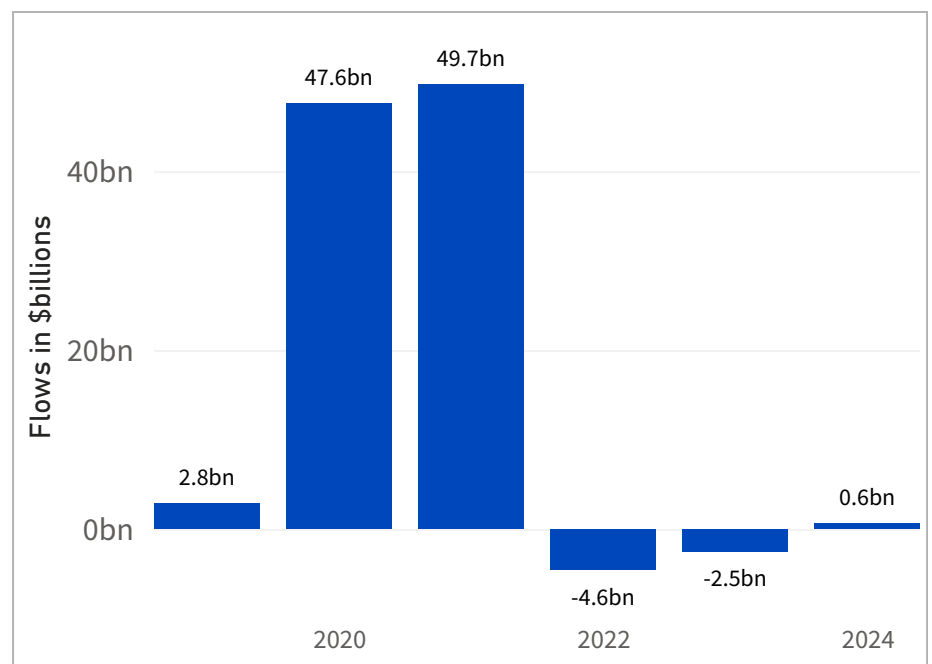# WisdomTree US Thematic Monthly Update

February 2024

## Thematic universe overview

+ AUM in US-domiciled thematic Exchange Traded Funds ("ETFs") stands at $127.7 billion as of the end of December2023. AUM is up $23 billion year-to-date due to a performance rebound in the last few months . The AUM is still down 33% from its peak of $189 billion at the end of October 2021. This is significantly more than the 16% observed in Europe.

+ Flows remain negative year-to-date with -$2.4 billion of outflows. In December, flows were negative with +$0.3 billion.

+ Performance was strong in December with all themes but 2 having positive returns. "Blockchain" performed strongly benefitting from the run up to the approval of the first spot Bitcoin ETFs in the US early in 2024. On its heels "Fintech & Digitalisation of Finance" benefitted from the same bullish catalyst to finish second. "HealthTech" and "Digital Health" performed quite strongly this month in what could be a positive signal for these themes in 2024.

Recent yearly flows in US

US thematic ETFs - AuM evolution
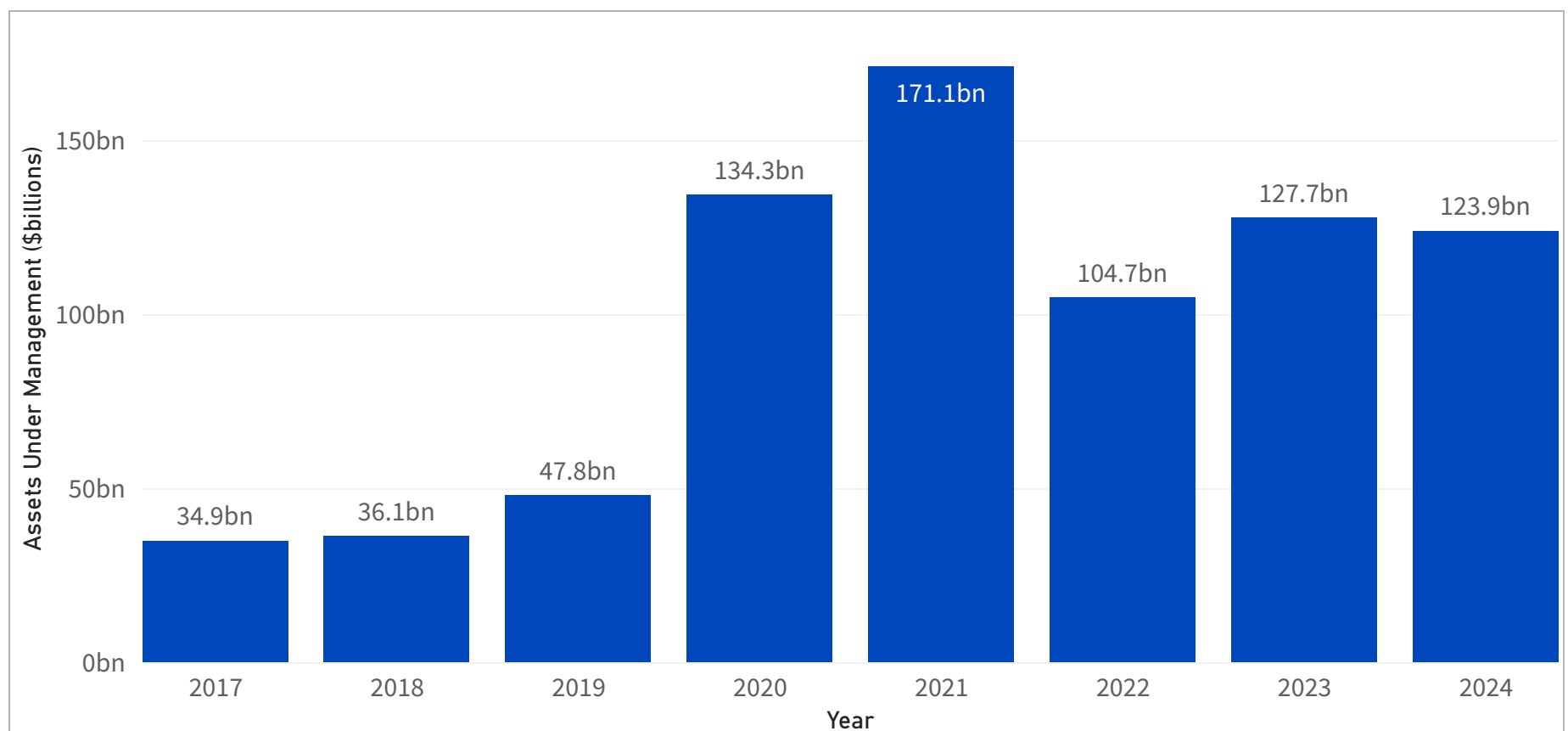
Source: WisdomTree, Morningstar, Bloomberg. All data as of 01/31/2024 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Thematic universe overview (continued)

+ Joint AUM in global thematic ETFs and open-ended funds in Europe dropped are back up in December to $516 billion, up 18% from October's bottom. They are also up $76 billion compared to the end of last year. This increase is driven by the performance of equities generally, in particular in the last 2 months.

+ In the US, 2023 outflows were almost exclusively driven by the redemptions in the "Environmental Pressures" cluster. The "Technological Shifts" is closing the year in positive territory thanks to single themes ETFs.

+ As of the end of December, the vast majority of thematic assets in the US are in the "Technological Shifts" cluster. "Technological Shifts" is now almost three times the size of "Environmental Pressures" having starting the year at only twice the size. This is the results of the performance effect as Tech themes performed strongly this year when "green" themes suffered but it is also the results of flows as described above. This "ESG fatigue" while less pronounced has also transpired in Europe.

AuM in Thematics by region (Last 10Y)
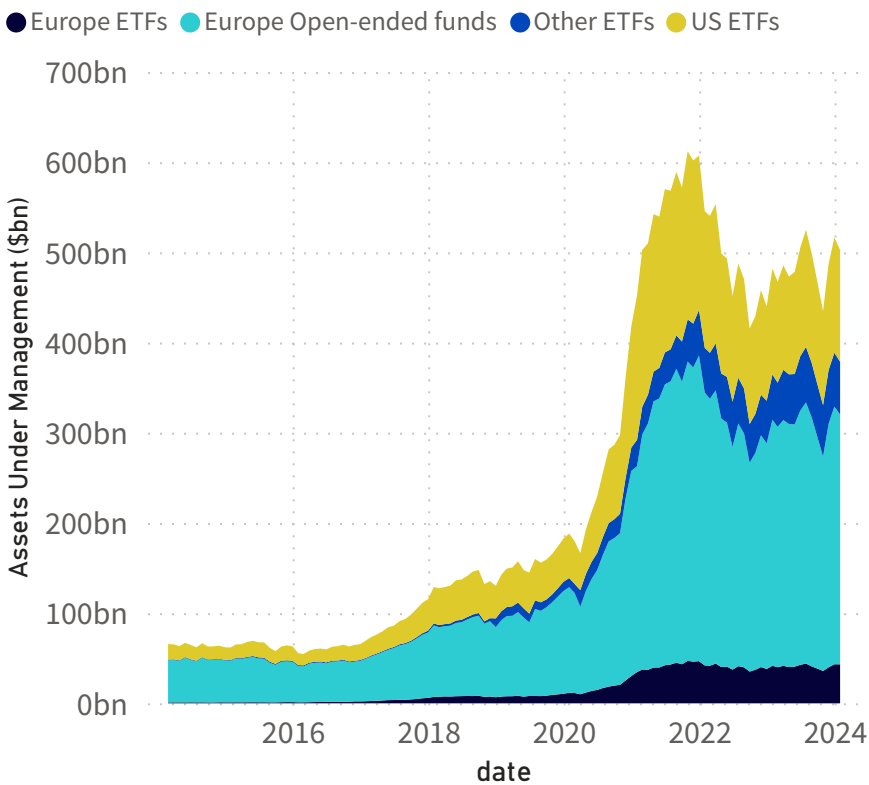
YTD flows in US by wrapper in cluster, sub-cluster and focused themes
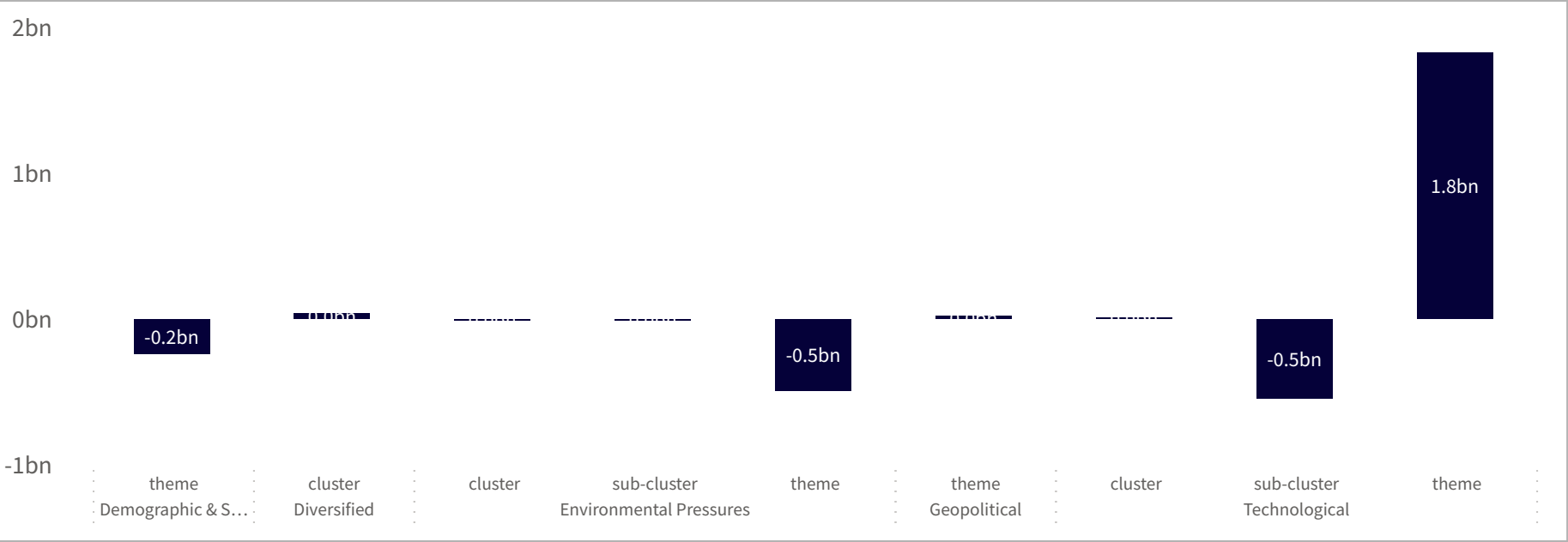
AuM in US by wrapper in cluster, sub-cluster and focused themes
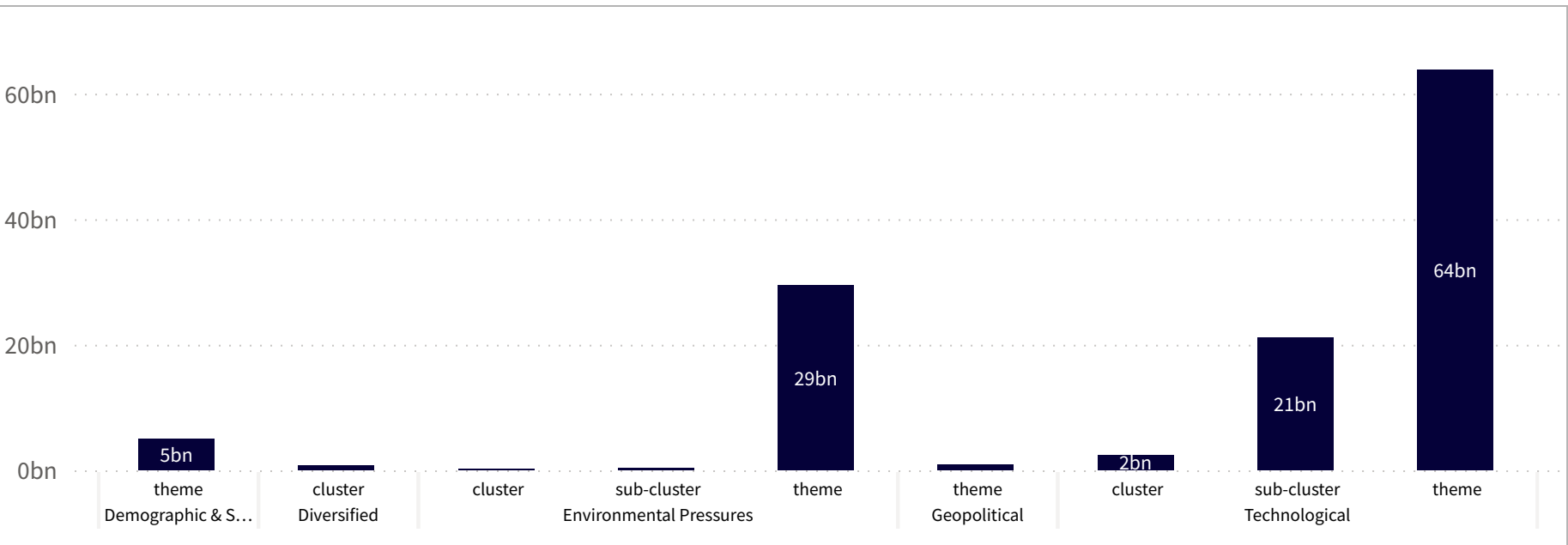
Source: WisdomTree, Morningstar, Bloomberg. All data as of 01/31/2024 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Thematic flows in US ETFs

+ December saw $0.3 billion of inflows.

+ "Blockchain" attracted the most flows in December with almost half a billion during the month. "Sustainable Energy Production" and "Nuclear" closed the month neck to neck just above the $200 million mark. "Artificial Intelligence and Big Data" continued on its run with $ 146m. Finally "Healthtech" made some headway with $143.

+ In 2023, "Semiconductors" led by flows with $2.3 billion. Propelled by the excitement around ChatGPT and generative AI, "AI & Big Data" and "Robotics & Automation" are following. "Nuclear" managed to hedged robotics with almost a billion in flows for the third place. "Equality, Diversity & Inclusion" closes the top 5.

+ "Sustainable Energy Production", "Cloud Computing" and "Rise of the Middle" suffered the biggest outflows. "Energy Transition Metals " and Cybersecurity" close the bottom 5. Counterintuitively, "Cloud Computing" and "Cybersecurity" are among the best performers in 2023 and in particular in the last few months. So we may see a reversal of flows early in 2024.

Month-on-month thematic flows

January Top/Bottom flows in US ETFs

TOP 5

Semiconductors	1696M
Nuclear	292M
Cybersecurity	276M
Artificial Intelligence & Big Data	210M
Wellness	105M

BOTTOM 5

Fintech & Digitalisation of Finance	-101M
Natural Resources	-226M
HealthTech	-300M
Rise of the Middle Class	-383M
Sustainable Energy Production	-423M

YTD Top/Bottom flows in US ETFs

TOP 5

Semiconductors	1.7bn
Nuclear	0.3bn
Cybersecurity	0.3bn
Artificial Intelligence & Big Data	0.2bn
Wellness	0.1bn

BOTTOM 5

Fintech & Digitalisation of Finance	-0.1bn
Natural Resources	-0.2bn
HealthTech	-0.3bn
Rise of the Middle Class	-0.4bn
Sustainable Energy Production	-0.4bn

5 ETFs with largest monthly inflows ($/mln)

VanEck Semiconductor ETF	1071
iShares Semiconductor ETF	550
Global X Uranium ETF	177
Global X Artificial Intelligence & Technology ETF	174
First Trust NASDAQ Cybersecurity ETF	171

5 ETFs with largest monthly outflows ($/mln)

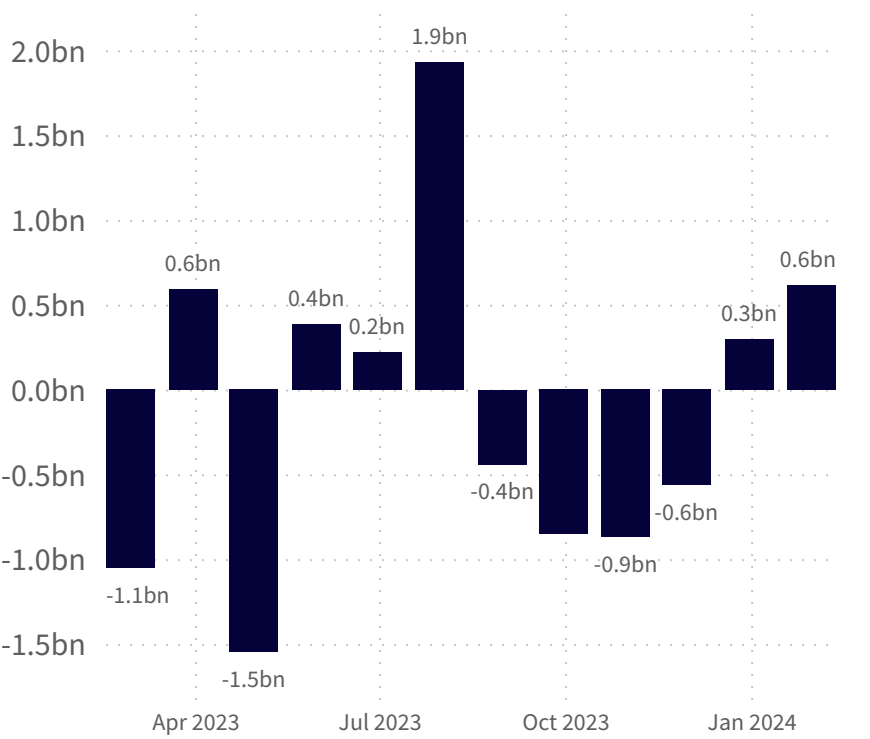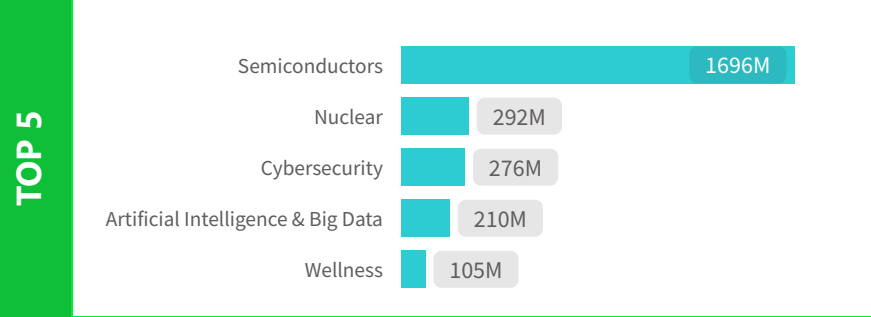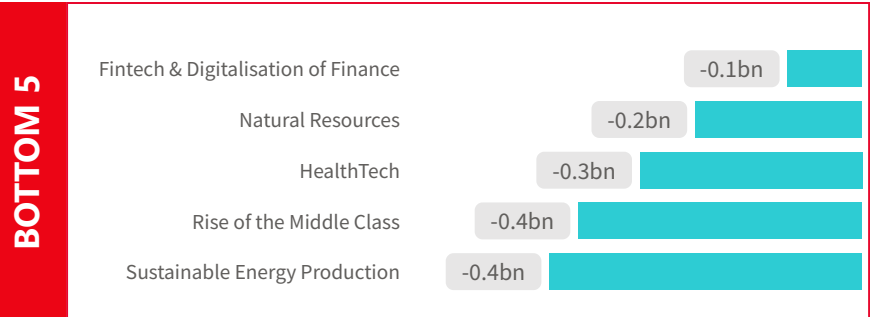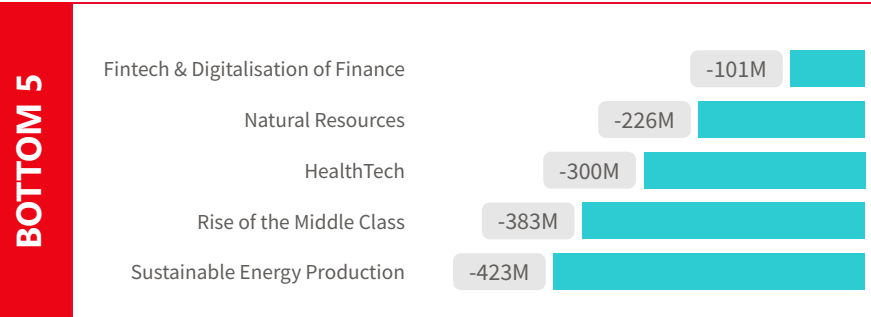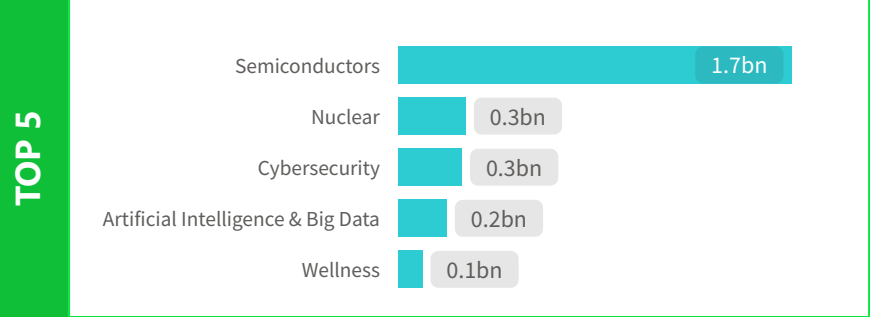|	
ARK Innovation ETF	-557
US Global Jets ETF	-351
ARK Genomic Revolution ETF	-287
iShares Global Clean Energy ETF	-238
FlexShares Morningstar Global Upstream Natural Resources Index Fund	-229

Source: WisdomTree, Morningstar, Bloomberg. All data as of 01/31/2024 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**
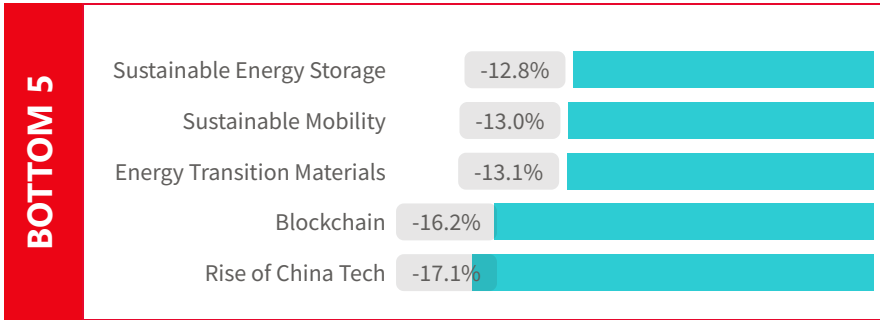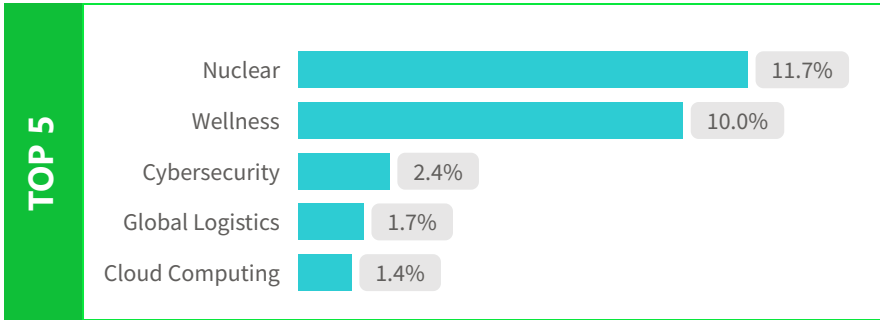
ETFs are sold by prospectus only. See each individual fund's website for its prospectus and other important information. WisdomTree is not affiliated with the non-WisdomTree funds referenced in this list.
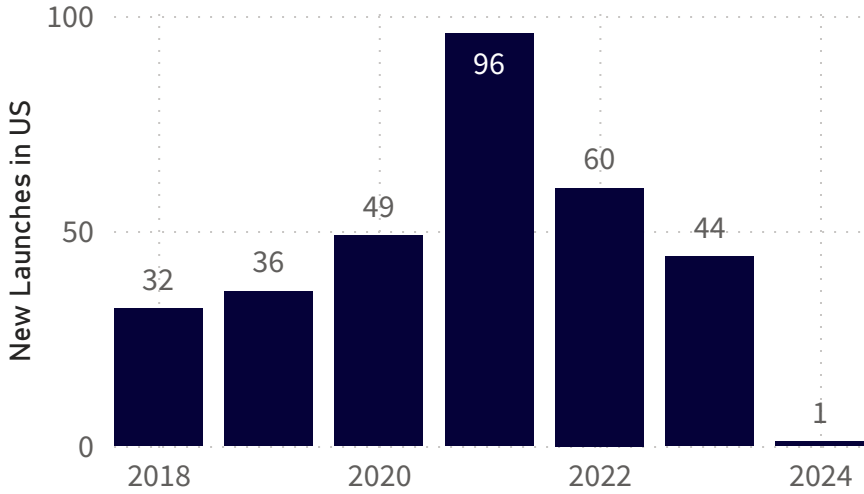
Thematic performance and launches in US

+ In December, performance remained strong will all but 2 themes posting positive returns. "Fintech" and "Blockchain" continued to benefit for the positive news around digital assets and the US Spot Bitcoin ETF. "HealthTech" and "Digital Health" performed quite strongly this month in what could be a positive signal for these themes in 2024. Interestingly, only "China Tech" and "Decarbonisation" had negative return in the last month of the year.

+ Year-to-date, technology-focused thematic strategies are leading the pack performance-wise. "Blockchain" close the year on top with +144%, benefitting from the run up to the approval of the first spot Bitcoin ETFs in the US early in 2024. "Metaverse" and "Fintech & Digitalisation of Finance" ran on Bitcoin's coattails and finished in 4th and 5th place. "Semiconductors", "AI & Big Data" are completing the Top 5 best-performing themes in 2023 with +47.4 and +45.6%. In turn, Chinese equities have suffered this year and green themes also retreated on a bit of ESG fatigue. This led to underperformance for "Sustainable Energy Production", "Wellness", "China Tech" and "Energy Transition Materials".

Yearly thematics launches in US ETFs*

* New launches are updated quarterly

January Top 5/Bottom 5 by performance

TOP 5
- Nuclear — 11.7%
- Wellness — 10.0%
- Cybersecurity — 2.4%
- Global Logistics — 1.7%
- Cloud Computing — 1.4%

BOTTOM 5
- Sustainable Energy Storage — -12.8%
- Sustainable Mobility — -13.0%
- Energy Transition Materials — -13.1%
- Blockchain — -16.2%
- Rise of China Tech — -17.1%

Top 5/Bottom 5 by YTD performance

TOP 5
- Nuclear — 11.7%
- Wellness — 10.0%
- Cybersecurity — 2.4%
- Global Logistics — 1.7%
- Cloud Computing — 1.4%

BOTTOM 5
- Sustainable Energy Storage — -12.8%
- Sustainable Mobility — -13.0%
- Energy Transition Materials — -13.1%
- Blockchain — -16.2%
- Rise of China Tech — -17.1%
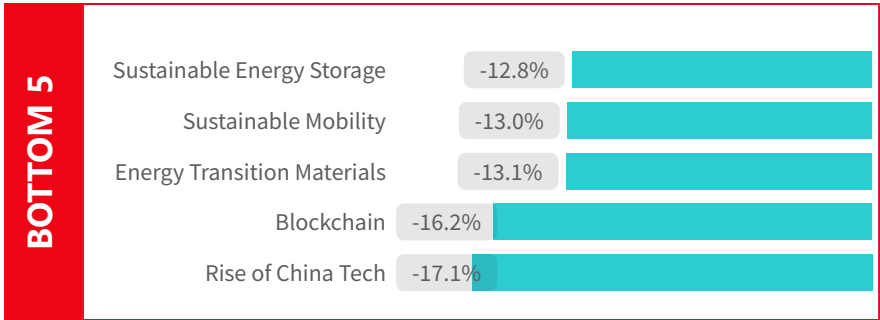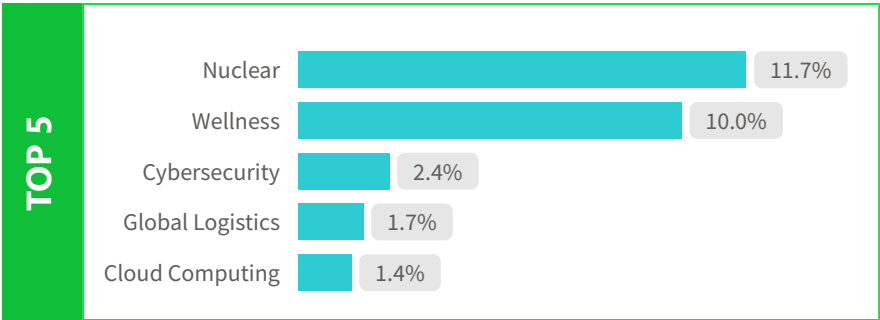
Dispersion of YTD performance of all US ETFs by themes
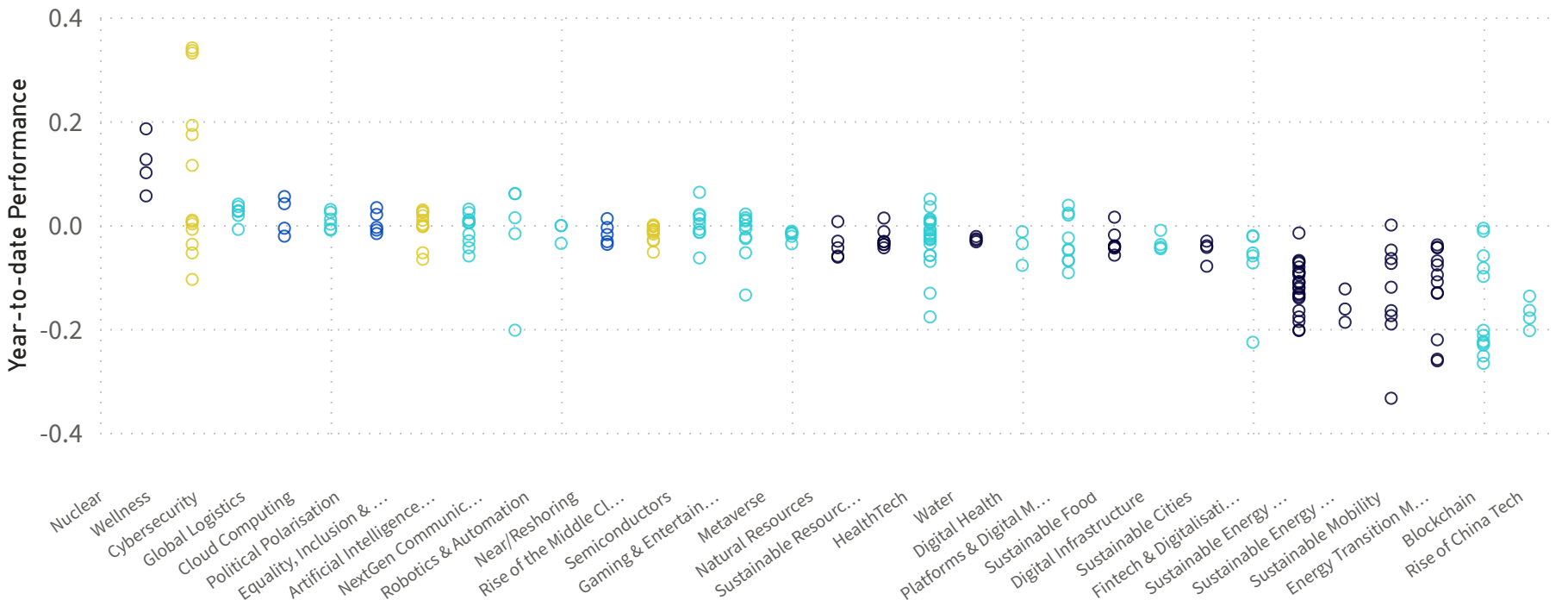
Source: WisdomTree, Morningstar, Bloomberg. All data as of 01/31/2024 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

AUM per theme in ETFs domiciled in US ($billions)
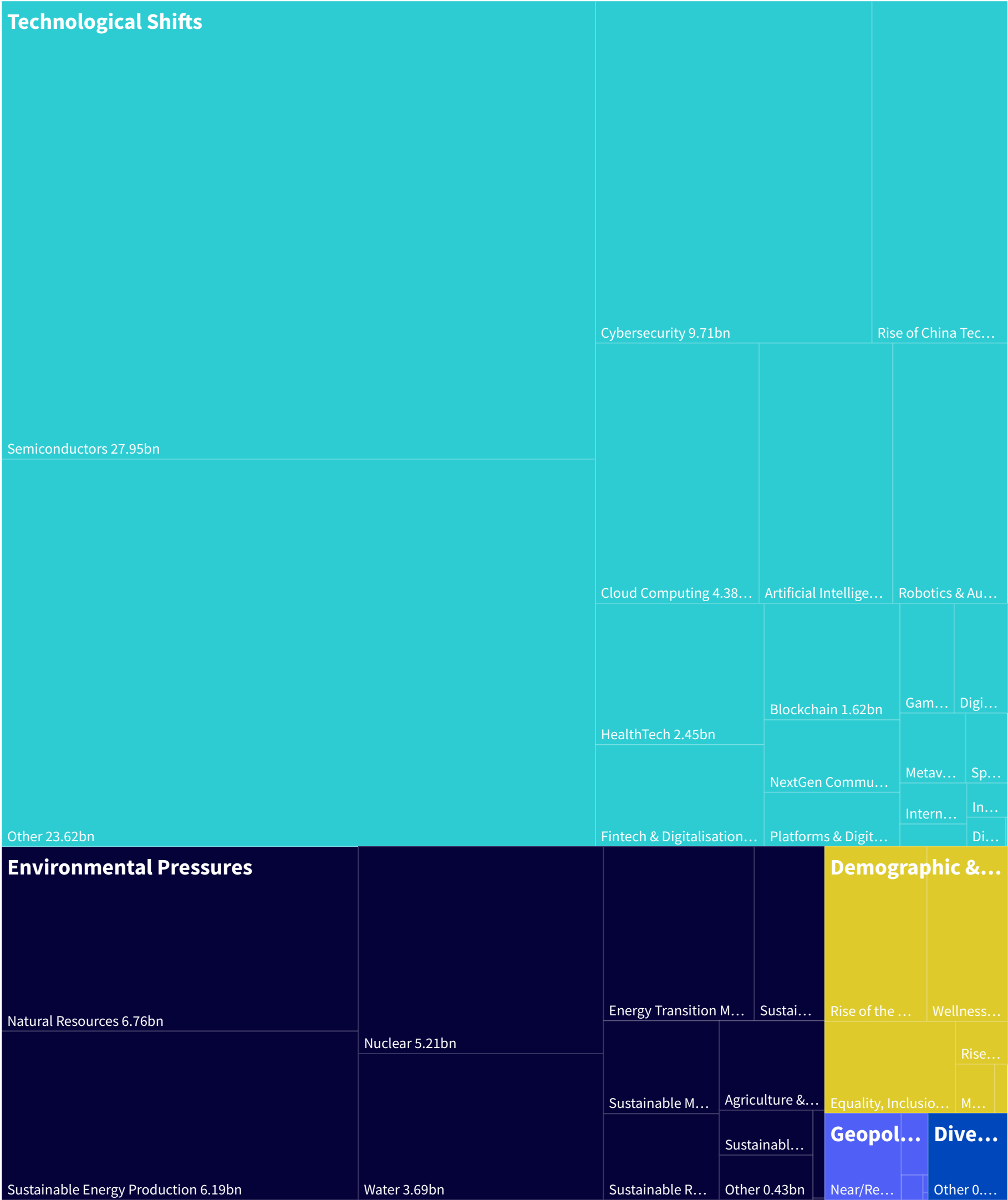
Technological Shifts

Semiconductors 27.95bn

Cybersecurity 9.71bn

Rise of China Tec…

Cloud Computing 4.38…

Artificial Intellige…

Robotics & Au…

HealthTech 2.45bn

Blockchain 1.62bn

Gam…

Digi…

NextGen Commu…

Metav…

Sp…

Intern…

In…

Other 23.62bn

Fintech & Digitalisation…

Platforms & Digit…

Di…

Environmental Pressures

Natural Resources 6.76bn

Nuclear 5.21bn

Energy Transition M…

Sustai…

Sustainable M…

Agriculture &…

Sustainabl…

Sustainable Energy Production 6.19bn

Water 3.69bn

Sustainable R…

Other 0.43bn

Demographic &…

Rise of the …

Wellness…

Rise…

Equality, Inclusio…

M…

Geopol…

Near/Re…

Dive…

Other 0.…

Source: WisdomTree, Morningstar, Bloomberg. All data as of 01/31/2024 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Appendix - Multi themes & diversified thematic US ETFs

Cluster	Sub-Cluster	AuM ($)	Flows Last Month ($)	Flows YTD ($)
Technological Shifts		2,446.2M	7.8M	7.8M
Technological Shifts	Disruptive Technologies	12,514.1M	-604.0M	-604.0M
Technological Shifts	HyperConnectivity & Digitalisation	8,661.9M	58.4M	58.4M
Environmental Pressures		64.3M	0.0M	0.0M
Environmental Pressures	Climate Change & Sustainability	366.5M	-3.8M	-3.8M
Diversified Thematics		705.1M	37.8M	37.8M

Appendix - Theme-focused US ETFs

Theme Name	AuM ($)	Flows Last Month ($)	Flows YTD ($)	Performance Last Month	Performance YTD
Aging Population	64.0M	0.0M	0.0M	0.4%	0.4%
Agriculture & Food	970.7M	-48.5M	-48.5M	-6.6%	-6.6%
Artificial Intelligence & Big Data	3,572.3M	210.2M	210.2M	-0.7%	-0.7%
Blockchain	1,624.1M	81.5M	81.5M	-16.2%	-16.2%
China's Rise	4.0M	0.0M	0.0M	-1.8%	-1.8%
Cloud Computing	4,382.9M	46.0M	46.0M	1.4%	1.4%
Cybersecurity	9,713.6M	275.6M	275.6M	2.4%	2.4%
Decarbonisation	0.5M	0.0M	0.0M	-5.7%	-5.7%
Digital Health	118.0M	-9.8M	-9.8M	-2.9%	-2.9%
Digital Infrastructure	600.4M	-4.5M	-4.5M	-3.4%	-3.4%
Energy Transition Materials	2,700.3M	-6.8M	-6.8M	-13.1%	-13.1%
Equality, Inclusion & Diversity	1,234.0M	27.2M	27.2M	-0.2%	-0.2%
Fintech & Digitalisation of Finance	1,766.6M	-100.7M	-100.7M	-7.6%	-7.6%
Gaming & Entertainment	609.7M	-12.9M	-12.9M	-1.9%	-1.9%
Global Logistics	55.3M	5.5M	5.5M	1.7%	1.7%
HealthTech	2,450.5M	-300.1M	-300.1M	-2.7%	-2.7%
Industry 4.0	142.7M	-5.4M	-5.4M	-4.3%	-4.3%
Internet of Things	280.8M	-10.0M	-10.0M	-4.9%	-4.9%
Metaverse	472.0M	-25.6M	-25.6M	-1.9%	-1.9%
Millennials & Gen Z	198.4M	-1.3M	-1.3M	-0.5%	-0.5%
Natural Resources	6,764.3M	-225.6M	-225.6M	-2.2%	-2.2%
Near/Reshoring	681.2M	6.2M	6.2M	-1.6%	-1.6%
NextGen Communications	1,009.2M	-13.0M	-13.0M	-1.4%	-1.4%
Nuclear	5,209.3M	291.9M	291.9M	11.7%	11.7%
Platforms & Digital Markets	756.8M	-20.8M	-20.8M	-3.0%	-3.0%
Political Polarisation	170.7M	5.7M	5.7M	0.5%	0.5%
Rise of China Tech	4,762.2M	80.0M	80.0M	-17.1%	-17.1%
Rise of EM Consumer	230.5M	15.5M	15.5M	-4.0%	-4.0%
Rise of Tension	9.6M	4.8M	4.8M	1.3%	1.3%
Rise of the Middle Class	1,835.4M	-383.4M	-383.4M	-2.0%	-2.0%
Robotics & Automation	3,065.6M	-54.9M	-54.9M	-1.5%	-1.5%
Semiconductors	27,948.2M	1,695.7M	1695.7M	-1.9%	-1.9%
Smart Materials & Nano Tech	4.8M	0.0M	0.0M	-2.2%	-2.2%
Social Media & Media	154.1M	-2.0M	-2.0M	-4.4%	-4.4%
Space	301.5M	-3.7M	-3.7M	-8.0%	-8.0%
Sustainable Cities	431.7M	15.3M	15.3M	-4.8%	-4.8%
Sustainable Energy Production	6,185.2M	-422.5M	-422.5M	-11.9%	-11.9%
Sustainable Energy Storage	1,259.7M	-36.6M	-36.6M	-12.8%	-12.8%
Sustainable Food	105.7M	1.0M	1.0M	-3.3%	-3.3%
Sustainable Mobility	1,107.4M	-54.5M	-54.5M	-13.0%	-13.0%
Sustainable Resource Management	1,027.8M	8.4M	8.4M	-3.8%	-3.8%
Water	3,686.2M	-10.5M	-10.5M	-2.8%	-2.8%
Wellness	1,445.1M	105.0M	105.0M	10.0%	10.0%

Source: WisdomTree, Morningstar, Bloomberg. All data as of 31st December 2022 and based on WisdomTree's internal classification of thematic funds. Performance is based on monthly returns from Bloomberg and Morningstar. More information on the WisdomTree Thematic classification can be found in the Appendix.
Historical performance is not an indication of future performance, and any investments may go down in value.

Appendix - Definitions

The WisdomTree Thematic classification is built around 4 main thematic clusters

Technological Shifts
This cluster focuses on the different themes that originate from the introduction of new technologies and innovation It incorporates disruptive and emerging technologies as well as their impact on societies and economies, such as the increasing digitalisation and connectivity of the world

Demographic and Social Shifts
This cluster focuses on the themes that originate from changes in population and societies alike For example, it incorporates changes in the world's pyramid of age, the impact of the growing, younger, wealthier populations in emerging markets, as well as changes to societal values and lifestyles

Environmental Pressures
Focusing on the environment and, more importantly, on the impact of human activities on the planet, this cluster incorporates changes driven by sustainability issues, the increasing scarcity of resources and the need to address global warming and climate change

Geopolitical Shifts
This cluster focuses on the themes driven by the globalisation and the changes in the global geopolitical order with the rise of new geopolitical powers like China. It also taps into the increasing polarisation of modern societies as a counterforce to globalisation

All thematic ETFs and open ended funds in the WisdomTree Thematic classification are classified into

- **Diversified thematics**, if they try to harness a large number of megatrends in one go. Those funds tend to have a very diluted focus, which could mean that it might be harder to find sources of potential differentiation against a broad market benchmark.

- **A specific cluster**, if they try to harness multiple themes across sub-clusters but within one particular cluster. For example, a fund investing in Artificial Intelligence, Robotics, Cloud, and Cybersecurity would be classified as a 'Technological Shifts' fund.

- **A particular sub cluster**, if a strategy aims to invest in most of the themes within that sub cluster For example, a fund investing in Cloud Computing, Platforms, Cybersecurity, and Fintech would be classified as a 'Hyperconnectivity & Digitalisation' fund.

- **A theme**, if the investment strategy is focused on a specific, clear theme.

YTD stands for Year to Date

MTD stands for Month to Date

For all of our calculations, we use the WisdomTree Thematic Classification that we have previously introduced here and can be found in the next page.

Performance of a theme. For any given theme, we consider each month all the ETFs and open-ended funds classified in that specific theme that have published a monthly return for that month in Morningstar. We then calculate the average of all those monthly returns to compute the average monthly return for that theme. So, the monthly return for January 2020 for the theme may include 19 funds, while the February 2020 return may comprise 21 funds (if two funds classified in that theme have been launched in the meantime). By collating monthly returns for the theme, we get the theme's average historical performance Therefore, the theme's average historical performance incorporates every ETF, and open-ended fund focused on this theme The theme's average historical performance is not biased towards surviving funds or successful funds Every fund alive in a given month is included irrespective of its future survival or success Investments that try to focus on multiple themes and, therefore, classified either at Cluster or Sub-Cluster Level are not included.

The WisdomTree Thematic Classification

DIVERSIFIED THEMATICS

TECHNOLOGICAL SHIFTS

HYPER CONNECTIVITY & DIGITALISATION
- Cloud Computing
- Cybersecurity
- Digital Health
- Digital Infrastructure
- Fintech & Digitalisation of Finance
- Gaming & Entertainment
- Internet of Things
- Metaverse
- Platforms & Digital Markets
- Social Media & Media

DISRUPTIVE TECHNOLOGIES
- Artificial Intelligence & Big Data
- Rise of China Tech
- Blockchain
- HealthTech
- Industry 4.0
- Next Gen Communications
- Robotics & Automation
- Semiconductors
- Smart Materials & Nano Tech
- Space

DEMOGRAPHIC AND SOCIAL SHIFTS

SOCIAL SHIFTS
- Education
- Equality, Inclusion & Diversity
- Rise of the Middle Class
- Rise of EM Consumer
- Wellness

DEMOGRAPHIC SHIFTS
- Aging Population
- Millennials & Gen Z

GEOPOLITICAL SHIFTS

MULTI-POLARITY
- China's Rise
- Political Polarisation
- Rise of Tension
- Near/Reshoring

GLOBALISATION
- Global Logistics

ENVIRONMENTAL PRESSURES

LIMITED RESOURCES
- Agriculture & Food
- Natural Resources
- Water

CLIMATE CHANGE & SUSTAINABILITY
- Decarbonisation
- Protect Biodiversity
- Sustainable Mobility
- Sustainable Energy Production
- Sustainable Energy Storage
- Sustainable Food
- Sustainable Cities
- Sustainable Resource Management
- Extreme Events
- Energy Transition Materials

Important Information

Investors should carefully consider the investment objectives, risks, charges and expenses of the Funds before investing. To obtain a prospectus containing this and other important information, please call 866.909.9473, or visit WisdomTree.com/investments to view or download a prospectus. Investors should read the prospectus carefully before investing. Visit the applicable third-party website for non-WisdomTree funds.

Investing involves risk including possible loss of principal. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, real estate, currency, fixed income and alternative investments include additional risks. Foreign investing involves currency, political and economic risk.

The information contained in this document is for your general information only and is neither an offer for sale nor a solicitation of an offer to buy securities or shares. This document should not be used as the basis for any investment decision. Investments may go up or down in value and you may lose some or all of the amount invested. Past performance is not necessarily a guide to future performance. Any decision to invest should be based on the information contained in the appropriate prospectus and after seeking independent investment, tax and legal advice.

This document may contain independent market commentary prepared by WisdomTree based on publicly available information. Although WisdomTree endeavours to ensure the accuracy of the content in this document, WisdomTree does not warrant or guarantee its accuracy or correctness. Any third party data providers used to source the information in this document make no warranties or representation of any kind relating to such data. Where WisdomTree has expressed its own opinions related to product or market activity, these views may change. Neither WisdomTree, nor any affiliate, nor any of their respective officers, directors, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this document or its contents.

This document may contain forward looking statements including statements regarding current expectations or beliefs with regards to the performance of certain assets classes and/or sectors. Forward looking statements are subject to certain risks, uncertainties and assumptions. There can be no assurance that such statements will be accurate and actual results could differ materially from those anticipated in such statements. WisdomTree strongly recommends that you do not place undue reliance on these forward-looking statements.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S.