between five high-level principles of democracy: electoral, liberal, participatory, deliberative, and egalitarian, and collects data to measure these principles.
- The dataset is governed by Principal Investigators (the highest decision making body), a Steering Committee (body for the overall guidance and decision making connected to the various V-Dem programs and projects) and a large number of Project Managers (they identify reliable and relevant data sources, develop surveys and assure cross-country equivalence for the indicators) that are all Professors from institutions with an excellent academic reputation mainly in the Nordics, USA, and some also from other European Countries. Moreover, the V-Dem institute relies on a wide set of Regional Managers who are Professors at Universities in the respective geographic regions for which data is collected (e.g., Africa, Asia etc.). Overall, the headcounts are 5 Principal Investigators, 18 Personnel at V-Dem Institute, 22 Project Managers, 33 Regional Managers, 134 Country Coordinators and **3700 Country Experts**.
- The Host Institution is the **University of Gothenburg**. The **University of Notre Dame** played an instrumental part in building and establishing V-Dem
- Funders of the data collection and research infrastructure are:
- We deem the V-Dem institute as a high-quality academic source.
- More information can be found here:

<https://www.v-dem.net/about/v-dem-project/>

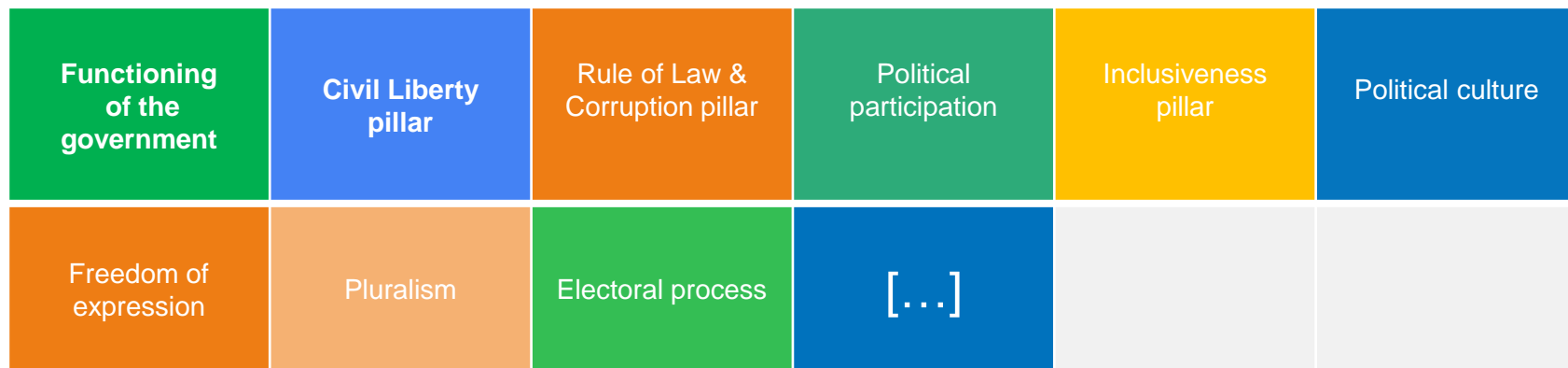


INVESTMENT PROCESS: LBRTY PORTFOLIO CONSTRUCTION

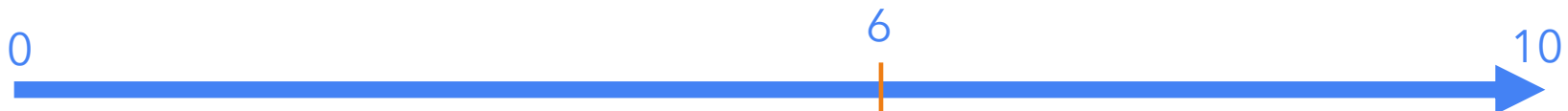
Measuring Countries Civil Liberty and The State of Democracy

There are plenty of data sources, reliable, independent, neutral.
A good example of that is VDEM (see illustration previous slide).

Datasets include typical pillars:

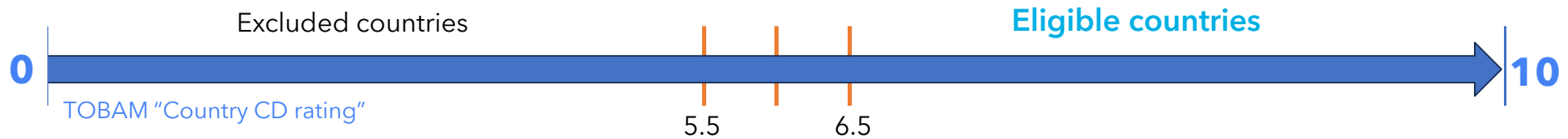


Step 1. The TOBAM “Country CD rating” synthesizes the information. Country CD ratings are between 0 and 10. The threshold is set at 6.

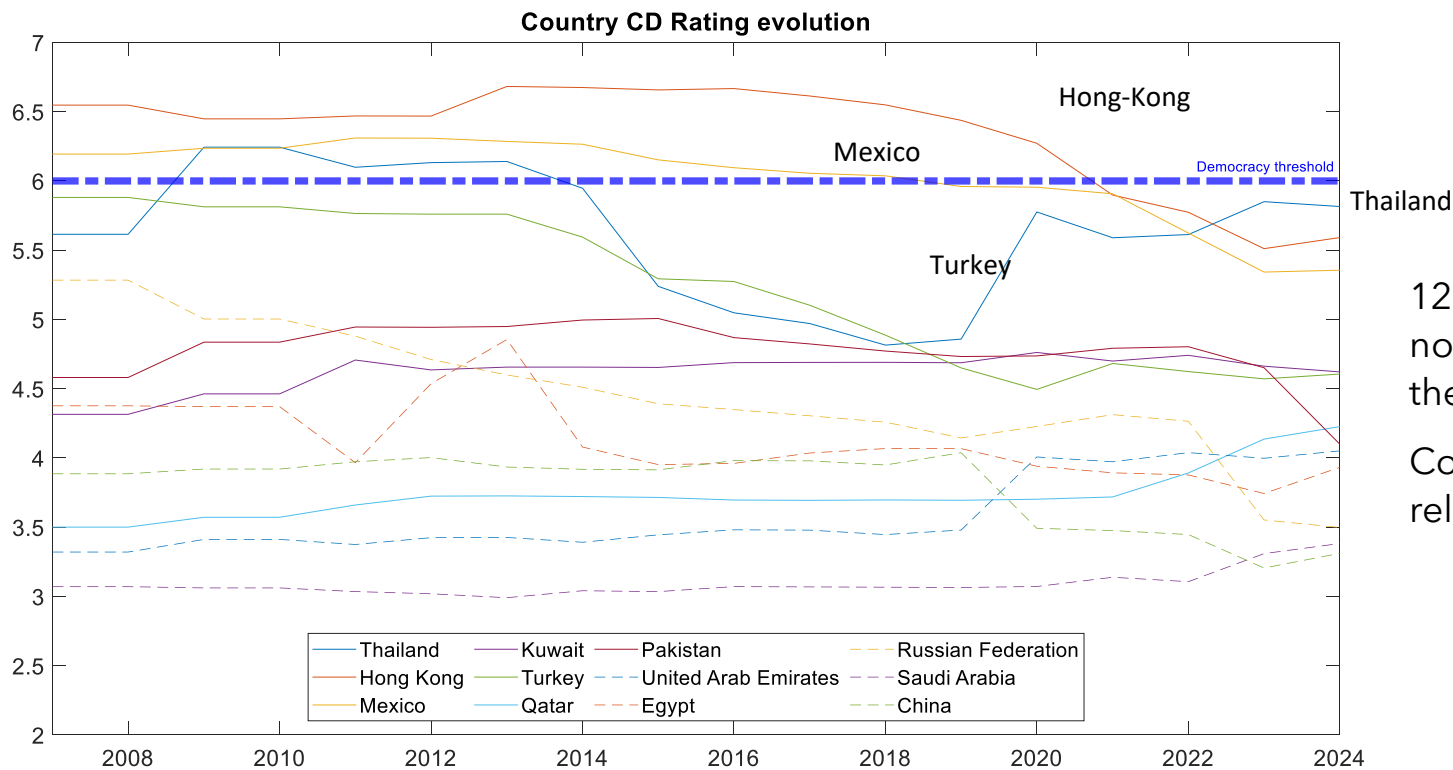


INVESTMENT PROCESS: LBRTY PORTFOLIO CONSTRUCTION

Step 2. Define Eligible countries:



The **CD Governance Committee** comprising external experts decides, based on granular information, whether countries are improving or not.



12 countries, classified as nondemocratic, are part of the benchmark as of Jun-24.

Country CD ratings are relatively stable over time.

Source: TOBAM.

INVESTMENT PROCESS: LBRTY PORTFOLIO CONSTRUCTION

Step 3. Additional exclusion lists (tobacco,...). The stocks of this Benchmark constitute the **Investment Universe**

Compute **Whitelisted Benchmark**: Mkt-Cap weighted portfolio of Investment Universe

Step 4. Wearing the “correlation glasses”: Estimate the **Authoritarian Exposure** of each stock of the investment universe, homogeneous to a (partial) volatility

- Capture each company's overall economic exposure to authoritarian countries de-biased for market and sectors effects.
- Define the **authoritarian exposure** (AE) of a company as the sum of its exposure to each authoritarian country.

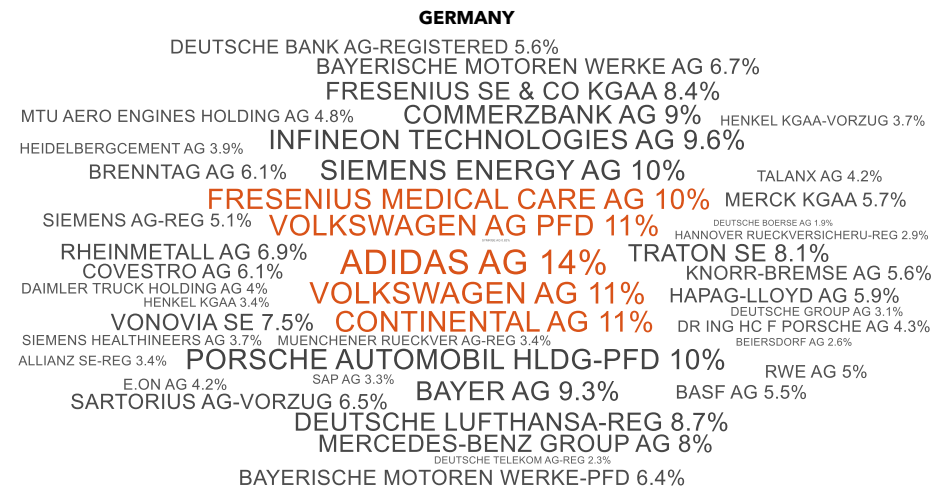
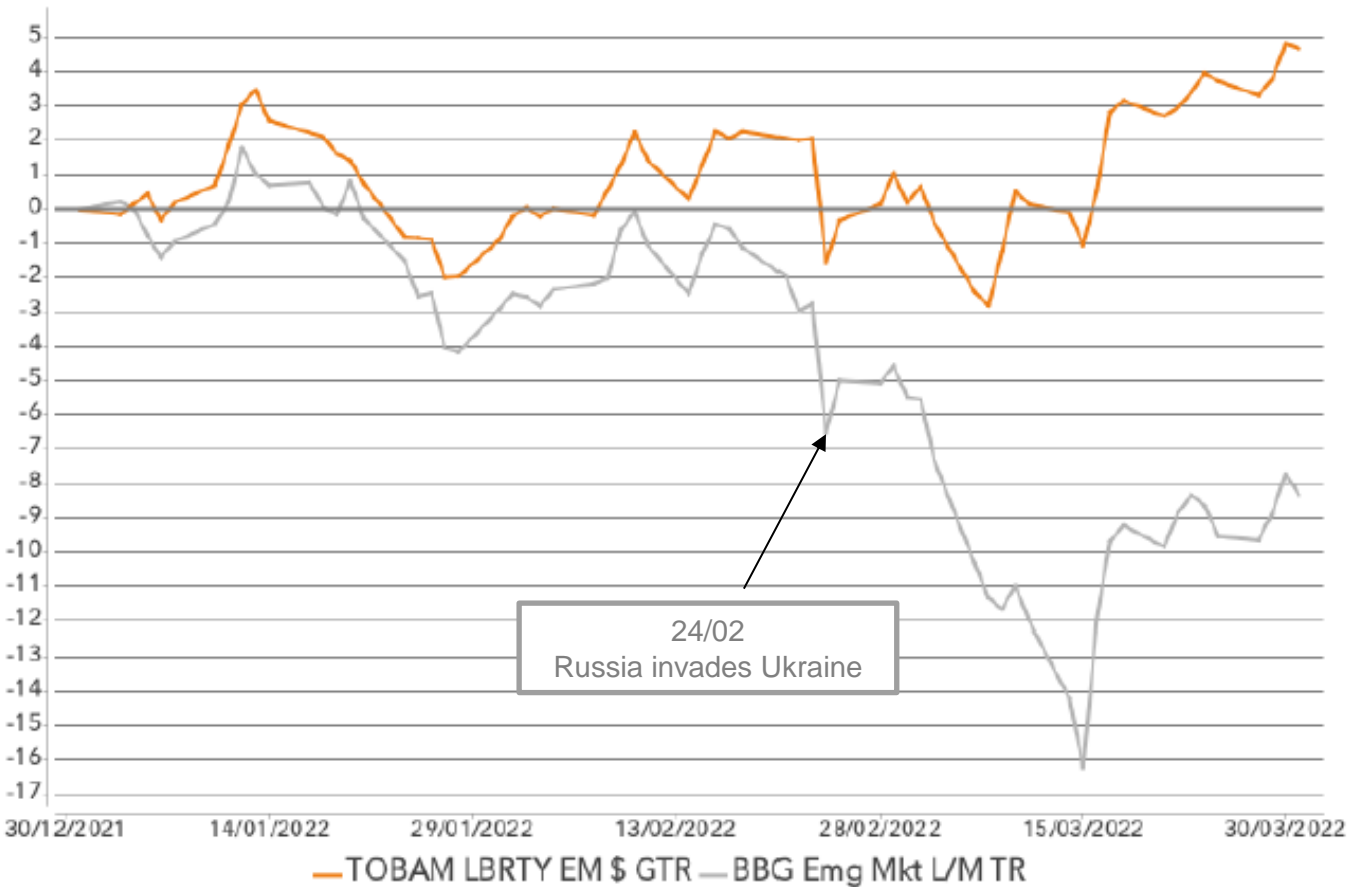


Illustration as of June 24

Step 5. Construct **LBRTY Portfolio** : Minimization of overall authoritarian exposure subject to a defined long term tracking error

THE AUTOCRACY RISK CAN BE EFFECTIVELY MITIGATED

TOBAM LBRTY EM PERFORMANCE IN Q1 2022: IMPACT OF THE RUSSIAN CRISIS



TOBAM LBRTY EM \$ GTR

Return: **4.70%**

Hist volatility: **15.37%**

BBG Emg Mkt L/M TR

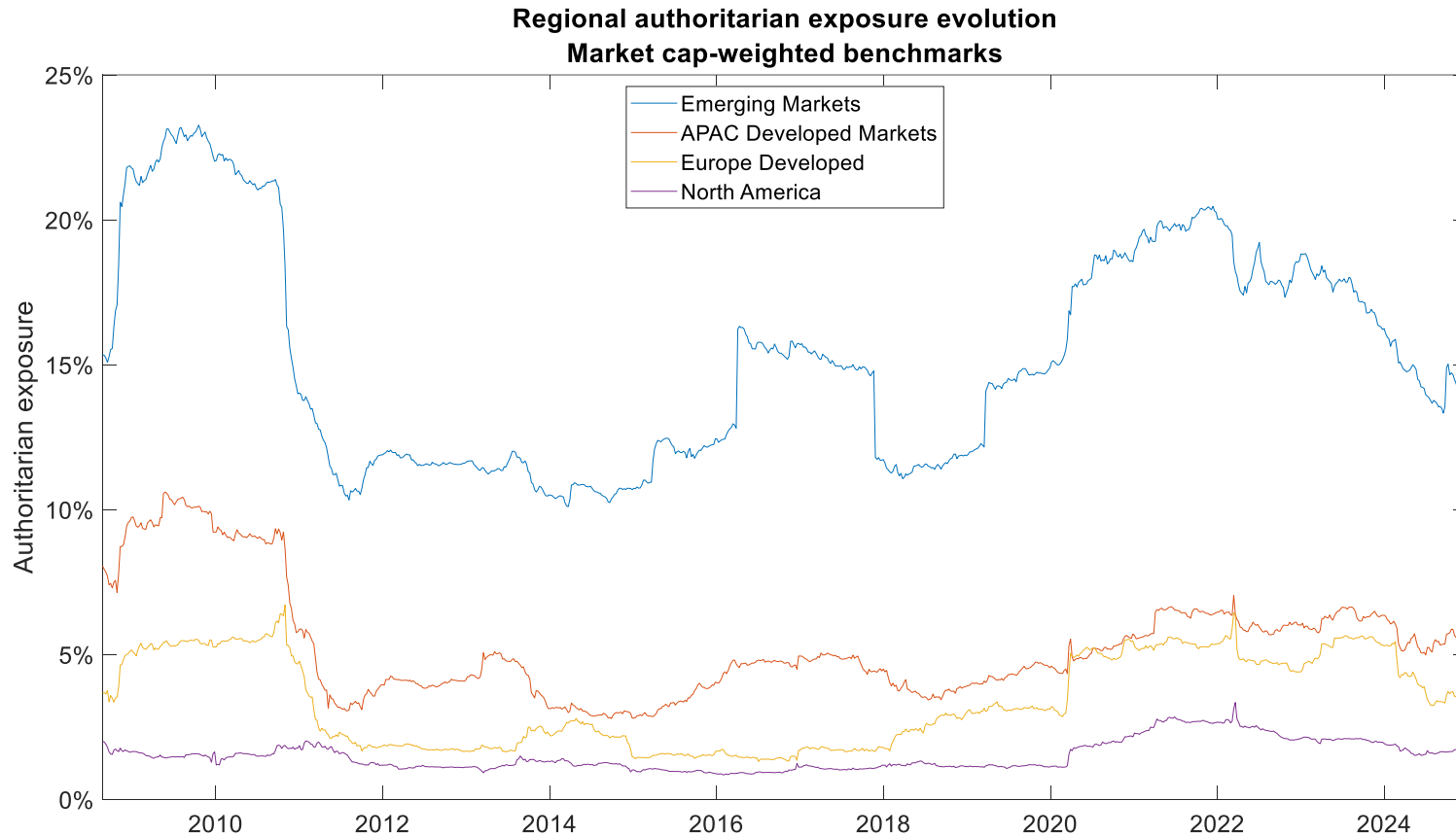
Return: **-8.32%**

Hist volatility: **21.92%**

Excess Return: **13.02%**

Source Bloomberg and TOBAM, from 31/12/2021 to 31/03/2022. Returns reflect back tested data from Aug 29, 2008, to Jul 03, 2023, plus live data for the TOBAM LBRTY Emerging Markets Equity Index from Jul 03, 2023, to date. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched prior to Jul 03, 2023. The back tests 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 is in USD.

AUTHORITARIAN EXPOSURE BY REGION

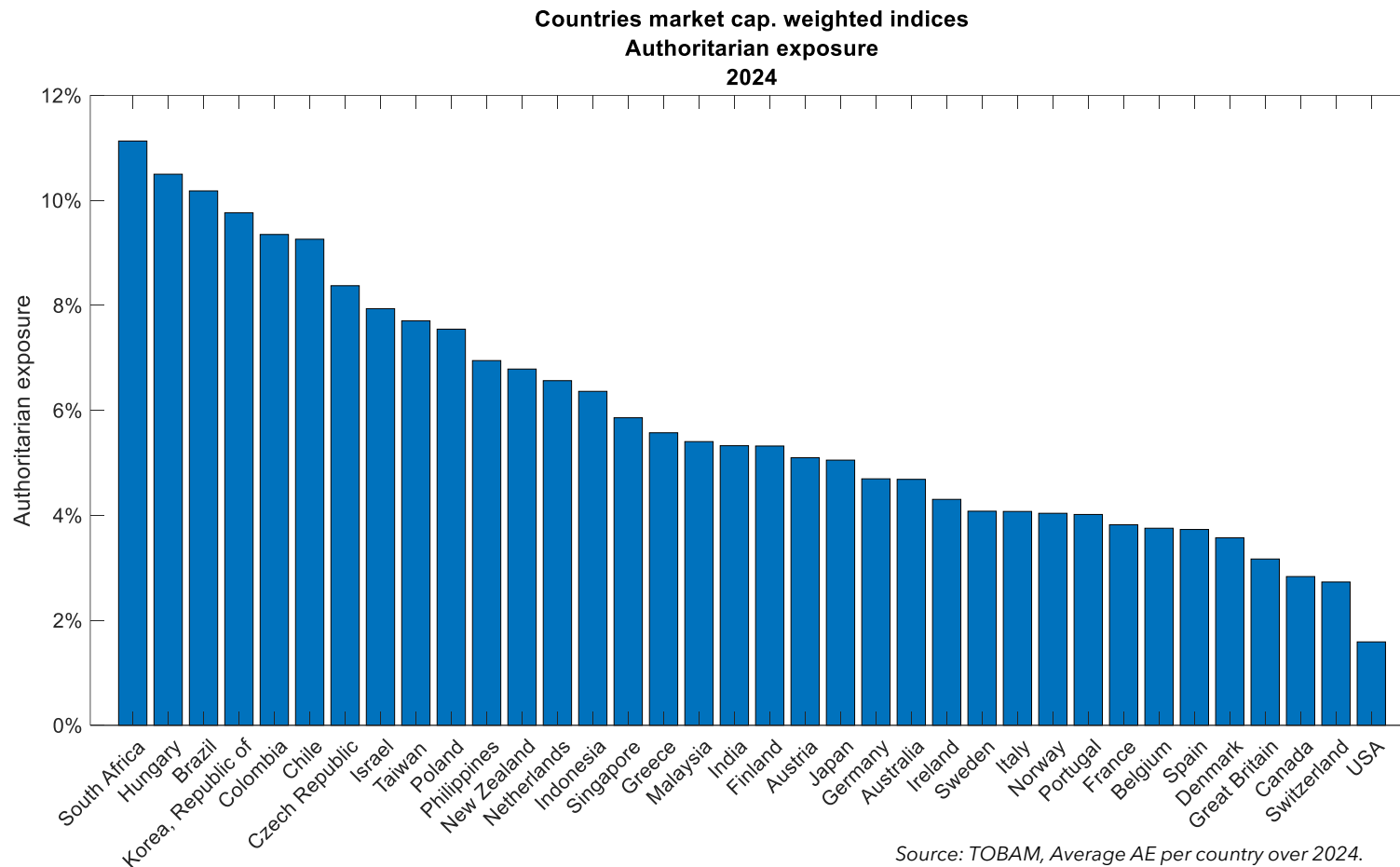


Source: TOBAM. August 2008 to December 2024

Emerging markets have recently been three to seven times more exposed to authoritarian countries compared to their North-American / European counterparts

ELIGIBLE **COUNTRY** AVERAGE AUTHORITARIAN EXPOSURE

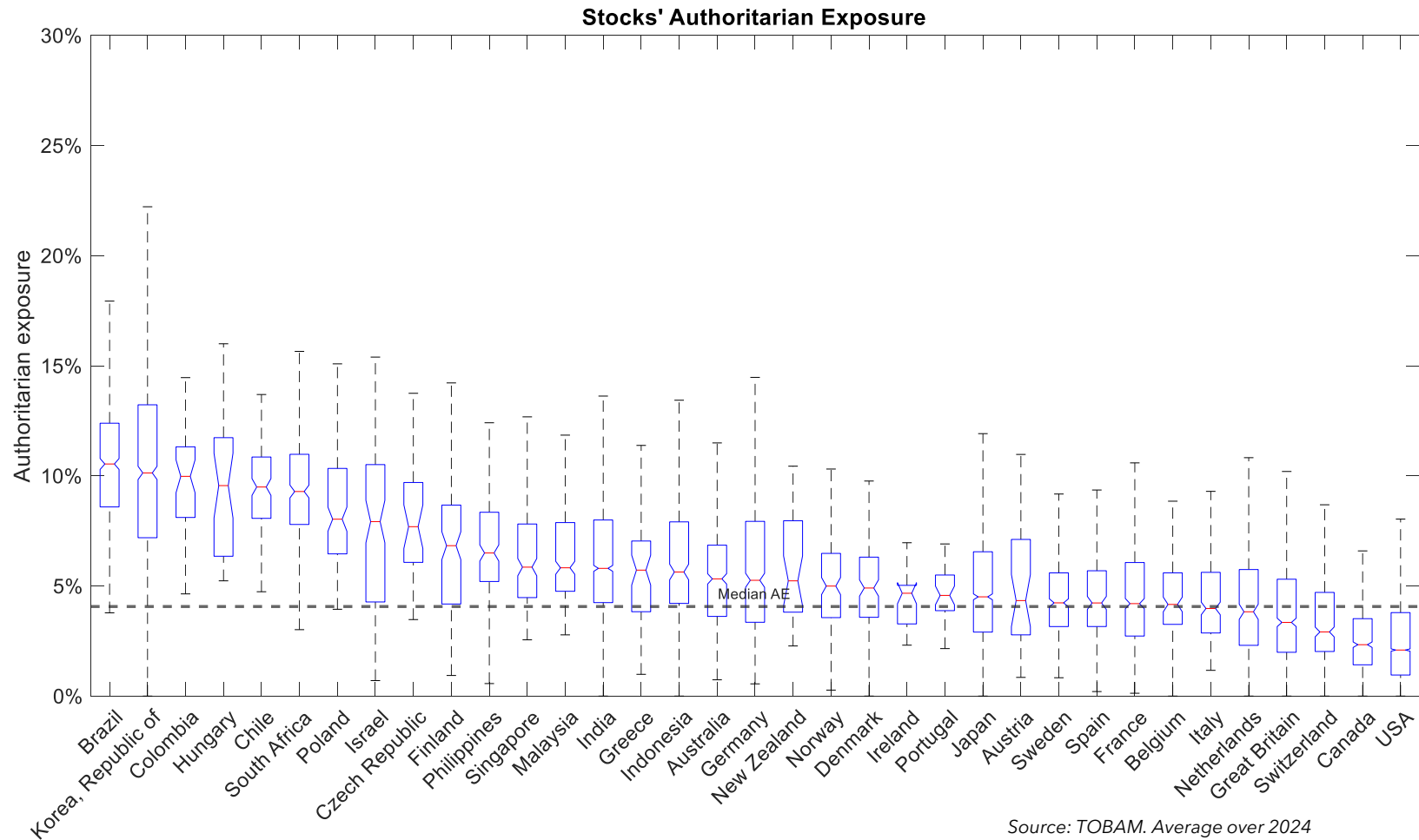
AVERAGE 2024



At the country level, democratic benchmarks exhibit a large spectrum of exposures to authoritarian countries, with the Hungarian and Brazilian benchmarks for example being 3 to 5 times more exposed to authoritarian countries compared to benchmarks of USA, Canada and Switzerland.

ELIGIBLE **COMPANIES'** AUTHORITARIAN EXPOSURES BY COUNTRY

Within a given country, companies exhibit a large spectrum of authoritarian exposures.



USA



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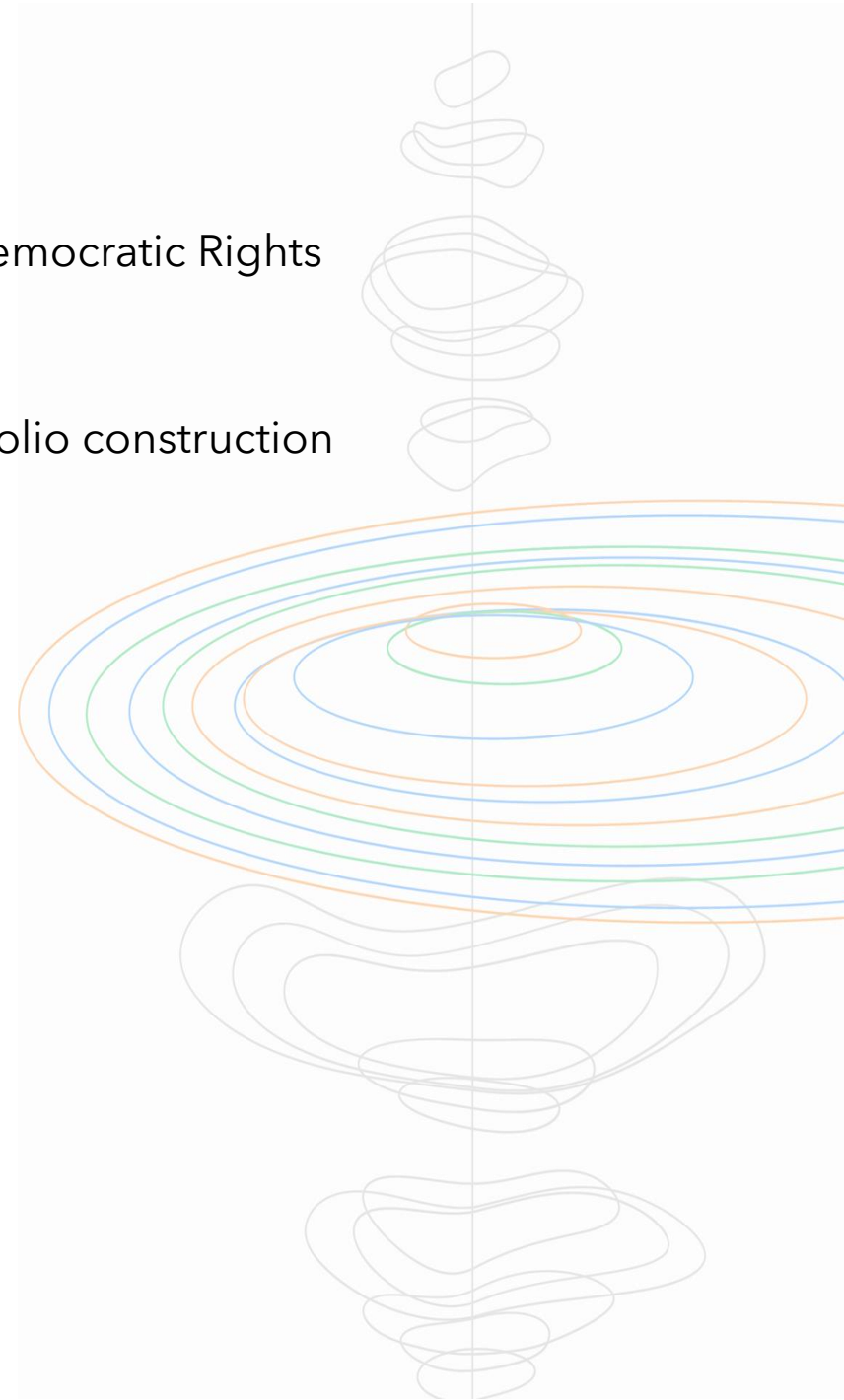
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • **Empirical results: World (Including EM)**

5 • Products

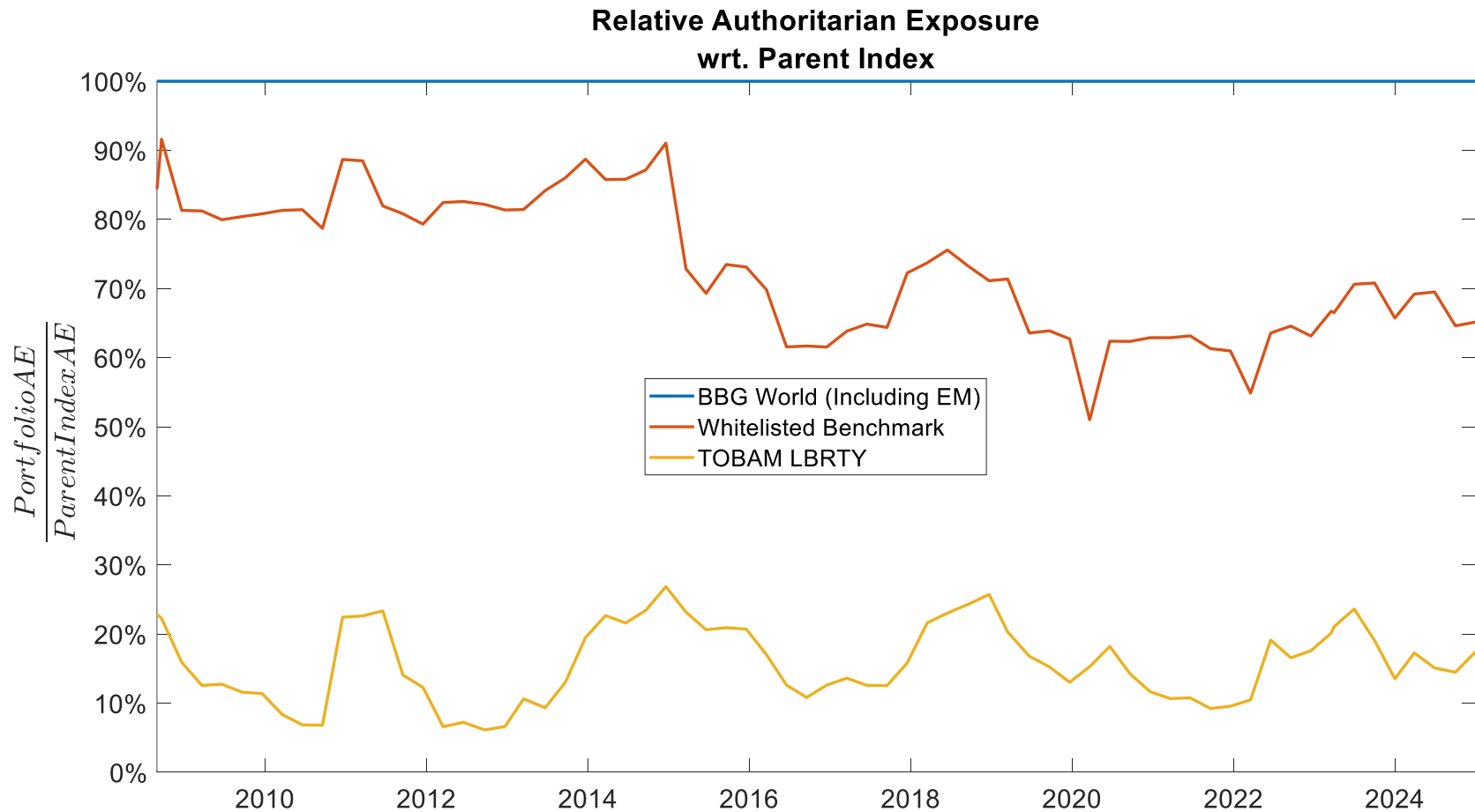
6 • Conclusion

7 • Appendix



PORTFOLIOS RELATIVE AUTHORITARIAN EXPOSURE

WORLD INCL. EM



Source: TOBAM. August 2008 to December 2024

Within a given country companies exhibit a large spectrum of authoritarian exposures allowing TOBAM LBRTY to exhibit an authoritarian exposure 70 to 90% lower compared to their parent index.

BACKTEST SUMMARY

WORLD INCLUDING EM

Statistics	BBG World (Including EM)	Whitelisted Benchmark	TOBAM LBRTY
Annualized Gross return	8.3%	9.4%	9.8%
Annualized Net return	8.3%	8.9%	9.3%
Vol	17.4%	17.7%	18.9%
Sharpe Ratio	0.41	0.44	0.43
Beta to Mkt	1.0	1.0	1.0
Average Number of stocks	2729	1677	258
Average Eff. Number of stocks	370.3	262.9	141.0
Authoritarian Exposure (2024)	4.0%	2.7%	0.6%
Relative Authoritarian Exposure (2024)	100%	68%	15%
TE(Parent index)	0.0%	2.0%	5.3%
TE(Whitelisted index)	2.0%	0.0%	4.6%

The period covered is from August 2008 to December 2024. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. Back tested 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 net performance, are computed assuming a hypothetical fee of 45bps. 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 reference index specific local currency.

5-YEAR ROLLING EXCESS RETURNS

WORLD INCLUDING EM



5 Years Statistics	BBG World (Including EM)	Whitelisted Benchmark	TOBAM LBRTY
Annualized Gross return	10.4%	12.3%	12.4%
Annualized Net return	10.4%	11.9%	12.0%
Vol	17.5%	18.6%	20.5%
Sharpe ratio	0.46	0.51	0.47
Beta to Mkt	1.0	1.0	1.1

The period covered in the table is from December 2019 to December 2024. The graph shrinks the 5-year window near the start of the period to include only existing elements. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. 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 reference index specific local currency

AQR AND FAMA-FRENCH FACTOR EXPOSURE

WORLD INCL. EM

- Traditional AQR and Fama French factors explain poorly TOBAM LBRTY's excess returns

AQR XR regression	Whitelisted Benchmark	TOBAM LBRTY
Market	1.8%***	3.7%***
SMB	0%	2.7%
HML	-7.3%***	-1.9%
UMD	-0.6%	-1.3%
QMJ	6.2%***	20.7%***
BAB	-1%	-3.6%**
Alpha	0.6%	0.2%
R²	20%	9%

Factors are on AQR Global universe. Size (SMB), Value (HML), Momentum (UMD), Quality (QMJ) and Betting against Beta (BAB).
*indicates that the estimated coefficient is different from zero with a probability of 90%, ** with a probability of 95% and *** with a probability of 99%.

Fama-French XR regression	Whitelisted Benchmark	TOBAM LBRTY
Market	0.2%	-1.1%
SMB	-7.4%***	-16.1%***
HML	-6.9%***	-2.5%
RMW	4.1%***	16%***
CMA	3.2%**	6.7%**
WML	-0.9%*	-1.6%
Alpha	0.6%	0.4%
R²	24%	14%

Factors are on Developed universe. Size (SMB), Value (HML), Quality (RMW&CMA), Momentum (WML)
*indicates that the estimated coefficient is different from zero with a probability of 90%, ** with a probability of 95% and *** with a probability of 99%.

TOBAM LBRTY TRACKING ERROR DECOMPOSITION

WORLD INCLUDING EM

Majority of the TE vs. parent index and 50% of the TE vs. Whitelisted Benchmark is due to the reduction of exposure to authoritarian countries

World (Including EM) Nov 2009 - Dec 2024	Tracking error attribution vs. <u>Parent Index</u>		Tracking error attribution vs. <u>Whitelisted Benchmark</u>	
<i>Risk factor</i>	TCR	PCR	TCR	PCR
Market	0.3%	6.5%	0.3%	6.2%
Authoritarian countries	0.4%	7.4%	0.0%	0.0%
Indirect exposure	3.1%	59.0%	2.3%	50.1%
Sector	0.5%	8.7%	0.6%	13.2%
Residuals	1.0%	18.4%	1.4%	30.4%
<i>Total</i>	5.3%	100.0%	4.6%	100.0%

TCR = Total contribution to tracking error

Source: TOBAM

PCR = Percentage contributions to tracking error

1 • Introduction to TOBAM and **Anti-Benchmark**

2 • Investment Philosophy - The case for **C**ivil and **D**emocratic Rights

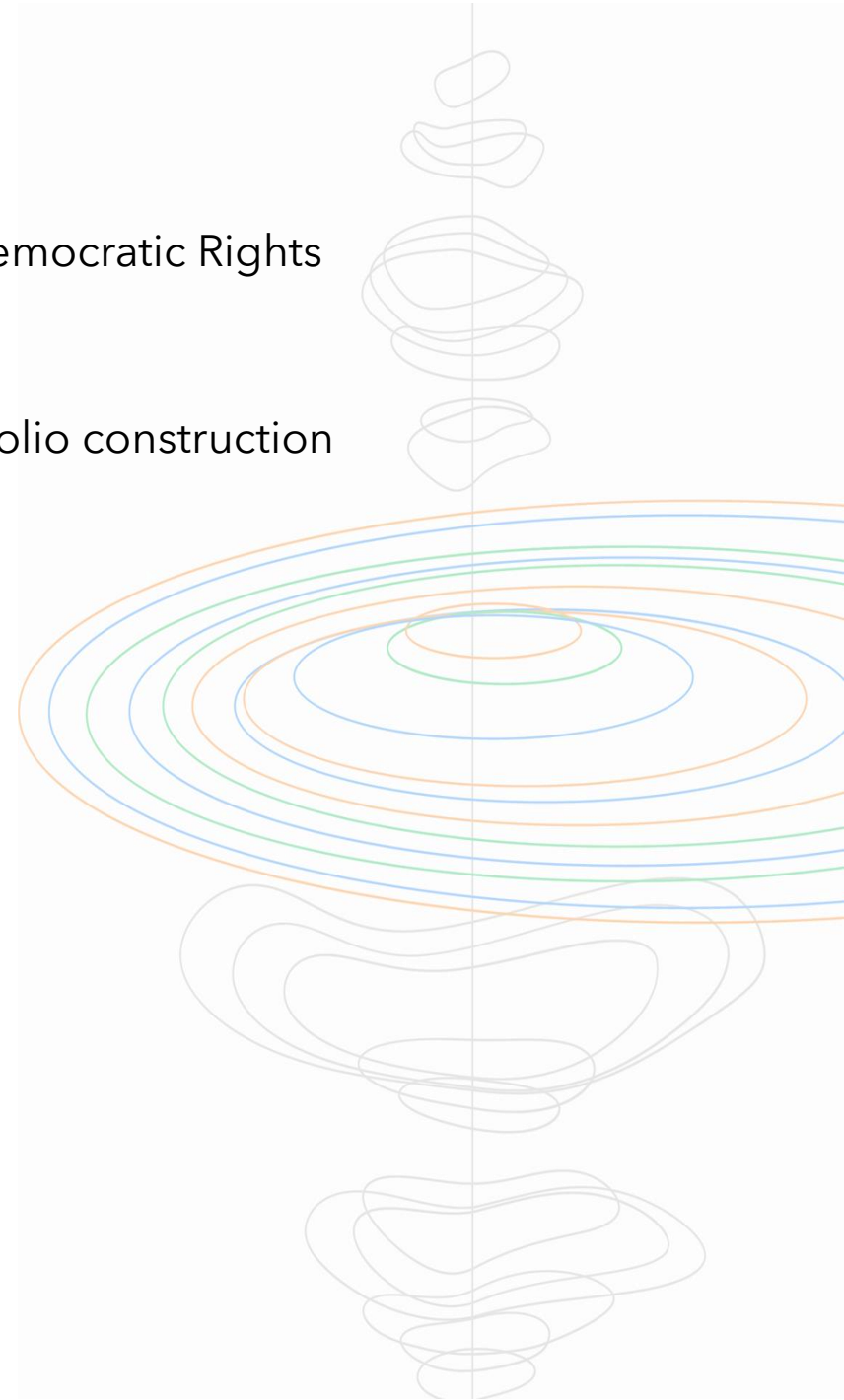
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • **Empirical results: EM**

5 • Products

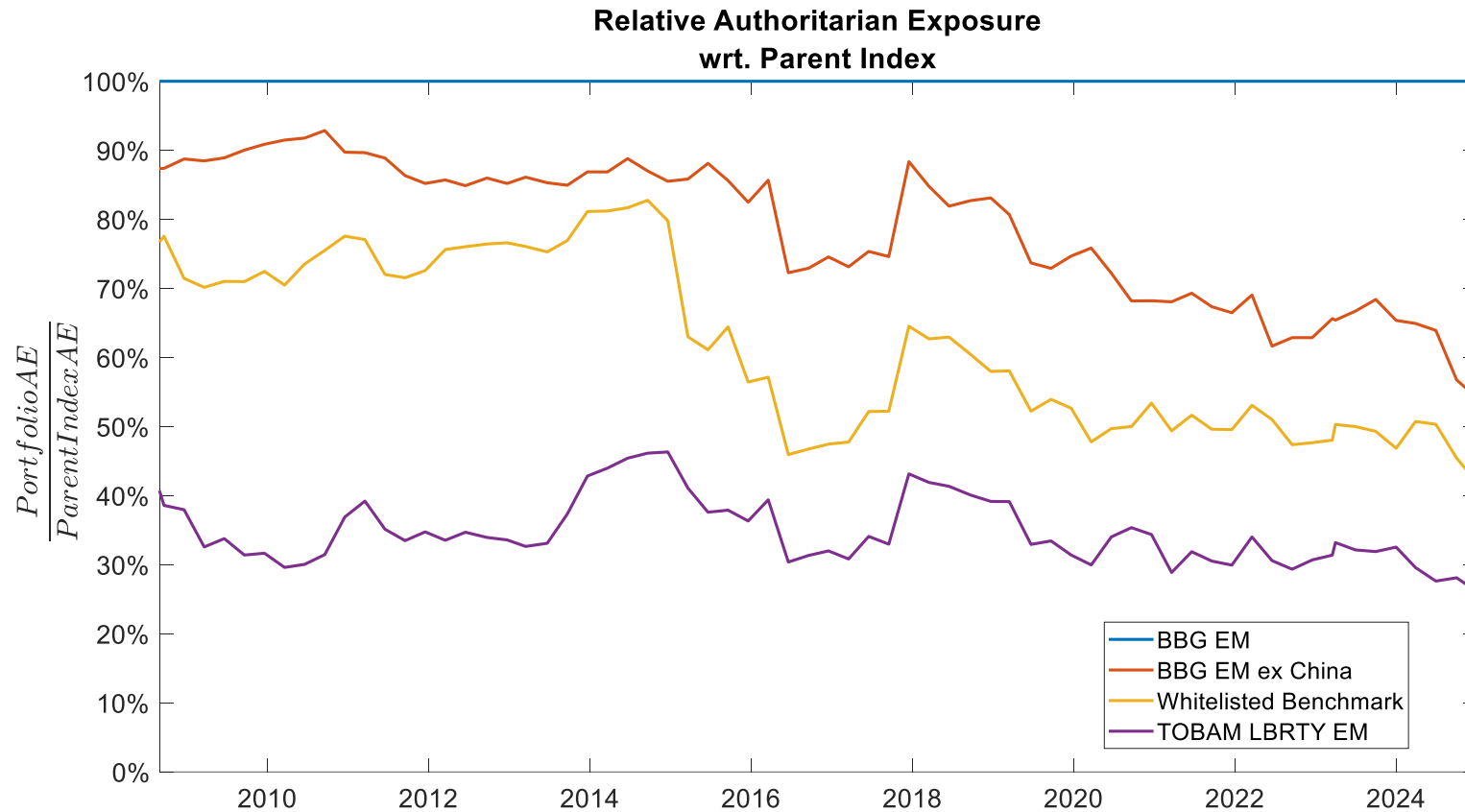
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PORTFOLIOS RELATIVE AUTHORITARIAN EXPOSURE

EM



Source: TOBAM. August 2008 to Dec 2024

Within a given country companies exhibit a large spectrum of authoritarian exposures allowing TOBAM LBRTY portfolio to exhibit an authoritarian exposure 50 to 70% lower compared to its parent index.

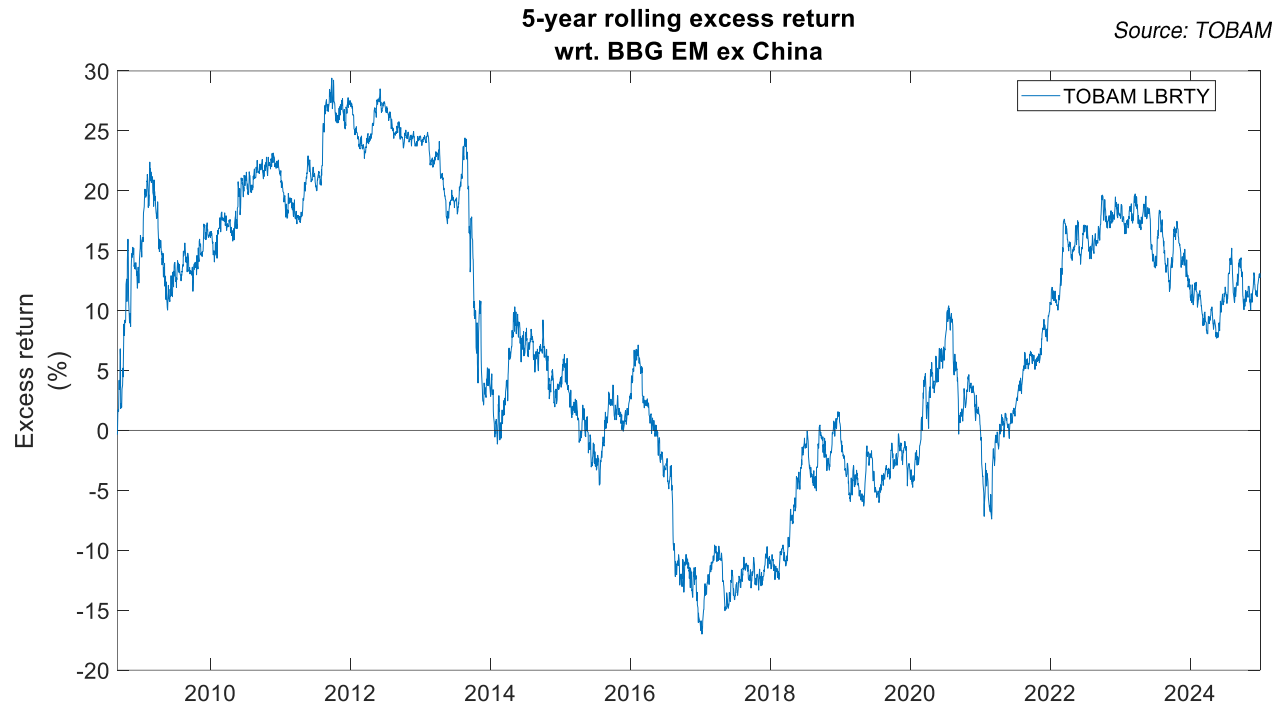
BACKTEST SUMMARY

EM

Statistics	BBG EM	BBG EM ex China	Whitelisted Benchmark	TOBAM LBRTY
Annualized Gross return	4.0%	4.4%	4.7%	6.6%
Annualized Net return	4.0%	4.4%	4.3%	6.1%
Vol	19.6%	19.6%	18.9%	18.0%
Sharpe Ratio	0.15	0.16	0.16	0.27
Beta to Mkt	1.0	1.0	0.9	0.9
Average Number of stocks	1110	826	449	132
Average Eff. Number of stocks	155.6	130.6	110.7	60.7
Authoritarian Exposure (2024)	15.1%	9.8%	7.4%	4.5%
Relative Authoritarian Exposure (2024)	100%	65%	49%	30%
TE(Parent index)	0.0%	5.5%	6.8%	8.8%
TE(Whitelisted index)	6.8%	4.4%	0.0%	6.2%
TE(BBG EM ex China index)	5.5%	0.0%	4.4%	7.0%

The period covered is from August 2008 to December 2024. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. Back tested 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 net performance, are computed assuming a hypothetical fee of 45bps . 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 reference index specific local currency.

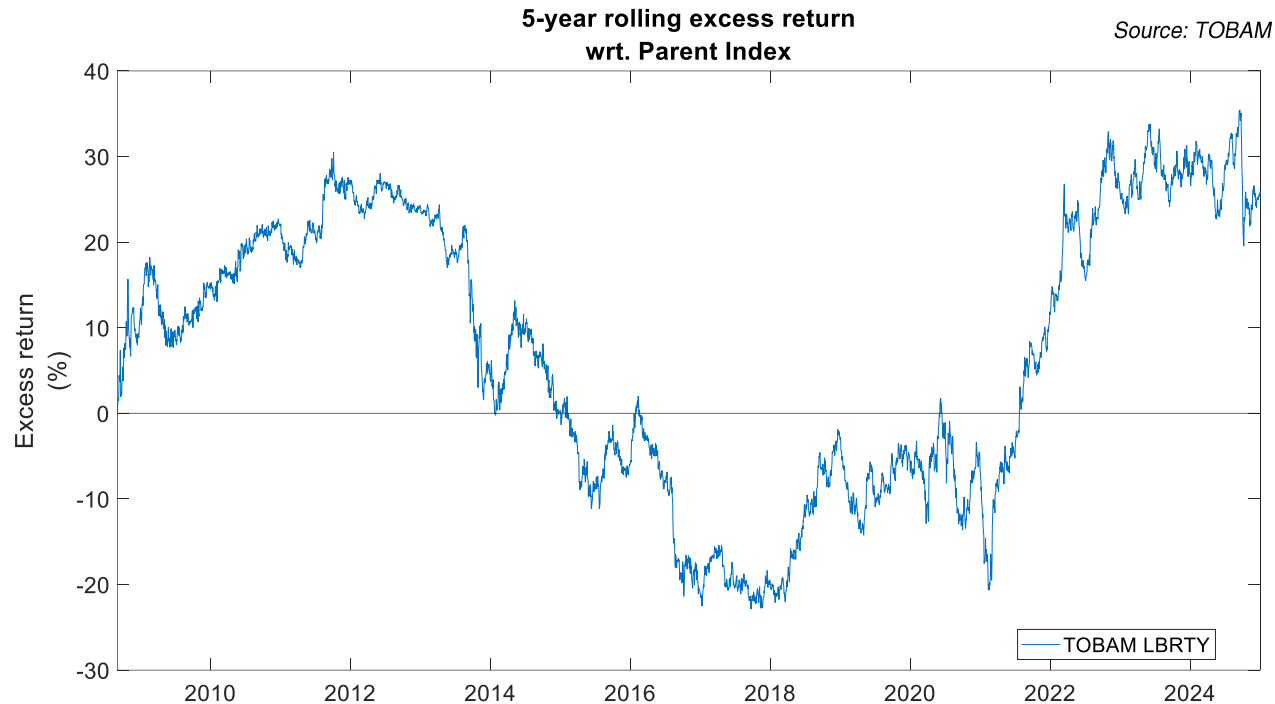
5-YEAR ROLLING EXCESS RETURNS VS BBG EM EX CHINA - EM



5 Years Statistics	BBG EM	BBG EM ex China	Whitelisted Benchmark	TOBAM LBRTY
Annualized Gross return	2.7%	5.4%	4.8%	8.1%
Annualized Net return	2.7%	5.4%	4.3%	7.7%
Vol	16.9%	16.9%	17.3%	16.0%
Sharpe ratio	0.02	0.17	0.11	0.33
Beta to Mkt	1.0	0.9	0.9	0.8

The period covered in the table is from December 2019 to December 2024. The graph shrinks the 5-year window near the start of the period to include only existing elements. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. 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 reference index specific local currency

5-YEAR ROLLING EXCESS RETURNS VS PARENT INDEX -EM



5 Years Statistics	BBG EM	BBG EM ex China	Whitelisted Benchmark	TOBAM LBRTY
Annualized Gross return	2.7%	5.4%	4.8%	8.1%
Annualized Net return	2.7%	5.4%	4.3%	7.7%
Vol	16.9%	16.9%	17.3%	16.0%
Sharpe ratio	0.02	0.17	0.11	0.33
Beta to Mkt	1.0	0.9	0.9	0.8

The period covered in the table is from December 2019 to December 2024. The graph shrinks the 5-year window near the start of the period to include only existing elements. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. 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 reference index specific local currency

AQR AND FAMA-FRENCH FACTOR EXPOSURE

EM

- Traditional AQR and Fama French factors explain poorly TOBAM LBRTY's excess returns

AQR XR regression	Whitelisted Benchmark	TOBAM LBRTY
Market	-2%	-9.7%***
SMB	5.6%	10.3%**
HML	17.5%***	17.2%***
UMD	-1.2%	-2.6%
QMJ	16.2%***	19.4%***
BAB	5.8%*	4.6%
Alpha	-1.3%	0.6%
R²	9%	19%

Factors are on AQR Pacific universe. Size (SMB), Value (HML), Momentum (UMD), Quality (QMJ) and Betting against Beta (BAB).
*indicates that the estimated coefficient is different from zero with a probability of 90%, ** with a probability of 95% and *** with a probability of 99%.

Fama-French XR regression	Whitelisted Benchmark	TOBAM LBRTY
Market	2.7%	-9.8%***
SMB	19.3%**	18.8%*
HML	32.2%***	22.4%**
RMW	28.4%**	17.1%
CMA	23.7%**	30.5%**
WML	7.7%	7%
Alpha	-3.5%**	-0.7%
R²	21%	30%

Factors are on Emerging market universe. Size (SMB), Value (HML), Quality (RMW&CMA), Momentum (WML)
*indicates that the estimated coefficient is different from zero with a probability of 90%, ** with a probability of 95% and *** with a probability of 99%.

TOBAM LBRTY TRACKING ERROR DECOMPOSITION EM

The majority of the TE vs. parent index and about 22% of the TE vs. Whitelisted Benchmark is due to the reduction of exposure to authoritarian countries

Emerging markets Nov 2009 - Dec 2024	Tracking error attribution vs. <u>Parent Index</u>		Tracking error attribution vs. <u>Whitelisted Benchmark</u>	
<i>Risk factor</i>	TCR	PCR	TCR	PCR
Market	1.6%	18.0%	0.6%	10.5%
Authoritarian countries	1.3%	14.6%	0.0%	0.0%
Indirect exposure	3.4%	38.5%	1.3%	21.0%
Sector	0.8%	8.7%	1.1%	17.1%
Residuals	1.8%	20.3%	3.2%	51.4%
<i>Total</i>	8.8%	100.0%	6.2%	100.0%

TCR = Total contribution to tracking error

Source: TOBAM

PCR = Percentage contributions to tracking error

1 • Introduction to TOBAM and **Anti-Benchmark**

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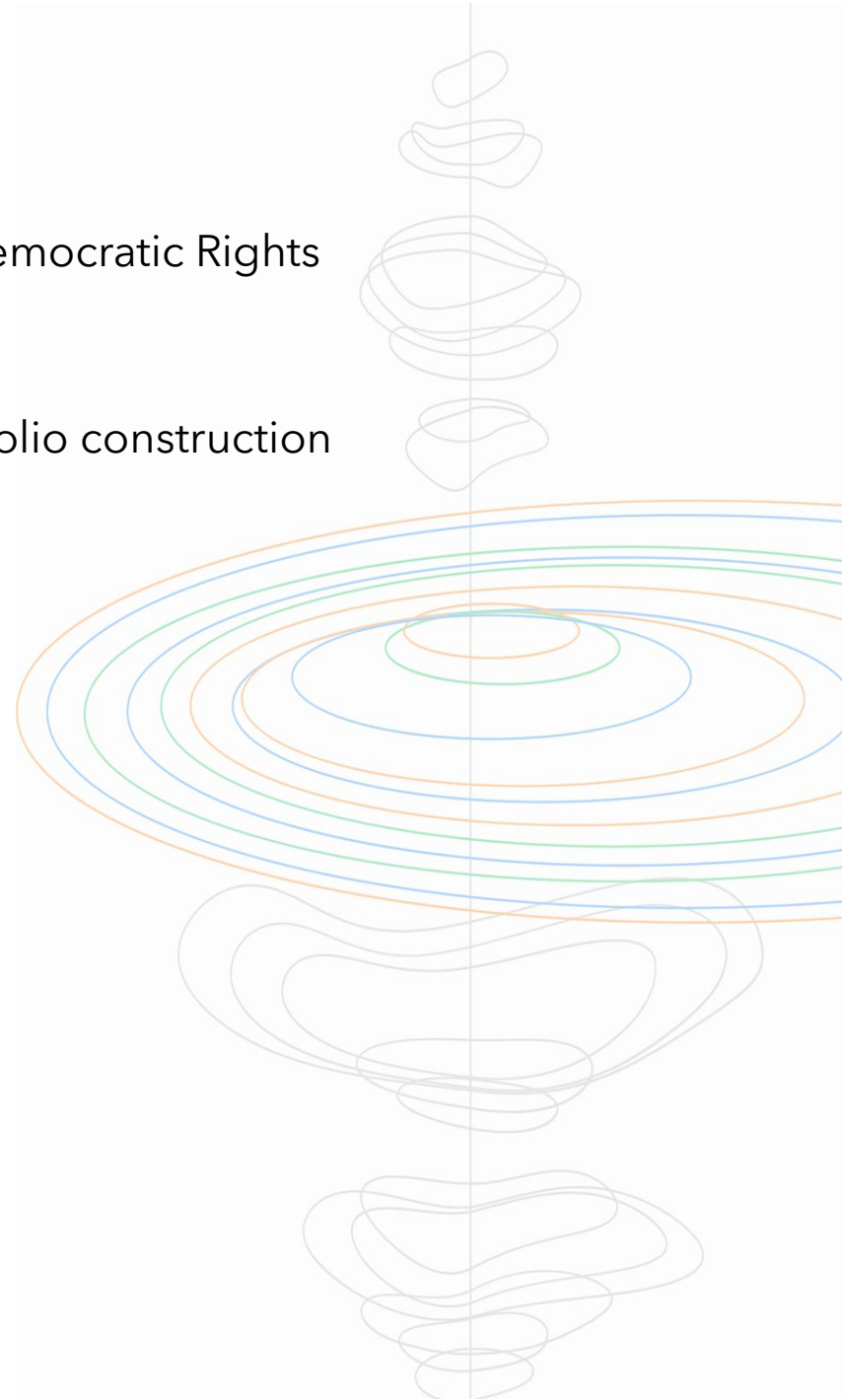
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • **Empirical results: USA**

5 • Products

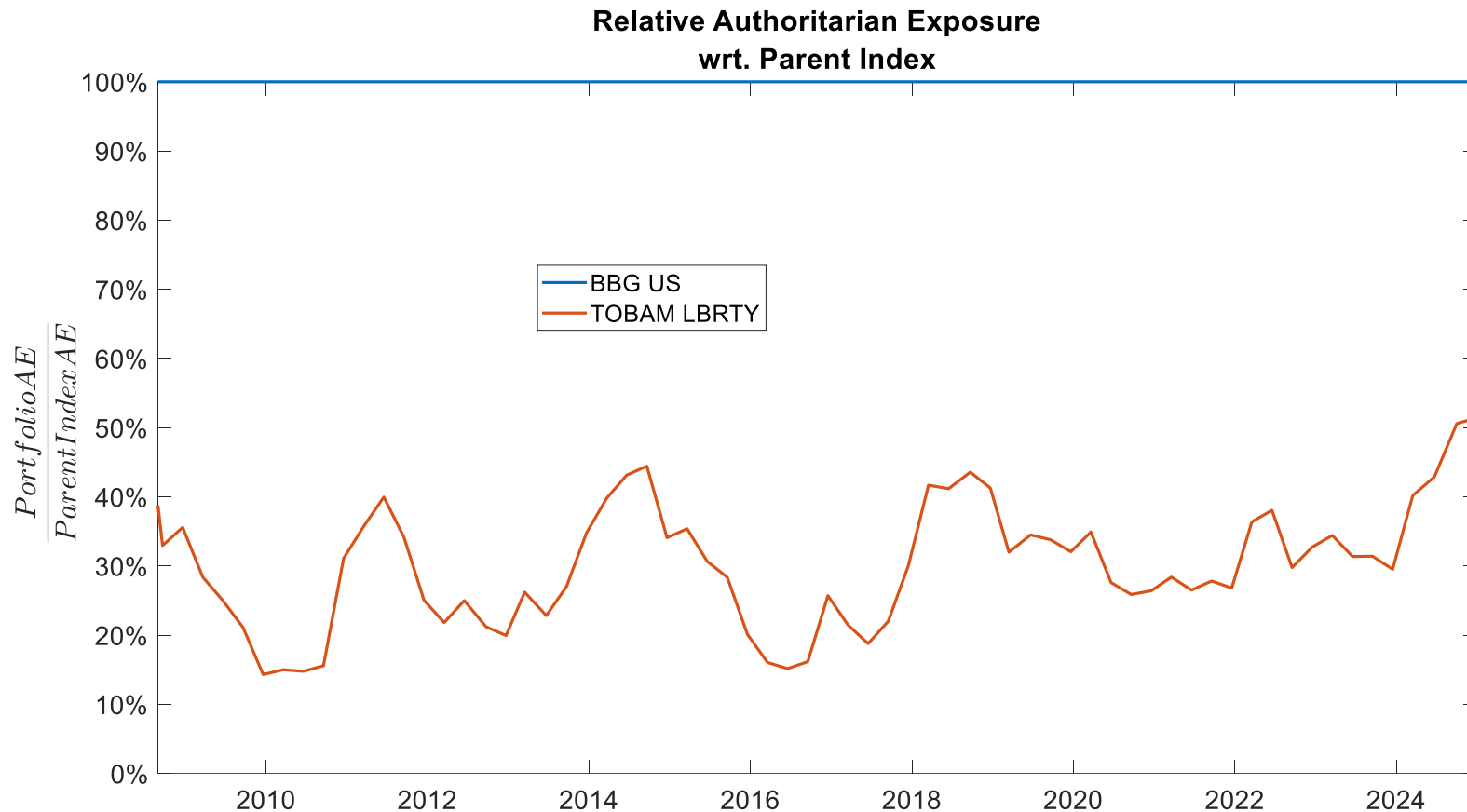
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PORTFOLIOS RELATIVE AUTHORITARIAN EXPOSURE

USA



Source: TOBAM. August 2008 to Dec 2024

Within a given country companies exhibit a large spectrum of authoritarian exposures allowing TOBAM LBRTY portfolio to exhibit an authoritarian exposure 50 to 80% lower compared to its parent index.

LBRTY® USA PORTFOLIO PERFORMANCE

LBRTY® USA strategy vs BBG USA Aug 2008 to Dec 2024

	LBRTY US	Bloomberg US Large Cap TR
Gross Return (Aug '08 - Dec '24)	666.44 %	533.89 %
Annualized Gross Return	13.27 %	11.97 %
Volatility	19.42 %	20.44 %
Sharpe ratio	0.62	0.53
Tracking error	3.41 %	
Downside deviation	12.49 %	13.31 %
Sortino ratio	0.97	0.81
Information ratio	0.38	
Correlation to index	0.99	
Beta to index	0.94	



Source: TOBAM, Bloomberg LP, Aug 2008 to Dec 2024

The LBRTY® USA strategy:

- outperformed the BBG USA index by 1.3% annualized
- reduced volatility vs the index by app. 5%

The period covered is from August 2008 to December 2024. Source Bloomberg and TOBAM. Returns reflect back tested data from Aug 29, 2008, to date. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. The back tests 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 include reinvested dividends. Performance returns illustrating performance provided on this page are gross of management fees, sales charges and other commissions.

AQR FACTOR EXPOSURE

- All LBRTY strategies shared similar factor exposures profiles across universes

AQR Style analysis	TOBAM LBRTY ACWI	TOBAM LBRTY EM	TOBAM LBRTY USA
Market	3.7%***	-9.7%***	-1.6%***
SMB	2.7%	10.3%**	5.1%***
HML	-1.9%	17.2%***	-9.2%***
UMD	-1.3%	-2.6%	-1.2%**
QMJ	20.7%***	19.4%***	18.6%***
BAB	-3.6%**	4.6%	0.7%
Alpha	0.2%	0.6%	0.4%
R²	9%	19%	52%

Factors are on AQR World, Pacific and USA universe from left to right.

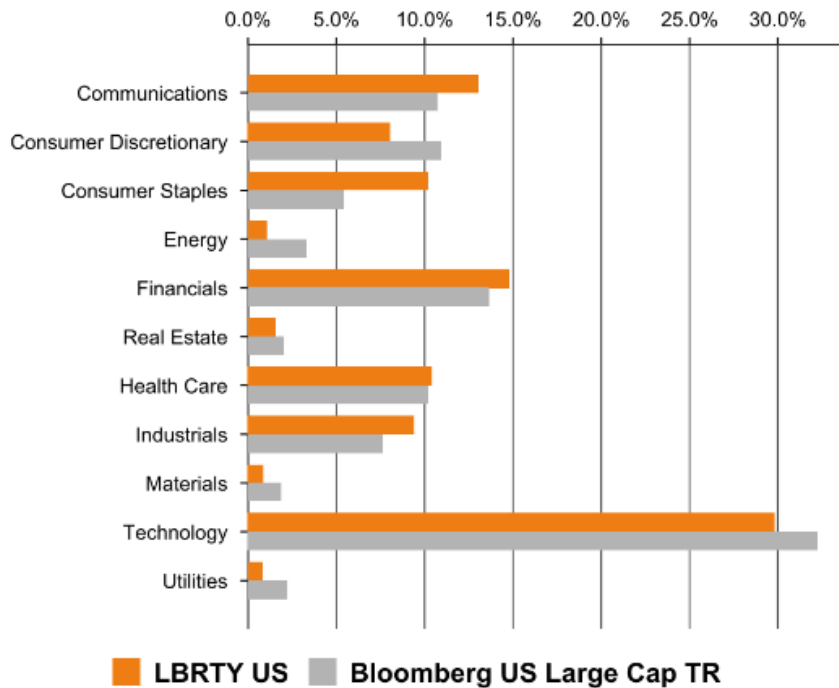
Size (SMB), Value (HML), Momentum (UMD), Quality (QMJ) and Betting against Beta (BAB). *indicates that the estimated coefficient is different from zero with a probability of 90%, ** with a probability of 95% and *** with a probability of 99%

The period covered is from August 2008 to October 2024. Source AQR; TOBAM. Returns reflect back tested data for the entire time provided. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched. 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 reference index specific local currency

LBRTY® USA PORTFOLIO SECTOR ALLOCATION

- Sector allocation does not explain well TOBAM LBRTY's tracking error
- Almost 50% of the Tracking error vs Parent Index is due to the reduction of exposure to authoritarian countries

- **Allocation by Sector - LBRTY® USA strategy vs parent index** December 2024



- **LBRTY® USA: TE attribution vs. index**

Emerging markets Nov 2009 - Aug 2024		Tracking error attribution vs. Parent Index	
Risk factor		TCR	PCR
Market		0.5%	14.1%
Indirect exposure		1.6%	46.2%
Sector		0.4%	12.4%
Residuals		0.9%	27.3%
<i>Total</i>		3.5%	100.0%

Source: TOBAM, Bloomberg LP

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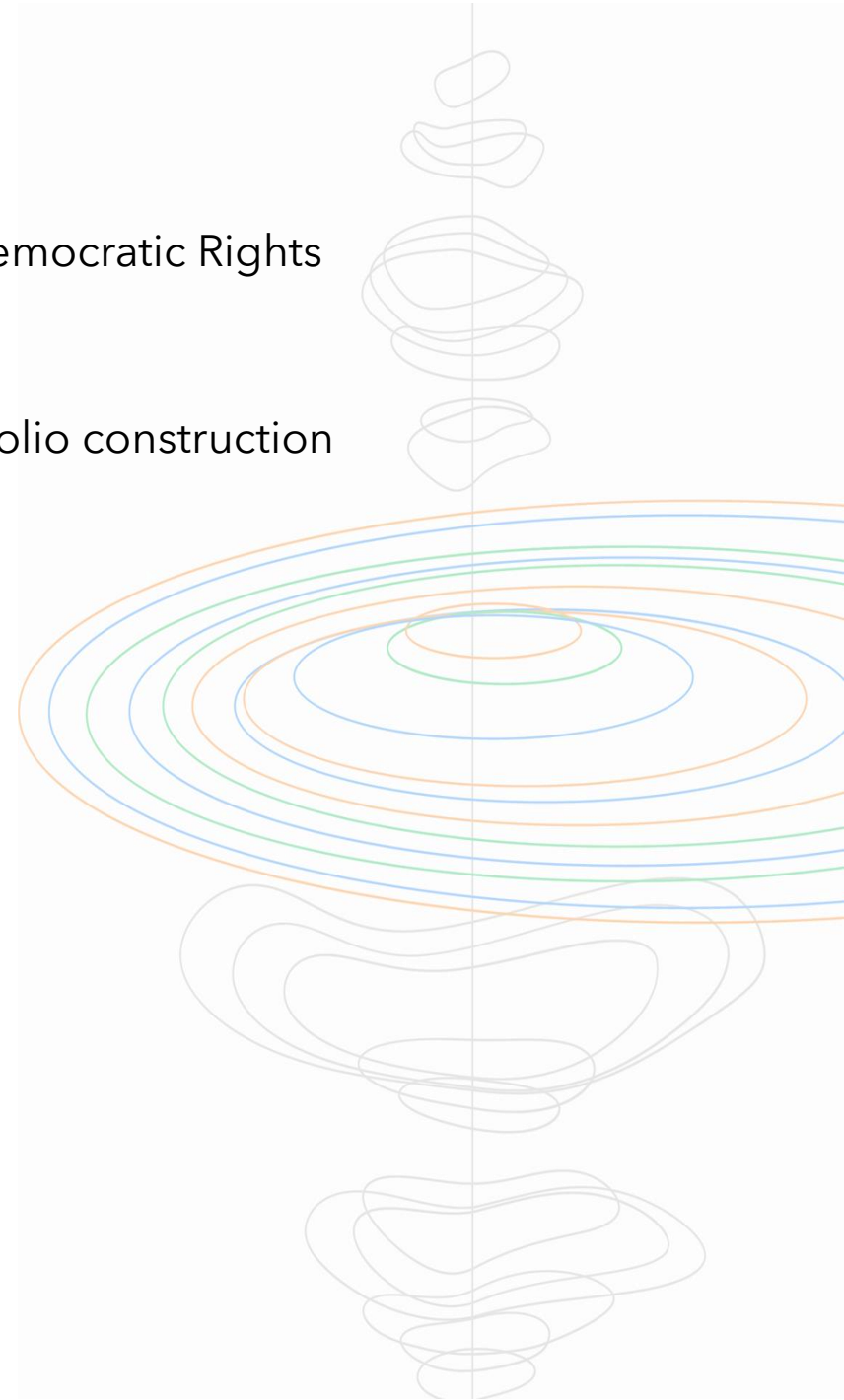
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • Empirical results

5 • **Products**

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PRODUCTS

On 03 July 2023, the TOBAM LBRTY **indices** were launched:

- All World (Bloomberg ticker: LBRTYT)
- All World ex USA (Bloomberg ticker: LBRTYXUT)
- Emerging Markets (Bloomberg ticker: LBRTMT)

On 31 July 2024, the TOBAM LBRTY US index was launched (Bloomberg ticker: LBRTYUST)

The tracking error constraint defined vs. whitelisted index is set at:

- 10% of the parent index volatility for the **index** TOBAM LBRTY US, All World and All World ex USA
- 20% of the parent index volatility for the **fund** TOBAM LBRTY All World and All World ex USA
- 30% of the parent index volatility for TOBAM LBRTY EM

The capacity* of the TOBAM LBRTY as of 28 February 2023 is at:

- 17.2%/17.3% for the TOBAM LBRTY All World index/fund respectively
- 16.1%/15.6% for the TOBAM LBRTY All World ex USA index/fund respectively
- 7.3% for the TOBAM LBRTY EM

*Following the 40-act SEC guidance, the capacity of a portfolio is defined as the maximum size such that a proportion 85% of it can be purchased - or sold- in less than 5 days, at a maximum 20% participation rate. The capacity is expressed as a percentage of the Parent index capacity

LBRTY EQUITY - PERFORMANCE SUMMARY

EM, ACWI, ACWI EX US, US

As of January 8th, 2025		Performance USD				Average TE vs. Benchmark
Tickers		1yr	Annualized			
			ITD	3yr		5yr
		Live Data				
LBRTMT	TOBAM LBRTY EM Equity	10.2%	11.4%	5.8%	10.0%	7% - 9%
	Benchmark	10.0%	6.7%	-2.1%	1.7%	
	Delta	0.2%	4.7%	7.9%	8.4%	
LBRTYT	TOBAM LBRTY ACWI Equity	23.7%	21.0%	10.1%	13.4%	3% - 4%
	Benchmark	19.0%	16.6%	6.3%	10.1%	
	Delta	4.7%	4.4%	3.8%	3.3%	
LBRTYXUT	TOBAM LBRTY ACWI ex-US Equity	7.1%	8.8%	3.4%	6.7%	3% - 5%
	Benchmark	7.4%	7.1%	1.2%	4.2%	
	Delta	-0.3%	1.7%	2.2%	2.5%	
LBRTYUST	TOBAM LBRTY US Equity*	25.8%	7.3%	11.9%	15.6%	2% - 3%
	Benchmark	25.4%	7.6%	9.4%	14.0%	
	Delta	0.4%	-0.3%	2.5%	1.6%	

The period covered is from January 2020 to January 2025. Returns reflect back tested data from Jan 08, 2020 to Jul 03, 2023, plus live data from Jul 03, 2023 to date (except for TOBAM LBRTY US Equity which shows back tested data from November 2019 to Jul 31, 2024, plus live data from Jul 31, 2024 to date). Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched prior to live date. The back tests 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 include reinvested dividends.

Benchmarks used are: MSCI EM TR Net USD, MSCI AC World TR Net USD, MSCI AC World TR Net ex-US, S&P 500 Net TR.

*ITD performance of TOBAM LBRTY US Equity is not annualized.

TOBAM LBRTY ALL WORLD EQUITY PERFORMANCE

Sources: TOBAM, Bloomberg. Indexes are unmanaged and do not incur management fees, costs and expenses. One cannot invest directly in an index.

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 include reinvested dividends. Returns reflect back tested data from Aug 29, 2008 to Jul 03, 2023, plus live data for the TOBAM LBRTY All World Equity Index from Jul 03, 2023 to date.

Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched prior to Jul 03, 2023. The back tests are gross of tax and exclude costs of transaction and fee assumptions.

Monthly Returns(%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
													Index	Bench
2024	1.27	3.71	3.85	-3.13	4.97	2.86	1.62	2.92	0.97	-1.37	4.77	-1.71	22.35	17.95
2023	6.43	-3.09	3.47	2.56	-0.11	5.42	3.99	-2.41	-4.73	-3.07	9.71	5.46	24.98	22.24
2022	-4.83	-2.49	2.12	-7.90	0.55	-7.95	7.57	-4.37	-8.82	7.75	8.02	-3.80	-15.16	-18.24
2021	-1.69	2.29	3.88	5.49	1.75	1.52	3.13	2.85	-4.37	6.06	-1.48	4.53	26.12	18.50
2020	-0.19	-8.41	-13.17	10.74	4.93	3.10	4.83	6.34	-4.06	-2.91	11.56	3.81	14.36	17.10
2019	8.10	3.49	1.71	3.53	-5.24	6.57	0.81	-2.09	2.41	2.12	3.32	3.34	31.14	27.10
2018	4.18	-4.11	-0.94	0.54	0.41	-0.07	3.23	1.87	0.08	-7.39	1.80	-8.18	-9.05	-8.76
2017	1.84	3.16	0.94	1.66	2.83	0.13	2.58	-0.51	1.63	1.85	2.70	1.22	21.90	24.54
2016	-5.47	-0.28	7.11	0.90	0.94	-1.33	4.11	-0.04	0.58	-1.95	1.79	2.77	8.93	8.54
2015	-2.07	6.06	-1.27	1.67	0.39	-2.12	2.20	-6.31	-2.96	8.11	-0.08	-2.53	0.24	-1.67
2014	-3.09	4.77	0.32	1.41	1.66	2.16	-1.68	2.77	-2.56	0.90	1.86	-1.38	7.05	4.89
2013	5.32	0.31	2.41	2.58	0.10	-2.21	5.21	-2.66	4.39	4.33	1.52	2.34	25.89	23.16
2012	4.92	4.10	0.79	-1.24	-8.32	4.09	1.03	3.07	2.74	-0.65	1.53	1.87	14.05	17.16
2011	2.22	3.49	-0.48	3.60	-1.92	-1.06	-2.71	-5.93	-8.18	9.98	-2.26	-0.09	-4.47	-7.21
2010	-4.16	2.93	6.49	0.74	-8.56	-3.47	8.19	-2.79	8.62	3.92	-1.70	6.92	16.55	13.30

Statistics

	TOBAM LBRTY All World Equity Index	BBG World Lrg/Mid Cap TR
Return (Aug '08 - Dec '24)	361.79 %	269.62 %
Annualized return	9.82 %	8.33 %
Volatility	18.37 %	17.30 %
Sharpe ratio	0.47	0.41
Tracking error	3.56 %	
Downside deviation	11.97 %	11.36 %
Sortino ratio	0.72	0.63
Information ratio	0.42	
Correlation to index	0.98	
Beta to index	1.04	

TOBAM LBRTY ALL WORLD EX USA EQUITY PERFORMANCE

Sources: TOBAM, Bloomberg. Indexes are unmanaged and do not incur management fees, costs and expenses. One cannot invest directly in an index.

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Performance details provided are in USD and include reinvested dividends. Returns reflect back tested data from Aug 29, 2008 to Jul 03, 2023, plus live data for the TOBAM LBRTY All World ex USA Equity Index from Jul 03, 2023 to date. Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched prior to Jul 03, 2023. The back tests are gross of tax and exclude costs of transaction and fee assumptions.

Performance returns and/or charts illustrating performance provided on this page are gross of management fees, sales charges and other commissions,

Monthly Returns(%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
													Index	Bench
2024	-0.40	0.63	4.15	-3.12	3.63	-0.04	3.76	3.30	0.75	-4.74	0.07	-2.82	4.81	6.41
2023	8.52	-2.02	2.13	3.17	-2.54	4.57	4.07	-4.60	-3.22	-4.71	10.29	6.54	22.86	15.22
2022	-4.47	-2.15	0.65	-6.72	0.85	-10.05	5.71	-5.16	-8.21	4.19	10.63	-0.59	-16.06	-15.97
2021	-1.55	2.11	2.84	4.18	3.93	-0.71	1.34	1.49	-3.70	3.34	-3.19	5.50	16.17	8.45
2020	-2.23	-8.62	-15.31	6.68	4.28	4.21	4.23	4.75	-2.66	-2.48	13.87	4.84	8.52	12.45
2019	6.80	3.01	0.81	3.05	-4.04	5.29	-1.48	-2.59	3.31	3.35	1.58	3.65	24.59	21.95
2018	4.15	-4.90	-0.93	2.00	-1.89	-1.13	2.61	-1.82	-0.04	-8.00	0.55	-5.06	-14.14	-13.20
2017	2.60	0.94	2.37	2.29	4.09	0.08	3.29	-0.67	1.89	0.88	1.41	2.29	23.58	27.51
2016	-6.50	-0.23	6.96	3.00	-0.57	-3.18	4.63	0.04	1.37	-1.74	-1.55	3.33	4.93	5.12
2015	-0.21	5.82	-1.68	3.81	-1.16	-2.14	1.10	-6.87	-3.60	7.28	-1.48	-2.30	-2.29	-4.71
2014	-3.78	5.10	-0.27	1.91	1.57	1.63	-1.33	0.74	-4.05	-1.54	1.38	-3.38	-2.42	-3.03
2013	4.24	-1.29	0.86	3.91	-1.68	-3.74	5.60	-1.61	6.54	3.85	0.23	2.25	20.26	15.54
2012	5.35	5.17	-0.91	-1.64	-11.04	5.61	0.71	3.63	3.66	0.44	2.16	3.31	16.35	18.11
2011	2.17	3.53	-1.39	4.53	-2.40	-0.97	-1.79	-6.89	-9.89	9.41	-4.82	-0.87	-10.36	-13.63
2010	-4.77	0.47	6.98	-0.97	-10.85	-1.94	10.29	-2.77	9.30	3.79	-5.06	7.98	10.48	12.05

Statistics

	TOBAM LBRTY All World BBG World Ex-US L/M TR ex USA Equity Index	
Return (Aug '08 - Dec '24)	138.49 %	104.62 %
Annualized return	5.46 %	4.48 %
Volatility	18.49 %	17.89 %
Sharpe ratio	0.23	0.18
Tracking error	4.31 %	
Downside deviation	11.84 %	11.57 %
Sortino ratio	0.36	0.29
Information ratio	0.23	
Correlation to index	0.97	
Beta to index	1.01	

TOBAM LBRTY EMERGING MARKETS EQUITY PERFORMANCE

Sources: TOBAM, Bloomberg. Indexes are unmanaged and do not incur management fees, costs and expenses. One cannot invest directly in an index.

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Monthly Returns(%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
													Index	Bench
2024	-1.35	0.82	2.55	-2.44	1.08	5.83	3.20	2.51	2.42	-4.52	-1.68	-1.71	6.40	8.21
2023	2.82	-2.68	2.66	2.12	2.27	3.20	5.58	-4.49	-2.39	-3.65	8.72	7.60	22.85	8.47
2022	-0.87	1.04	4.54	-7.20	0.70	-11.06	4.18	1.23	-6.81	0.52	9.11	-3.32	-9.32	-20.54
2021	-3.41	-1.46	4.15	3.11	4.72	-0.70	-0.20	4.40	-2.27	-1.61	0.07	2.58	9.31	0.21
2020	-3.04	-6.11	-20.99	12.34	4.52	6.97	9.76	0.96	-2.90	2.83	12.05	8.46	21.47	22.03
2019	4.16	-0.66	2.74	0.78	-3.57	3.61	-1.32	-3.31	4.28	3.73	-0.91	5.35	15.34	18.81
2018	4.93	-3.52	-1.26	1.24	-4.02	0.32	3.92	0.12	-1.59	-8.22	4.51	-0.15	-4.45	-12.01
2017	5.10	4.33	3.96	0.93	2.51	0.83	4.38	1.65	-2.05	2.59	0.55	5.03	33.90	35.95
2016	-4.27	-0.10	8.06	0.13	-0.99	0.85	4.44	-0.25	0.87	-0.54	-5.49	-0.75	1.30	11.61
2015	0.47	2.24	-3.07	3.80	-1.80	-2.16	-5.03	-3.86	-0.48	4.69	-4.29	-1.62	-11.06	-11.75
2014	-4.91	4.37	4.47	1.83	1.18	3.75	0.45	2.69	-7.34	-1.06	-0.68	-4.82	-0.93	-0.94
2013	0.81	-2.38	-0.70	-1.55	-4.86	-5.59	1.81	-1.35	4.19	5.03	-4.91	0.20	-9.50	-1.20
2012	9.48	4.69	-2.16	-1.01	-9.24	3.81	0.52	0.23	5.32	-1.07	0.91	5.53	16.94	20.36
2011	-5.88	0.68	4.29	4.20	-0.82	-1.66	-0.31	-3.26	-14.29	11.02	-5.15	-1.92	-14.26	-18.97
2010	-5.34	2.55	8.00	1.00	-7.52	0.52	9.21	-0.14	10.70	3.91	-2.59	7.22	28.95	19.91

Statistics

	TOBAM LBRTY Emerging Markets Equity Index	BBG Emg Mkt L/M TR
Return (Aug '08 - Dec '24)	201.31 %	91.29 %
Annualized return	6.98 %	4.05 %
Volatility	17.97 %	19.52 %
Sharpe ratio	0.32	0.15
Tracking error	8.78 %	
Downside deviation	11.55 %	12.46 %
Sortino ratio	0.50	0.23
Information ratio	0.33	
Correlation to index	0.89	
Beta to index	0.82	

TOBAM LBRTY USA EQUITY PERFORMANCE

Sources: TOBAM, Bloomberg. Indexes are unmanaged and do not incur management fees, costs and expenses. One cannot invest directly in an index.

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Back tested results are for information purposes only. They are intended to illustrate how the Strategy may have behaved had it been launched prior to Jul 31, 2024. The back tests are gross of tax and exclude costs of transaction and fee assumptions.

Monthly Returns(%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
													Index	Bench
2024	2.38	5.55	3.40	-4.49	4.49	4.27	0.64	2.82	1.50	-0.64	5.46	-2.57	24.66	25.20
2023	5.15	-2.85	5.12	2.08	1.05	6.12	3.92	-1.28	-4.94	-2.43	8.86	5.58	28.53	27.56
2022	-5.89	-4.15	2.84	-8.11	0.21	-6.82	8.86	-4.17	-8.25	9.06	6.94	-5.44	-15.98	-19.78
2021	-2.27	2.66	4.69	5.27	1.08	3.29	4.29	3.28	-5.87	7.24	-0.13	4.80	31.35	27.32
2020	-0.09	-8.50	-11.37	10.51	6.47	1.96	3.86	7.55	-2.64	-3.11	9.90	3.65	16.66	21.61
2019	7.78	4.49	1.68	3.42	-6.16	6.29	2.21	-1.26	1.74	2.14	4.31	2.63	32.61	31.76
2018	4.52	-3.15	-2.09	0.25	3.41	0.67	3.86	3.85	0.19	-6.51	2.12	-8.74	-2.61	-4.38
2017	1.56	4.54	-0.06	1.16	2.33	-0.01	1.62	0.53	2.75	2.01	3.56	0.92	22.91	22.10
2016	-3.23	-0.01	6.99	-0.50	1.95	0.35	3.57	-0.19	-0.15	-2.67	4.17	1.80	12.27	11.64
2015	-1.87	5.75	-1.19	-0.40	1.93	-1.94	1.60	-6.13	-1.27	7.82	0.39	-2.35	1.61	1.26
2014	-3.96	5.12	0.97	0.60	1.57	1.32	-1.48	4.49	-1.00	3.42	2.83	-0.21	14.14	13.60
2013	5.34	2.08	3.70	1.63	1.65	-1.21	5.09	-2.60	3.50	3.75	2.83	2.28	31.56	32.59
2012	5.24	4.19	2.91	-0.49	-4.84	3.24	0.82	2.26	1.92	-2.43	1.74	-0.23	14.80	16.22
2011	1.65	3.17	1.80	4.13	0.17	-1.35	-2.66	-4.64	-5.28	9.75	0.01	0.99	7.07	2.00
2010	-2.36	2.61	4.71	1.40	-6.76	-3.92	5.66	-3.85	9.57	3.57	0.38	4.91	15.71	14.95

Statistics

	LBRTY US	Bloomberg US Large Cap TR
Gross Return (Aug '08 - Dec '24)	666.44 %	533.89 %
Annualized Gross Return	13.27 %	11.97 %
Volatility	19.42 %	20.44 %
Sharpe ratio	0.62	0.53
Tracking error	3.41 %	
Downside deviation	12.49 %	13.31 %
Sortino ratio	0.97	0.81
Information ratio	0.38	
Correlation to index	0.99	
Beta to index	0.94	

1 • Introduction to TOBAM and **Anti-Benchmark**

2 • Investment Philosophy - The case for **C**ivil and **D**emocratic Rights

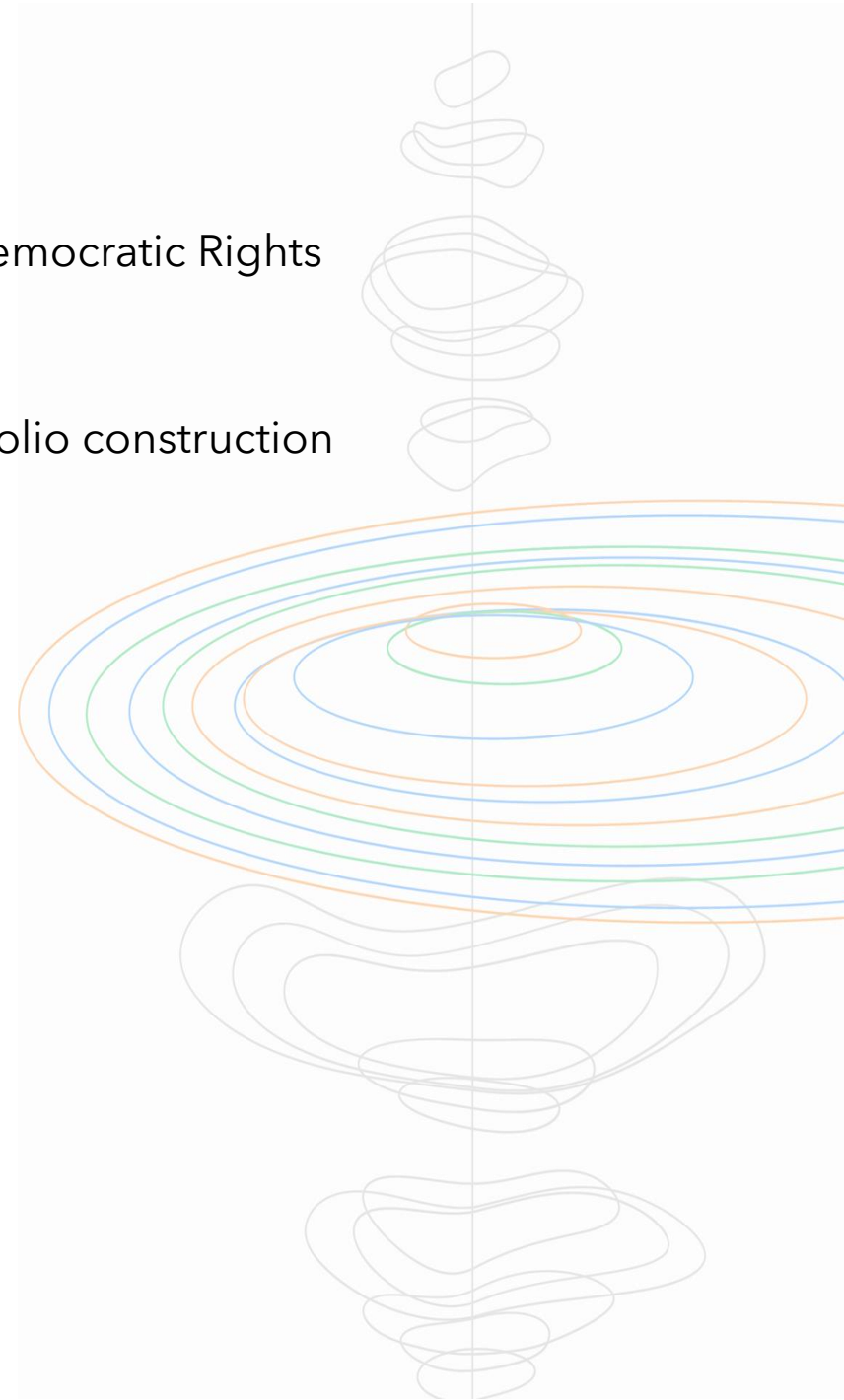
3 • Measuring Civil and Democratic Rights and portfolio construction

4 • Empirical results

5 • Products

6 • **Conclusion**

7 • Appendix



CONCLUSION

Since its beginning:

- TOBAM's ONLY focus is the long-term risk reward of its clients
- We believe that side by side with diversification, Democracy, Respect of Human Rights and Civil Rights are key to innovations and economic growth
- Human Rights have always been at the core of TOBAM's values.



Reducing both direct and indirect Authoritarian Exposure

- enhances long term expected returns
- reduces market risk induced by geopolitical instability

1 • Introduction to TOBAM and **Anti-Benchmark**

2 • Investment Philosophy - The case for **C**ivil and **D**emocratic Rights

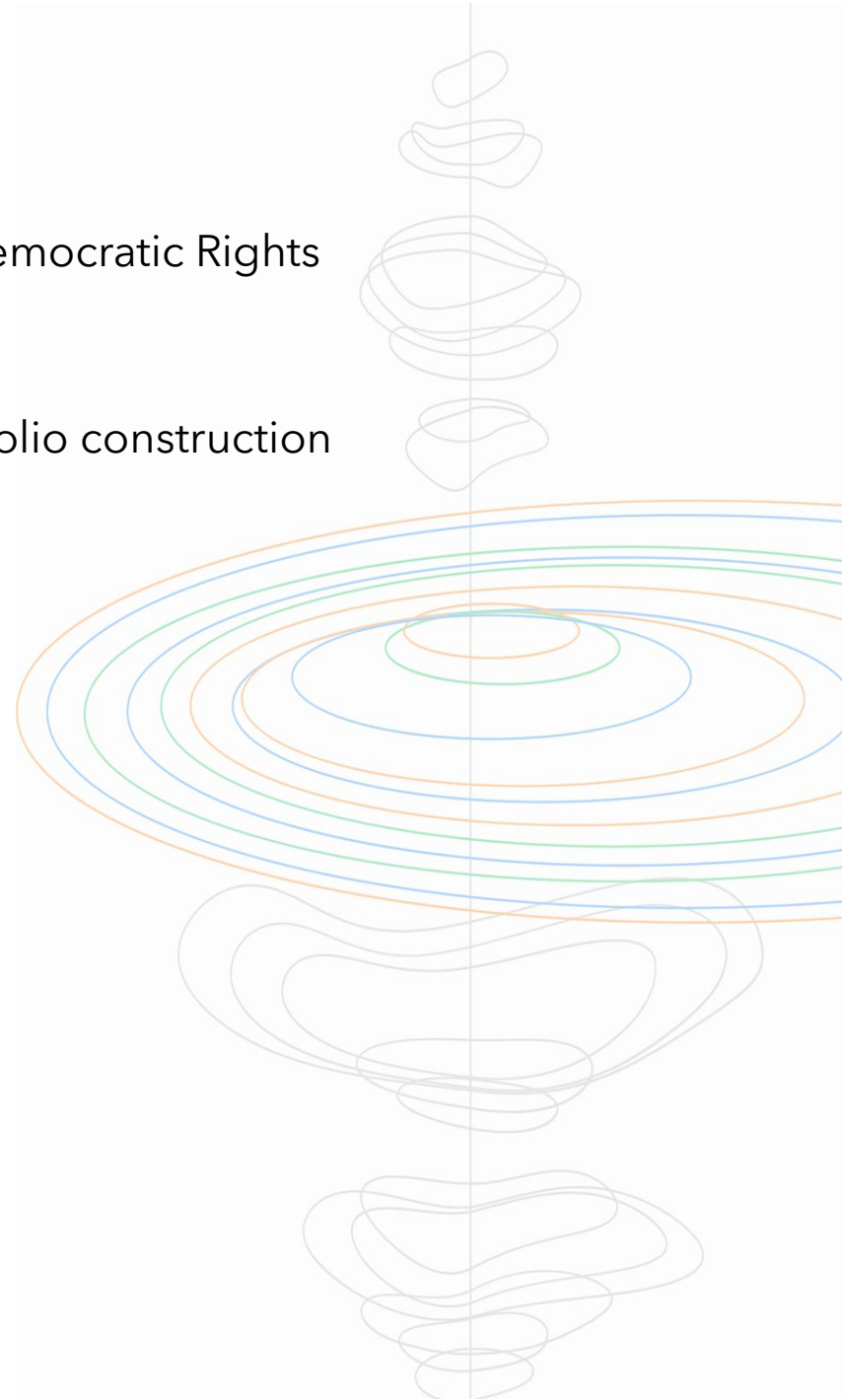
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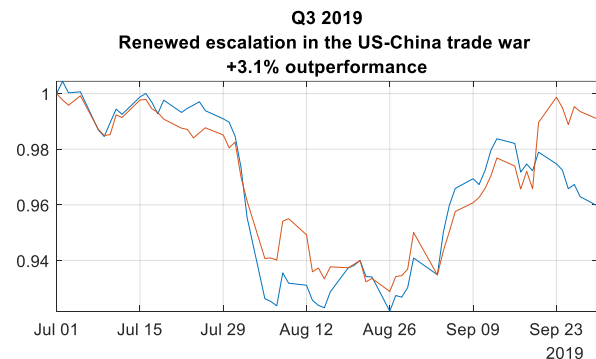
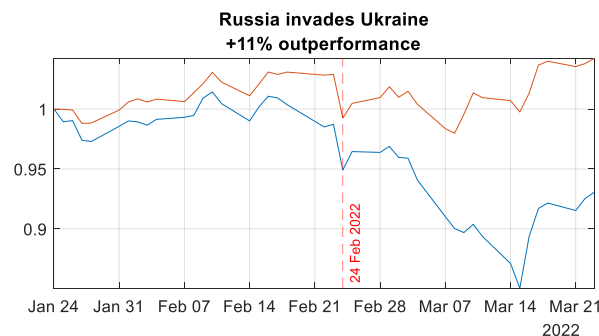
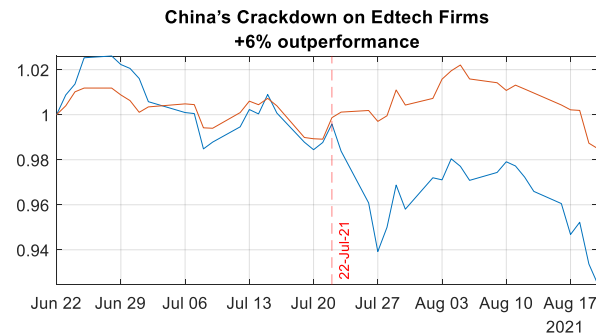
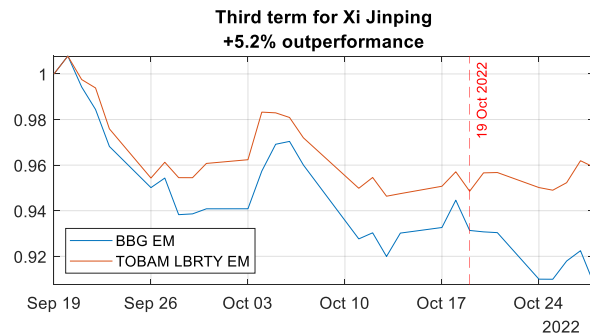
7 • **Appendix**



EM PERFORMANCE CASE STUDY: PORTFOLIO PERFORMANCE VS PARENT INDEX DURING GEOPOLITICAL EARTHQUAKES

- LBRTY is less exposed to autocratic regimes geopolitical crises .
- Relative performance of TOBAM LBRTY EM vs parent index around 4 material events involving the two biggest autocratic countries over the last few years:

Major events



Sources: TOBAM,
Bloomberg

Despite a beta ~ 1, LBRTY portfolio delivered a relative outperformance of ~ 6% around the event.

EM PERFORMANCE CASE STUDY: HOW INCORPORATING CD IMPACTED PORTFOLIO PERFORMANCE

We look at the ten best months of TOBAM LBRTY EM's excess return versus BBG EM over the last 5 years:

8 of these 10 months have seen a geopolitical event or an increase in geopolitical risk.

Dates	BBG EM	TOBAM LBRTY	TOBAM LBRTY excess return	Events	Geopolitical event
Jun-18	-3.8%	0.3%	4.2%	China-US trade tensions ratcheted up	x
May-19	-6.6%	-3.6%	3.0%	The US raised tariffs on US\$200 billion worth of Chinese imports to 25%, from 10%	x
Mar-21	-2.2%	4.2%	6.4%	China underperformed	
Jul-21	-6.1%	-0.2%	5.9%	Crackdown by Chinese authorities on education technology companies	x
Nov-21	-3.1%	0.1%	3.2%	fears over the new "Omicron" variant of Covid-19 weighing on sentiment	x
Mar-22	-3.4%	4.5%	8.0%	Russia invades Ukraine	x
Jul-22	-0.2%	4.2%	4.4%	China was the worst index performer (bad economic release)	x
Sep-22	-10.6%	-6.8%	3.8%	China underperformed	
Oct-22	-3.4%	0.5%	3.9%	The election of Xi Jinping for his third term	x
Feb-23	-5.9%	-2.7%	3.2%	A re-escalation in US-China tensions weighed on sentiment	x

TOBAM's strategy has mitigated the risk of drawdown vs the benchmark.

TOBAM'S COMMITMENT TO HUMAN RIGHTS

Achievements

Since starting this initiative over 10 years ago, TOBAM has donated over 2 million EUR to NGOs and about 3.5 million EUR to sustainability and non-profits' expenses.



First project funded was with Amnesty International.



TOBAM has sponsored "Human Rights Watch" since 2014 and is one of the largest corporate donator in France. TOBAM's initiative with Human Rights Watch has helped finance a mission in Ukraine, covering a wide range of issues: use of explosive weapons, landmines, monitoring of the humanitarian situation, illegal detentions and torture, freedom of speech, disappearances in Crimea.



Also, TOBAM believes in the freedom of expression & information as a fundamental right and takes pride in associating itself with Reporters without Borders (RSF). Based in Paris, Reporters Without Borders (RSF) is a leading international non-profit and non-governmental organization that safeguards the right to freedom of information. To fight the issues of impunity related to press reporters, RSF set up a Justice for Journalists Task Force through which it will implement a strategic litigation strategy. TOBAM supported the launch of the project in 2020 with initial funding round.

This solidarity-based mechanism - that directly connects investment and philanthropy - was rewarded in 2014 by Axylia, which awarded the "Profit for Non-Profit Special Award" to TOBAM's Anti-Benchmark Emerging Markets Equity Fund.



TOBAM LBRTY BLACKLISTED COUNTRIES 2024

Blacklisted Countries	TOBAM CD Country Rating
China	3.31
Saudi Arabia	3.38
Russian Federation	3.50
Egypt	3.93
United Arab Emirates	4.05
Pakistan	4.10
Qatar	4.23
Turkey	4.61
Kuwait	4.62
Mexico	5.36

Source: TOBAM

In 2024, 10 Countries would not be eligible in our investible universe for a total of 51 covered countries.

COUNTRIES UNDER THE GOVERNANCE COMMITTEE WATCHLIST

2024

Whitelisted Countries but subject to governance committee	TOBAM CD Country Rating
Hungary	6.47
Singapore	6.45
India	6.29
Colombia	6.28
Philippines	6.09
Indonesia	6.01
Peru	5.92

In 2024, 10 countries have been studied by our governance committee:

- Peru has been **whitelisted**
- Sri Lanka has been **blacklisted**.

Blacklisted Countries but subject to governance committee	TOBAM CD Country Rating
Sri Lanka	6.04
Thailand	5.82
Hong Kong	5.59

Source: TOBAM

ILLUSTRATION ON FINANCIAL MARKETS: CHINA Oct. 2022

- The Chinese Tech crack down had already highlighted, how risky it can be for entrepreneurs and investors to be exposed to authoritarian regimes.
- With the confirmation of the third term for Xi, his “common prosperity” rhetoric and zero Covid policy, represent clearly a major risk to investors, which is also visible in direct market reaction, wiping out significant amounts of market values in just a few hours.
- To a lesser extent, on opening of the 24th November ,the US-listed Chinese stocks dropped by almost 13%to a new 13-year low.
- During the Chinese Communist Party, reporters captured video of former Chinese President Hu Jintao getting escorted out of the closing ceremony.

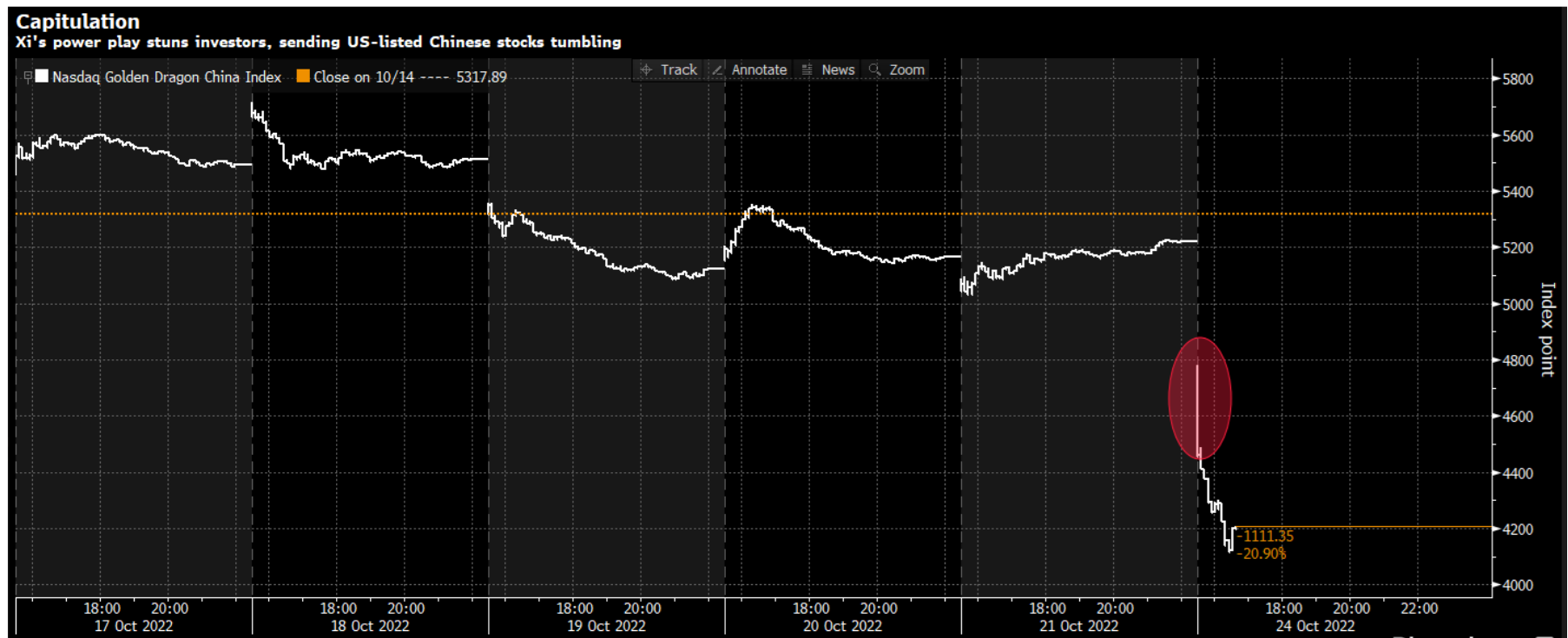
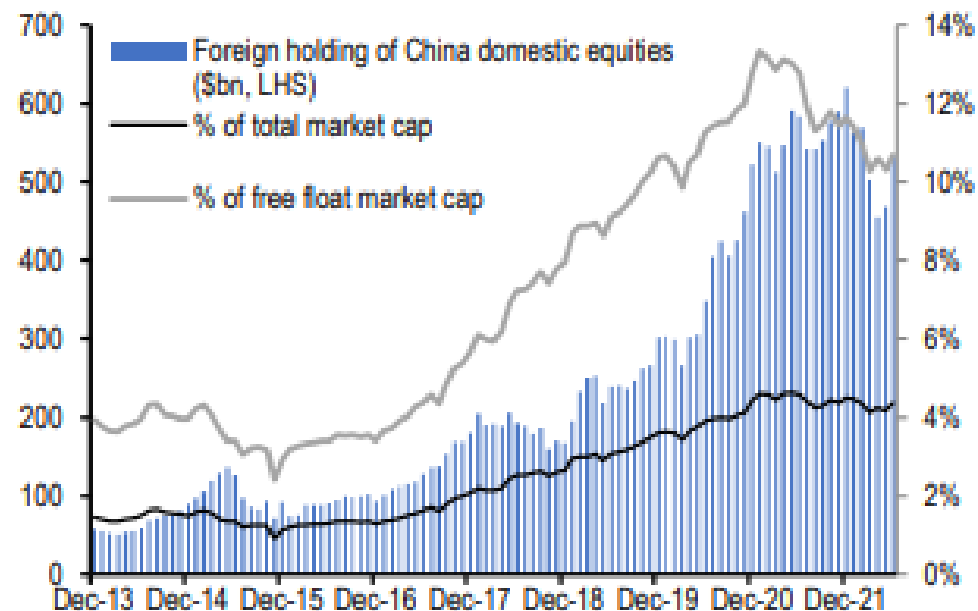


ILLUSTRATION ON FINANCIAL MARKETS: THE CASE OF CHINA (2)

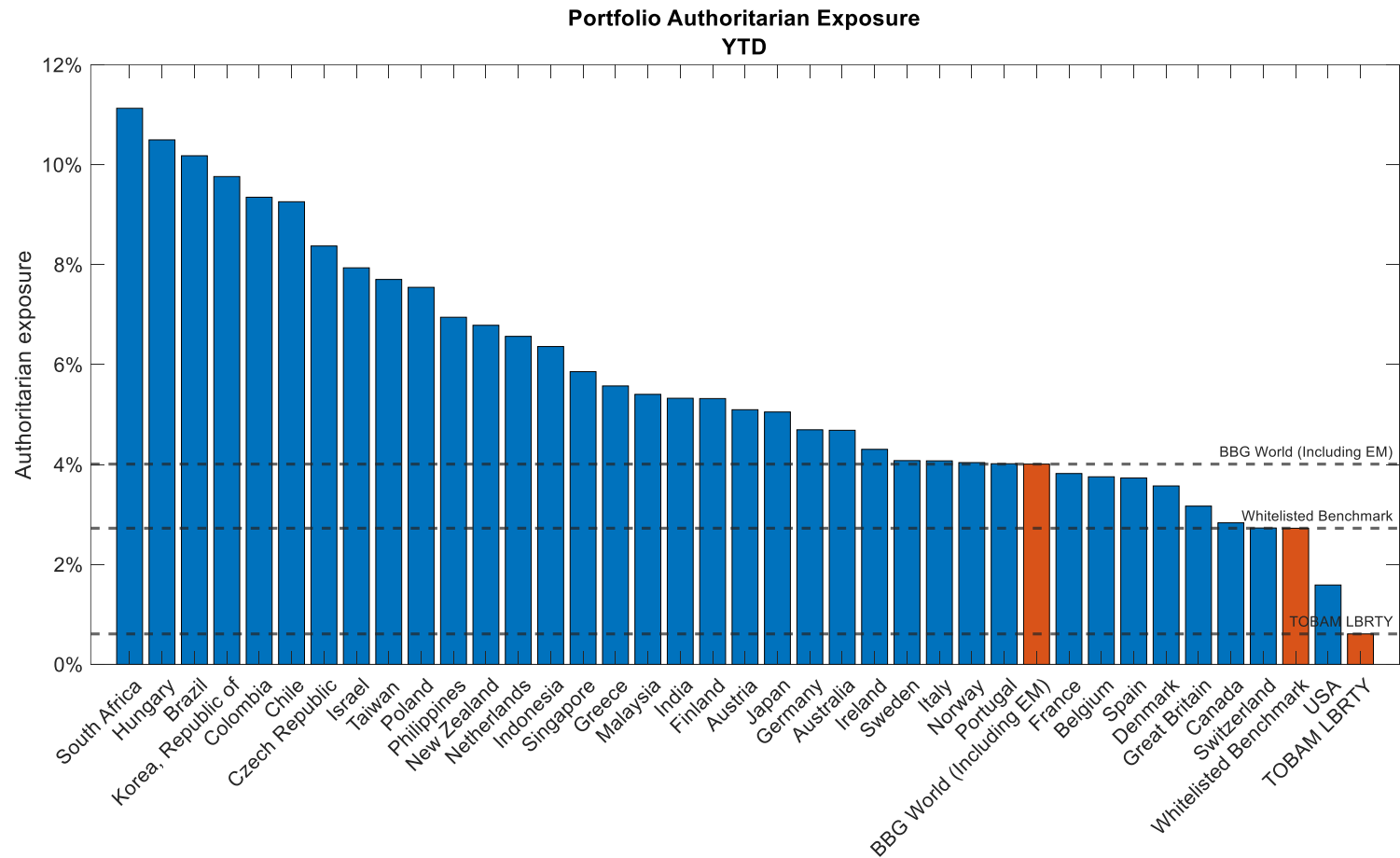
- According to WIND and JP Morgan QDS data, foreign investors held \$530bn of Chinese onshore equities in mid-2022, and around \$540bn of Chinese onshore bonds as of Q2.
- Adjusted for market effects and outflows since the end of June, these holdings fall to \$370bn, if one takes into account the price changes since the end of June. This corresponds to roughly 11% of the free-float market cap of the Chinese stock market.
- These stock estimates can serve as proxy of the potential selling that could happen in the extreme scenario where, similar to the Russian case, foreign investors decide or are forced to exit their Chinese portfolio investments.

Figure 2: Foreign holdings of Chinese domestic equities
In \$bn and as % of total market cap and free float market cap.



Source: WIND, J.P. Morgan QDS

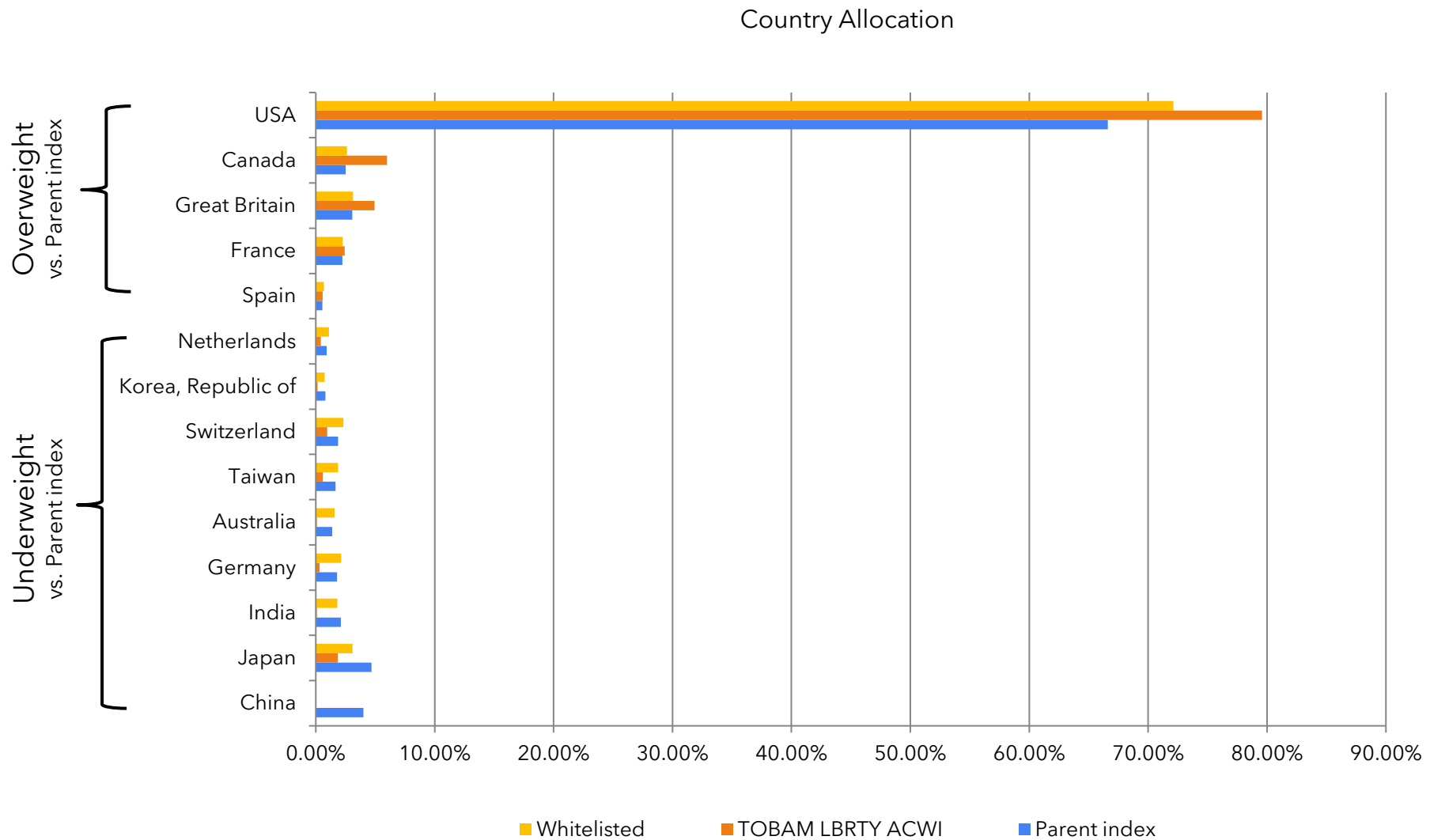
ELIGIBLE COUNTRY AVERAGE AUTHORITARIAN EXPOSURE WORLD (INCLUDING EM)



Source: TOBAM

TOBAM WORLD LBRTY portfolios has an authoritarian exposure in 2024 lower than the Market Cap Weighted Benchmark of any eligible country.

WORLD (INCLUDING EM) PORTFOLIOS COUNTRY WEIGHTS

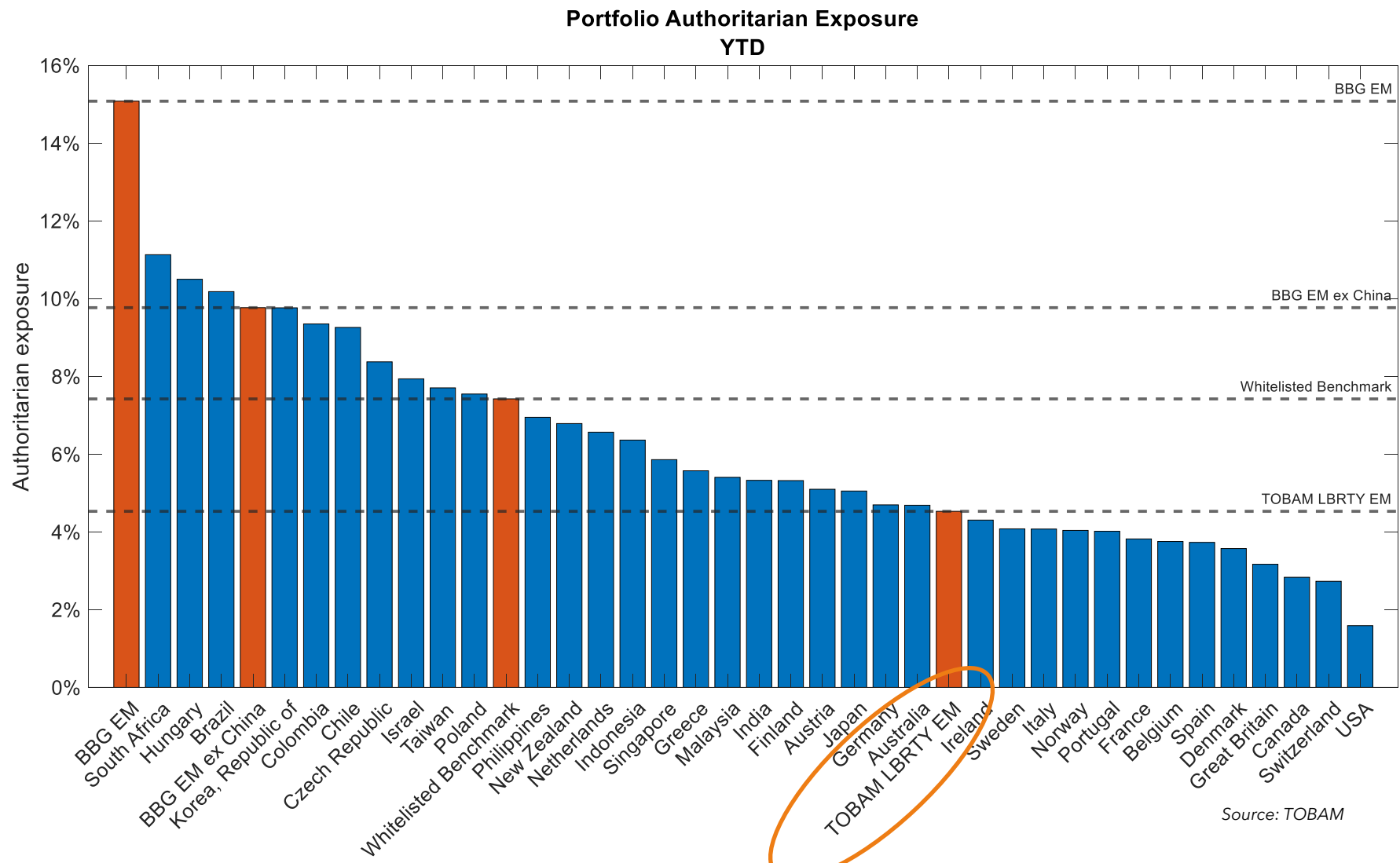


Source: TOBAM, Bloomberg
Data as of 31st December 24

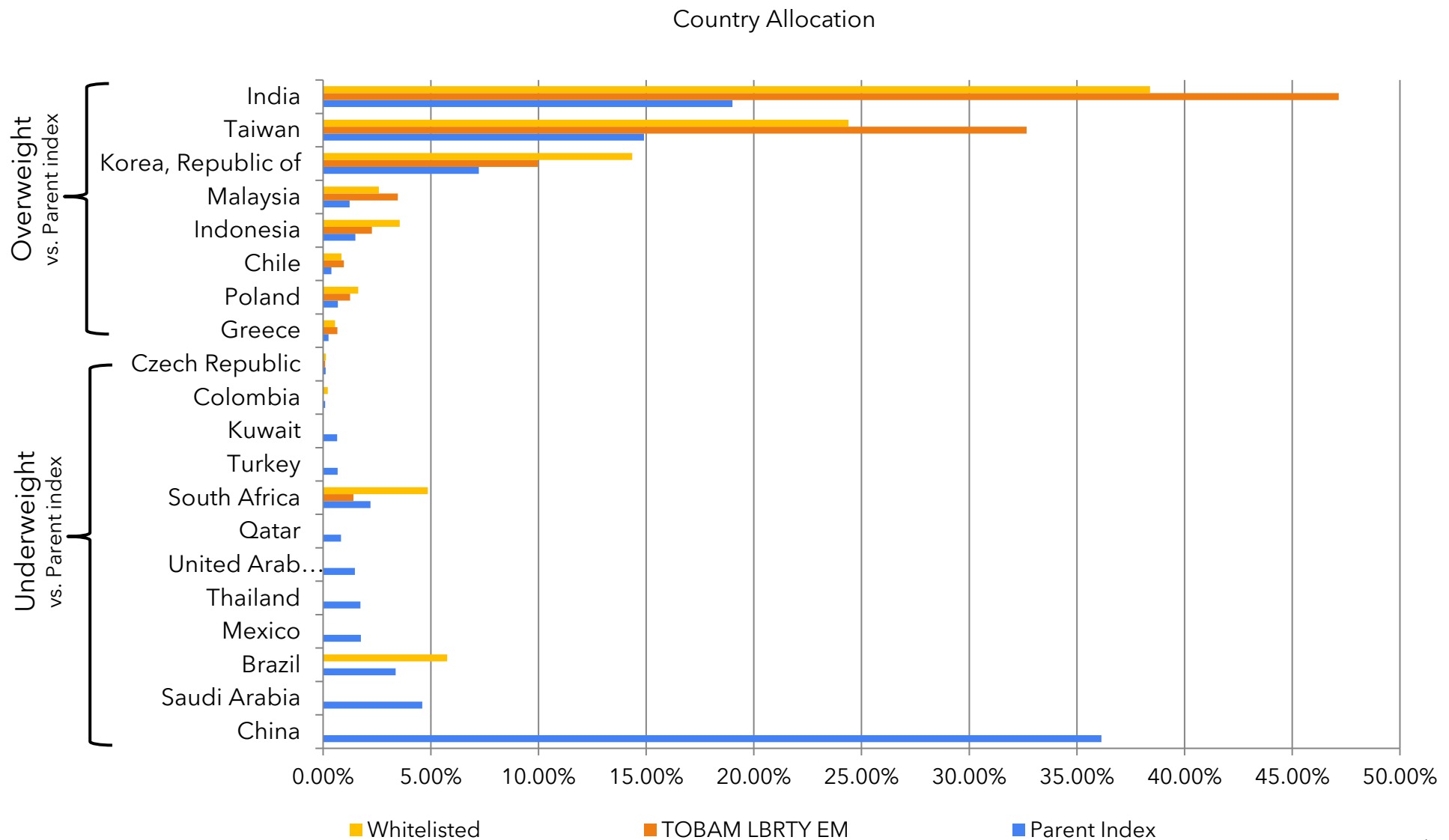
ELIGIBLE COUNTRY AVERAGE AUTHORITARIAN EXPOSURE

EM - 2024

TOBAM EM LBRTY® portfolio has an authoritarian exposure in 2024 comparable to the Australia Market Cap Weighted Benchmark.



EM PORTFOLIOS COUNTRY WEIGHTS

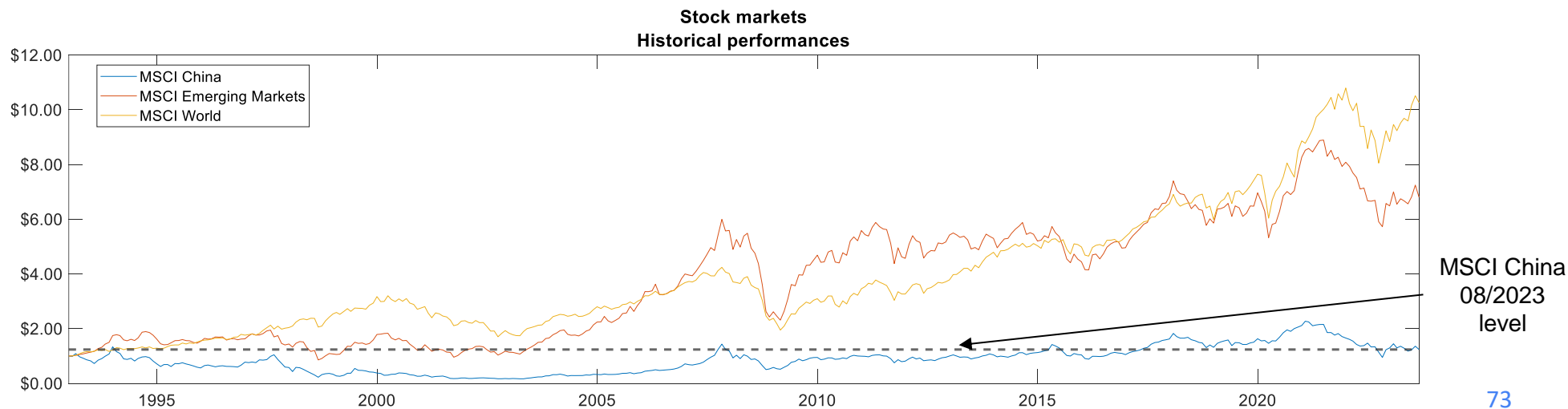
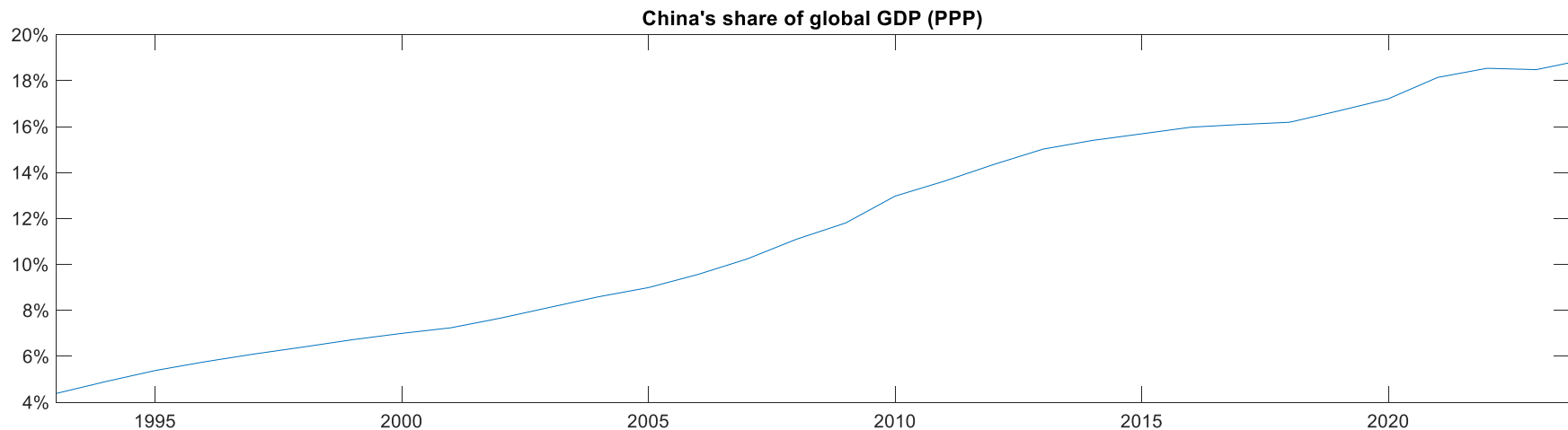


Source: TOBAM, Bloomberg
Data as of 31st December 24

Excluding Hong-Kong, China, other autocracies, taking authoritarian exposures into account, leads TOBAM LBRTY® portfolio to overweight Taiwan and India.

CHINESE STOCK MARKET VS. CHINA WEALTH GROWTH

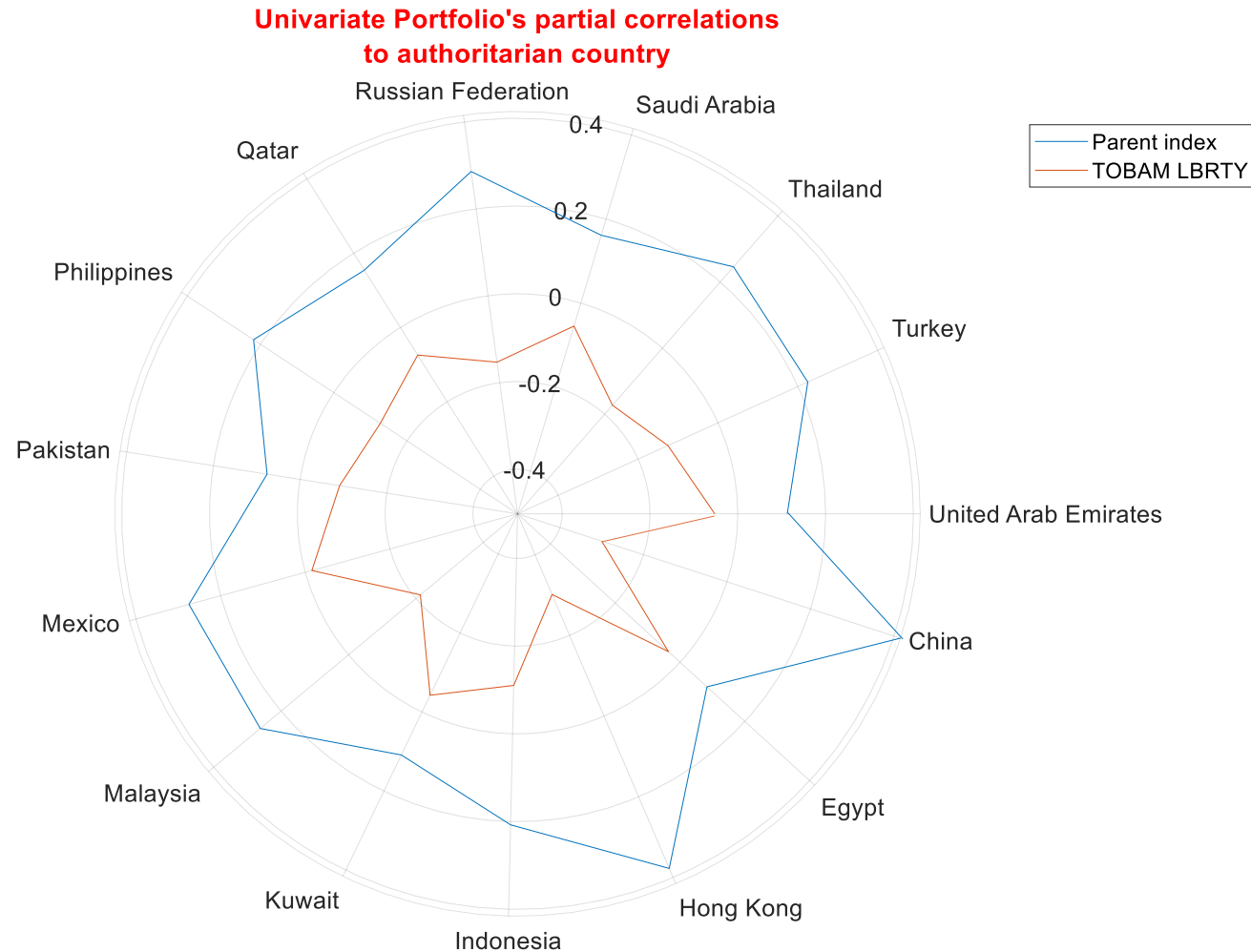
- Share of China in the economy grew fivefold, over 1993-2022 and equity index investors still lost money.
- Since 1993, compared to a global investor, the wealth of the representative Chinese investor decreased by more than 80%.



Source: IMF, TOBAM, MSCI, The period covered is from August 1993 to September 2023

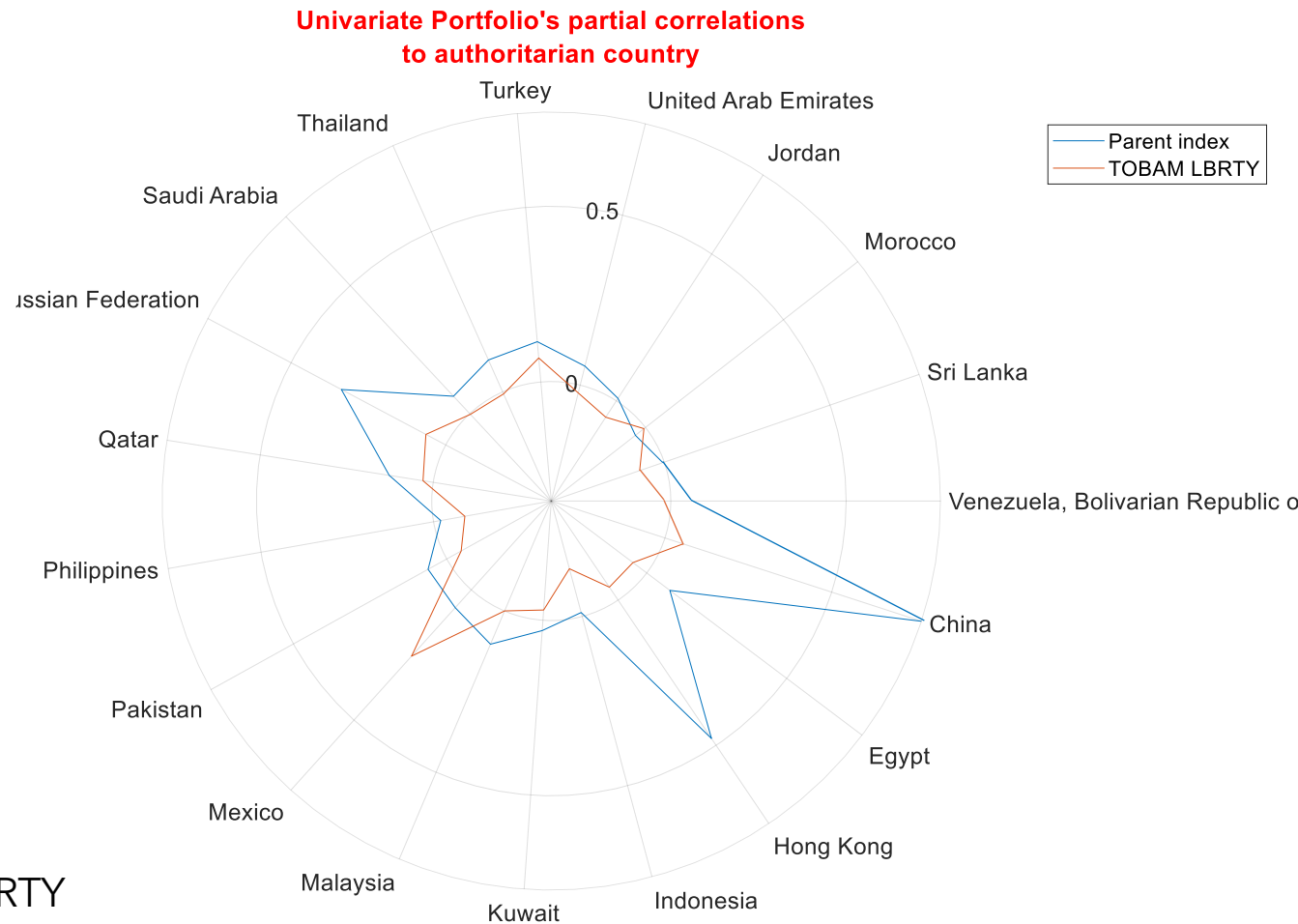
PORTFOLIOS UNIVARIATE CORRELATIONS (DEMOCRATIC WORLD BETA ADJUSTED 2008-2023)

Beyond weights, TOBAM LBRTY portfolio exhibits negative univariate exposures to all autocratic countries, when considering their existing democratic exposures.



Source: TOBAM

PORTFOLIOS UNIVARIATE CORRELATIONS (DEMOCRATIC EM BETA ADJUSTED 2008-2023)

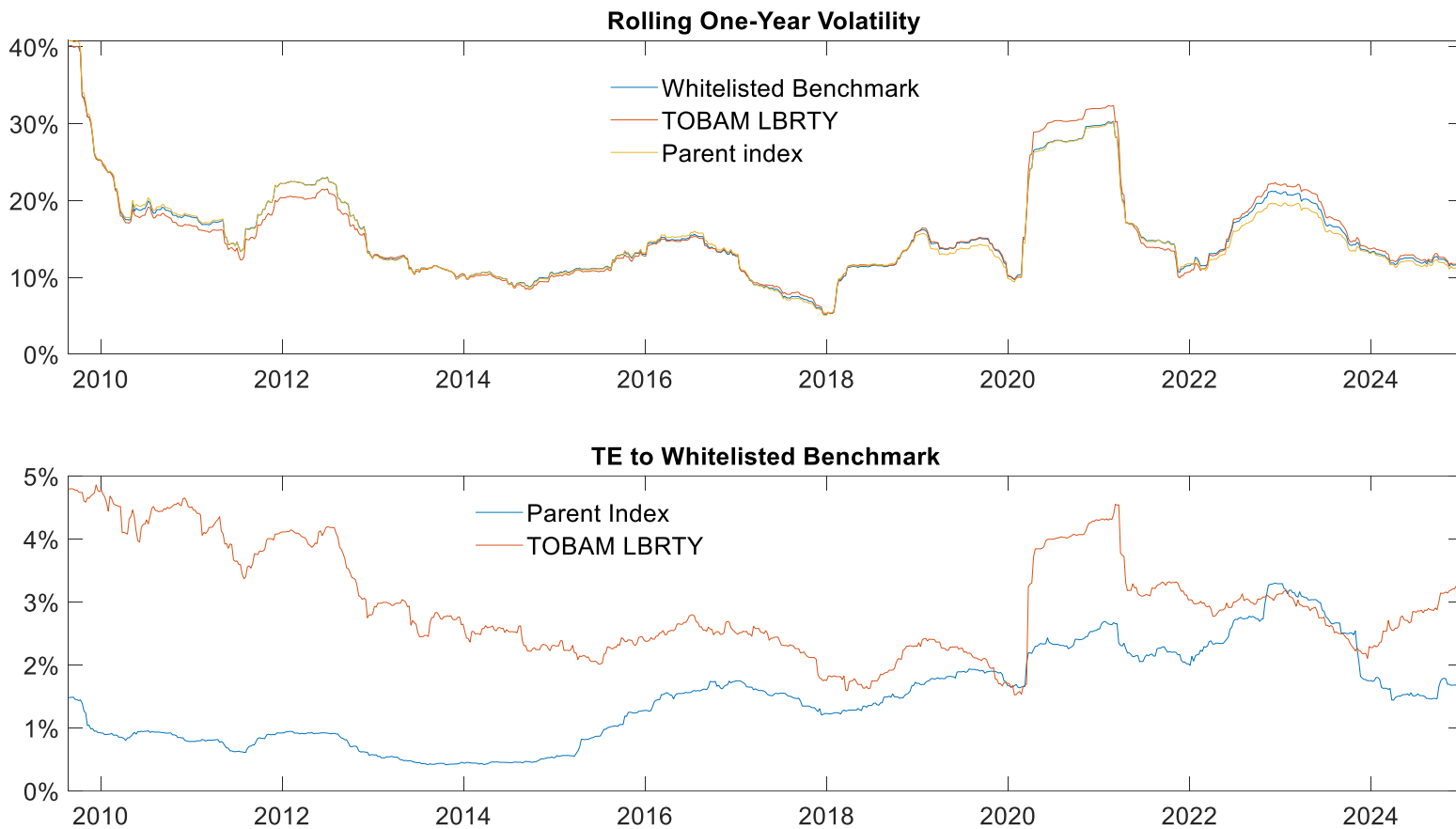


Source: TOBAM

Beyond weights, TOBAM LBRTY portfolio exhibits close to zero univariate exposures to autocratic countries, when considering their existing democratic exposures.

VOLATILITIES AND TRACKING ERRORS

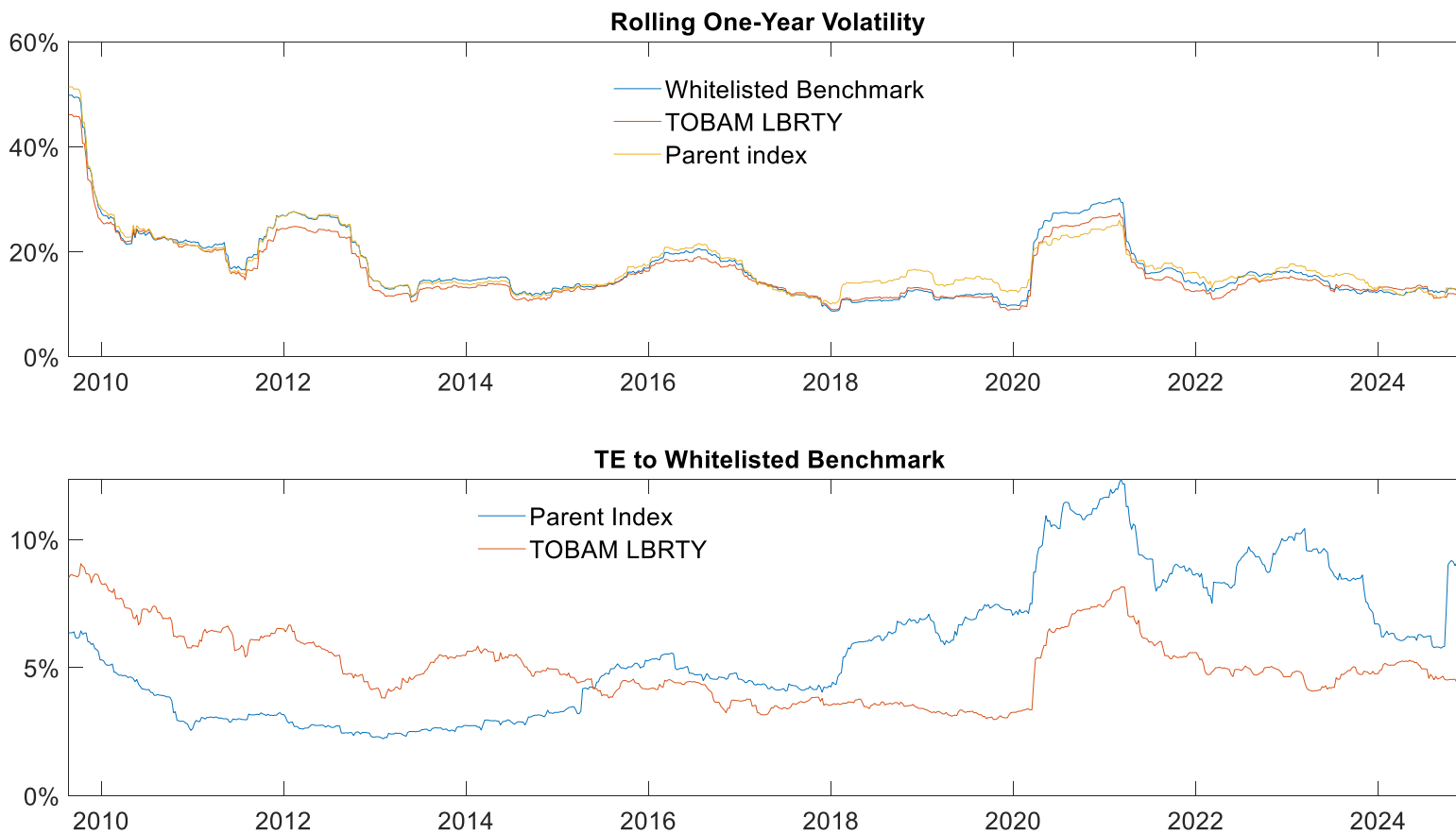
WORLD INCLUDING EM



Source: TOBAM

VOLATILITIES AND TRACKING ERRORS

EM



Source: TOBAM

ABOUT TOBAM

TOBAM is an asset management company offering innovative investment capabilities designed to increase diversification. Its mission is to provide rational and professional solutions to long term investors in the context of efficient markets.

The Maximum Diversification[®] approach, TOBAM's flagship investment process founded in 2006, is supported by original, patented research and a mathematical definition of diversification and provides clients with diversified core exposure, in both the equity and fixed income markets.

In line with its mission statement and commitment to diversification, TOBAM also launched a separate activity on cryptocurrencies in 2017.

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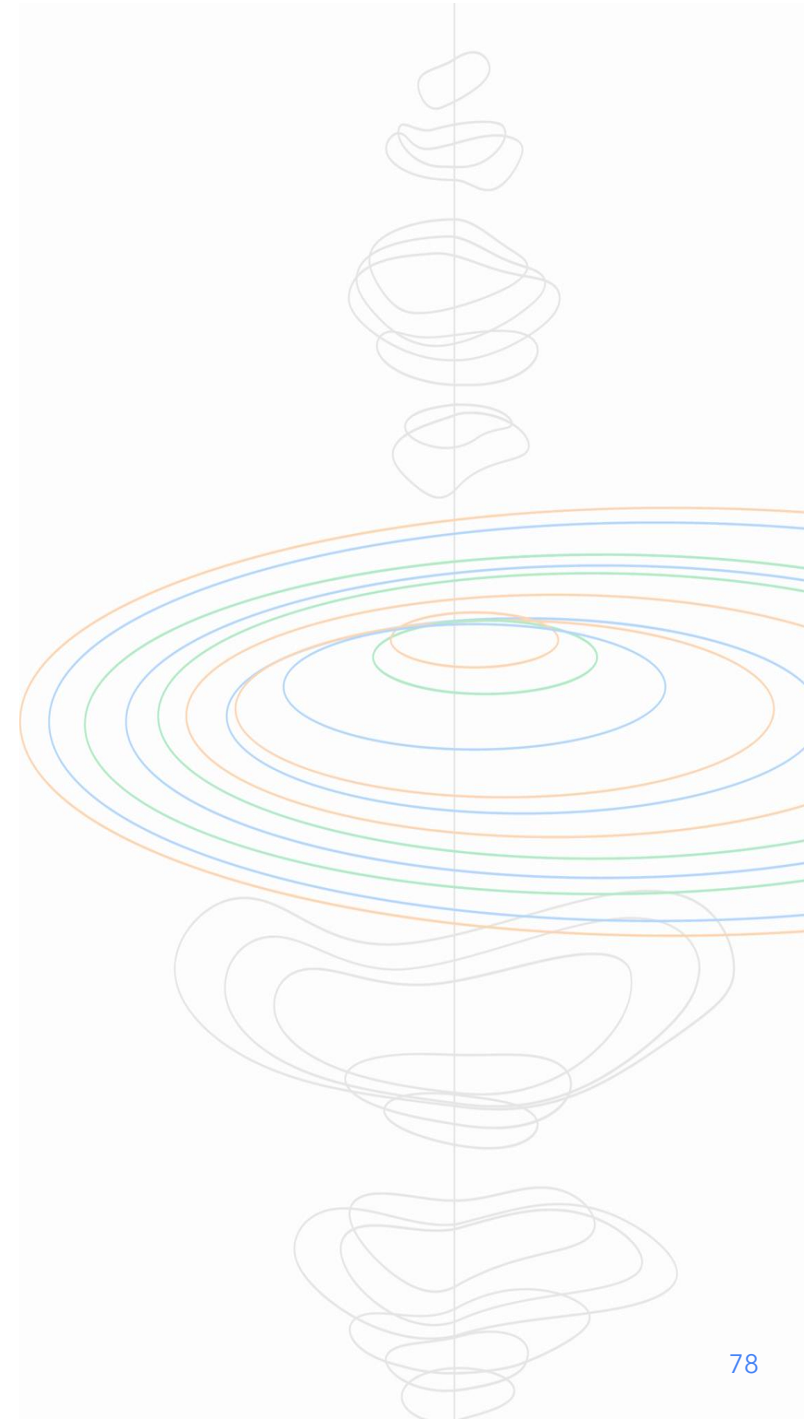
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