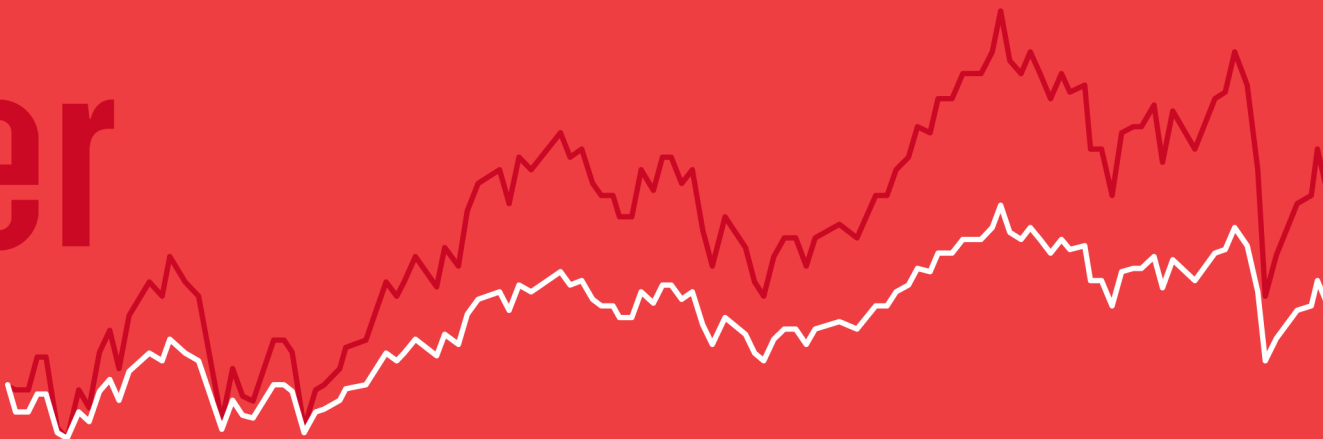




Silver



Global Thematic Fund Landscape  
2025



Gold



Bronze



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<https://shareholders.morningstar.com/investor-relations/governance/Compliance-Disclosure/default.aspx>

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# Manager Research

**Kenneth Lamont**  
Principal, Manager Research

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## Key Takeaways

- Global thematic assets under management hit a three-year high of USD 779 billion in Q3 2025, though it still sits 15% below the 2021 peak.
- As of Sept. 30, 2025, Europe remains the largest market (44% of global AUM), but its recovery has lagged, pushing its share below 50% for the first time in a decade.
- Rest of world—driven by China—has surged, gaining 8 percentage points to reach 32% of global assets by the end of Q3 2025.
- US thematic assets grew 50% over three years to the end of September 2025, lifting its global market share to 23%, helped by the boom in active exchange-traded funds.
- Global inflows are rebounding: USD 55 billion from US and RoW over the first three quarters of 2025 puts thematic on track for the first net-inflow year since 2021; Europe, however, has now seen 10 straight quarters of outflows to the end of Q3 2025.
- Asset managers appear confident despite lean years, with 82 new funds launching in the first three quarters of 2025.
- ETF-driven thematic dominate in the US, whereas Europe remains anchored in higher-fee active mutual funds.
- No provider dominates globally: BlackRock holds a slight lead over Pictet, while China's thematic boom has pushed several Chinese managers into the global top 10.
- Regional tastes shape global themes: RoW demand drives the digital economy; Europe anchors energy transition and broad thematic strategies.
- Security is the strongest momentum theme, lifted by rising geopolitical tensions; artificial intelligence + big data remain the era's defining technology theme.
- US "America First" policies boost deglobalization, and the need to power AI has sparked global inflows into nuclear strategies.
- In most regions, thematic funds charge more than their nonthematic counterparts.
- Despite occasional bursts of strong performance, the long-term odds of picking a thematic fund that both survives and outperforms global equities remain low.

# Introduction

Since the coronavirus pandemic, the global universe of thematic funds has expanded at an unprecedented pace—both in size and scope. Most markets have seen assets under management fall in recent years, but several have recovered and already surpassed previous highs.

Thematic strategies aim to capture long-term, structural growth trends ranging from artificial intelligence to demographic aging.

The outcome has been a proliferation of increasingly niche and complex products, alongside rising investor demand for clarity on how these funds are constructed and where they may (or may not) belong within a portfolio.

In this latest edition of our thematic landscape analysis, we introduce an updated taxonomy for classifying thematic funds and apply it to explore key developments across global markets.

While many markets share common patterns—such as rapid postpandemic growth during the “everything bubble”—the slides that follow reveal distinct local dynamics, behaviors, and quirks that set each market apart.

# A Note on the Dataset

## An Updated Framework

To identify thematic investments, this paper uses an updated version of Morningstar’s global thematic fund classification system. The dataset is built on stated intentionality rather than portfolio holdings. Each fund considered to be thematic receives three progressively granular labels: broad theme/theme/subtheme.

## What’s New

A revised Global Thematic Fund Taxonomy was introduced in November 2025.

The primary changes focus on streamlining the subthemes—the most granular labels—to form larger and more analytically meaningful peer groups.

Each subtheme now has an accompanying written definition to improve clarity and comparability.

Additional adjustments include renaming certain themes and the retirement of the post-corona theme, which is no longer deemed to represent a distinct structural trend.

For further detail, please see “Mapping the Universe,” beginning on slide 55.\*

## Updated Morningstar Global Thematic Fund Classification System

<b>Technology</b>	<b>Robotics + Automation</b>	<b>Social</b>
<b>Artificial Intelligence + Big Data</b>	Advanced Manufacture	<b>Consumer</b>
Artificial Intelligence + Big Data	Robotics + Automation	Brands
<b>Battery Technology</b>	<b>Space</b>	Consumer
Battery Technology	Space	EM Consumer
<b>Cloud Computing</b>	<b>Virtual Reality and Gaming</b>	Generational Consumer
Cloud Computing	Virtual Reality and Gaming	Leisure
<b>Cyber Security</b>	Gaming + Esports	Luxury
Cyber Security	<b>Physical World</b>	Pets
<b>Digital Economy</b>	<b>Energy Transition</b>	Sports
Digital Economy	Alternative Energy	<b>Demographics</b>
Internet	Clean Tech	Ageing Population
Internet of Things	Climate Solutions	Demographics
New Media	Energy Transition	Urbanization
<b>Digital Infrastructure</b>	Hydrogen Economy	<b>Multiple Social Themes</b>
Communications Infrastructure	Nuclear	Multiple Social Themes
Digital Infrastructure	Solar	<b>Political</b>
<b>Fintech</b>	Transition Materials	Deglobalization
Blockchain	Wind	New Silk Road
Fintech	<b>Food</b>	Policy Driven
Pay Infrastructure	Agribusiness	Political
<b>Future Mobility</b>	Food	Regional Investment
Future Mobility	Future of Food	State-Owned Enterprises
New Energy Vehicles	<b>Global Supply Chains</b>	<b>Psychoactive Substances</b>
Smart Mobility	Logistics	Cannabis
<b>Life Sciences</b>	Global Supply Chains	Psychoactive Substances
Biotech	Transportation	<b>Security</b>
Brand Name Drugs	<b>Multiple Physical World Themes</b>	Security
Digital Health	Multiple Physical World Themes	<b>Wellness</b>
Future Healthcare	<b>Resource Management</b>	Education
Genomics	Blue Economy	Obesity
Infectious Diseases	Circular Economy	Wellness
Oncology	Rare Resources	<b>Broad Thematic</b>
Life Sciences	Resource Management	<b>Broad Thematic</b>
<b>Multiple Tech Themes</b>	Timber	Broad Thematic
Multiple Tech Themes	Uranium	
Metaverse	Water	
<b>Nano Tech + New Materials</b>		
New Materials		
Nano Tech + New Materials		

\* Or visit <https://www.morningstar.com/business/insights/research/methodology-documents#EZKYD6LQRBER7JUBA4GTS7AYAE>

# The Global Landscape

# Global Thematic Fund Assets Reach 3-Year Highs

Global thematic fund assets rose to a three-year high of USD 779 billion at the end of Q3 2025.

However, asset levels remain around 15% below the peak of the postpandemic “everything rally” in late 2021. After expanding 175% over 2020–21, global thematic fund assets fell 45% over the subsequent two years in what became a painful correction for thematic investors.

Europe remains the world’s largest thematic fund market with a 44% share. Yet while the US and ROW regions have begun to recover, Europe’s rebound has been more muted. As a result, its market share slipped below 50% for the first time in more than a decade in 2025.

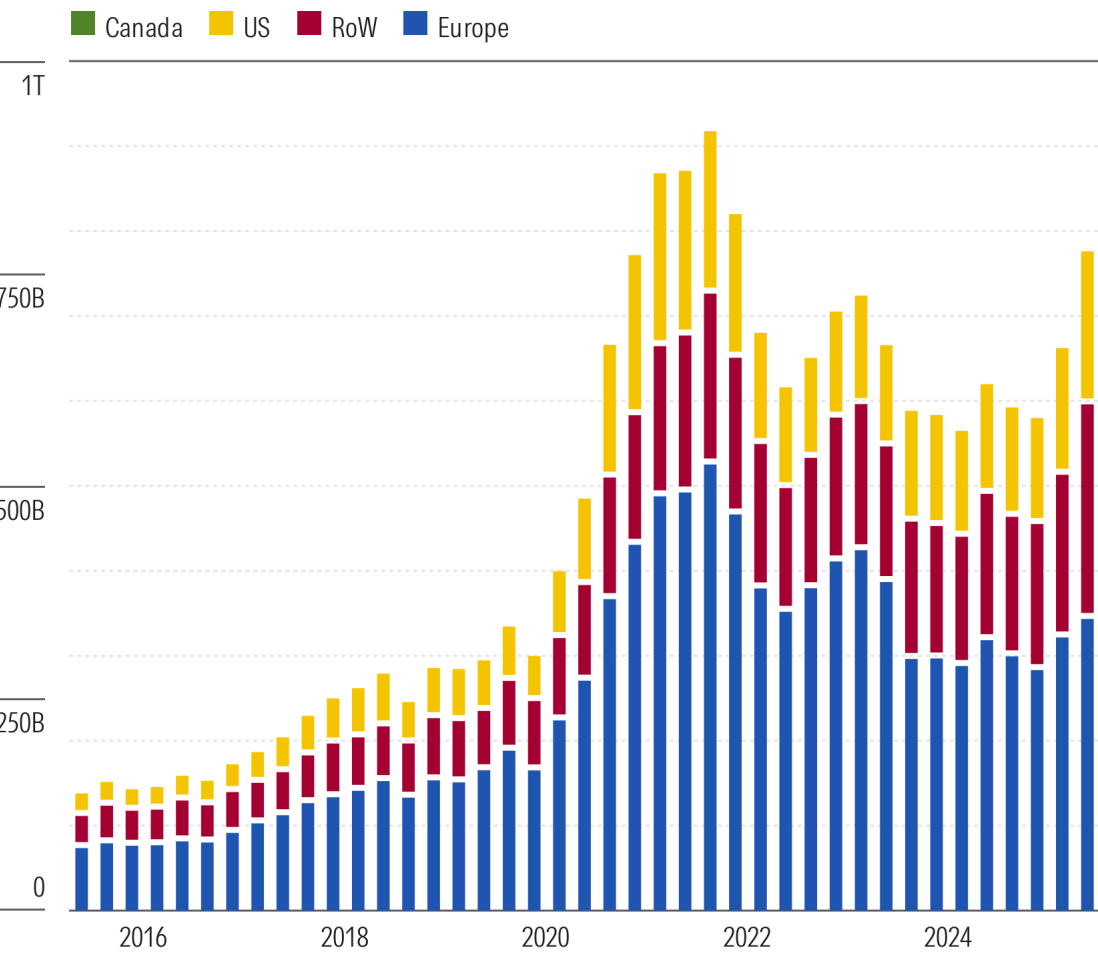
RoW—driven largely by China—has seen its share climb 8 percentage points to 32% over the trailing three-year period to the end of September 2025.

The US has also expanded meaningfully: Supported by the rise of active ETFs, US thematic assets grew 50% in the three years to Q3 2025, taking its global share to 23%.

The number of live thematic funds reached a record 3198 by the end of Q3 2025, up from 2897 at the end of September 2022.

## Global Thematic AUM Growth by Region

USD Billion

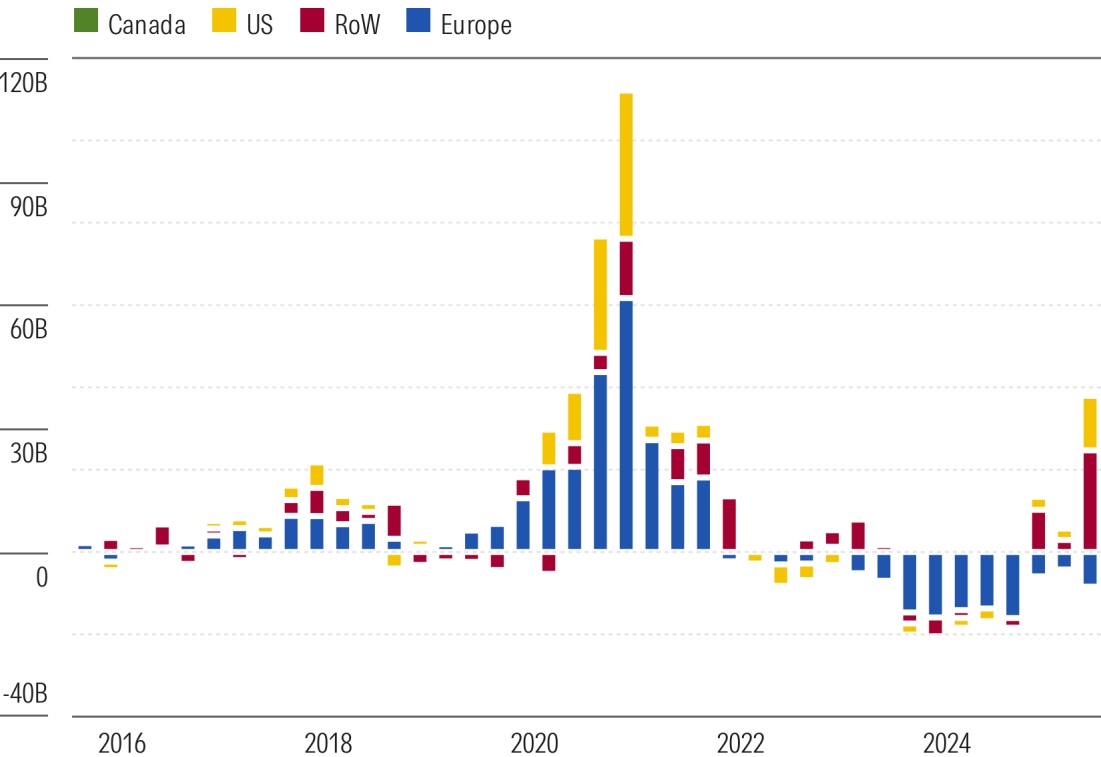


# Global Net Flows and Fund Launches Signal Signs of Recovery

Collective inflows of USD 55 billion from the RoW and the US in the first three quarters of 2025 put global thematic funds on track for their first year of net inflows since 2021. European thematic funds, however, continue to struggle, logging their 10th consecutive quarter of net outflows in Q3 2025.

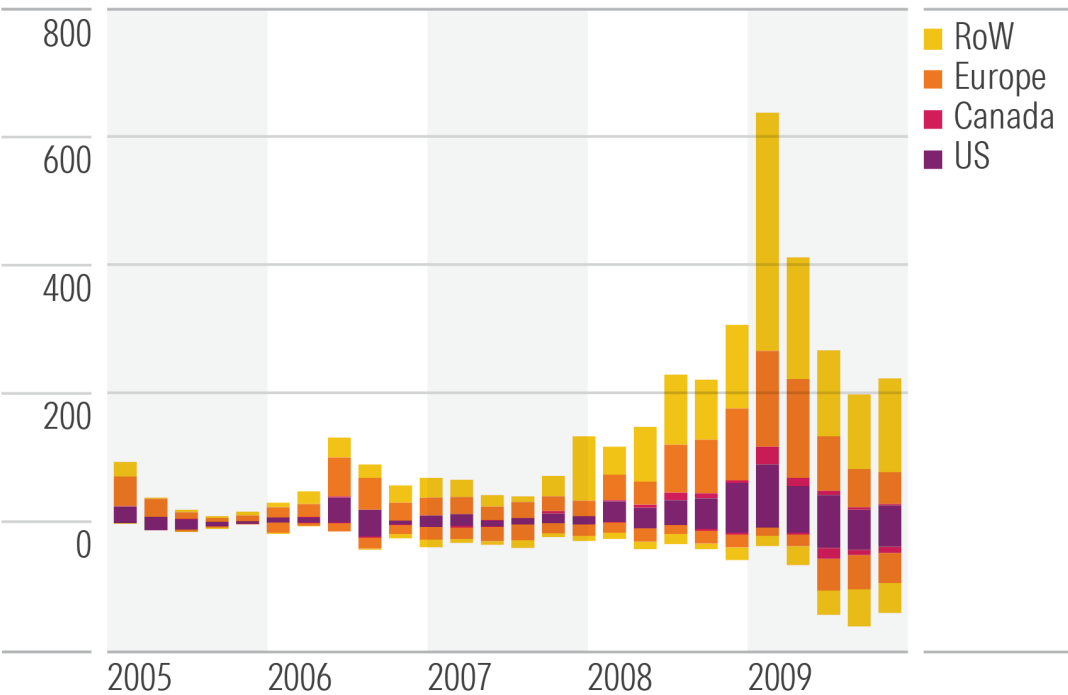
## Global Net Asset Flows by Region

USD Billion



Net thematic fund launches remain positive, more than doubling in the first three quarters of 2025 to 82 funds from just 36 in 2024.

## Global Thematic Launches and Closures by Year

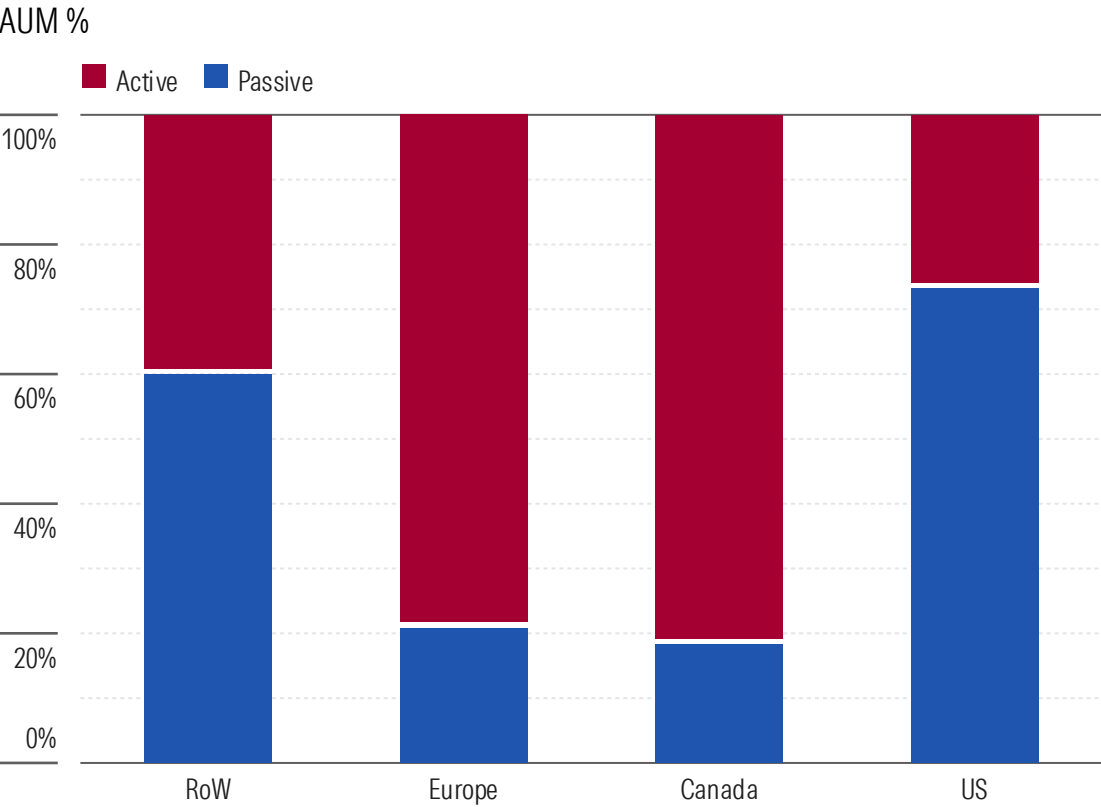




# BlackRock Pips Pictet to Top Spot

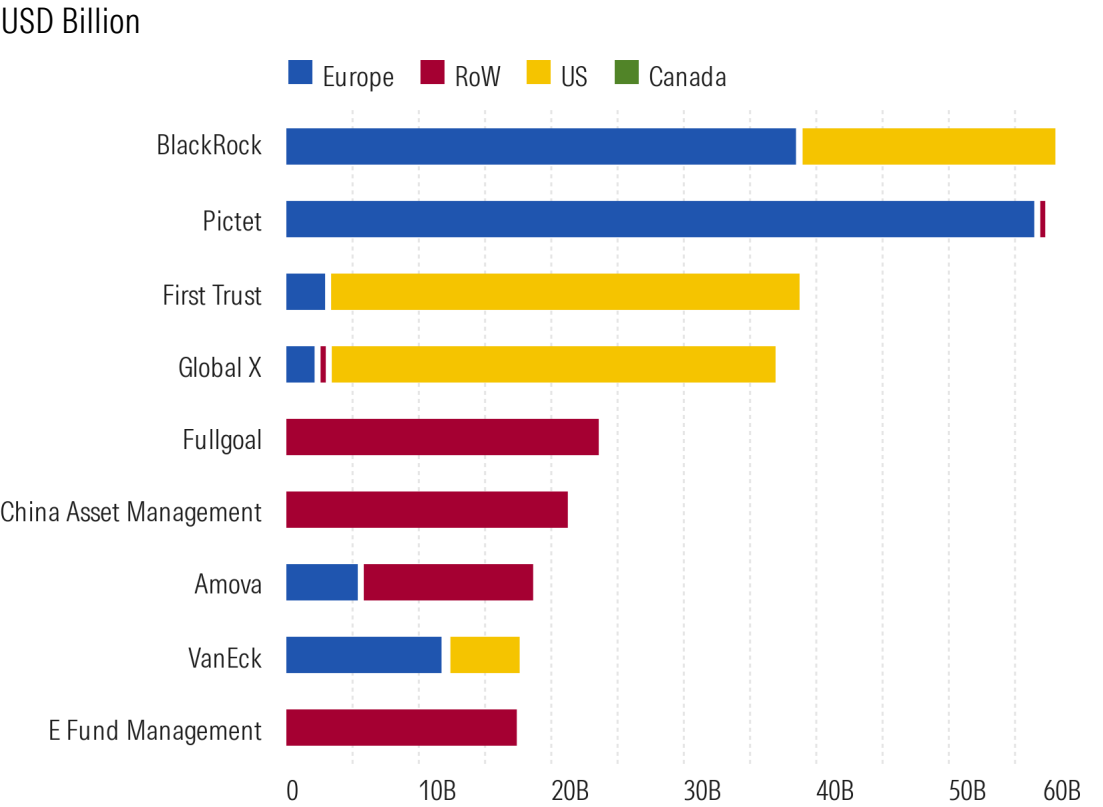
In the US, thematic investing is predominantly an ETF story—which helps explain the strong preference for indexed approaches—although the rise of active ETFs may shift this balance over time.\*\* In Europe, by contrast, the older and larger market remains dominated by traditional actively managed mutual funds.

## Active Versus Passive Split by Region



No single provider holds a globally dominant position in thematic investments. BlackRock\* comes closest, edging out European mega-boutique Pictet for the top spot in global provider AUM rankings. The surge in Chinese thematic investing is evident in the emergence of several Chinese asset managers within the global top 10.

## Global Thematic AUM by Provider



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*Including funds sold under the iShares brand. \*\*See slide 19.

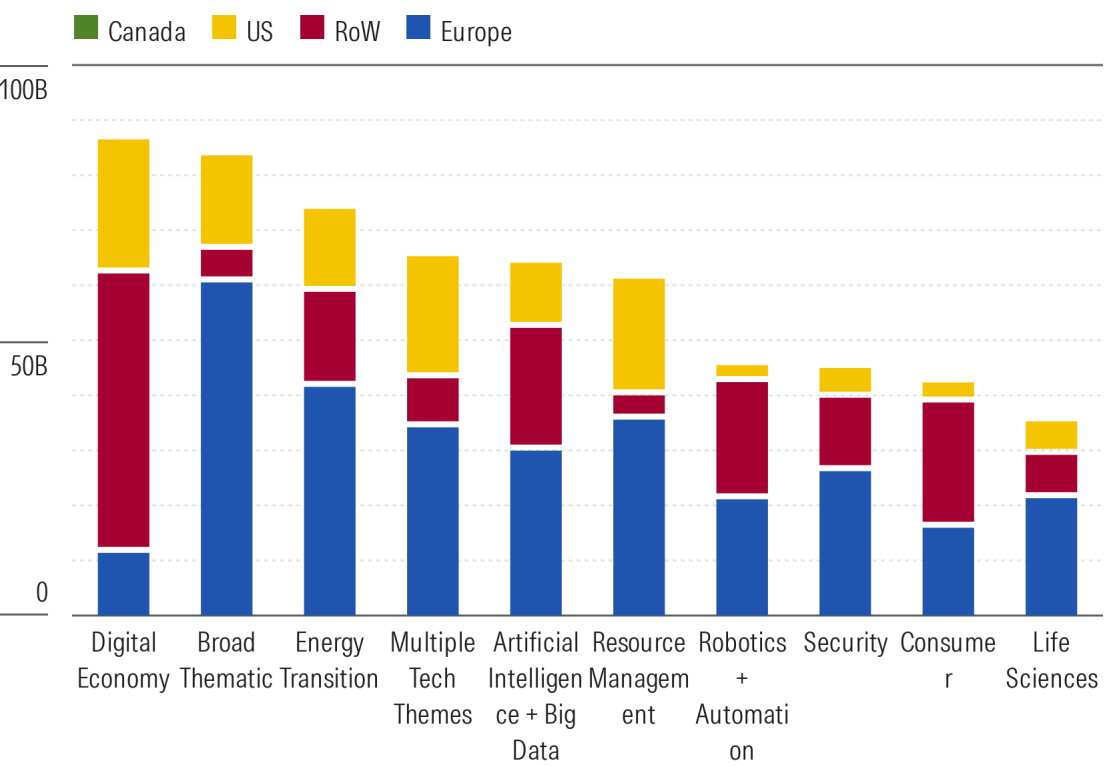
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# AI and Security Themes Are the Biggest Global Winners

Regional preferences largely shape the global leaderboard of popular themes. Strong demand from the RoW region underpins the prominence of digital economy, while Europe drives the popularity of energy transition and broad thematic strategies.

Top Global Themes (AUM)

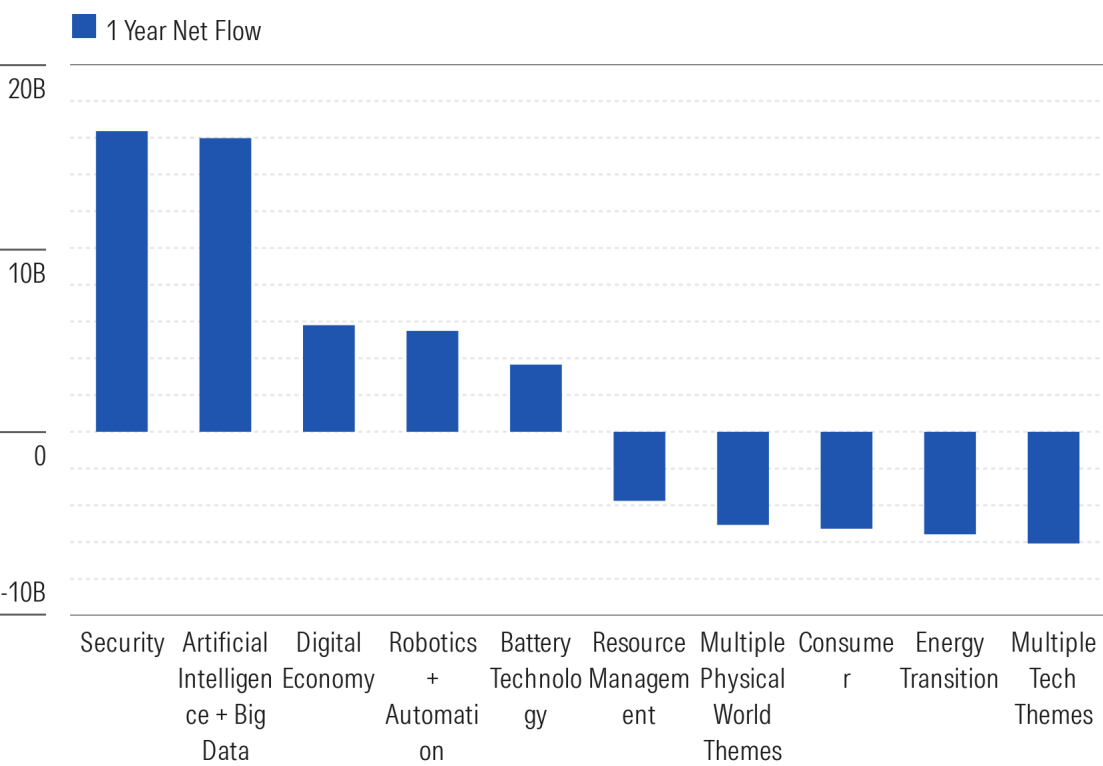
USD Billions



In terms of recent momentum, the security theme has attracted the strongest inflows, driven by rising geopolitical tensions. AI + Big Data funds have also remained in high demand, underscoring their status as the defining technology theme of the moment.

Global Themes Winners and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

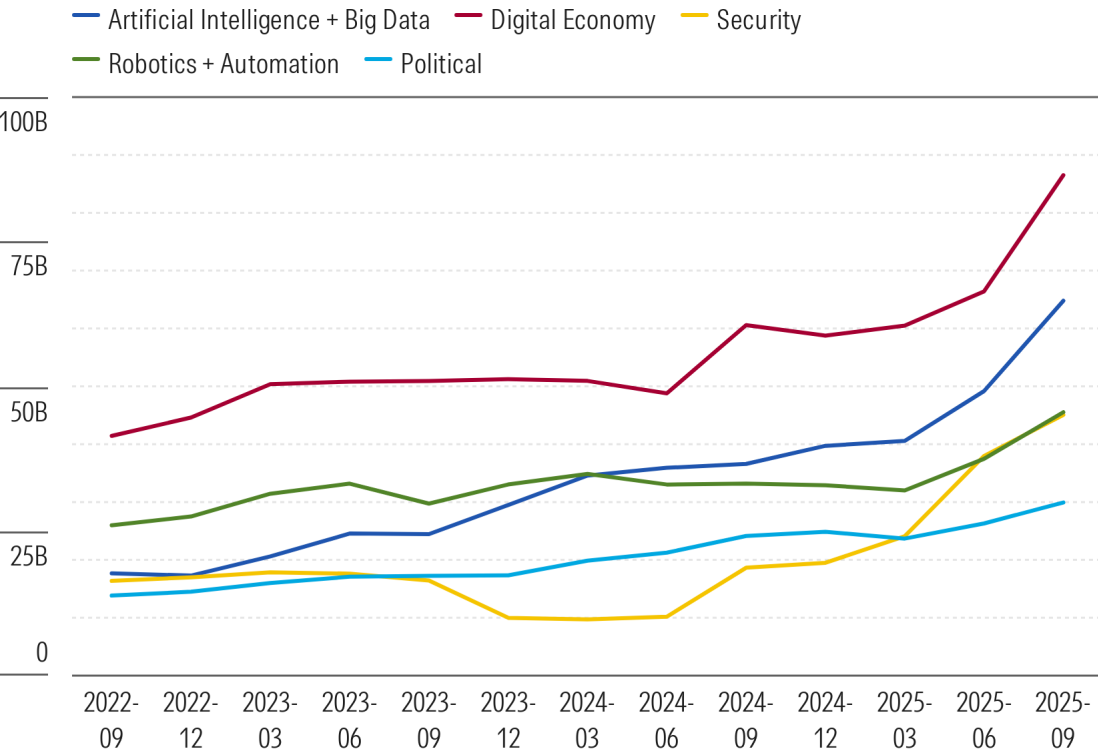
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# AI Funds Gain, Energy Transition Funds Tumble

Over the trailing three years, AI, robotics, and digital economy funds have been buoyed by the continued strength of the Magnificent Seven and other AI-adjacent stocks. Meanwhile, the strong performance of security and political themes reflects increased geopolitical uncertainty.

## Global Theme Winners (AUM)

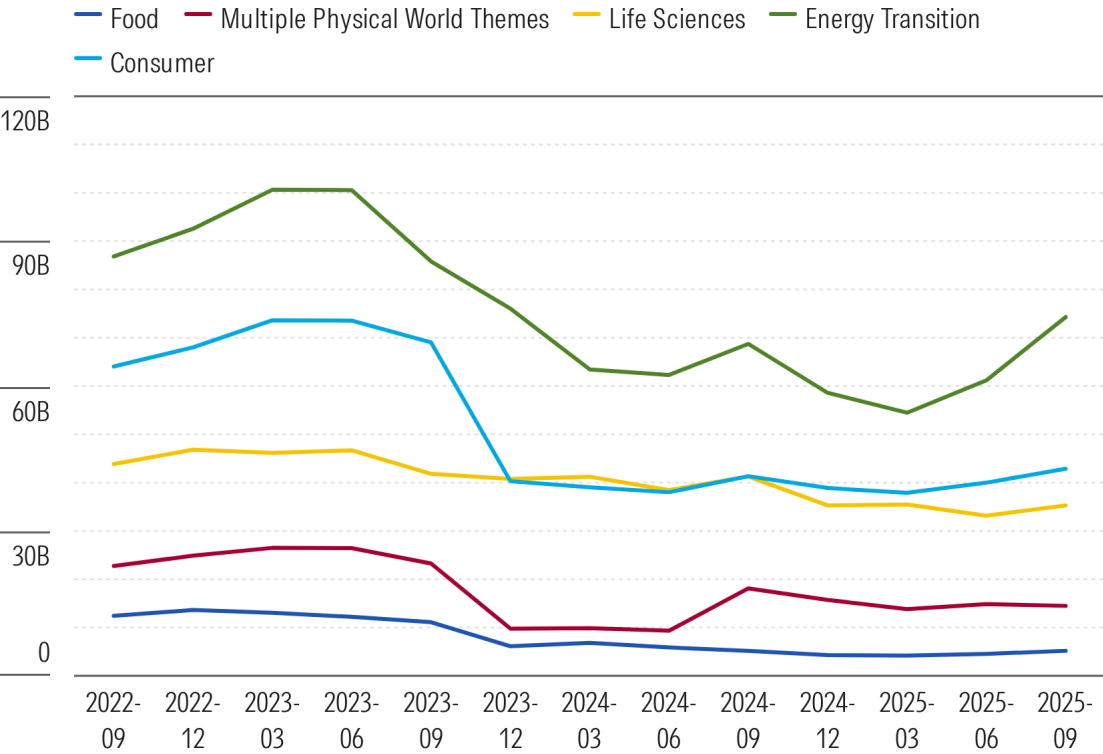
USD Billions



Energy transition funds have been a casualty of the broader cooling in sustainability, with assets falling more than 40% from peak to trough over the trailing three years to the end of Q3 2025. However, sentiment has turned in 2025, with assets rebounding to levels last seen in 2023.

## Global Theme Losers (AUM)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

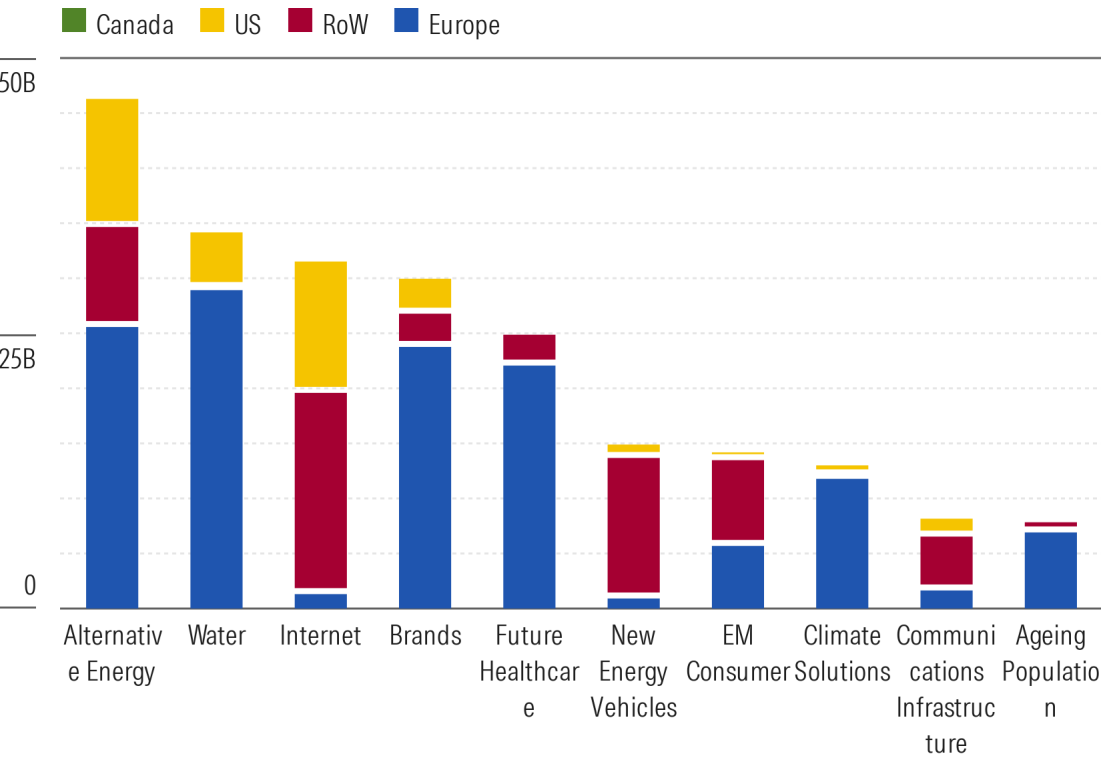
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# Alternative Energy Remains the Largest Subtheme Despite the Largest Outflows

Despite several years of underperformance, alternative energy remains the most popular subtheme globally. Meanwhile, some of the oldest and best-established subthemes—such as water and brands—retain their popularity despite recent outflows.

Top Global Subthemes\* (AUM)

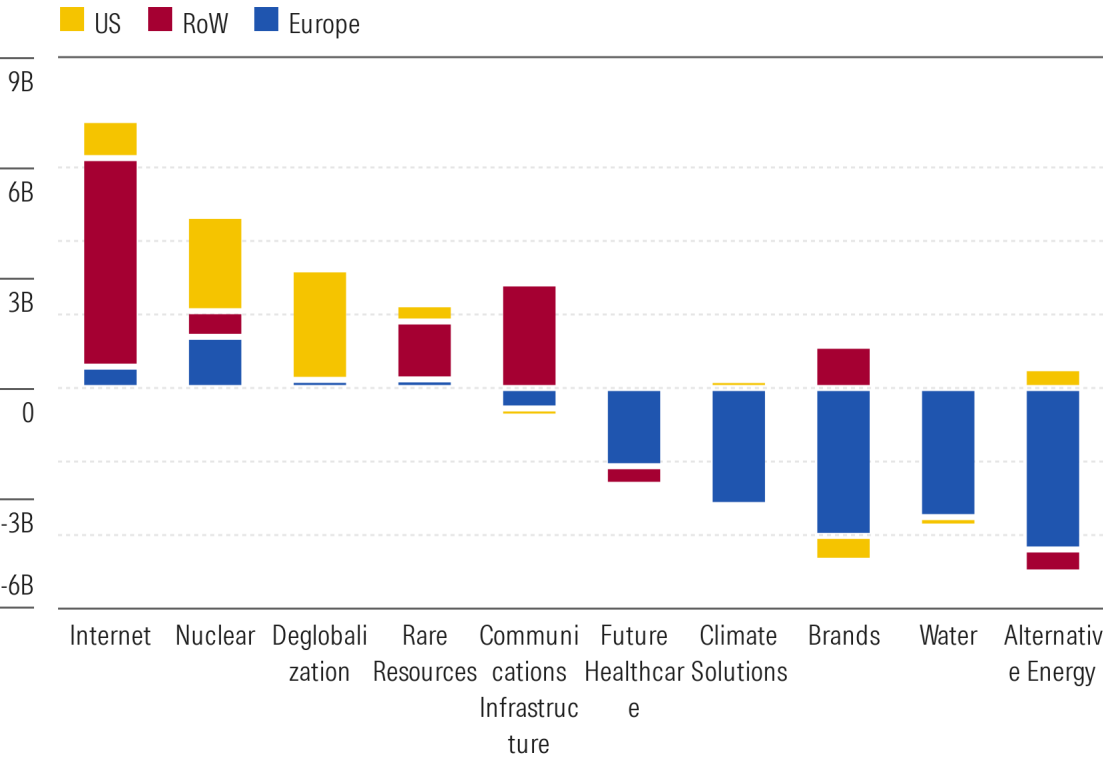
USD Billions



The US “America First” policy stance has fueled strong inflows into deglobalization strategies, while the need to power the AI revolution has driven inflows into nuclear-themed funds across all regions.

Global Subthemes\* Winner and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

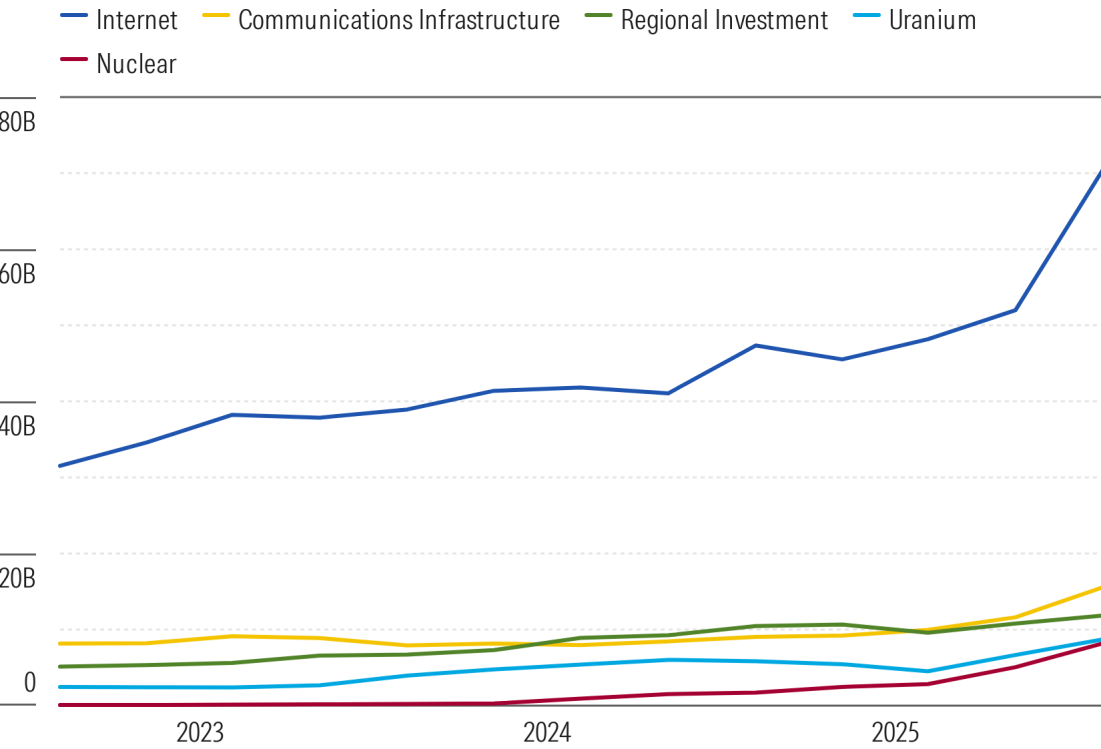
See Important Disclosures at the end of this report.

# China Interest Propels Internet Funds

Driven by interest from China, the internet Subtheme has been the clear winner in terms of asset growth over the trailing three years.

Global Subtheme\* Winners (AUM)

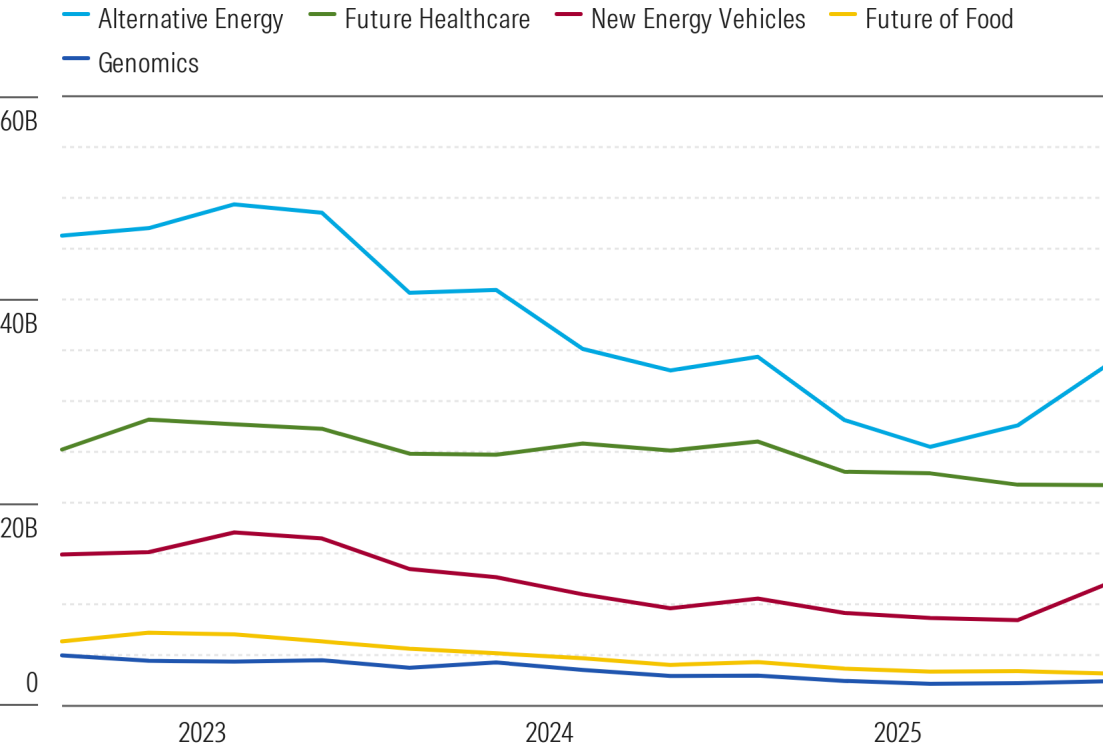
USD Billions



Suffering from a broader ESG backlash and slashed subsidies in the US, alternative energy funds were standout losers of the trailing three years.

Global Subtheme\* Losers (AUM)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

See Important Disclosures at the end of this report.

# The Largest Global Thematic Funds Span a Broad Range of Themes

Largest Thematic Funds Globally					
Fund Name	Domicile	Broad Theme	Theme	Sub-Theme	Fund Size USD Billions
MS INVF Global Brands	Luxembourg	Social	Consumer	Brands	19.30
Fullgoal CSI-HK Connect Internet ETF	China	Technology	Digital Economy	Internet	13.72
BGF World Healthscience	Luxembourg	Technology	Life Sciences	Future Healthcare	12.58
Pictet-Global Megatrend Select	Luxembourg	Broad Thematic	Broad Thematic	Broad Thematic	11.37
Pictet - Robotics	Luxembourg	Technology	Robotics + Automation	Robotics + Automation	11.17
First Trust NASDAQ Cybersecurity ETF	United States	Technology	Cyber Security	Cyber Security	11.05
KraneShares CSI China Internet ETF	United States	Technology	Digital Economy	Internet	9.79
Global X US Infrastructure Dev ETF	United States	Social	Political	Regional Investment	9.60
Pictet-Water	Luxembourg	Physical World	Resource Management	Water	8.63
ARK Innovation ETF	United States	Technology	Multiple Tech Themes	Multiple Tech Themes	8.27

# Most Thematic Funds Don't Beat Global Equities Over Longer Periods

Among thematic funds with a Morningstar Style Box placement, 61% exhibit a growth bias, compared with just 10% that tilt toward value. This is unsurprising: Most thematic strategies target emerging areas with well-known growth potential, such as technological innovation.

## Global Thematic Funds Style Box

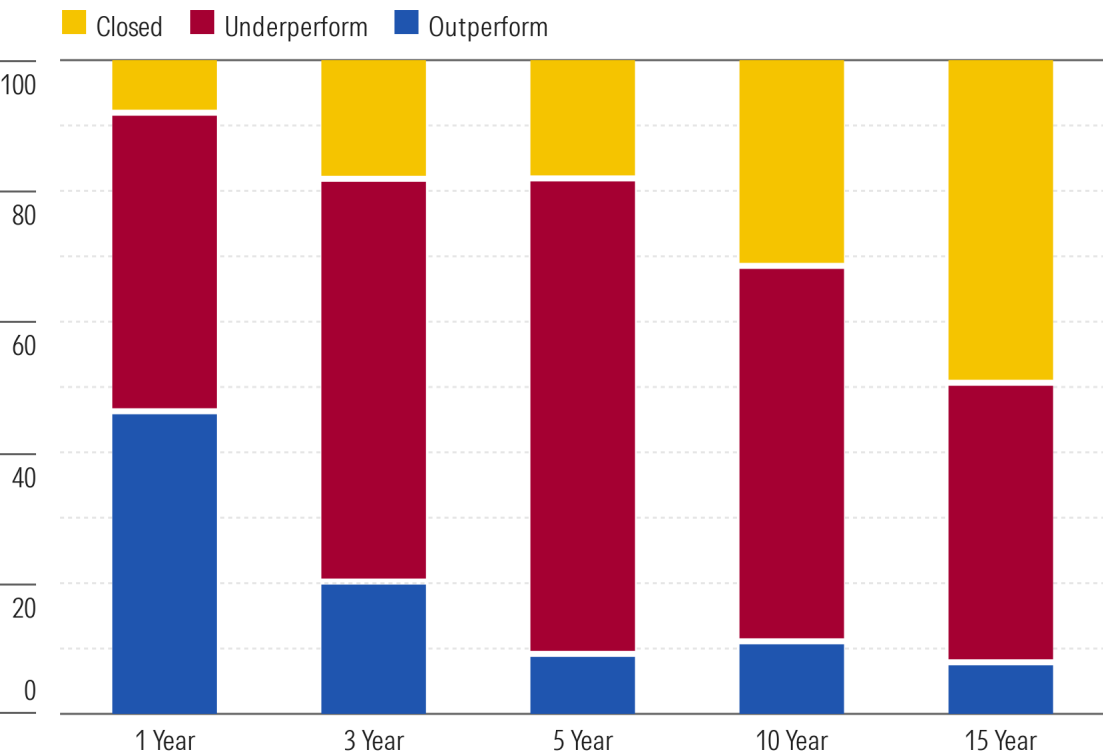
% of Funds

	Value	Blend	Growth
Large	7	18	44
Mid	2	10	15
Small	1	1	2

While thematic funds have occasionally delivered eye-catching returns—most notably during the postpandemic bull market—the odds of selecting a thematic fund that both survives and outperforms global equities over longer periods have been less than 10%.

## Global Thematic Fund Survival and Success Rates Versus Global Equities\*

%



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*The Morningstar Global Target Market Exposure Index is used as a proxy for global equity markets.

See Important Disclosures at the end of this report.

# The US Landscape



# US Assets Rally but Still Shy of 2021 Highs

As of Sept. 30, 2025, there were 332 US-domiciled thematic funds, representing 23% of global thematic fund assets.

As in other regions, US thematic assets ballooned during the postpandemic bull market—more than tripling between early 2020 and mid-2021—before plunging 35% in the following year.

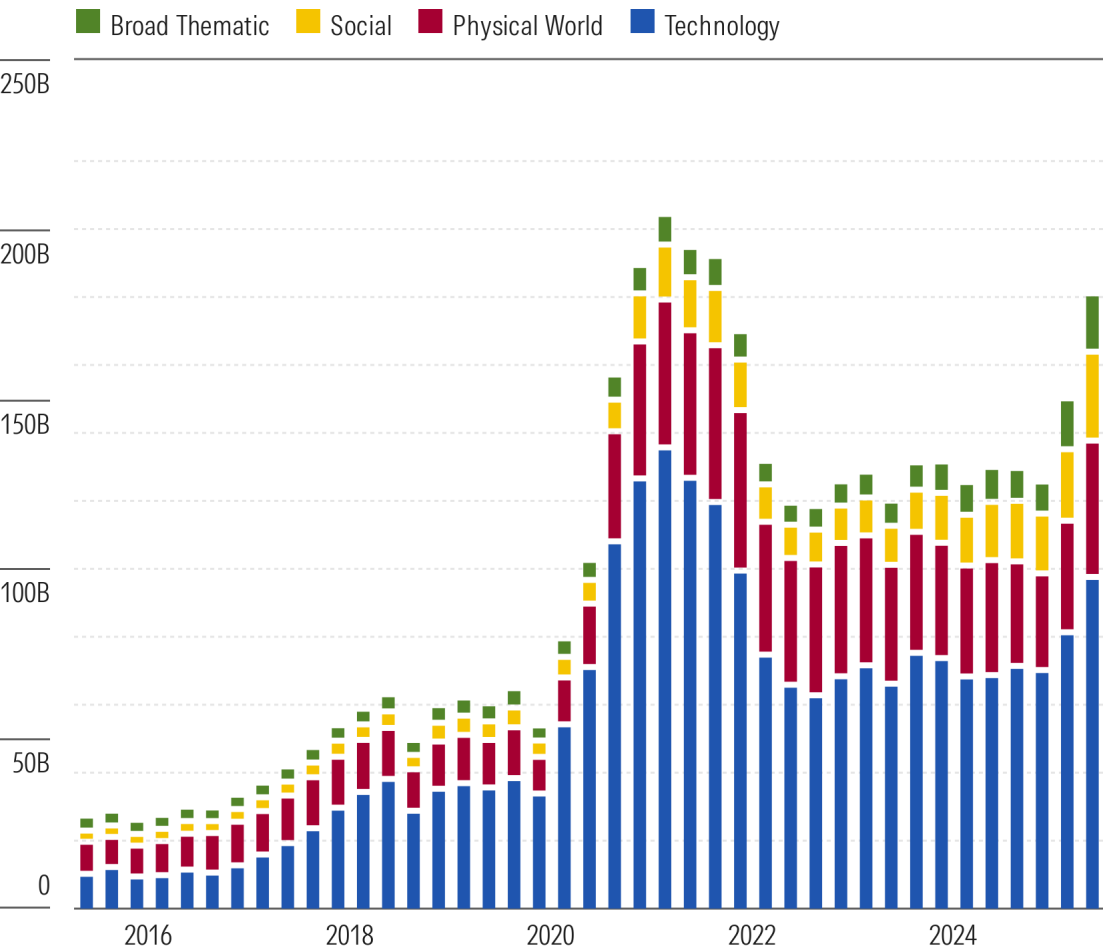
Assets in US-domiciled thematic funds have grown 50% over the trailing three years, reaching USD 180 billion at the end of Q3 2025. Most of this growth has occurred during the “post-liberation day” rally of 2025.

Asset levels now sit just below the highs recorded during the peak of the postpandemic “everything rally” in 2021.

In the US, thematic investing is predominantly an ETF-driven market, with investors showing a strong preference for technology-oriented themes.

## US AUM Growth by Broad Theme

USD Billion

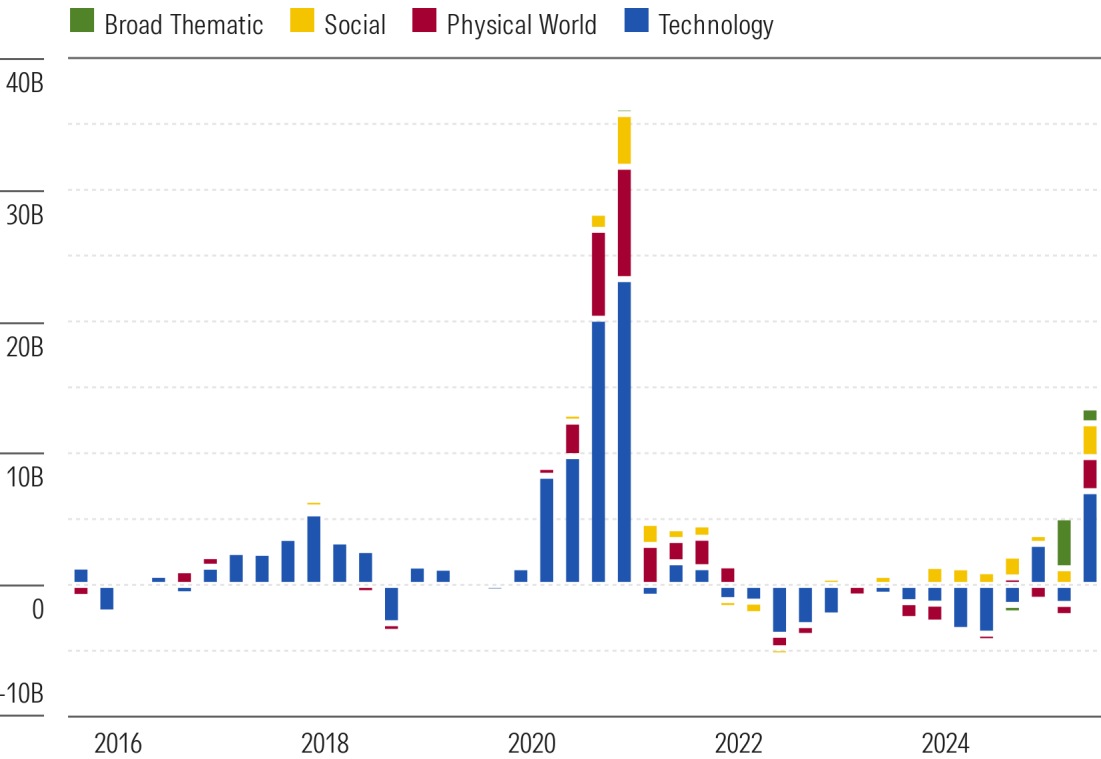


# Net Flows Turn Positive, but Fund Closures Still Outnumber Launches

After several years of net outflows, US thematic funds have returned to favor in 2025, attracting USD 19 billion in net inflows over the first three quarters. At this pace, they are on track for their strongest year since 2021.

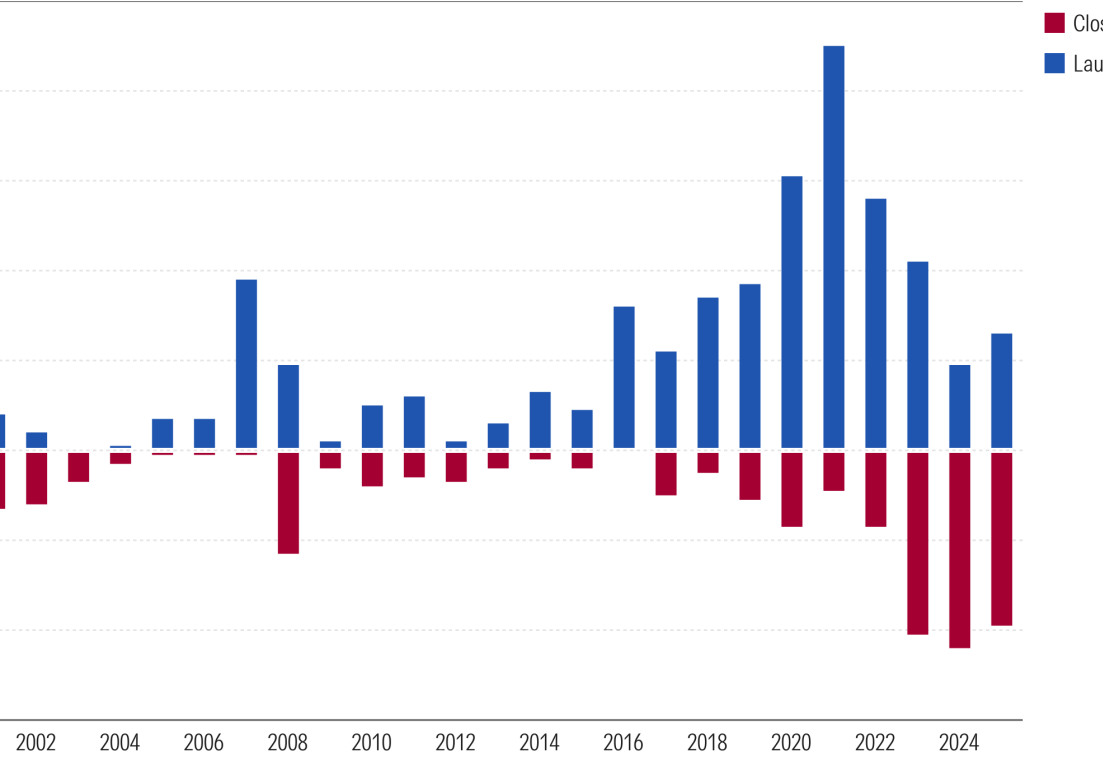
## US Net Asset Flows by Broad Theme

USD Billion



Despite a recent uptick in interest in thematic funds, declining launches and rising closures have reduced the number of available strategies in the region by 38 since the start of 2024.

## US Thematic Launches and Closures by Year



# Active ETFs Continue to Be Overrepresented in Thematics

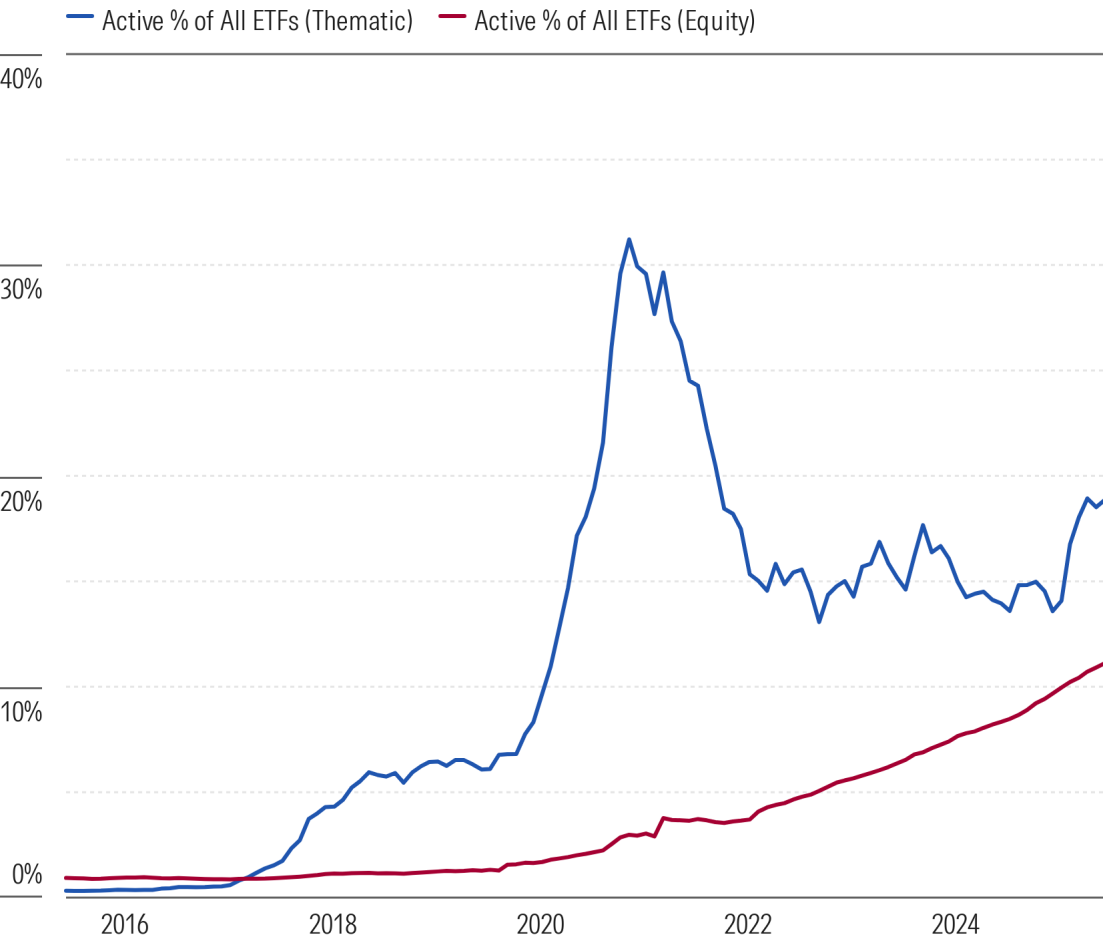
The vast majority of US thematic strategies are offered in an ETF wrapper. Historically, ETFs have been dominated by index-tracking products, which explains why 73% of US thematic fund assets sit in indexed strategies.

However, ETFs have increasingly become the wrapper of choice for active managers as well. Thematic ETFs were early movers in this shift. This was driven largely by the explosive popularity of the ARK Invest suite—its market share surged to roughly one-third in 2021 before settling back to around 20% today.

For context, even with the steady rise of active equity ETFs more broadly, they still account for only 11% of all US-domiciled equity ETF assets.

## US Active ETF Popularity

% Market Share Thematic ETFs Versus All Equity ETFs



# First Trust is Largest Thematic Provider in the US

Among thematic funds with a style box placement, 57% have a growth bias, compared with just 10% that tilt toward value. This is unsurprising, as most thematic strategies focus on emerging areas with strong growth potential, particularly technology themes in the US.

## US Thematic Funds Style Box

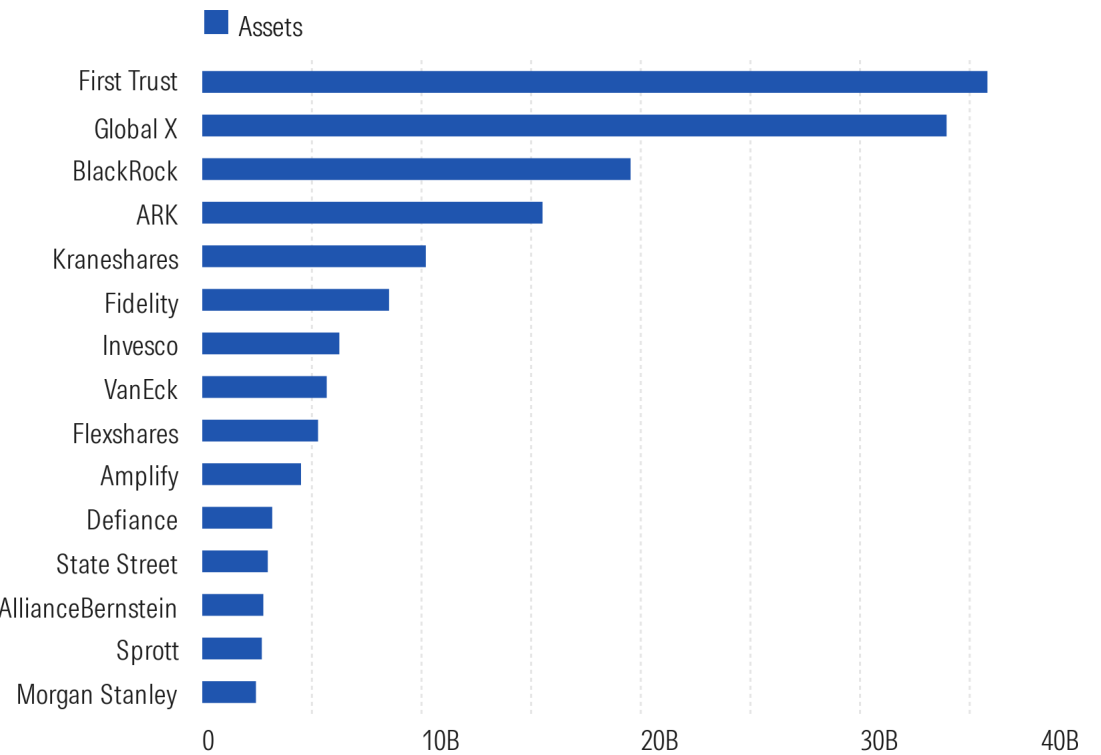
% of funds

	Value	Blend	Growth
Large	2	15	30
Mid	6	14	21
Small	2	4	6

Boosted by its hefty cybersecurity- and internet-themed products, First Trust has become the largest thematic provider in the US. Thematic ETF specialist Global X takes the second spot.

## US Thematic AUM by Provider

USD Billions

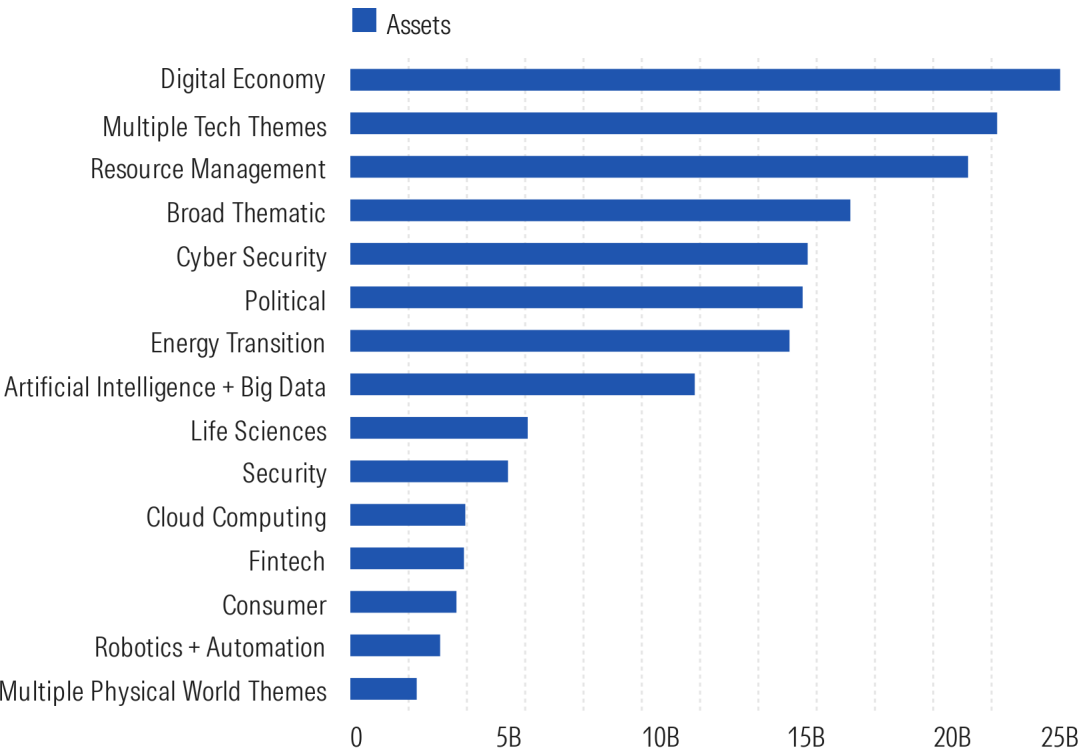


# AI Funds Attract Flows, but Other Tech Themes Remain the Most Popular

Digital economy—encompassing funds targeting China, India, and US tech subthemes—is the most popular theme in the US. Multiple tech themes, which includes the flagship tech-focused thematic ETF ARKK, take the second spot.

## Top US Themes (AUM)

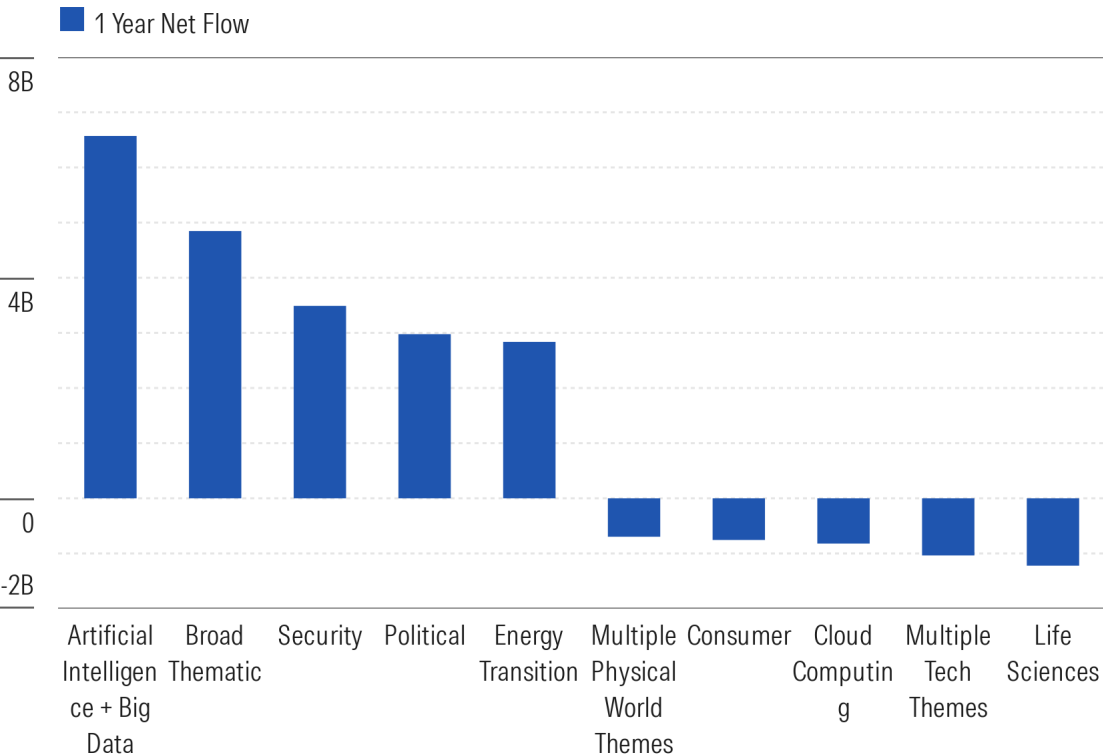
USD Billions



AI + Big Data funds have been the most popular theme over the trailing year, underscoring their status as the defining technology narrative of the moment. Security and political themes have also attracted strong inflows, driven by heightened geopolitical tensions.

## US Themes Winners and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

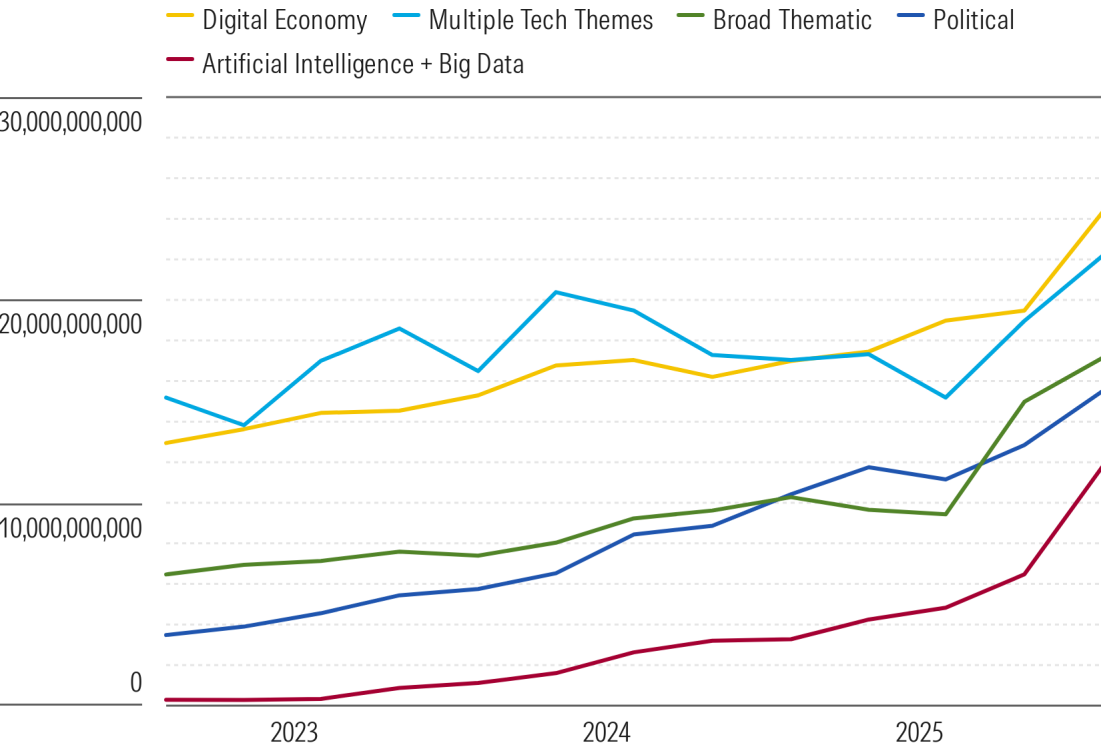
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# AI Boom Underpins Asset Boost to Tech Themes

Over the trailing three years, AI and digital economy funds have gained from the AI revolution. Meanwhile, the strong performance of political themes reflects increased geopolitical uncertainty.

## US Theme Winners (AUM)

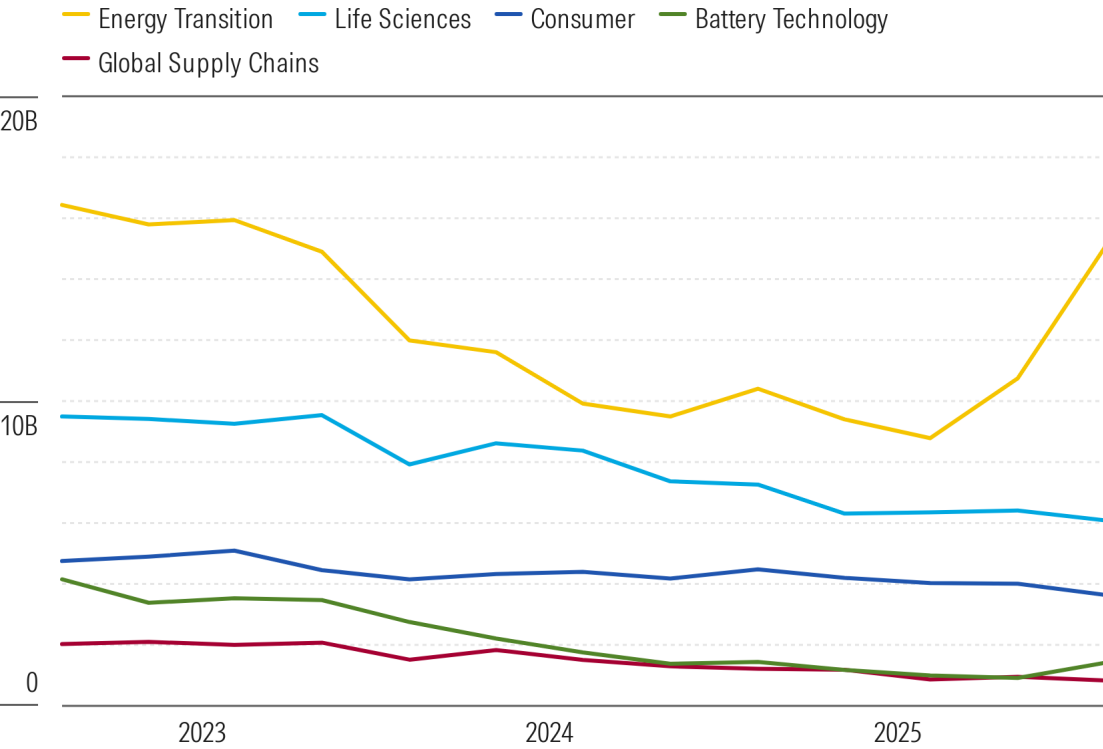
USD Billions



The struggles of consumer and global supply chain themes over the past three years reflect growing conviction in a deglobalizing world. Despite being among the biggest losers over this period, energy transition funds have staged a strong recovery in 2025.

## US Theme Losers (AUM)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

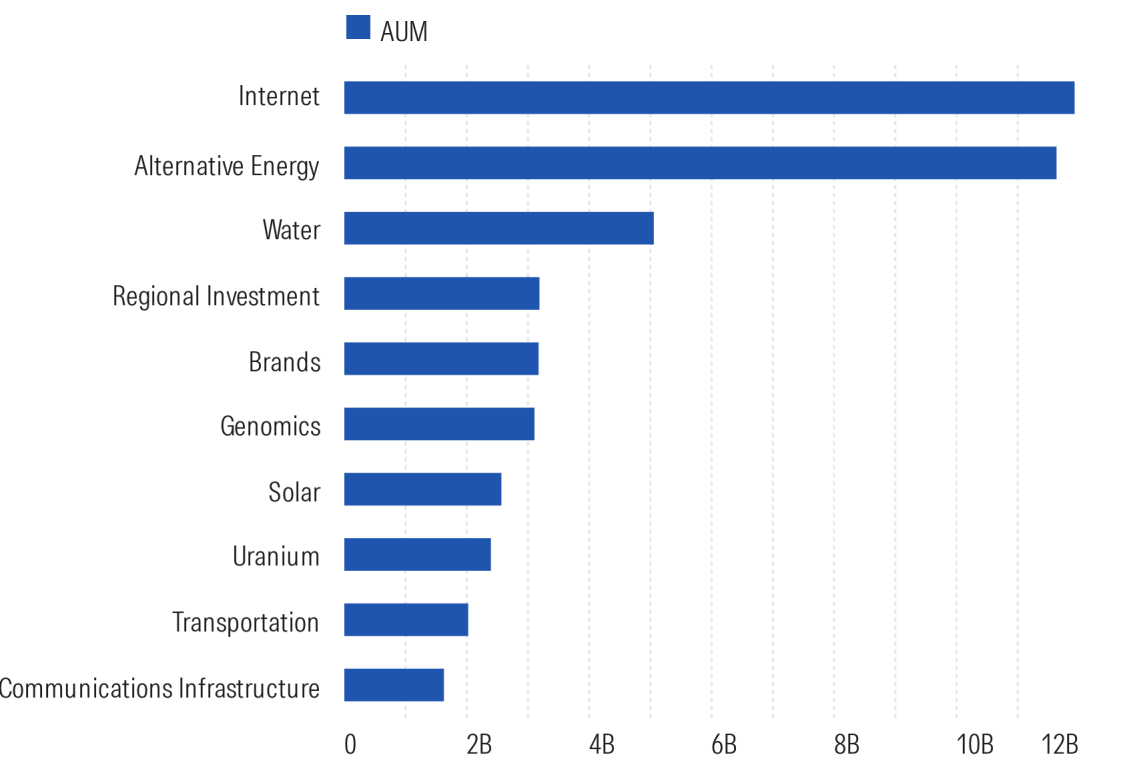
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# “America First” Policies Boost Deglobalization strategies

Internet funds—covering large strategies focused on China, India, and US tech—are the most popular subtheme grouping in the US. Alternative energy funds, despite suffering in recent years from reduced subsidies and higher rates, remain among the most widely held subthemes.

## Top US Subthemes\* (AUM)

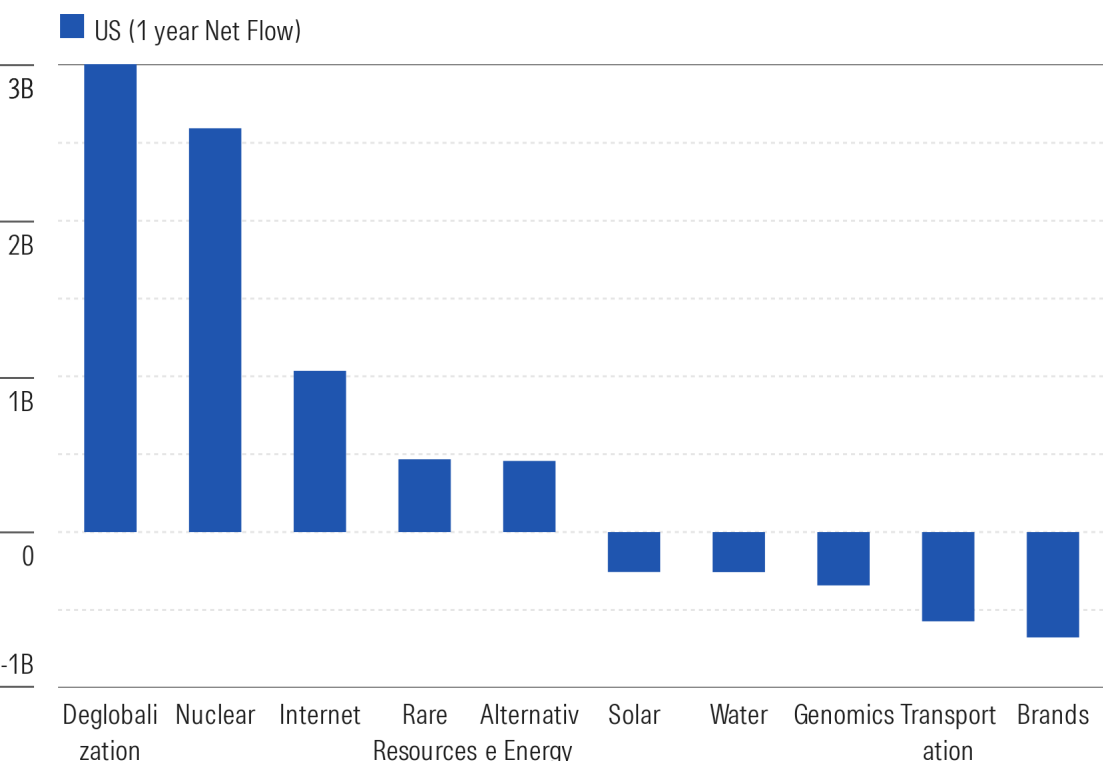
USD Billions



The US “America First” policy stance has fueled strong inflows into deglobalization strategies, while the need to power the AI revolution has driven inflows into nuclear-themed funds.

## US Subthemes\* Winners and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025. Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

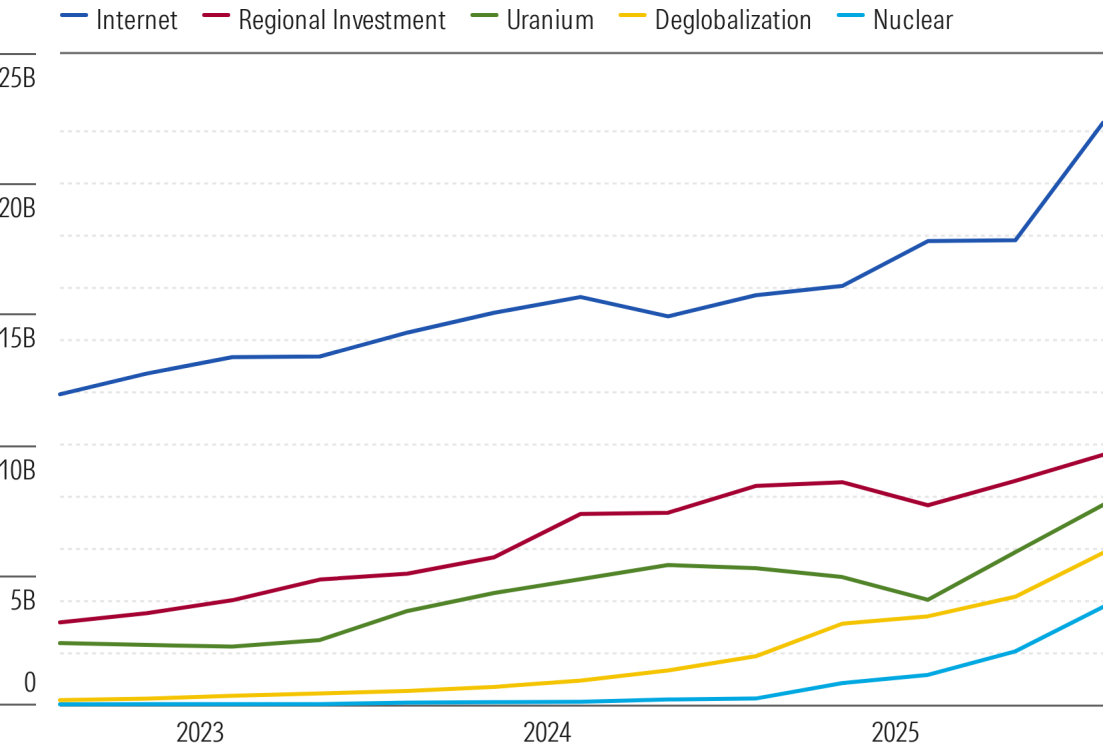
See Important Disclosures at the end of this report.

# Internet Funds Ride AI Wave, While Alternative Energy Tumbles

Over the trailing three years, internet funds have been buoyed by the continued strength of the Magnificent Seven and other AI-adjacent stocks. The need to power the AI revolution also boosted nuclear- and uranium-themed funds across all regions.

## US Subtheme Winners (AUM)

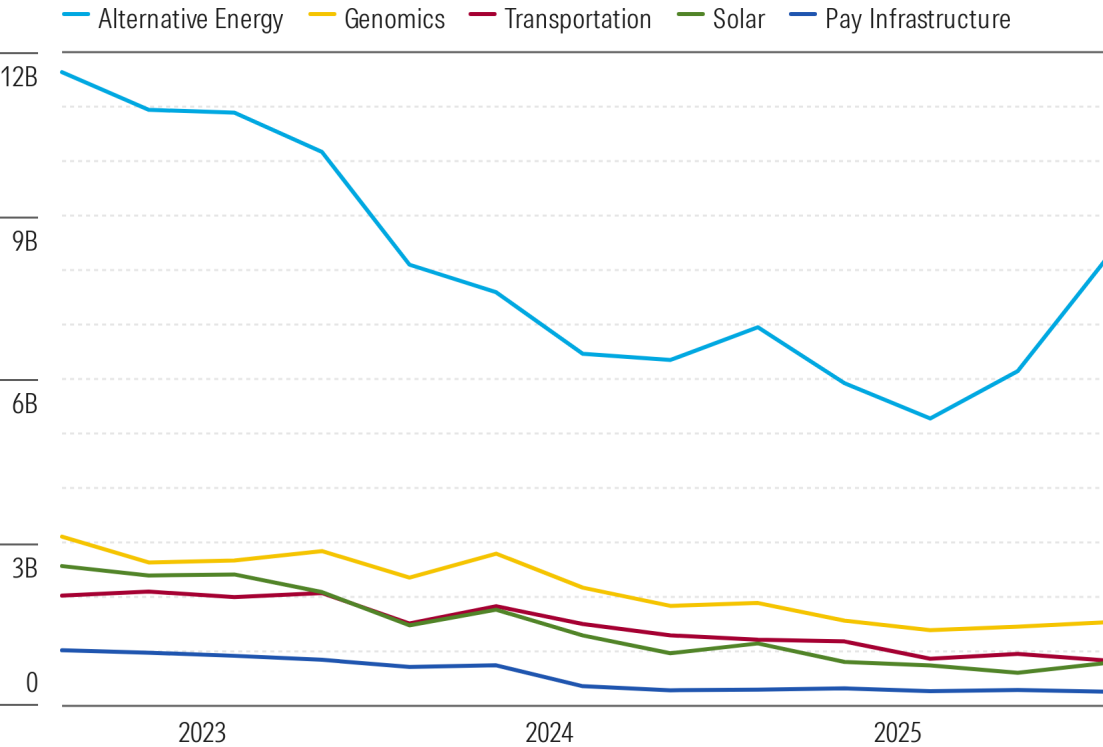
USD Billions.



As with its parent theme, energy transition, alternative energy assets have slumped over the past three years, and even the recent rebound has only partially offset the earlier declines. The struggles of the transportation theme reflect tariff-driven hawkishness on global trade.

## US Subtheme Losers (AUM)

USD Billions.





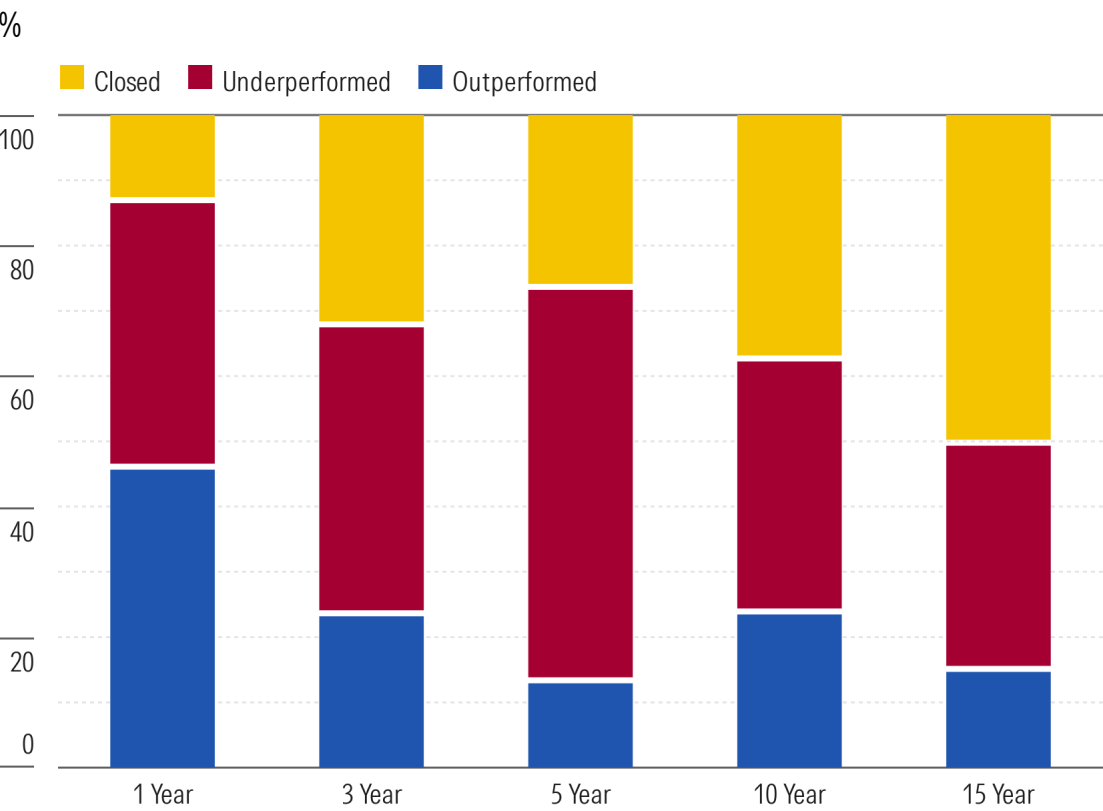
# Tech-Themed Funds Dominate the Largest US Thematic Funds

Largest Thematic Funds US					
Name	Ticker	Broad Theme	Theme	Sub-Theme	Fund Size
First Trust NASDAQ Cybersecurity ETF	CIBR	Technology	Cyber Security	Cyber Security	11.05
KraneShares CSI China Internet ETF	KWEB	Technology	Digital Economy	Internet	9.79
Global X US Infrastructure Dev ETF	PAVE	Social	Political	Regional Investment	9.60
ARK Innovation ETF	ARKK	Technology	Multiple Tech Themes	Multiple Tech Themes	8.27
First Trust Dow Jones Internet ETF	FDN	Technology	Digital Economy	Internet	7.75
iShares U.S. Thematic Rotation ActiveETF	THRO	Broad Thematic	Broad Thematic	Broad Thematic	6.17
Global X Artfcl Intlgc & Tech ETF	AIQ	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	5.98
First Trust RBA Amer Indl Renais™ ETF	AIRR	Social	Political	Deglobalization	5.58
Fidelity New Millennium	FMILX	Broad Thematic	Broad Thematic	Broad Thematic	5.37
FlexShares Mstar GIBl Upstrm Nat Res ETF	GUNR	Physical World	Resource Management	Resource Management	5.28

# Higher Fees Contribute to Long-Term Underperformance

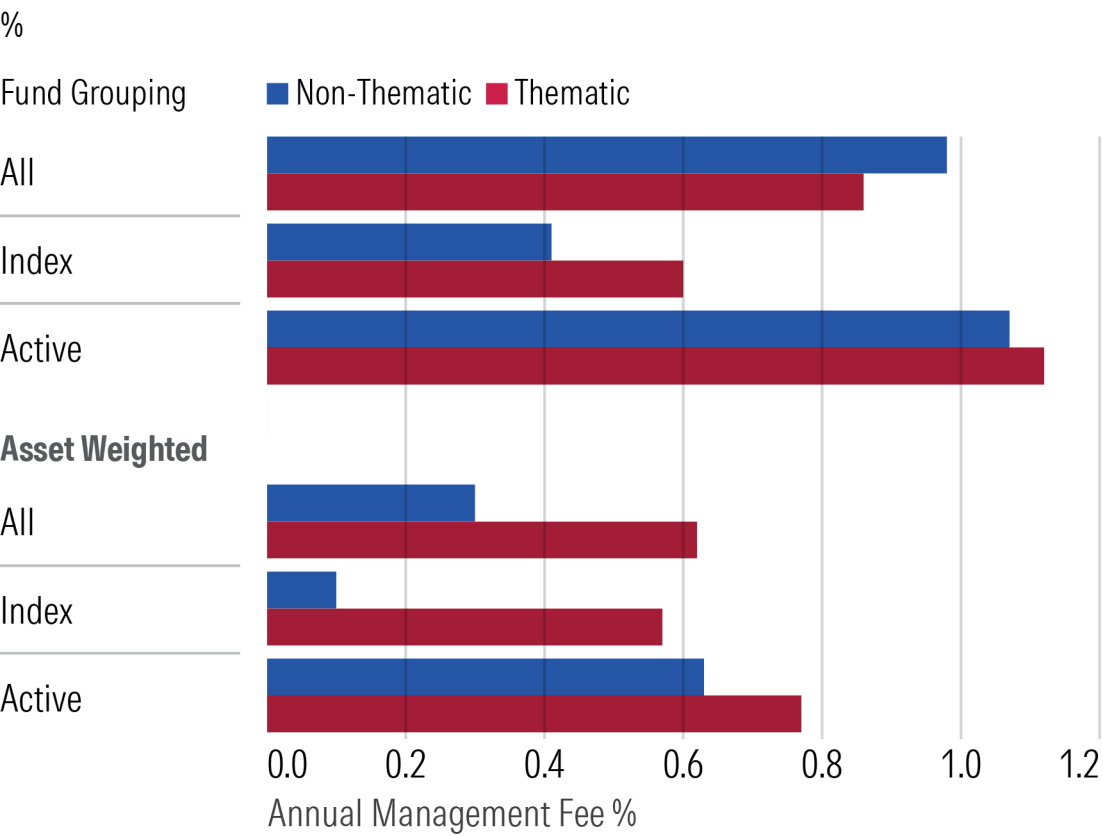
While thematic funds have occasionally delivered eye-catching returns—most notably during the postpandemic bull market—the odds of selecting a thematic fund that both survives and outperforms global equities over longer periods have been slim.

US Thematic Fund Survival and Success Rates Versus Global Equities\*



US thematic funds command a consistent fee premium across both active and passive strategies. The gap widens further on an asset-weighted basis, indicating that investors show relatively lower price sensitivity when allocating to thematic funds.

US Average Fees



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*The Morningstar Global TME Index is used as a proxy for global equity markets.

See Important Disclosures at the end of this report.

# The European Landscape

# European Thematic Fund Assets Remain a Third Below PostPandemic Highs

Europe is home to the world’s largest market for thematic funds. As of Sept. 30, 2025, the region hosted 870 domiciled thematic funds, representing 44% of global thematic fund assets.

Assets in European thematic funds rose 15% in the first three quarters of 2025 to USD 343 billion. However, while other regional markets have begun to recover meaningfully, Europe remains 35% below the peaks reached during the pandemic-era bull market.

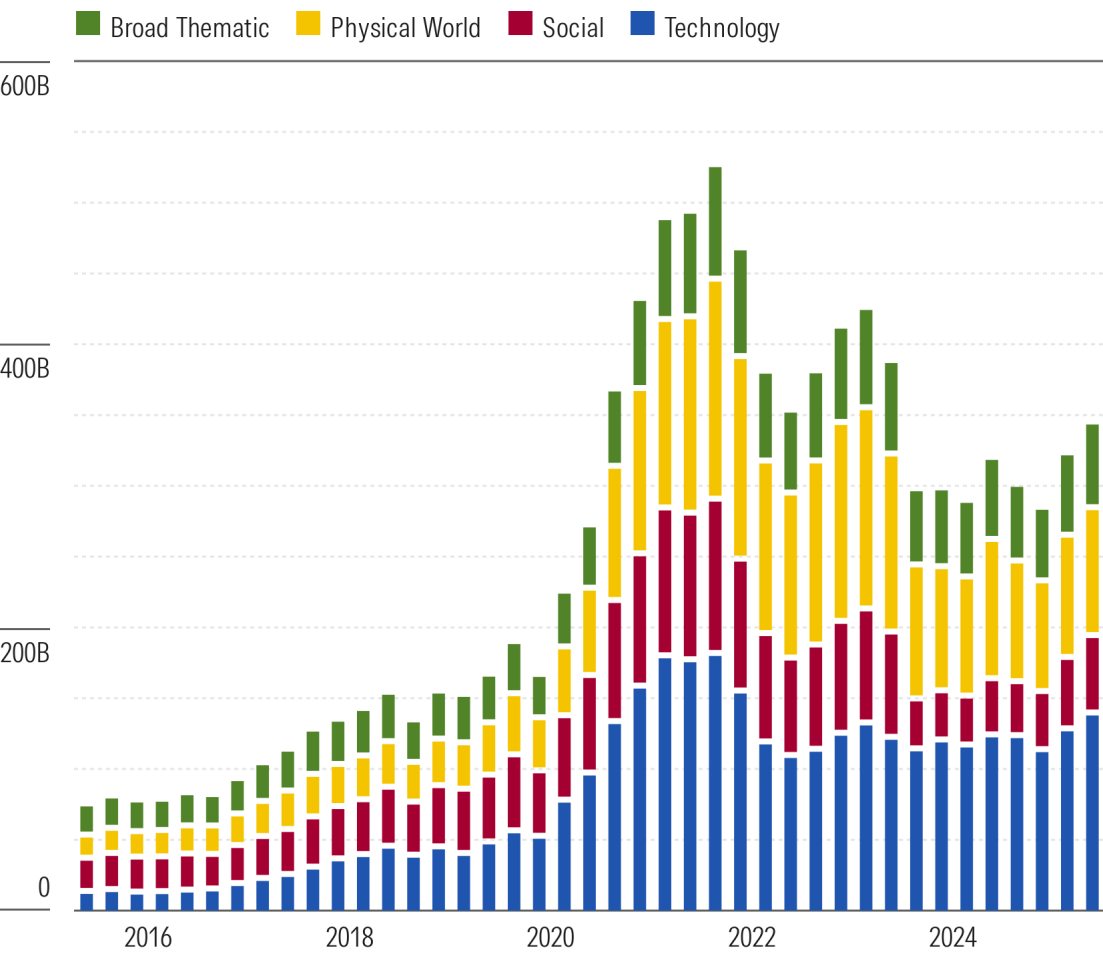
Europe’s underperformance reflects, in part, its comparatively lower exposure to technology themes—particularly those tied to the recent boom in AI—and its heavier tilt toward energy-transition strategies, which have been out of favor for several years.

Additionally, the predominance of higher-fee, actively managed mutual funds in Europe has meant the segment is facing the same structural headwinds as the broader asset-management industry.

These dynamics are evident in the fast-growing role of indexed products. Passive strategies have expanded to 21% of European thematic fund assets from 10% over the two years to September 2025. We expect this shift to continue as more thematic strategies begin to launch within the growing active ETF market.

Europe AUM Growth by Broad Theme

USD Billions

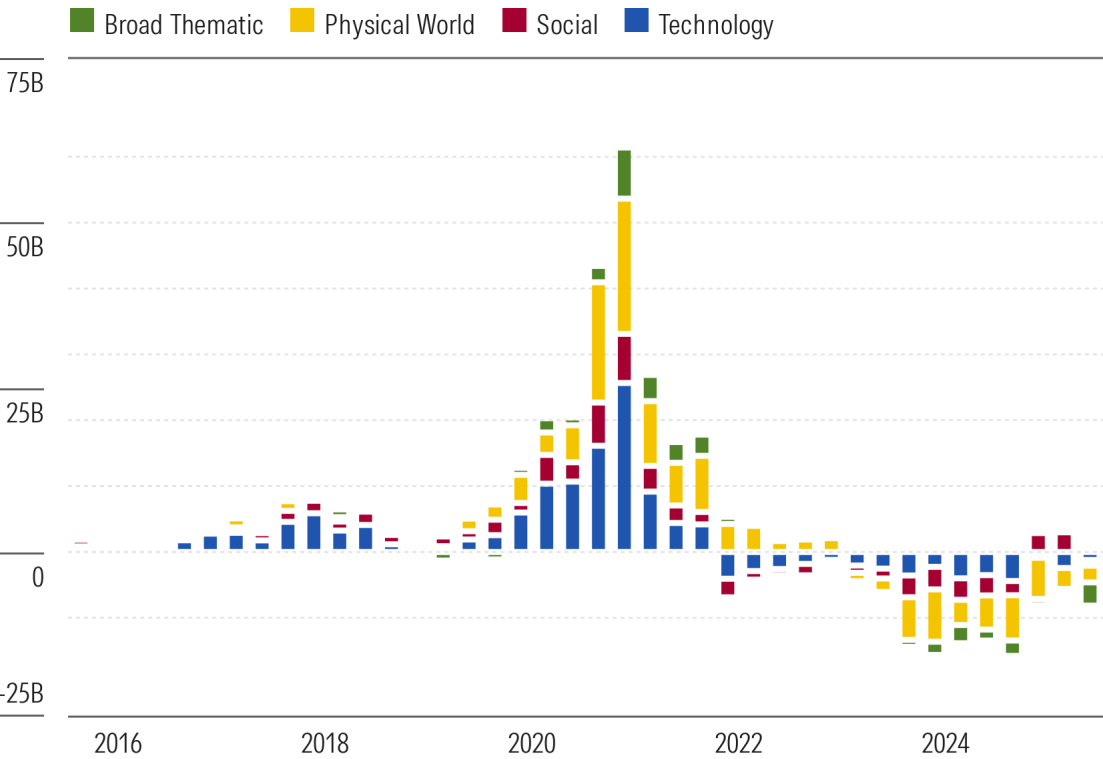


# European Net Outflows Persist

European thematic funds have endured a difficult few years, recording only three quarters of net inflows over the past four years. The hardest-hit segment has been physical-world strategies, particularly those focused on the energy transition. These funds have borne the brunt of the broader backlash against ESG investing.

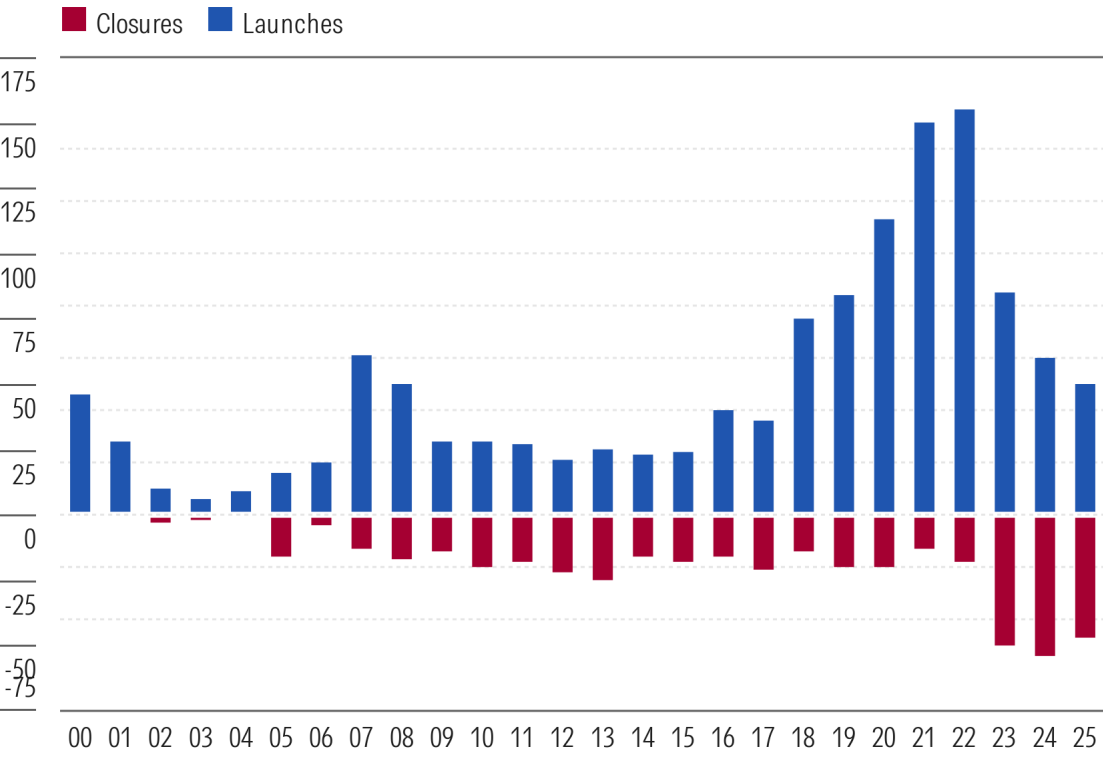
## Europe Net Asset Flows by Broad Theme

USD Billion



The persistent outflows experienced by European thematic managers have not completely extinguished an enthusiasm for launching new products. Unlike in the US—where the menu has shrunk during the lean years—Europe continues to see new launches outpace closures, if only marginally so.

## Europe Thematic Launches and Closures by Year



# Pictet Remains the Dominant Thematic Provider in Europe

Among thematic funds with a style box placement, 56% have a growth bias, compared with just 6% that tilt toward value. The number of blend funds (37% vs globally 29%) reflects the themes popular in Europe: more exposure to non-AI related themes. Therefore, we see lower valuations.

## Europe Thematic Funds Style Box

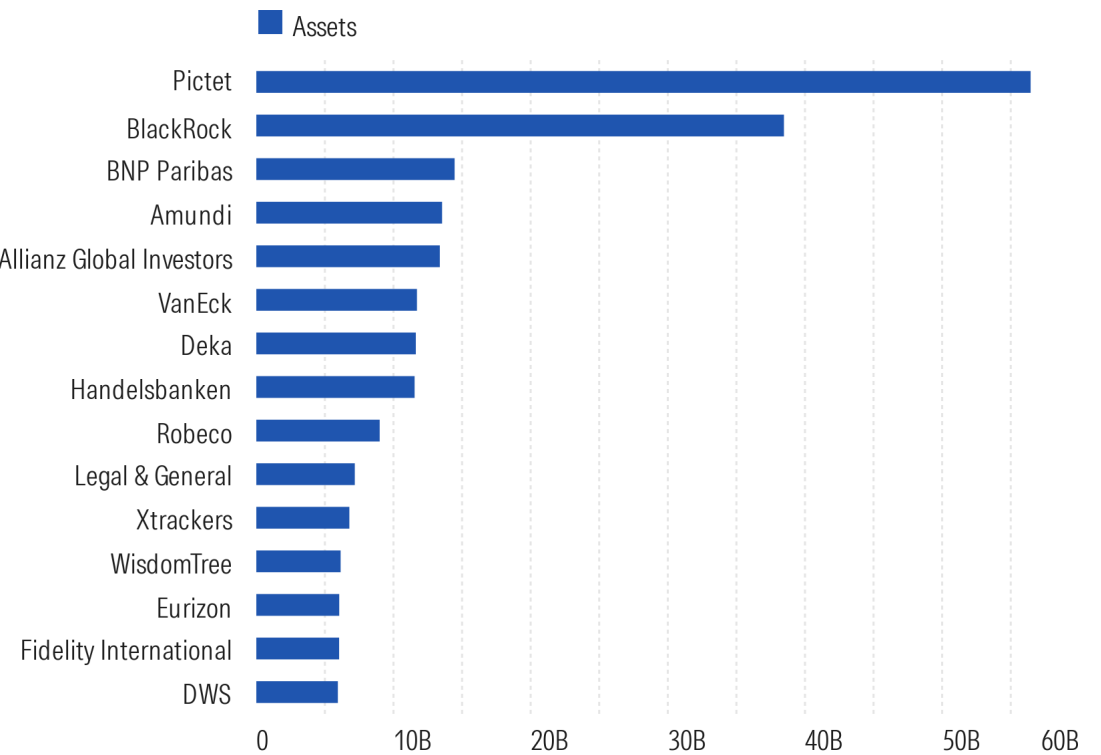
% of Funds

	Value	Blend	Growth
Large	3	22	38
Mid	2	14	16
Small	1	1	2

Swiss thematic specialist Pictet Asset Management remains the dominant thematic provider in Europe. Notably, VanEck stands out as the highest-ranked ETF-only thematic player.

## Europe Thematic AUM by Provider

USD Billions

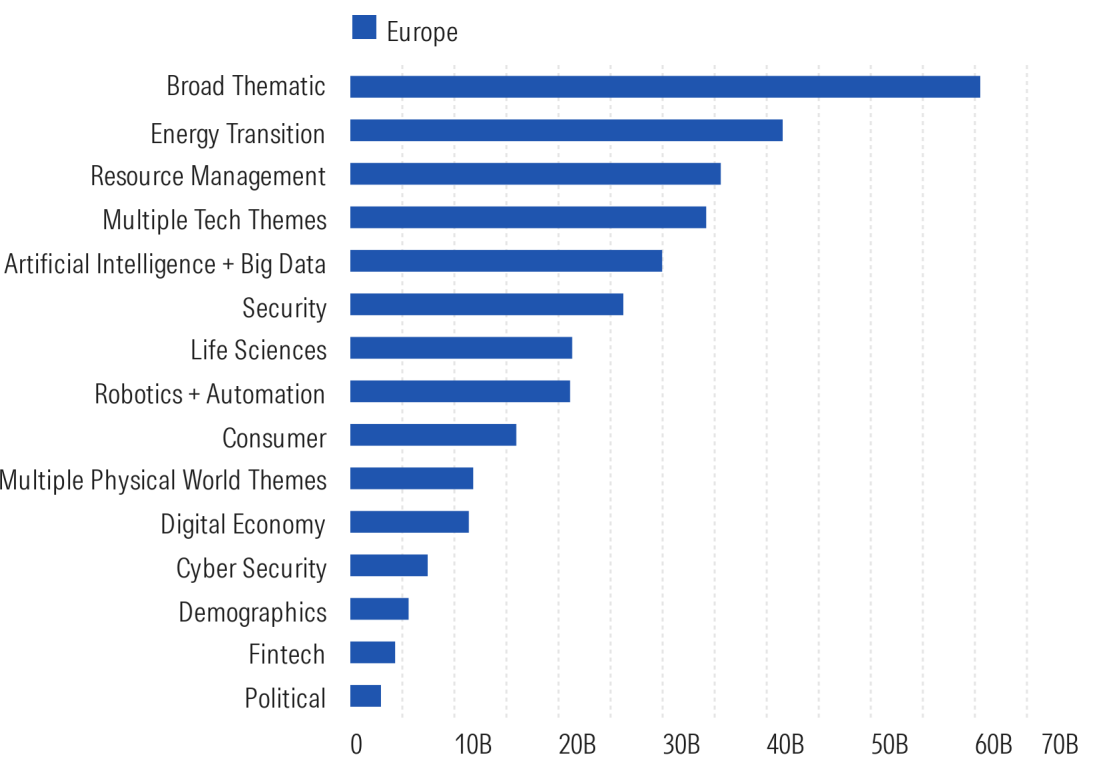


# Broad Thematic Funds Remain Popular in Europe

Unlike all other regions, broad thematic funds, which invest across multiple themes, hold top spot in Europe. Despite several years of trouble, energy transition takes the second spot.

## Top Europe Themes (AUM)

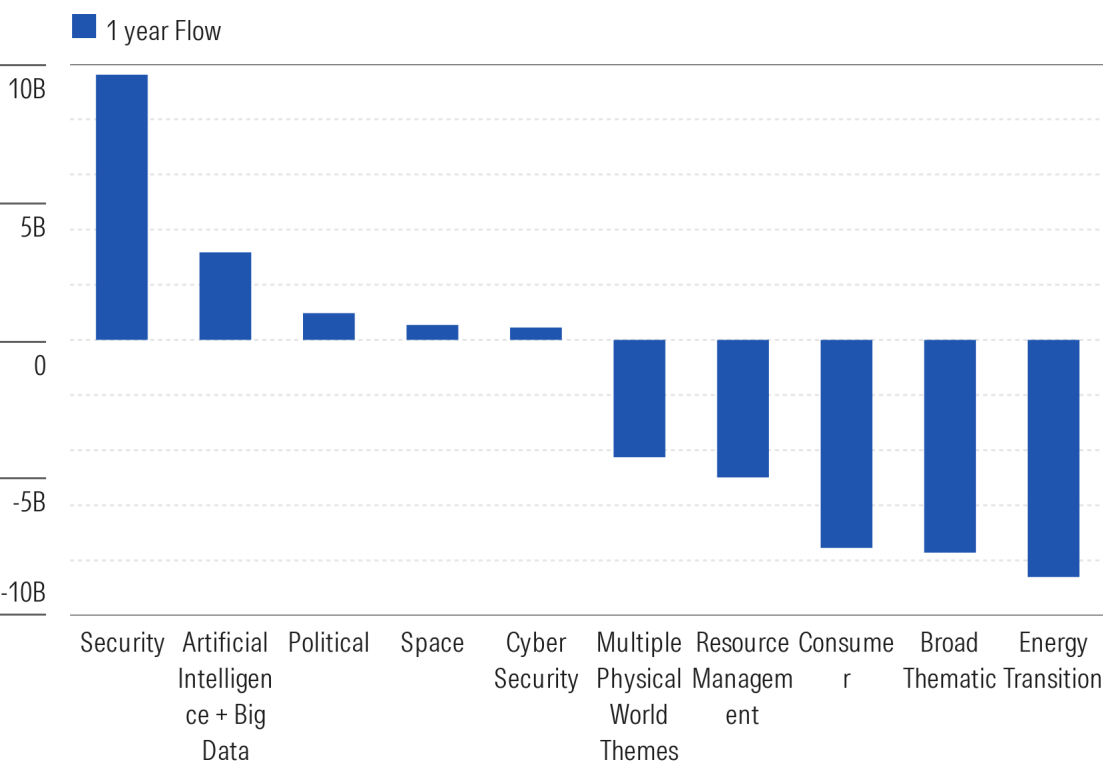
USD Billions



In terms of recent popularity, the security theme has attracted the strongest inflows, fueled by the sharp reset in the Western geopolitical order and Europe's renewed focus on rearmament.

## Europe Themes Winner and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

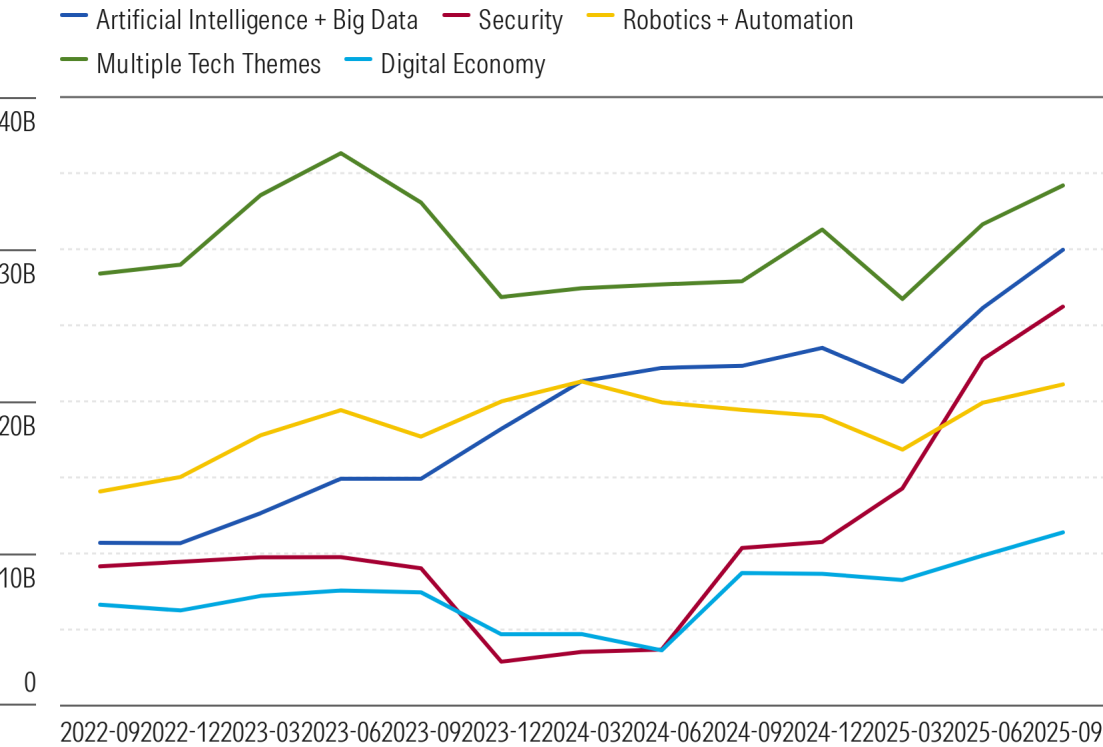
See Important Disclosures at the end of this report.

# Security Fund Assets Have Surged as Europe Scrambles to Rearm

Buoyed by Donald Trump’s reelection, security funds have been the standout winners over the trailing three years. Assets have surged as European countries scramble to rebuild and modernize their armed forces.

## Europe Theme Winners (AUM)

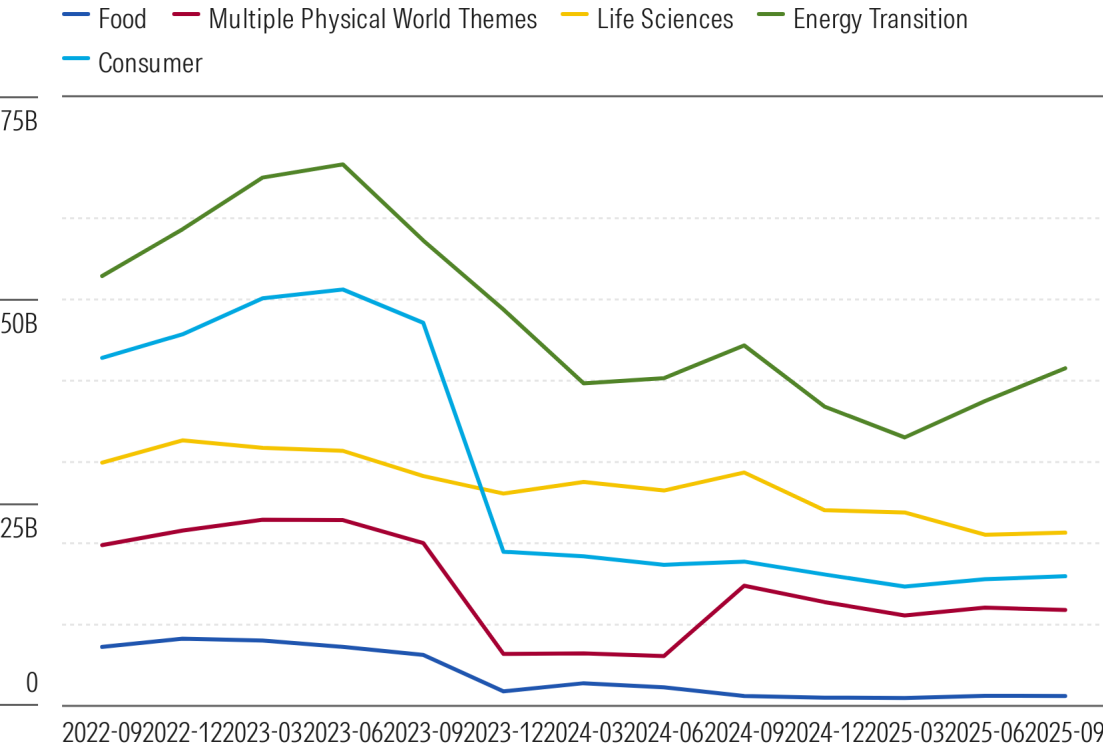
USD Billions



As in other regions, energy transition funds’ valuations have tumbled, and even a recent reversal of fortunes leaves them well below historic levels.

## Europe Theme Losers (AUM)

USD Billions



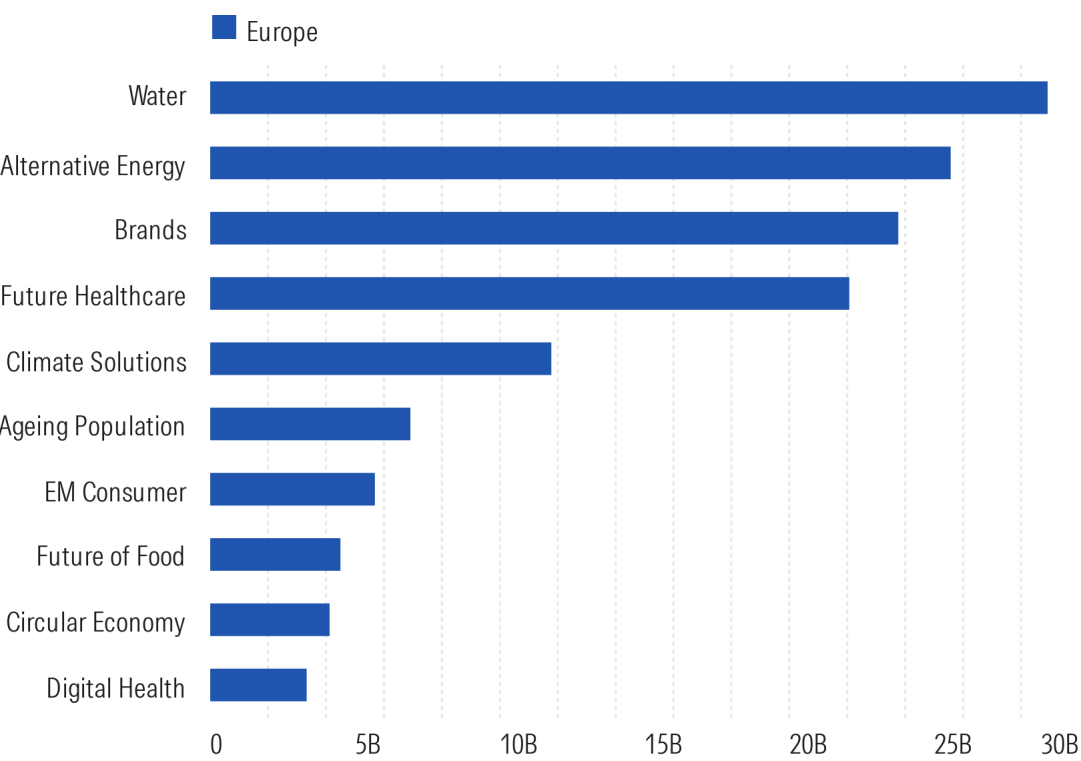


# Legacy Themes Such as Water and Brands Remain Popular in Europe

Despite the recent surge in interest around technology and security themes, some of the oldest and most established themes—such as water and brands—remain the most popular.

Top Europe Subthemes\* (AUM)

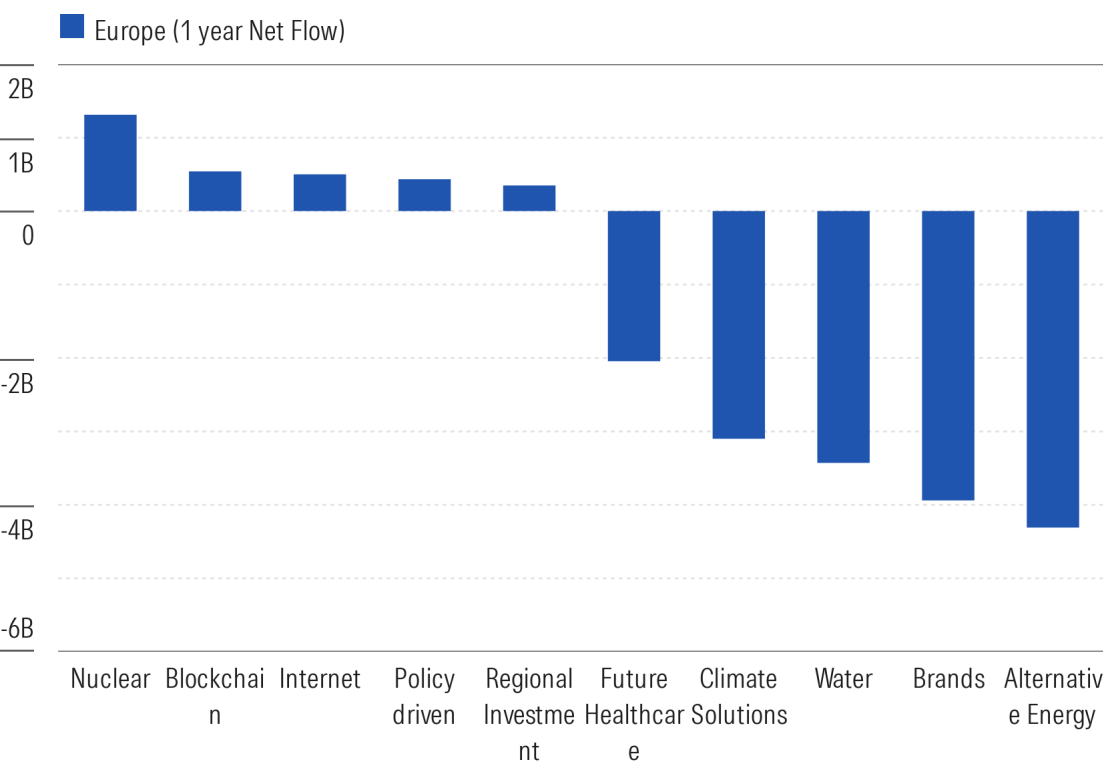
USD Billions



The need to power the AI boom has sparked renewed interest in nuclear energy—now reflected in its position as the most popular subtheme.

Europe Subthemes\* Winner and Losers (Trailing 1-Year Net Flow)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025. Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

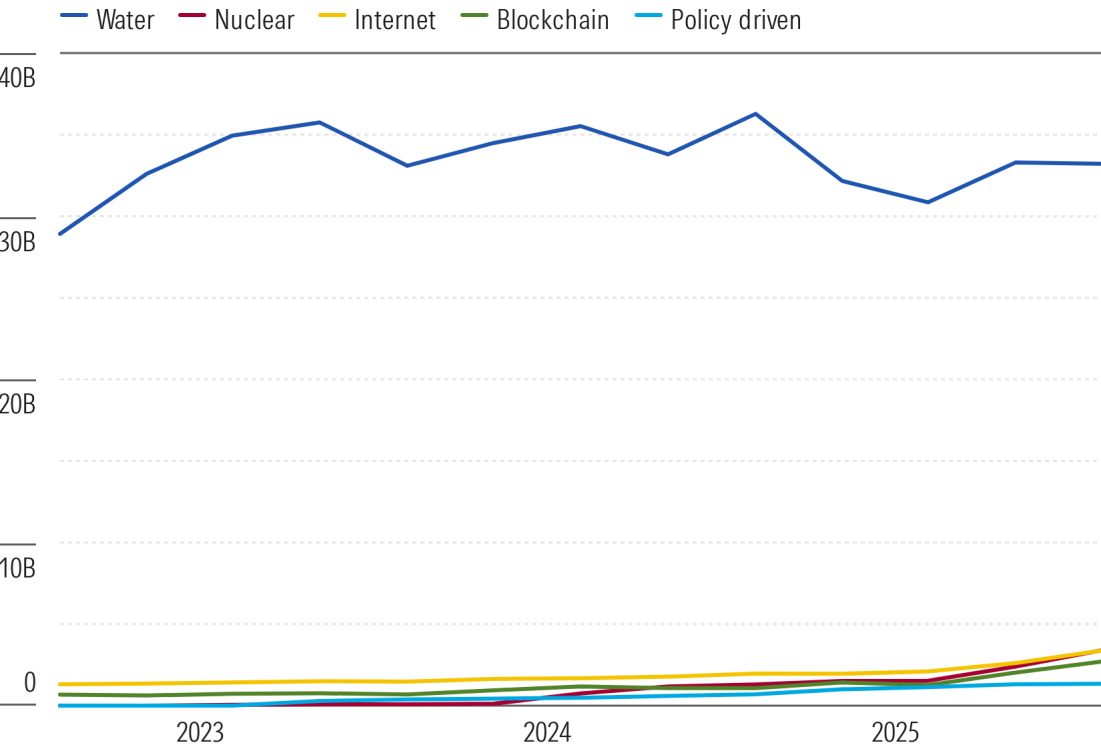
See Important Disclosures at the end of this report.

# Alternative Energy Funds See Light at the End of the Tunnel After Years of Declining Assets

In absolute terms, water-themed funds have been the standout winners in Europe over the trailing three years, even if their percentage returns have been more modest. Elsewhere, internet funds have been well-positioned to ride the AI wave.

## Europe Subtheme\* Winners (AUM)

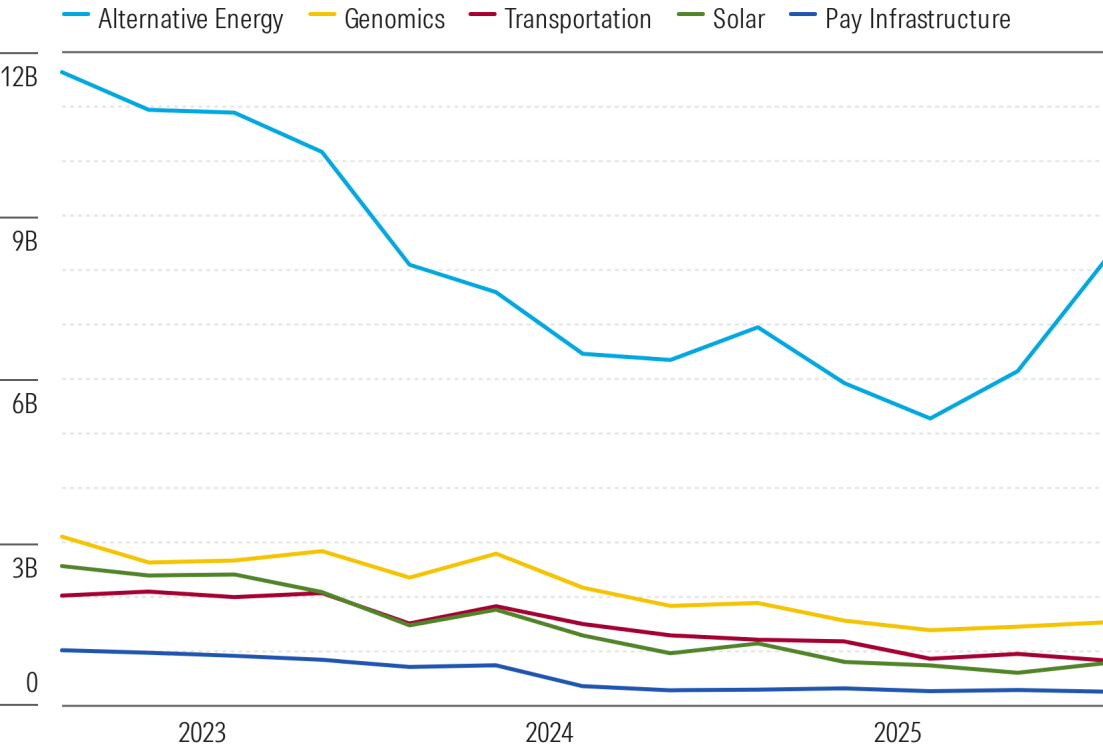
USD Billions



Alternative Energy has followed a big dipper trajectory over the past three years, hit hard by rising rates and falling subsidies. Transportation-themed funds have also struggled amid economic uncertainty and growing trade barriers.

## Europe Subtheme\* Losers (AUM)

USD Billions



Source: Morningstar Direct. Data as of Sept. 30, 2025. Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

See Important Disclosures at the end of this report.

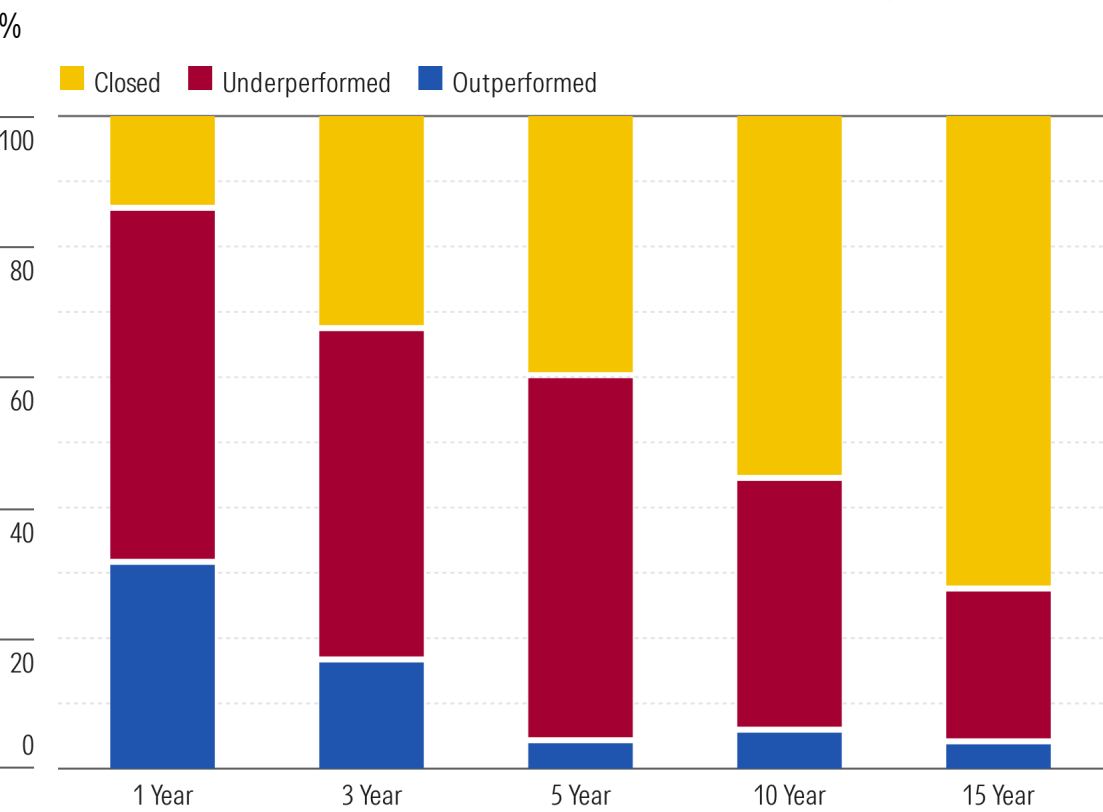
# Pictet Provides 4 of the 10 Largest Funds in Europe

Largest Thematic Funds Europe					
Name	Ticker	Broad Theme	Theme	Sub-Theme	Fund Size USD Billions
MS INVF Global Brands	LU0119620416	Social	Consumer	Brands	19.30
BGF World Healthscience	LU0122379950	Technology	Life Sciences	Future Healthcare	12.58
Pictet-Global Megatrend Select	LU0386856941	Broad Thematic	Broad Thematic	Broad Thematic	11.37
Pictet - Robotics	LU1279334137	Technology	Robotics + Automation	Robotics + Automation	11.17
Pictet-Water	LU0104884605	Physical World	Resource Management	Water	8.63
Allianz Global Artfcl Intlgc	LU1548499471	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	7.84
VanEck Defense ETF	IE000YYE6WK5	Social	Security	Security	7.71
Deka-Industrie 4.0	LU1508359509	Technology	Multiple Tech Themes	Multiple Tech Themes	7.38
Xtrackers AI & Big Data ETF	IE00BGV5VN51	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	6.48
Pictet - Global Envir Opps I	LU0503632100	Physical World	Multiple Physical World Themes	Multiple Physical World Themes	6.17

# Higher Fees Contribute to Long-Term Underperformance

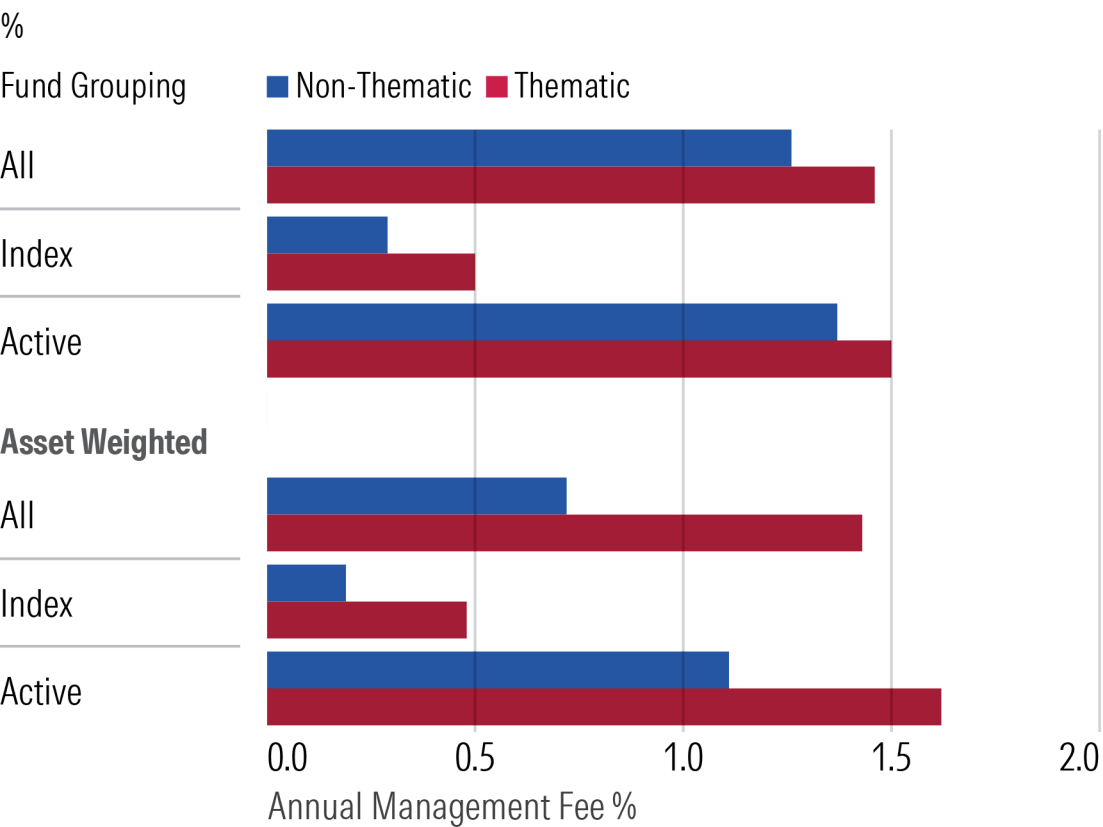
While thematic funds have occasionally delivered eye-catching returns—most notably during the postpandemic bull market—the odds of selecting a thematic fund that both survives and outperforms global equities over longer periods have been slim.

Europe Thematic Fund Survival and Success Rates Versus Global Equities\*



European thematic funds command a consistent fee premium across both active and passive strategies. The gap widens further on an asset-weighted basis, indicating that investors show relatively low price sensitivity when allocating to thematic funds.

Europe Average Fees (%)



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*The Morningstar Global TME Index is used as a proxy for global equity markets.

See Important Disclosures at the end of this report.

# The Canada Landscape

# Canadian Thematics Hit High All-Time High Asset Levels

Unlike other regions, the Canadian thematic fund market has fully rebounded, reaching an all-time high of USD 3.2 billion by the end of Q3, following the postpandemic downturn.

As elsewhere, a mix of ultralow interest rates and a tech-driven surge beginning in early 2020 pushed assets in Canada-domiciled thematic funds to new highs in mid-2021, before they fell by around 40% over the following 18 months.

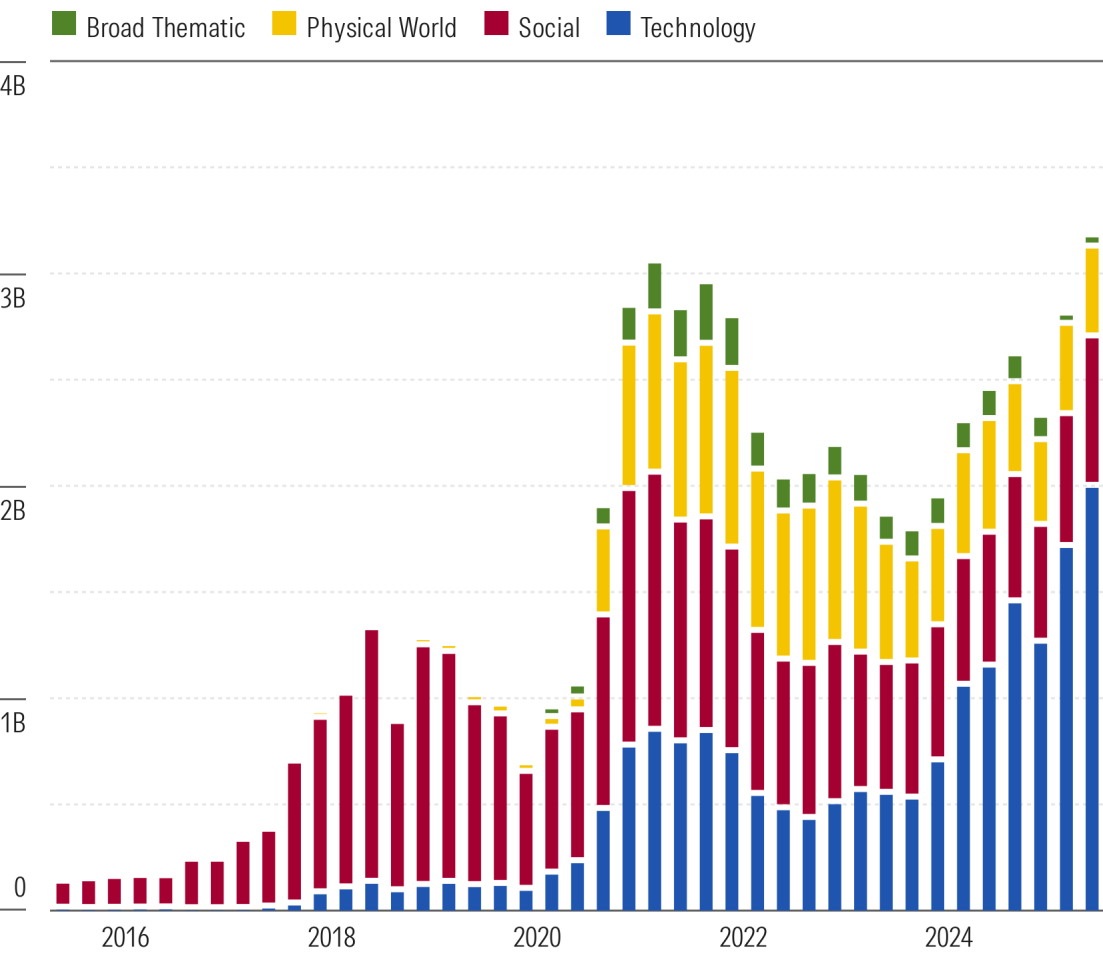
Powered by the AI-driven tech boom, Canadian technology-themed funds have now surpassed previous peaks, rising 56% in the three years to the end of Q3.

Despite this rebound, Canadian thematic funds remain a tiny fraction of the fund universe, even at record levels of assets.

Unlike the US market, the majority of assets sits in actively managed strategies, including several sizable active ETFs.

## Canada AUM Growth by Broad Theme

USD Billions

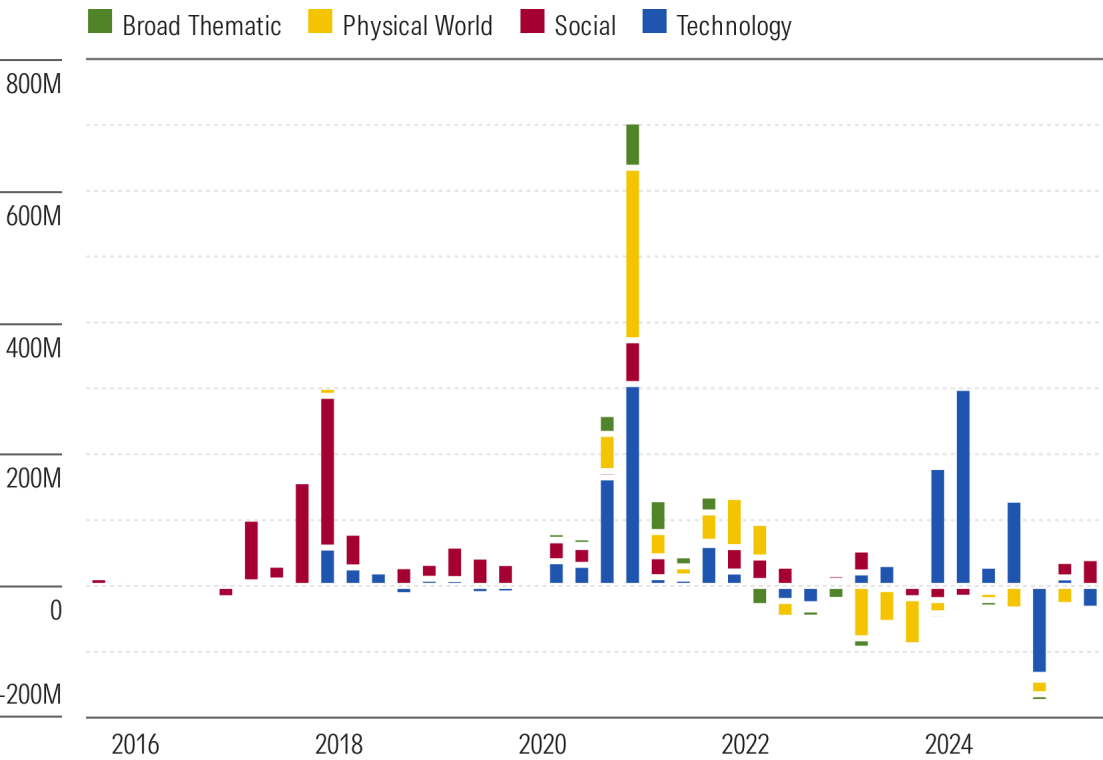


# Despite Asset Growth, Flows and Net Launches Remain Negative

Despite assets reaching record highs, Canadian thematic fund net flows have been negative in 2025, with outflows totaling USD 161 million. If net flows remain negative through year-end, 2025 would mark only the second year of outflows since 2016.

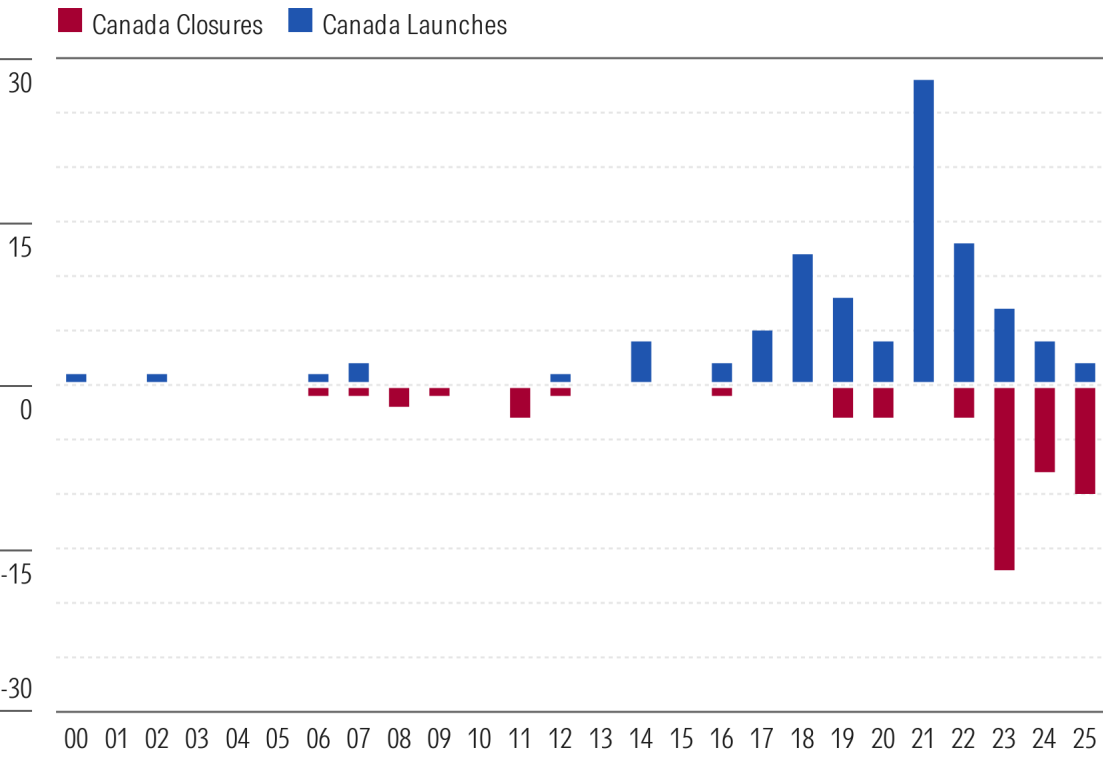
Canada Net Asset Flows by Broad Theme

USD Millions



After a glut of launches in 2021 and 2022, there have since been more than twice as many closures as new launches.

Canada Thematic Launches and Closures by Year



Source: Morningstar Direct. Data as of Sept. 30, 2025.

See Important Disclosures at the end of this report.

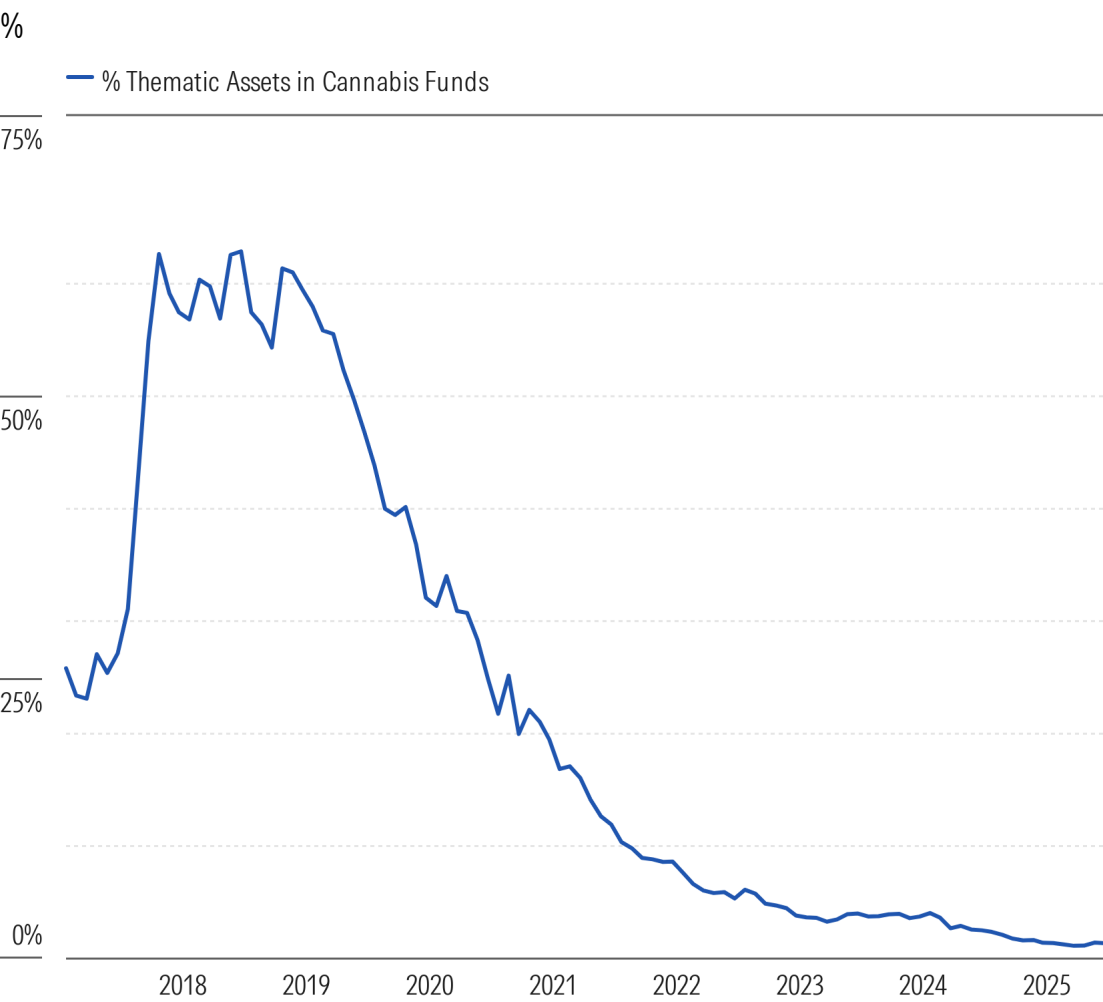
# Cannabis Becomes a Textbook Case of Boom and Bust

In October 2018, Canada became the first major industrialized nation, and the second country in the world after Uruguay, to legalize cannabis for recreational use at the federal level.

The country's place at the epicenter of what many thought to be an inevitable global wave of legalization stoked a local investor fervor. In mid-2017, Canadian cannabis funds represented less than one-fourth of all thematic fund assets.

By the second half of 2018, this thematic market share had ballooned to over 60%. By mid-2019, this percentage had begun a relentless decline, as legalization efforts in key markets such as the US faltered, and sky-high valuations were slashed. As of Sept. 30, 2025, cannabis funds represent just 1.4% of the broader Canadian thematic fund market.

Canada Cannabis Funds Thematic Fund Market Share



Source: Morningstar Direct. Data as of Sept. 30, 2025.

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## Several Local Managers Among the Largest Thematic Players

Among thematic funds with a style box placement, 59% have a growth bias, compared with just 14% that tilt toward value. This is unsurprising, as most thematic strategies focus on emerging areas with strong growth potential, particularly technology themes in Canada.

### Canada Thematic Funds Style Box

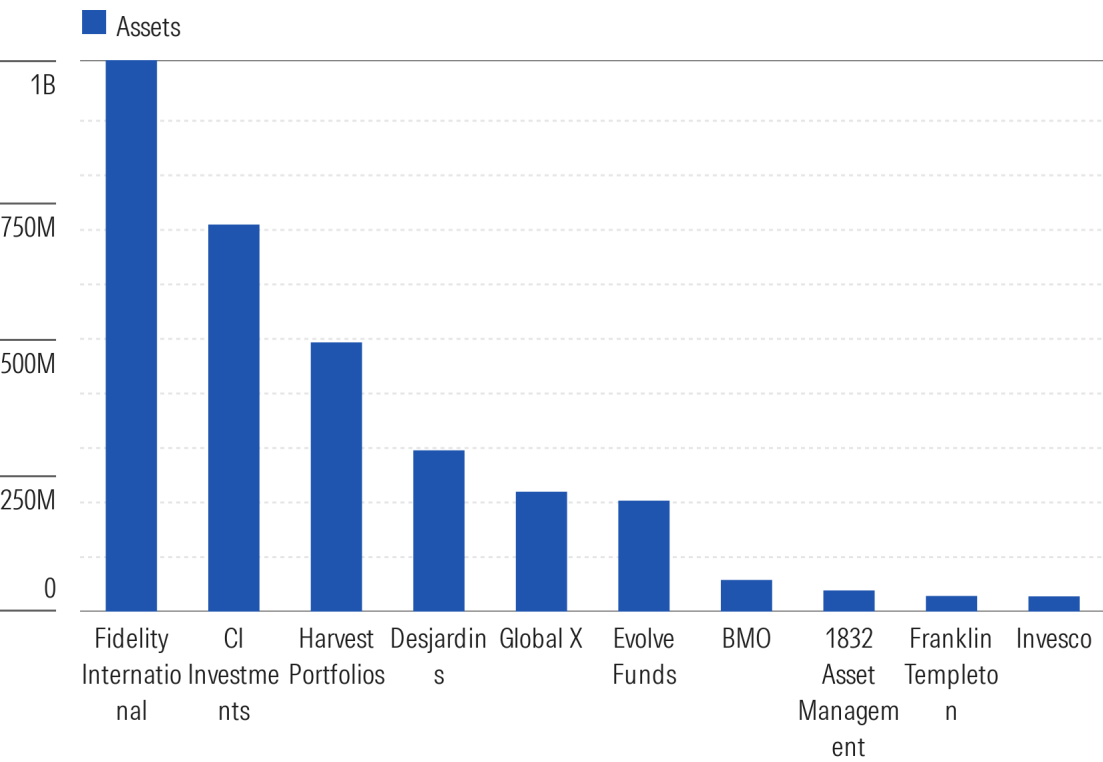
% of Funds

	Value	Blend	Growth
Large	4	13	40
Mid	6	11	19
Small	4	2	0

Global giant Fidelity tops the Canadian provider rankings, supported by the success of Fidelity Global Innovators ETF, the largest in the market. The leaderboard also features prominent local players, including CI Investments, Evolve, BMO, and Desjardins.

### Canada Thematic AUM by Provider

USD Millions



Source: Morningstar Direct. Data as of Sept. 30, 2025.

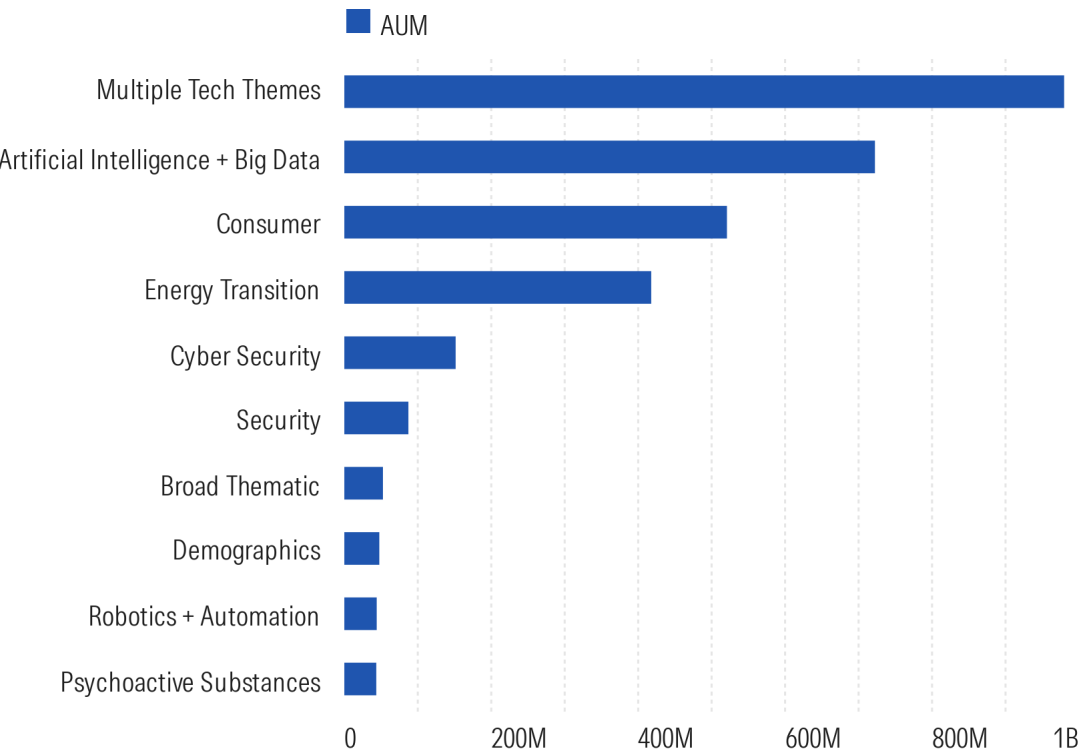
See Important Disclosures at the end of this report.

# Security Theme Becomes the Theme Du Jour

Reflecting its status as the defining technology theme of our time, AI + Big Data remains among the most popular thematic categories in Canada. Energy transition ranks fourth, despite experiencing significant outflows in recent years.

## Top Canada Themes (AUM)

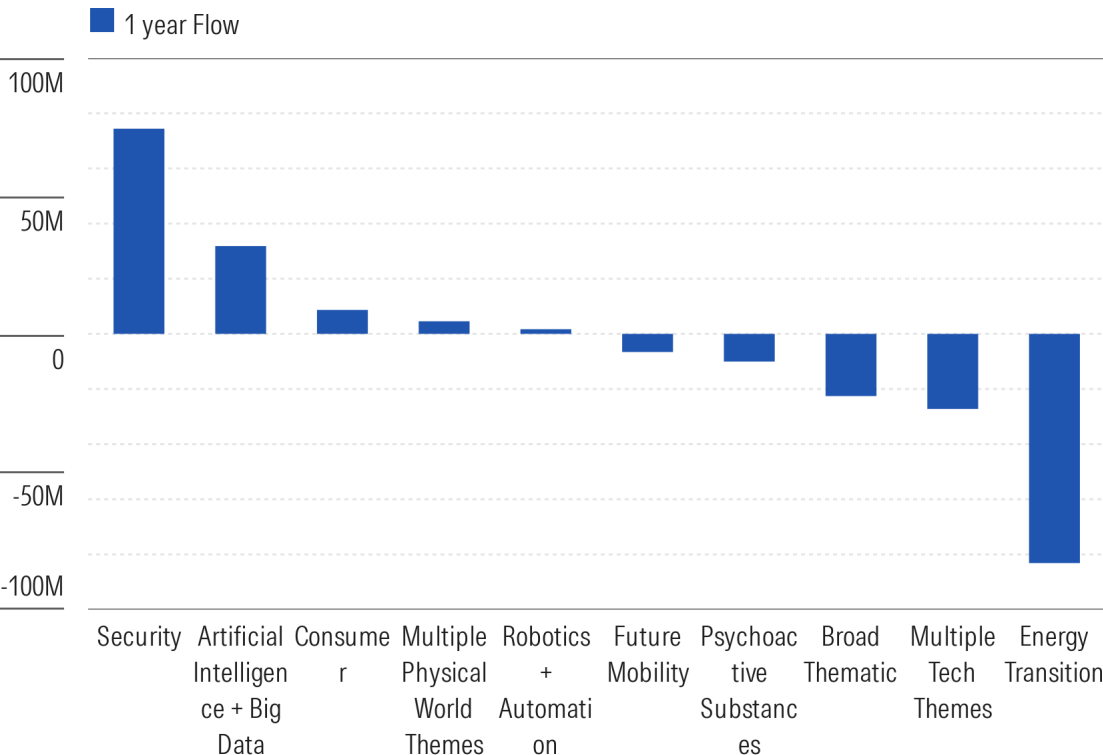
USD Millions



Security has been the most popular theme over the trailing year, driven by heightened geopolitical tensions. In contrast, energy transition funds have seen the largest outflows—opposite to the US, where they have been among the biggest beneficiaries over the same period.

## Canada Themes Winner and Losers (Trailing 1-Year Net Flow)

USD Millions

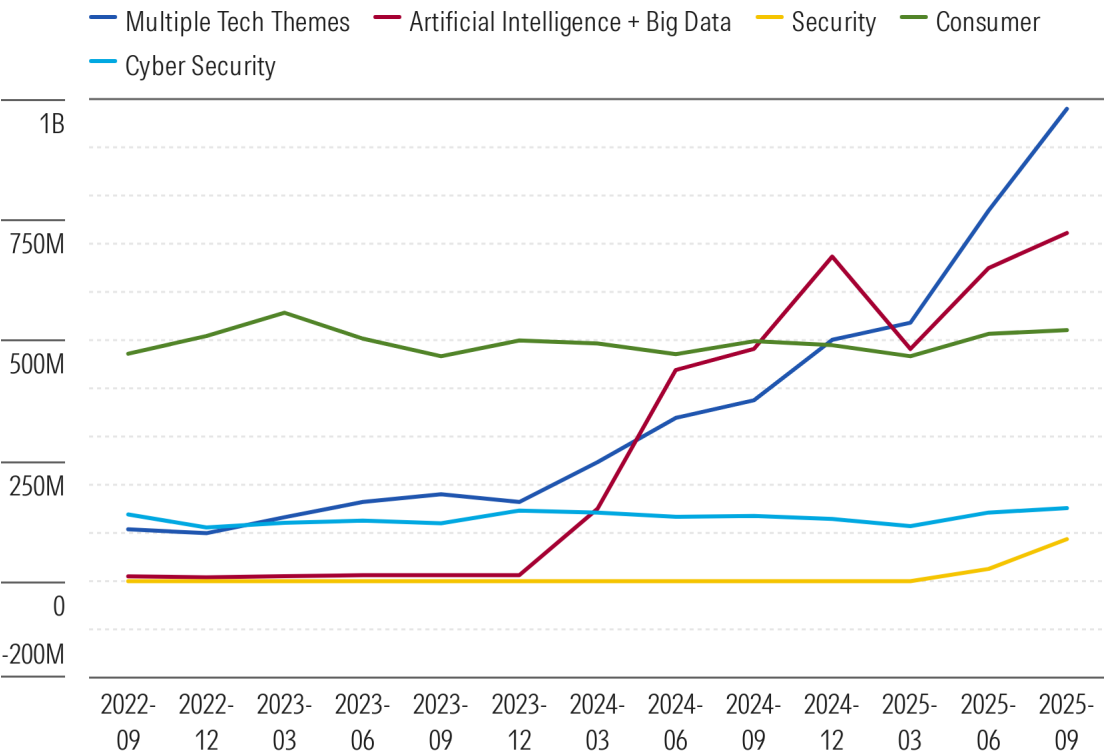


# AI Boosts Tech Theme Assets

Over the trailing three years, AI and multiple tech funds have been clear beneficiaries of the AI revolution. Meanwhile, the uptick in security assets reflects increased geopolitical uncertainty.

## Canada Theme Winners (AUM)

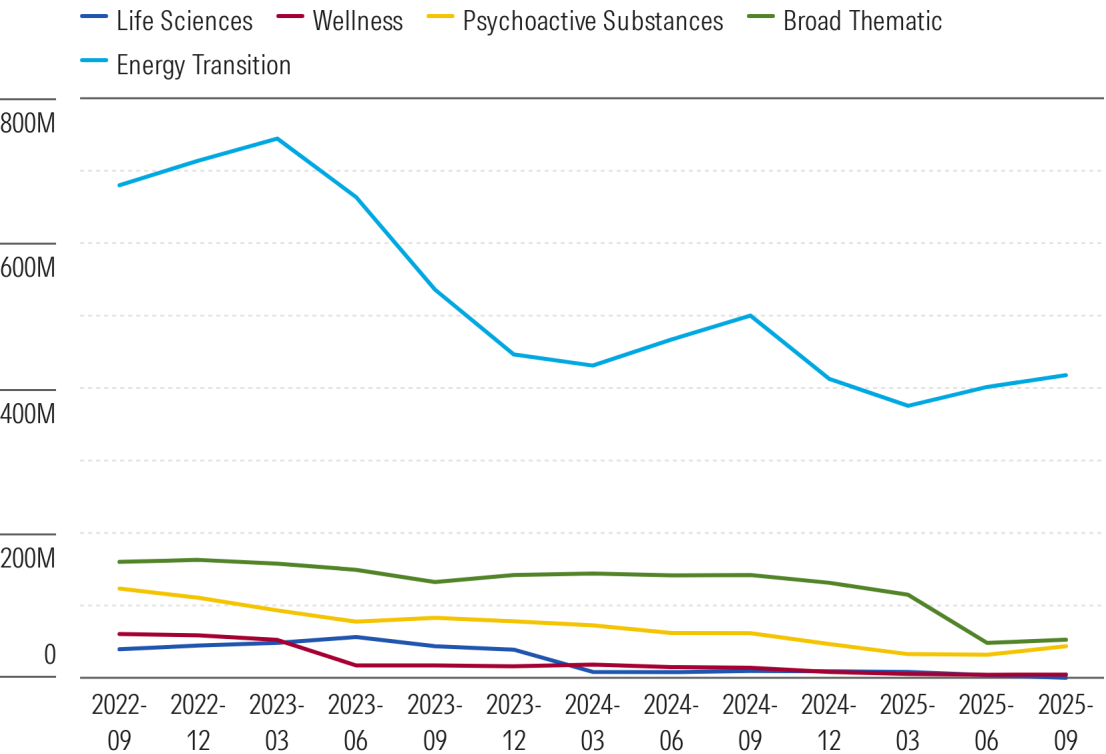
USD Millions



As in other regions, valuations for energy transition funds have tumbled in recent years, driven by a mix of higher borrowing costs, reduced subsidies, and a broader ESG backlash.

## Canada Theme Losers (AUM)

USD Millions

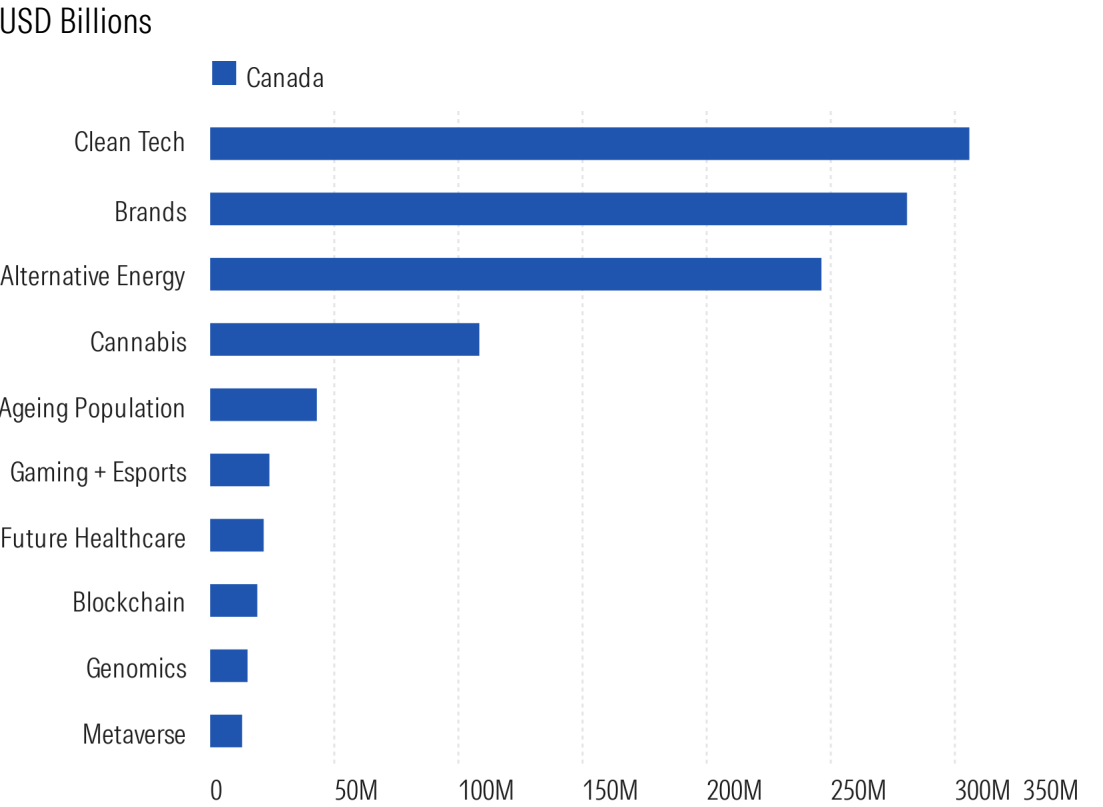


# Despite Outflows, Clean Tech and Alternative Energy Funds Remain Popular

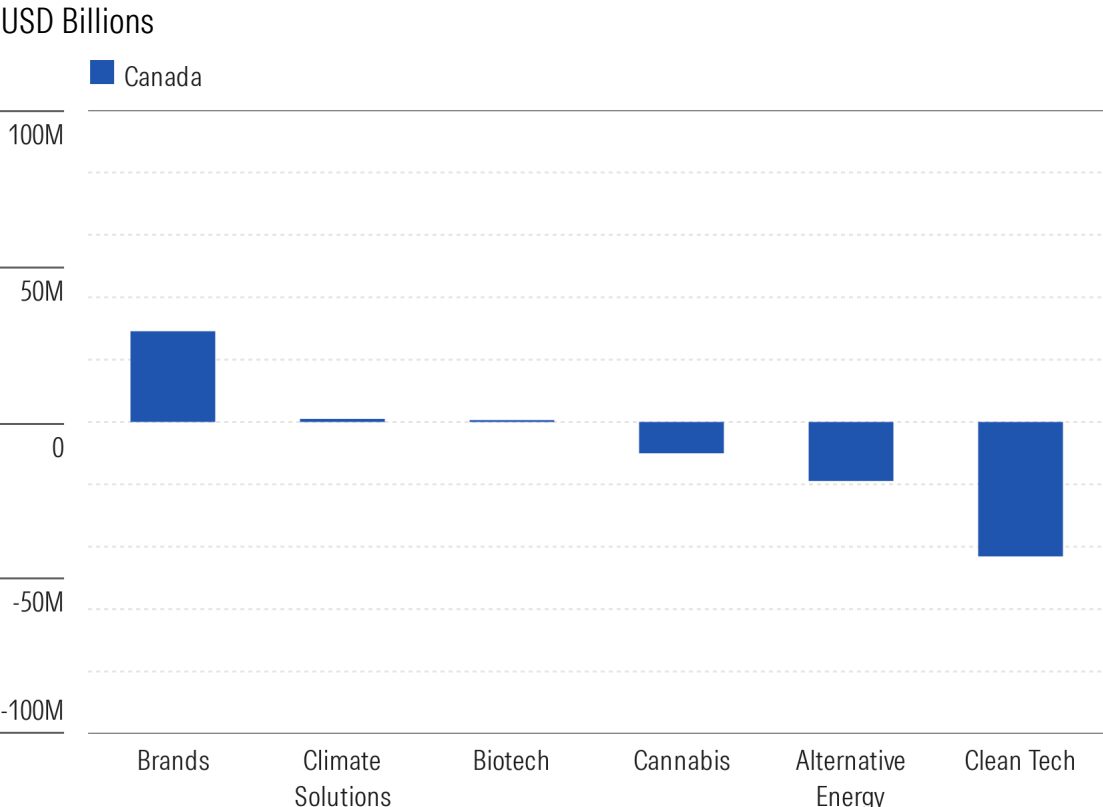
The small size of the Canadian thematic market means that several subthemes are represented by just a single fund. For example, Desjardins Sustainable Cleantech is currently the only fund aligned to the most popular subtheme, clean tech.

Flows to distinct subthemes in Canada have been muted, with brands the biggest beneficiary. Despite being the most popular subtheme, clean tech suffered notable outflows for the year to the end of Q3 2205.

Top Canada Subthemes\* (AUM)



Canada Subtheme\* Winner and Losers (Trailing 1-Year Net Flow)



Source: Morningstar Direct. Data as of Sept. 30, 2025. Only unique subthemes (those that do not share a name and definition with parent themes) are included in this chart.

See Important Disclosures at the end of this report.

# A Handful of Funds Represent a Large Portion of Canadian Thematic Fund Assets

## Largest Thematic Funds Canada

Name	Ticker	Broad Theme	Theme	Sub-Theme	Fund Size USD Million
Fidelity Global Innovators ETF Sr L	FINN	Technology	Multiple Tech Themes	Multiple Tech Themes	931.40
CI Global Artificial Intelligence C\$	CIAI	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	647.40
Harvest Brand Leaders Plus Inc ETF U	HBF.U	Social	Consumer	Brands	418.50
Desjardins Sustainable Cleantech F		Physical World	Energy Transition	Clean Tech	295.70
Evolve Cyber Security ETF Hdg	CYBR	Technology	Cyber Security	Cyber Security	148.00
Global X Defence Tech Index ETF	SHLD	Social	Security	Security	87.20
Fidelity Global Consumer Brands Sr B		Social	Consumer	Consumer	61.80
CI Global Longevity Economy P		Social	Demographics	Ageing Population	47.70
BMO Clean Energy ETF	ZCLN	Physical World	Energy Transition	Alternative Energy	45.50
Global X Robotics & AI ETF	RBOT	Technology	Robotics + Automation	Robotics + Automation	44.10

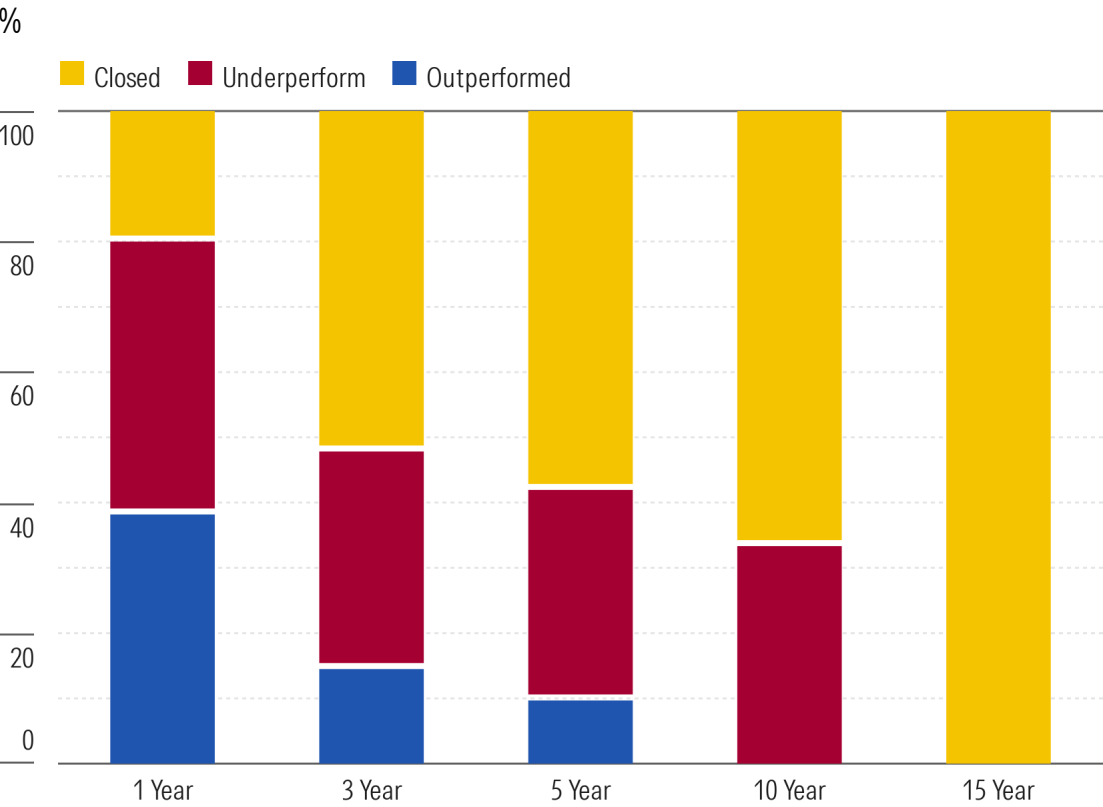
Source: Morningstar Direct. Data as of Sept. 30, 2025.

See Important Disclosures at the end of this report.

# Long-Term Performance Has Been Dismal

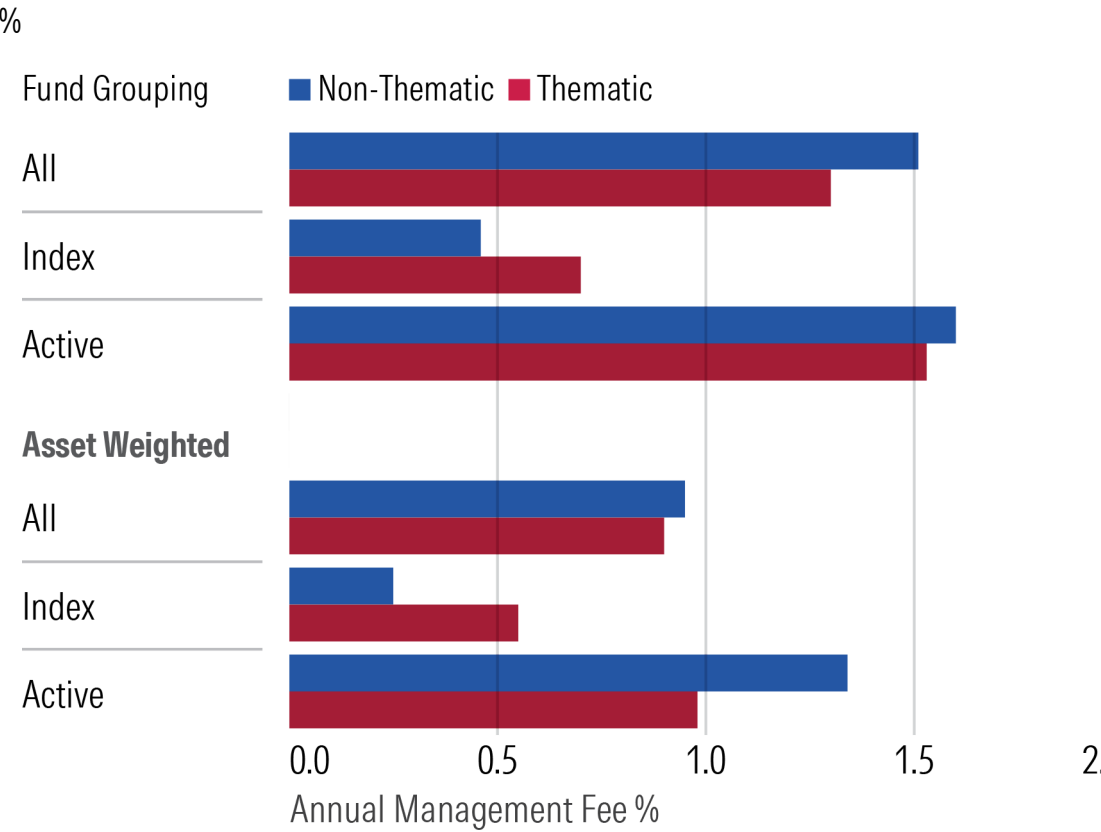
While thematic funds have occasionally delivered eye-catching returns—most notably during the postpandemic bull market—the odds of selecting a thematic fund that both survives and outperforms global equities over longer periods in the Canadian market have been zero.

Canada Thematic Fund Survival and Success Rates Versus Global Equities\*



The prevalence of relatively low-cost active ETFs in Canada makes active thematics cheaper than other active peers. However, indexed thematic strategies still command a premium compared with nonthematic index funds.

Canadian Fees



Source: Morningstar Direct. Data as of Sept. 30, 2025. \*The Morningstar Global TME Index is used as a proxy for global equity markets.

See Important Disclosures at the end of this report.

# The Rest of World Landscape

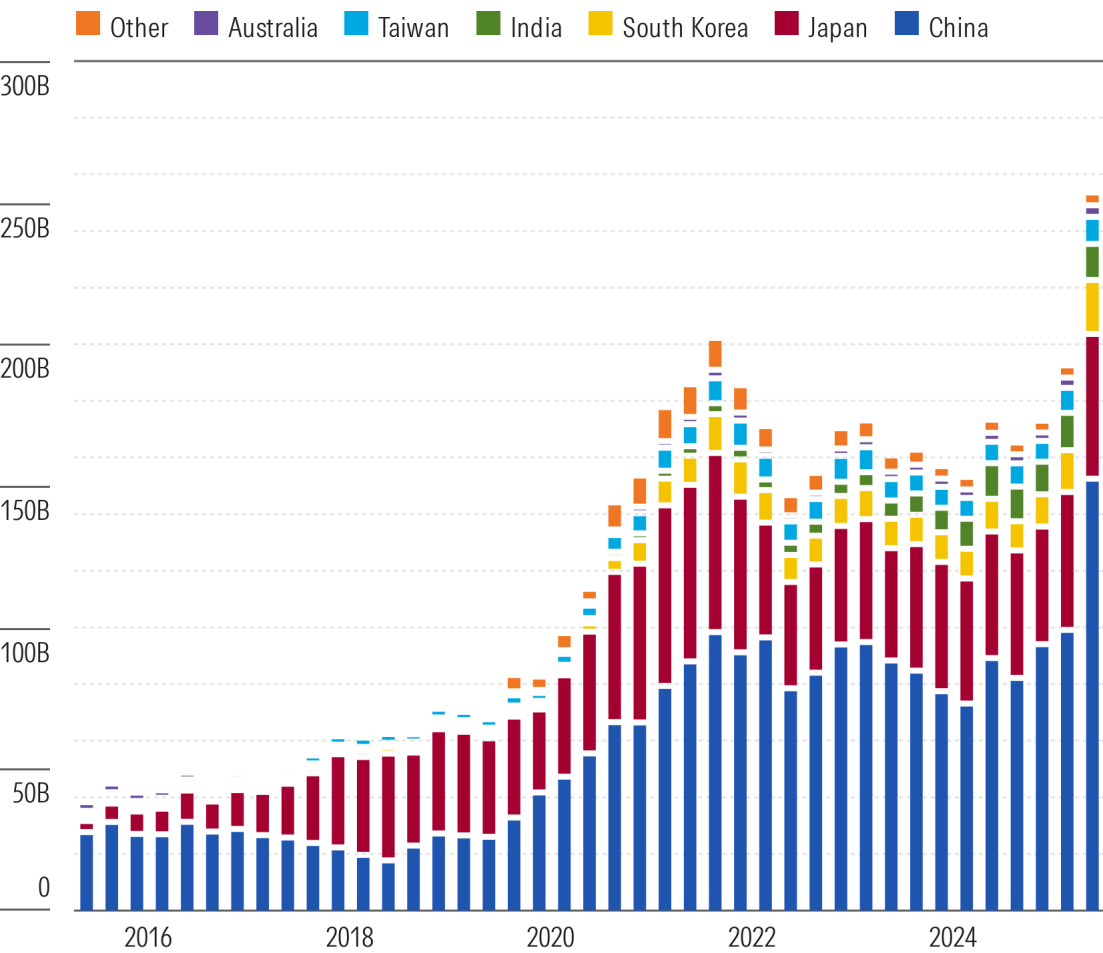
# Huge Flows into Chinese Technology Themed Funds Push Rest of World Assets to Record Highs

Thematic fund assets in what we have termed Rest of World for the purposes of this analysis have reached record highs of USD 253 billion as of Q3 2025.

RoW thematic fund assets have risen 70% in the trailing three years to the end of Q3 2025, fueled by the growing Chinese market. Exceptional flows into Chinese technology-themed funds in Q3 2025 have been the main driver behind this growth.

Rest of World AUM Growth by Region

USD Billion



Source: Morningstar Direct. Data as of Sept. 30, 2025.

See Important Disclosures at the end of this report.

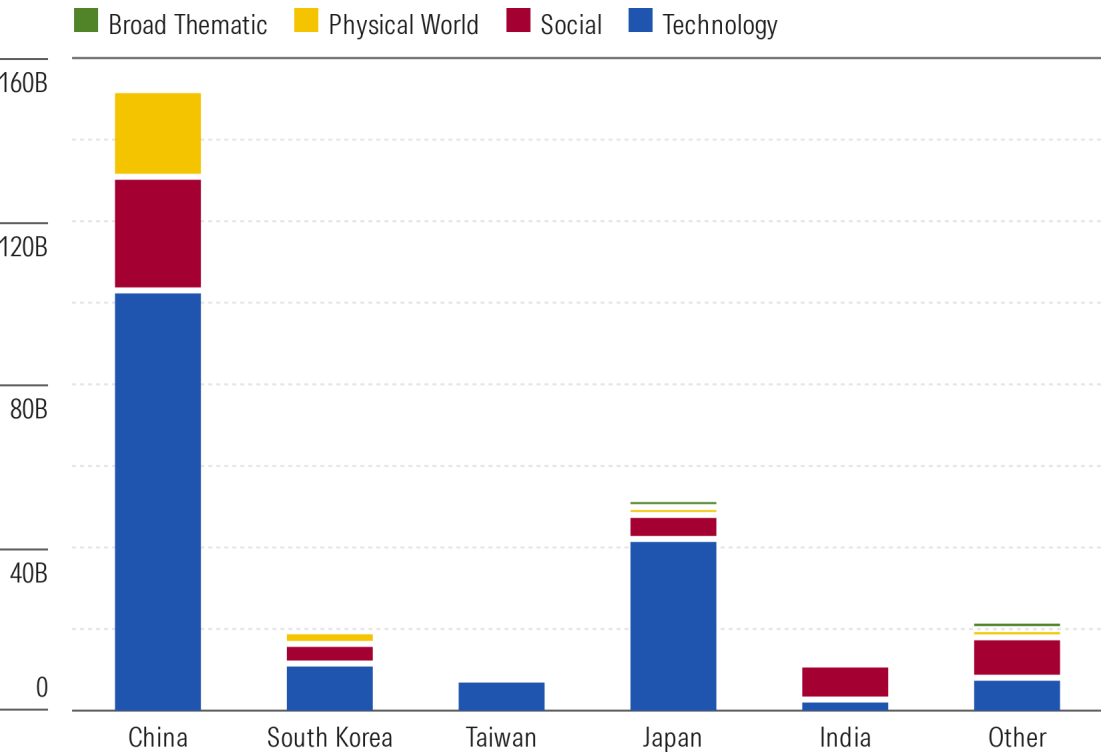


# Chinese Investors Favor ETF Strategies, While Japanese Investors Favor Traditional Active

China leads the RoW group with USD 151 billion in AUM as of September 2025. The country stands out for its strong focus on physical world themes like energy transition and a significant tilt toward social themes, especially political and state-owned enterprises—setting it apart from its regional peers.

Rest of World AUM by Country

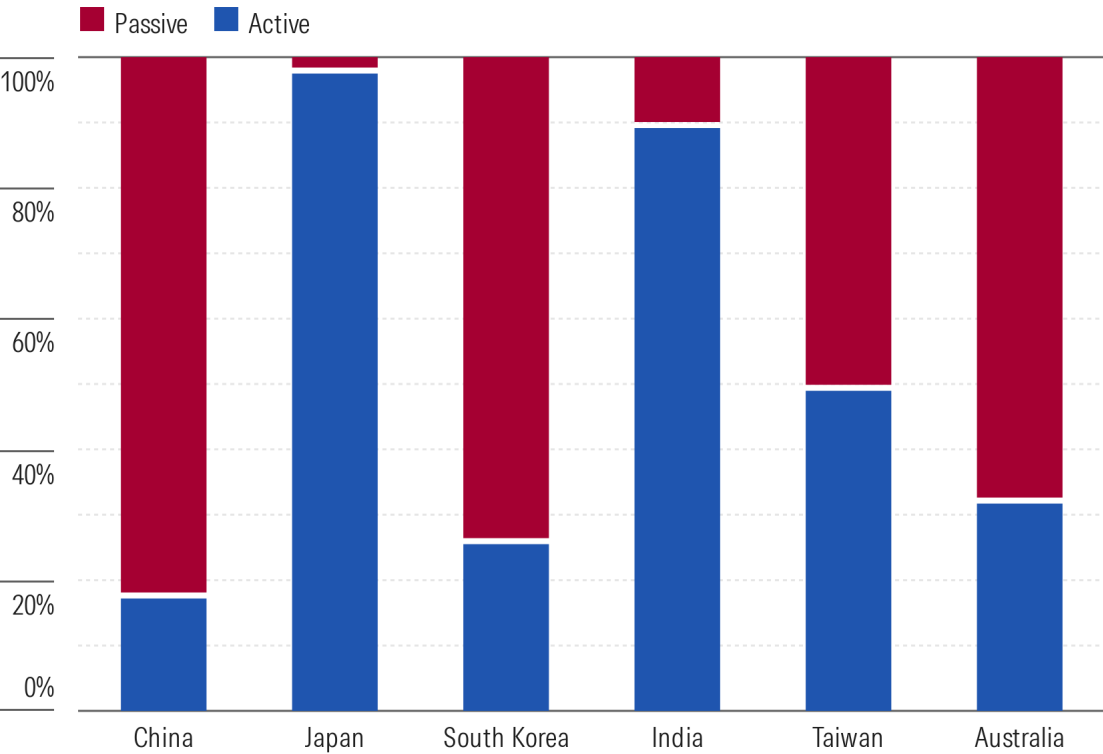
USD Billions



Indexed strategies have proved popular in China and Australia, while Japan and Indian markets show a clear preference for traditionally actively managed approaches.

Rest of World Active Versus Passive Split by Region (AUM)

%



# Chinese and Japanese Tech Funds Dominate Largest Funds in Rest of World

Largest Thematic Funds Globally						
Name	ISIN	Domicile	Broad Theme	Theme	Sub-Theme	Fund Size USD Billions
Fullgoal CSI-HK Connect Internet ETF	CNE100004R14	China	Technology	Digital Economy	Internet	13.72
GS netWIN GS Technology Equity	JP90C0000Y15	Japan	Technology	Digital Economy	Internet	9.54
E Fund CSI China Ovsea Net 50 QDII-ETF	CNE100006BX2	China	Technology	Digital Economy	Internet	6.06
ICBCCS CNI HK Connect Technology ETF	CNE100005GD5	China	Technology	Digital Infrastructure	Communications Infrastructure	5.74
ChinaAMC Hang Seng Int&InfoTech ETF	CNE100004FL3	China	Technology	Digital Economy	Internet	4.99
Amova Global Robotics Equity	JP90C000C6C1	Japan	Technology	Robotics + Automation	Robotics + Automation	3.96
E Fund Artificial Intelligence Theme ETF	CNE100004561	China	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	3.51
GF CSI Hong Kong Brand Nm Drug ETF	CNE100005BG9	China	Technology	Life Sciences	Brand Name Drugs	3.50
SMDS Global AI Fund	JP90C000DQW8	Japan	Technology	Artificial Intelligence + Big Data	Artificial Intelligence + Big Data	3.28
ChinaAMC CSI Robot ETF	CNE100004WL8	China	Technology	Robotics + Automation	Robotics + Automation	3.20

# Chinese Tech Inflows Propel Chinese Thematic Assets to New Highs

Assets in Chinese thematic funds have surged to new highs, driven by a wave of tech-related inflows in Q3 2025. Total assets reached USD 151 billion at the end of the quarter, an increase of 180% over the trailing five years.

Two funds alone—Fullgoal CSI-HK Connect Internet ETF and ICBCCS CNI HK Connect Technology ETF—attracted USD 7.8 billion of inflows in Q3 2025. Strong demand was also recorded across a range of other technology-led strategies, including battery technology, fintech, future mobility, and robotics and automation.

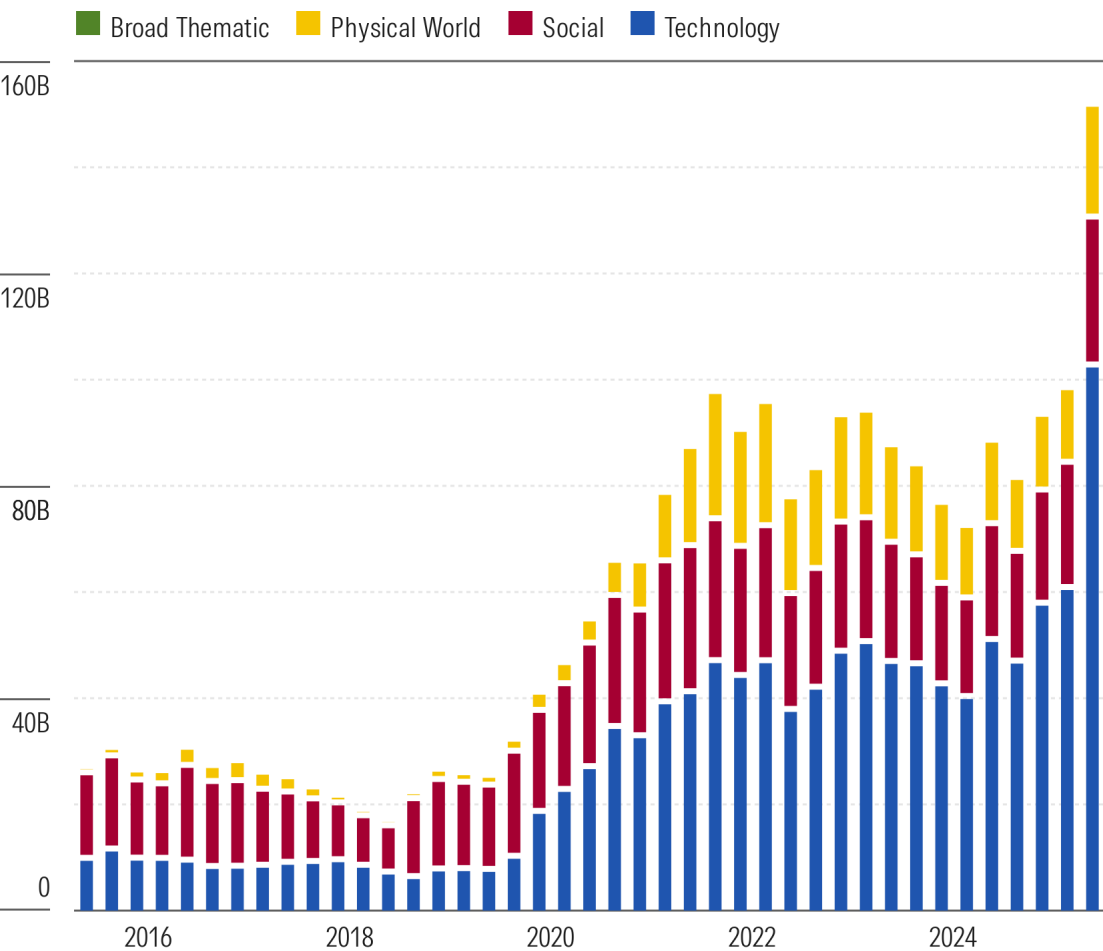
Unlike in other regions, socially themed funds have historically represented more than half of China's thematic universe. These range from niche consumer plays such as Penghua China Securities Wine ETF (a targeted bet on the domestic alcoholic-beverage industry) to state-owned enterprise ETFs, which focus on companies expected to benefit from state support, reform initiatives, or policy-driven stimulus.

Technology-focused themes benefited most from the postpandemic equity boom. As a result, tech funds became the market's dominant broad grouping, with their share more than doubling from 30% at the end of 2019 to 68% by Q3 2025.

China's carbon-neutrality pledge—announced by Xi Jinping in late 2020—also helped ignite interest in physical-world themes, primarily alternative energy. These strategies saw their collective share of thematic assets jump to 25% from 10% across 2020.

China AUM Growth by Broad Theme

USD Billion



# Japanese Thematics Benefit From Tech Boom, But Assets Remain Well Below Previous Highs

Japan's thematic fund market is the second-largest outside North America and Europe, trailing only China. Total assets reached USD 51.1 billion as of Sept. 30, 2025, although this remains around 20% below the peak recorded in 2021.

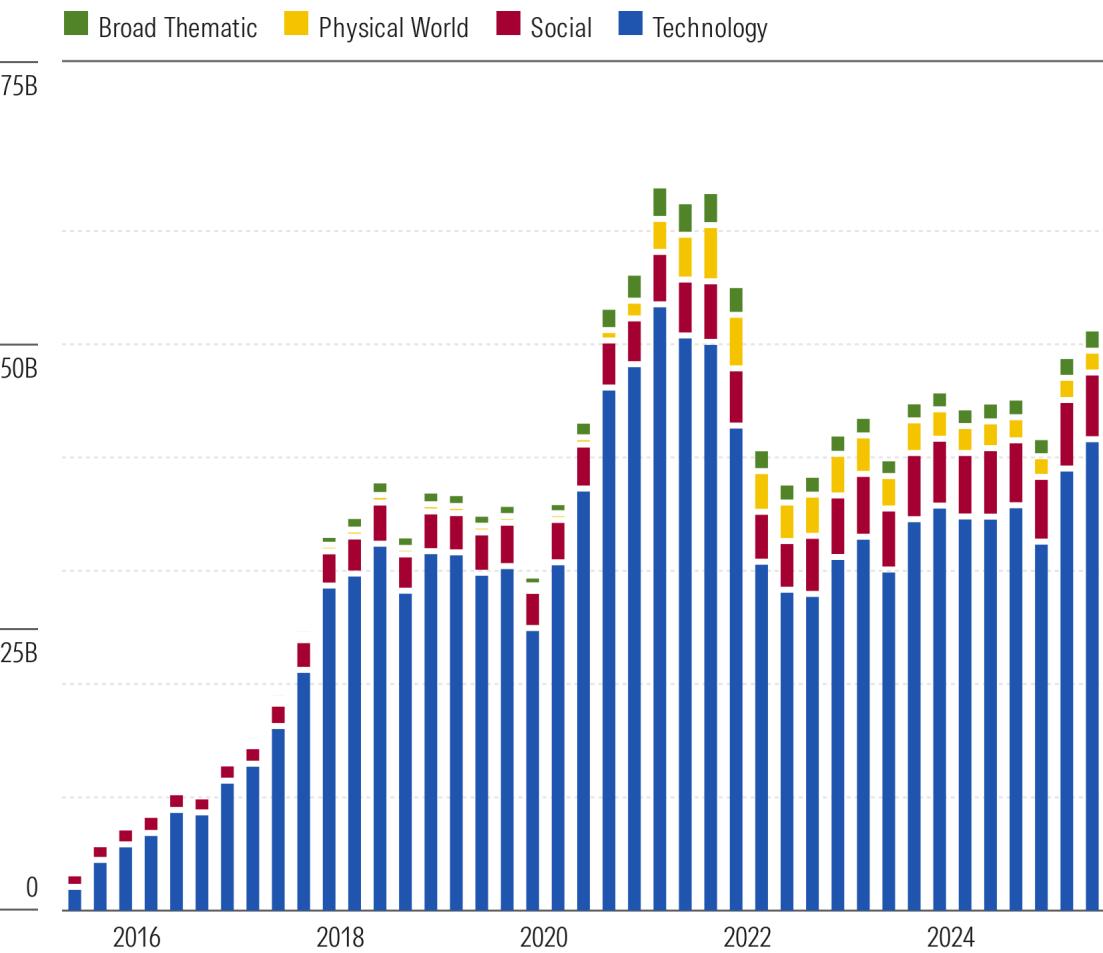
The decline is largely explained by the underperformance of tech funds since late 2021. Among Japanese retail investors, many have switched toward sector- or geography-focused strategies with themelike narratives—such as semiconductor funds and India equity funds—contributing to continued outflows from thematic products.

Technology funds dominate the landscape, accounting for 81% of total thematic assets. Japan's historical leadership in robotics meant that robotics and automation strategies were once central to the market, representing more than half of all thematic assets prior to 2017. However, as the thematic menu has broadened, their share has gradually declined to below 20% by 2025.

Fund distribution in Japan is primarily driven by intermediary platforms that earn ongoing distributor fees, creating a structural preference for actively managed mutual funds over passive or index-based products. This dynamic explains why 98% of Japan's thematic fund market is actively managed.

Japan AUM Growth by Broad Theme

USD Billion



# Korean Thematic Assets Spike To Record Highs

Riding on surging domestic markets, assets in Korea-domiciled thematic funds reached USD 19 billion by the end of Q3 2025, surpassing the previous highs recorded in 2021.

Over the 12 months to Sept. 30, thematic assets rose 60%, supported by positive net inflows and outpacing even the strong performance of the local equity market, which grew 55% over the same period.\*

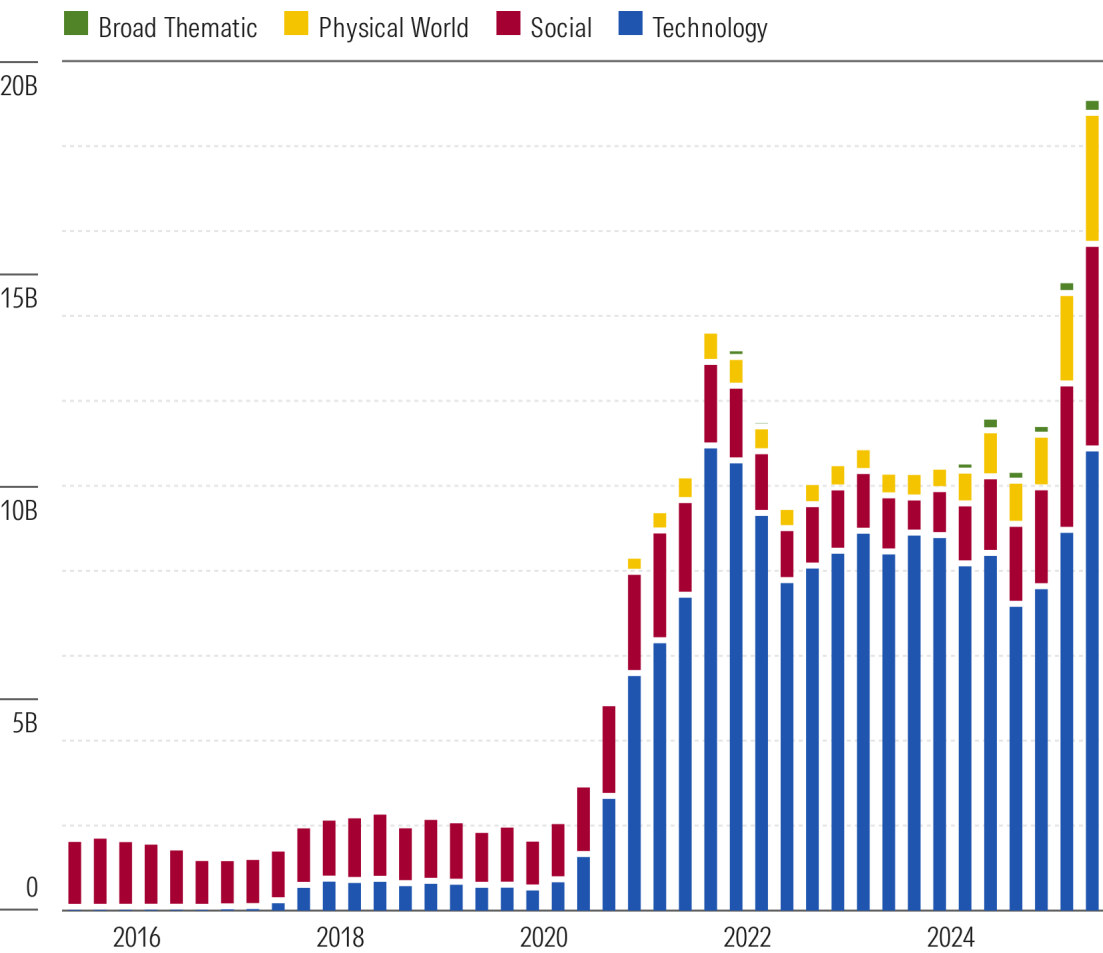
As in other regions, AI + Big Data strategies have been the main beneficiaries of inflows during the first three quarters of 2025. However, meaningful allocations have also returned to consumer and battery-technology funds, reflecting a broader rebound in investor sentiment.

Asset levels originally surged in 2020, and many of today’s most popular thematic strategies were launched around that time, explicitly or implicitly positioned to benefit from the Korean New Deal announced in mid-2020. The program directed substantial government investment into green energy and digital industries, catalyzing demand for related themes.

Five of the 10 largest thematic funds in Korea as of September 2025 track battery-technology or future-mobility themes, areas in which Korea is widely recognized as a global leader.

Korea AUM Growth by Broad Theme

USD Billion



Source: Morningstar Direct. Data as of Sept. 30, 2025. \* Korean equity market proxied by Morningstar Korea NR Index in USD.

See Important Disclosures at the end of this report.

# India's Unique Market Shows Uninterrupted Growth

Among the regions we track, India has a unique asset growth profile; thematic growth has largely been uninterrupted since 2020.

Thematic fund assets under management have tripled to near record highs of USD 12.7 billion in the three years to the end of Q3 2025.

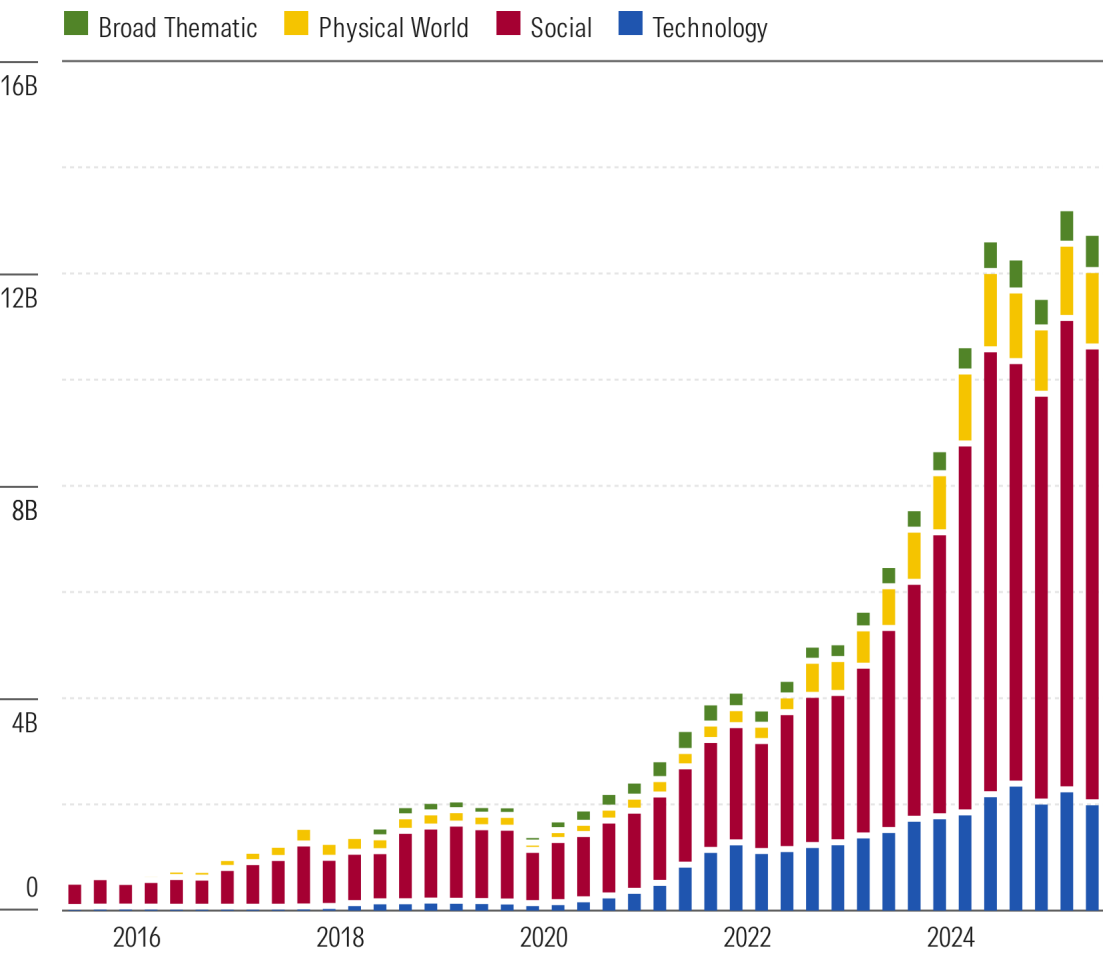
This booming popularity is particularly notable given the contraction we have seen in most other global markets over the same period. This growth has gone hand in hand with the growth of the mutual fund market in India more broadly, riding the wave of retail investment.

The market also stands out in the popularity of themes tracked. Technology-themed funds, which dominate in other major thematic markets, barely register among the Indian cohort.

Consumer-themed funds, which target the growing discretionary spending power of Indians, have been the major recipients of net flows, but funds tracking political and security-related themes have also seen a rise in popularity. These themes include funds expected to benefit from state spending on infrastructure and structural reform, as well as state-owned enterprises.

India AUM Growth by Broad Theme

USD Billion



# Tech Surge Sees Thematic Asset Levels Match Previous Record

Assets in Taiwanese thematic funds reached a record USD 9.6 billion at the end of Q3 2025, edging past the previous peak set in early 2023.

Despite hitting new highs, the market experienced modest net outflows of USD 0.2 million during the first three quarters of 2025.

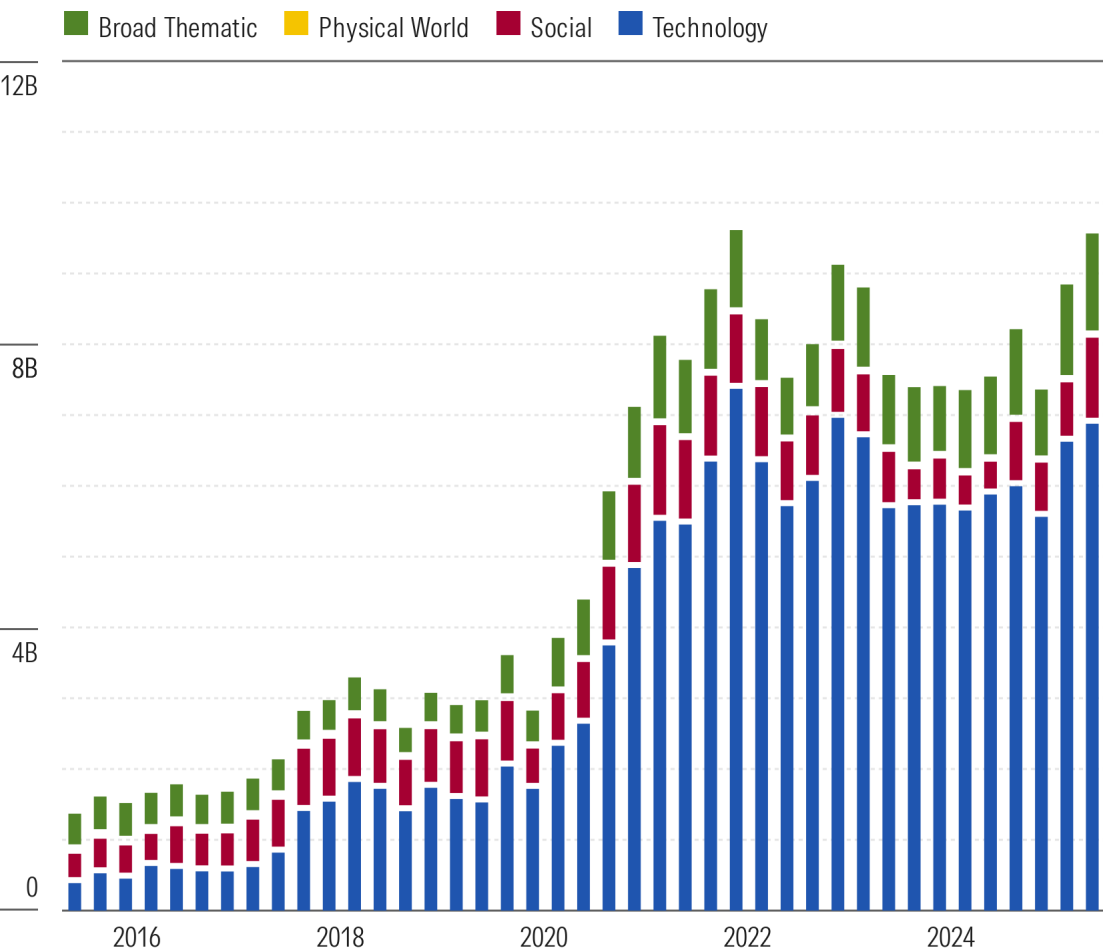
Technology accounts for 72% of all thematic assets in Taiwan as of end September 2025. The largest product in the market—the USD 2.3 billion Cathay Taiwan Technology Leader ETF—offers broad exposure to Taiwan’s leading tech and communications companies.

Although Taiwan's thematic market is relatively small, it offers a wide variety of strategies, ranging from security-related themes to consumer-focused funds.

Notably, Taiwan stands out among its regional peers for its limited interest in energy transition and alternative energy themes.

Taiwan AUM Growth by Broad Theme

USD Billion



# Defining The Universe of Thematic Funds

For this report, we have defined the universe of thematic funds as those that select holdings based on their exposure to one or more investment themes. These themes may pertain to macroeconomic or structural trends that transcend the traditional business cycle. Examples include demographic shifts or technological advances.

Our definition includes funds like cannabis ETFs, which hope to capitalize on the legalization and commercialization of cannabis globally. We exclude funds that might be useful for making tactical economic calls but lack a cohesive longer-term narrative, such as those that target Japanese exporters.

Although many active managers select investments based on exposure to a theme as part of their investment process, we have isolated a distinct subset of funds that explicitly target these themes. This paper will identify and analyze these funds to help investors better navigate this landscape.

## Building a Framework

- Our updated global taxonomy for thematic funds is based on intentionality rather than holdings. Building on the work done in our previous research on this topic, we present an enhanced global thematic fund dataset.

- By using natural language processing technology to crawl Morningstar's comprehensive global fund database, we have been able to construct an even more complete picture of the global thematic fund market than was previously possible.
- To identify intentionality, we have relied on a combination of fund names (a strong indicator of intentionality) and information gleaned from prospectuses, marketing materials, index methodologies (in the case of index funds), and data points available in Morningstar Direct, such as investment objective.

## What's New

- In November 2025, an updated Global Thematic Fund Taxonomy was released.
- The changes center on the rationalization of existing subthemes, the most granular tag awarded to funds. The number of subthemes was reduced to create larger, more meaningful peer groups, each now with its own textual definition.
- Other tweaks have been made, such as renaming some themes and retiring the post-corona theme. For a visualization of the new taxonomy, please refer to slide 60.



## What's In, What's Out?

- Our definition of thematic funds is based on intentionality; it is generally inclusive, but there are some important omissions.
- We have limited our universe to equity mutual funds and ETFs, both active and passive.
- We have excluded other asset classes, most notably fixed-income funds. This is because their investment profile is less suited to capturing the growth potential of emerging themes, and thus the market for these funds is largely nonexistent.
- Sustainable funds are included, provided they seek to capture a specific theme.
- Alternative energy funds, which aim to capitalize on the transition to a low-carbon economy, are included, but most broad ESG funds, which select a diverse group of stocks based on ESG scores, fall out of scope. Funds like Generali IS SRI Aging Population, which tracks a demographics theme and also applies ESG screens, are included.
- Others that at first glance appear to be thematic, such as SPDR MSCI USA Gender Diversity ETF, are excluded because they are designed to reward a broad set of companies with strong gender diversity metrics rather than attempt to track the trend toward a more equitable society
- A fund that uses AI or machine learning in its stock-selection process will be included only if it also selects stocks connected with one or more themes. For example, Xtrackers Artificial Intelligence and Big Data ETF uses AI to select stocks that it deems well-positioned to harness its targeted theme.

## Sector or Theme?

- The line between sectors and themes can be blurry, especially as sectors' definitions have drifted over time. As a rule of thumb, we have excluded funds that either track standard sector, industry, or subindustry indexes or closely resemble mainline sector funds from our definition of thematic funds.
- To help separate these groups as cleanly as possible, we have referenced the Industry Classification Benchmark, the Global Industry Classification Standard, and the Morningstar Global Equity Classification Structure.
- Perhaps the most challenging distinction to make is between tech sector funds and those that track one or more tech-related themes. To be included in our taxonomy for thematic funds, broad technology funds must explicitly target one or more tech themes, such as disruptive or next-generation technologies.

## Evolving Themes

- What is considered a theme can change over time. For example, at its launch in 2009, Pictet Agriculture focused on meeting the expected food needs of a growing global population. Since then, technological advances have helped boost global food production, and global food scarcity has become a less pressing issue. In response, the Pictet fund pivoted toward a broader "nutrition" theme and now targets firms that it deems key to improving nutrition profiles in addition to those improving efficiencies within the food value chain.
- Some funds began as thematic before outgrowing the label. For example, American Funds New Economy, which launched in 1983, initially aimed to capitalize on the shift from a manufacturing-dominated economy to one based on services and information companies. The fund has subsequently broadened its remit and now resembles a more traditional growth fund. As such, it is outside the scope of our framework for classifying thematic funds.

# The Global Classification System

## Mapping the Universe

To make sense of the diverse universe of thematic funds offered to investors around the world, we have developed a three-tier taxonomy, visualized in the following slide.

At first glance, it appears that thematic funds tend to resist rigid categorization. However, after assessing the global universe of these funds, we found that themes do cluster into distinct groups. For example, funds tracking smart car, next-generation automobile, hybrid car, and automated driving themes can all be comfortably collected under the umbrella of future mobility. This in turn can be grouped with other themes under a broader theme—in this case, technology.

## Broad Themes

Our framework first arranges the universe into four broad buckets: technology, physical world, social, and broad thematic.

Technology themes, as the name suggests, target the disruptive growth potential of technological change. These include themes like financial technology, robotics and automation, and battery technology.

Physical world themes address the management of physical resources. Included in this bucket are funds that facilitate the transition to a low-carbon world, such as alternative energy funds.

Themes in the social bucket deal with structural changes in society. These themes may be politically oriented or focus on demographic changes.

Finally, those funds that track multiple themes belonging to any of the above buckets are grouped under the broad thematic umbrella.

# The Global Classification System

## Themes

Each broad theme (shown in red in the exhibit) contains a set of more granular themes, displayed in bold black in the adjacent figure. For instance, the technology broad theme encompasses areas such as fintech, digital economy, and future mobility.

## Subthemes

Within each theme sits a further layer of subthemes, listed in plain black text in the exhibit. For example, a fund focused on digital payments would be tagged with the hierarchy: technology → fintech → digital payments. Please refer to the exhibit for the full taxonomy structure.

## Definitions

Each broad theme, theme, and subtheme has textual definitions.

For more details, please visit the Morningstar website\*

Through this framework, we hope to shine a light on the fast-growing world of thematic investing. By grouping funds in this way, investors can more readily compare them.

## Updated Morningstar Global Thematic Fund Classification System

<b>Technology</b>	<b>Robotics + Automation</b>	<b>Social</b>
<b>Artificial Intelligence + Big Data</b>	Advanced Manufacture	<b>Consumer</b>
Artificial Intelligence + Big Data	Robotics + Automation	Brands
<b>Battery Technology</b>	<b>Space</b>	Consumer
Battery Technology	Space	EM Consumer
<b>Cloud Computing</b>	<b>Virtual Reality and Gaming</b>	Generational Consumer
Cloud Computing	Virtual Reality and Gaming	Leisure
<b>Cyber Security</b>	Gaming + Esports	Luxury
Cyber Security	<b>Physical World</b>	Pets
<b>Digital Economy</b>	<b>Energy Transition</b>	Sports
Digital Economy	Alternative Energy	<b>Demographics</b>
Internet	Clean Tech	Ageing Population
Internet of Things	Climate Solutions	Demographics
New Media	Energy Transition	Urbanization
<b>Digital Infrastructure</b>	Hydrogen Economy	<b>Multiple Social Themes</b>
Communications Infrastructure	Nuclear	Multiple Social Themes
Digital Infrastructure	Solar	<b>Political</b>
<b>Fintech</b>	Transition Materials	Deglobalization
Blockchain	Wind	New Silk Road
Fintech	<b>Food</b>	Policy Driven
Pay Infrastructure	Agribusiness	Political
<b>Future Mobility</b>	Food	Regional Investment
Future Mobility	Future of Food	State-Owned Enterprises
New Energy Vehicles	<b>Global Supply Chains</b>	<b>Psychoactive Substances</b>
Smart Mobility	Logistics	Cannabis
<b>Life Sciences</b>	Global Supply Chains	Psychoactive Substances
Biotech	Transportation	<b>Security</b>
Brand Name Drugs	<b>Multiple Physical World Themes</b>	Security
Digital Health	Multiple Physical World Themes	<b>Wellness</b>
Future Healthcare	<b>Resource Management</b>	Education
Genomics	Blue Economy	Obesity
Infectious Diseases	Circular Economy	Wellness
Oncology	Rare Resources	<b>Broad Thematic</b>
Life Sciences	Resource Management	<b>Broad Thematic</b>
<b>Multiple Tech Themes</b>	Timber	Broad Thematic
Multiple Tech Themes	Uranium	
Metaverse	Water	
<b>Nano Tech + New Materials</b>		
New Materials		
Nano Tech + New Materials		

\*<https://www.morningstar.com/business/insights/research/methodology-documents>

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