AllianceBernstein®

Thematic Investing: More Than Just a Good Story

Strategies and Best Practices for Equity Portfolios

Big global trends such as technological disruption, urbanization and the energy transition offer exciting thematic stories for equity investors. But for thematic investing to work, investors need clear criteria to define lasting themes and a coherent process for building portfolios with real return potential and thematic purity. Above all, thematic portfolios must be constructed with the same rigor, discipline and risk-management controls as any active equity portfolio. We explore the principles of effective thematic investing to help investors make informed choices about thematic portfolios and how to incorporate them into a broader asset-allocation strategy.

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Executive Summary

Thematic equity portfolios have become increasingly popular in recent years. Many investors seek long-term structural growth opportunities that can diversify existing sources of returns and reflect their personal convictions. Portfolios that invest in big global trends—from demographics to artificial intelligence to climate change—offer access to potentially attractive returns by tapping into some of the most exciting transformational stories of our time.

But translating thematic stories into consistent returns isn't easy. In this paper, we aim to help investors develop a strategic approach to thematic equity investing by addressing the following key issues:

- Defining themes and developing thematic opportunity sets
- Constructing portfolios and evaluating thematic purity
- Positioning thematic equities within a wider asset-allocation plan

Investors must have a clear approach for identifying thematic shifts that are broad enough to offer ample investment opportunities and that will persist long enough to take advantage of them. A coherent investment process is needed to capture transformational change through companies with quality business models and attractive return potential. Portfolios must be grounded in the same rigor and discipline as any other equity portfolio and should avoid being lured into fads or trendy companies that don't offer strong fundamentals.

There are many ways to build and benchmark thematic portfolios. By becoming more familiar with the opportunities and risks inherent in these portfolios, we believe investors will be better equipped to choose thematic strategies that fit well in their asset-allocation plans and can help them achieve their long-term financial goals.

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In an increasingly complex global marketplace where short-term thinking has become the norm, considering the transformative forces that are reshaping the world can offer investors a compelling approach to strong long-term return potential. Thematic investing provides a differentiated way to generate wealth in contemporary markets by strategically envisioning the future through an investment portfolio while tapping into the powerful, universal appeal of a good story.

From technological disruption to the energy transition, people naturally connect to stories about change that can foster investment returns. Yet the simplicity of a compelling story may be misleading. Translating a trend into investment success requires identifying shifts that will persist, developing a thematic opportunity set and carefully selecting securities that are likely to create sustainably higher profits over the long term. Investors must also pay close attention to the special nuances of thematic portfolio construction, while thoughtfully evaluating how the strategy fits within a broader allocation.

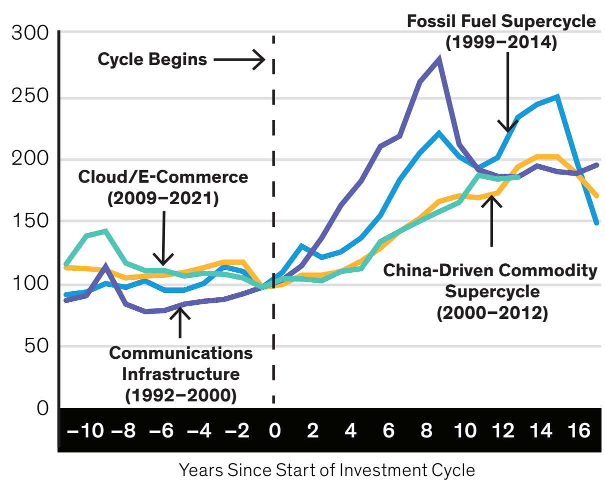
The quest for new sources of return potential has made thematic portfolios popular in recent years. Attractive themes for equity investors span technological and social issues as well as challenges in the physical world, such as infrastructure development, climate change, and transformations in agriculture related to food scarcity and production.

Well-defined thematic trends should be related to long-term policy, physical or social shifts that aren't always easy to spot as they begin to unfold. Generally, these types of themes have tended to prompt long-lasting capital investment cycles (*Display 1, left*) as companies see opportunities for growth. Our research of select major shifts over the past three decades shows that as each theme has progressed, the associated sectors have outperformed the broad benchmark by a wide margin (*Display 1, right*). For example, during the fossil fuel supercycle that ran from 1999 to 2014, the energy sector outperformed the S&P 500 by 7% per year. More recently, technology stock returns outpaced the US market by a similar annualized margin during the cloud and e-commerce cycle that began in 2009.

DISPLAY 1: THEMATIC TRENDS TEND TO SPUR PROLONGED EQUITY OUTPERFORMANCE

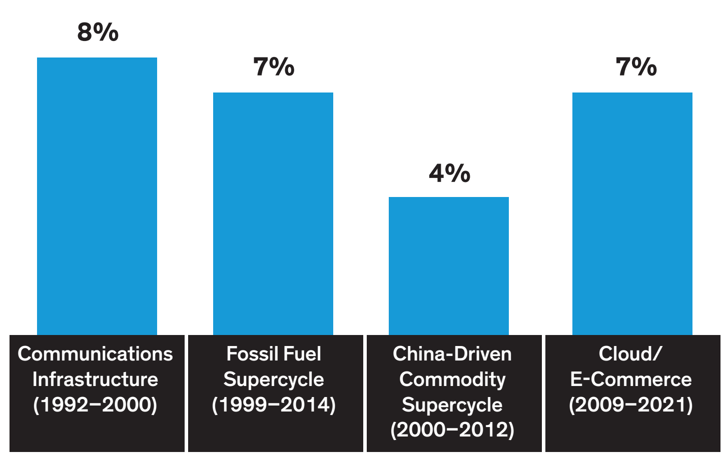
Select Structural Capital Expenditure Themes

Total Investment as a Percent of GDP (USD)
Indexed to Start of Cycle, Base Year = 100*



Sector Outperformance During Theme

(Annualized Return vs. S&P 500)†



Current analysis and forecasts do not guarantee future results.

*Some cycles shown extend past the end-year of the cycle to illustrate that investment wanes after the cycle peak.

†Sector outperformance is based on the performance of the relevant GICS sector from the start of the first year through the middle of the last year versus the S&P 500. The fossil fuel supercycle is energy from January 1, 1999, to June 30, 2014; the China-driven commodity supercycle is materials from January 1, 2000, to June 30, 2012; communications infrastructure is 50/50 weighted communication services and technology from January 1, 1992, to June 30, 2000; and cloud/e-commerce is technology from January 1, 2009, to June 30, 2021.

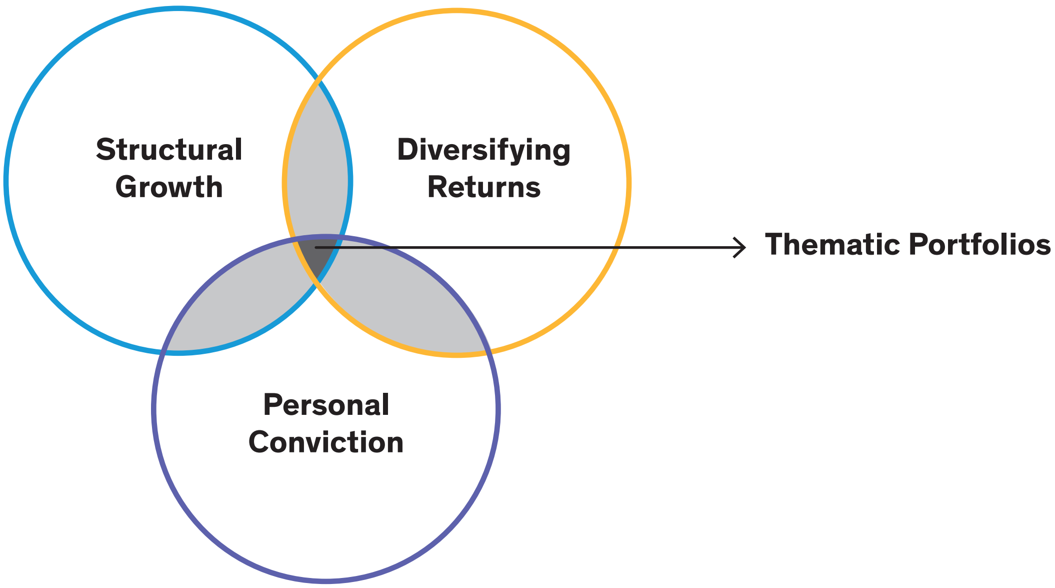
As of March 31, 2024 | **Source:** Bloomberg, IHS Global Insight and AllianceBernstein (AB)

But identifying themes is just a starting point. It's easy to look back and identify periods of powerful investment cycles, but much harder to predict when a theme will take off—and when it will run its course. Critics argue that the appeal of a good story doesn't always lead to good investments. They're not entirely wrong. For thematic investing to work, we believe investors need clear criteria for defining lasting themes and a coherent process for building portfolios with real return potential. Above all, thematic portfolios must be constructed with the same rigor, discipline and risk-management controls as any active equity portfolio. In this paper, we explore the principles of effective thematic investing to help investors make informed choices about thematic portfolios and how to incorporate them into a broader asset-allocation strategy.

Why Are Investors Drawn to Thematic Portfolios?

The 21st-century financial marketplace offers a bewildering array of equity portfolios for a spectrum of risk appetites and return objectives. Within this landscape, thematic portfolios address three basic investor needs (*Display 2*).

DISPLAY 2: THEMATIC PORTFOLIOS MEET THREE INVESTOR NEEDS



For illustrative purposes only

As of August 31, 2024 | **Source:** AB

First, thematic trends present exciting growth opportunities. In a world of acute macroeconomic challenges, long-term structural changes are powerful drivers of growth that are likely to persist over time, through the ups and downs of macroeconomic cycles.

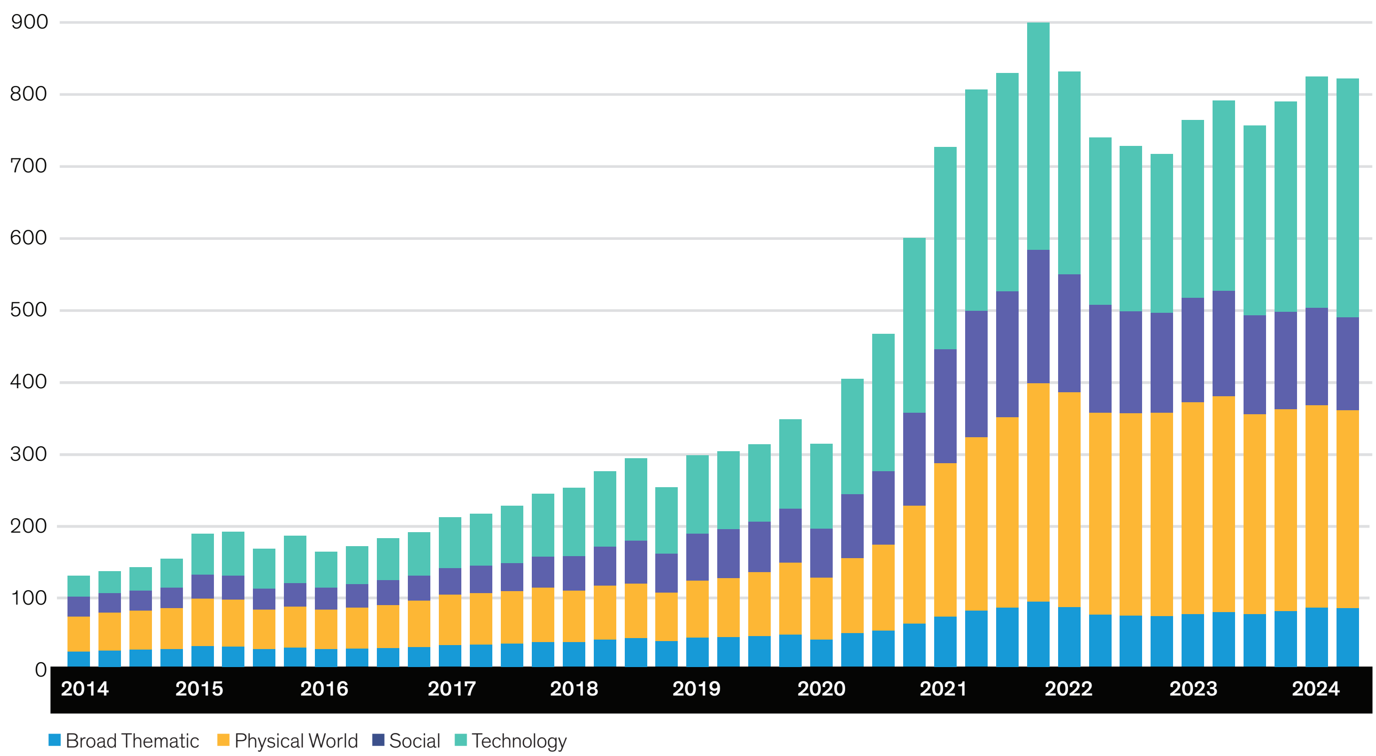
Second, many equity investors crave idiosyncratic sources of returns. In other words, they want to tap into return streams that are likely to be meaningfully different from those of the broad market. Over time, differentiated return patterns can help a broader allocation deliver more balanced results by providing performance patterns that can withstand periods of market weakness.

Third, many investors want to express personal convictions in their investments. For some, it may be a commitment to combating climate change, while others might believe that safeguarding national security is a top priority. Perhaps an investor believes artificial intelligence (AI) is a force for positive change or wants to tap into demographic trends that are transforming societies. Thematic portfolios can reflect an investor's market convictions, personal beliefs or views of the world through the stocks they own. These portfolios also let investors tilt their allocations toward pockets of the market in which they have higher confidence over the long run.

Portfolios that sit at the intersection of these three needs can offer compelling approaches to investing in solutions to some of the most pressing socioeconomic challenges of our time. As a result, global thematic equity assets have become increasingly popular over the last decade. Even after falling from a peak during the coronavirus pandemic, by June 2024, thematic portfolios had assets under management of US$833.9 billion—over six times greater than in 2014 (*Display 3*).

DISPLAY 3: THEMATIC PORTFOLIOS HAVE BECOME POPULAR OVER THE LAST DECADE

Global Thematic Equities: Assets Under Management, Quarterly (USD Billions)



Past performance does not guarantee future results.

Assets under management (AUM) include funds and exchange-traded funds across domiciles. We grouped together broad thematic categories based on Broadridge thematic equity groups as follows: Physical world includes clean energy, climate change/transition, environmental/ecological, food/agribusiness and water. Social includes clean living, lifestyle and medical innovation/wellness. Technology includes biotech, emerging technology and robotics/AI. Broad thematic includes funds that track multiple themes.

Through June 30, 2024 | **Source:** Broadridge and AB

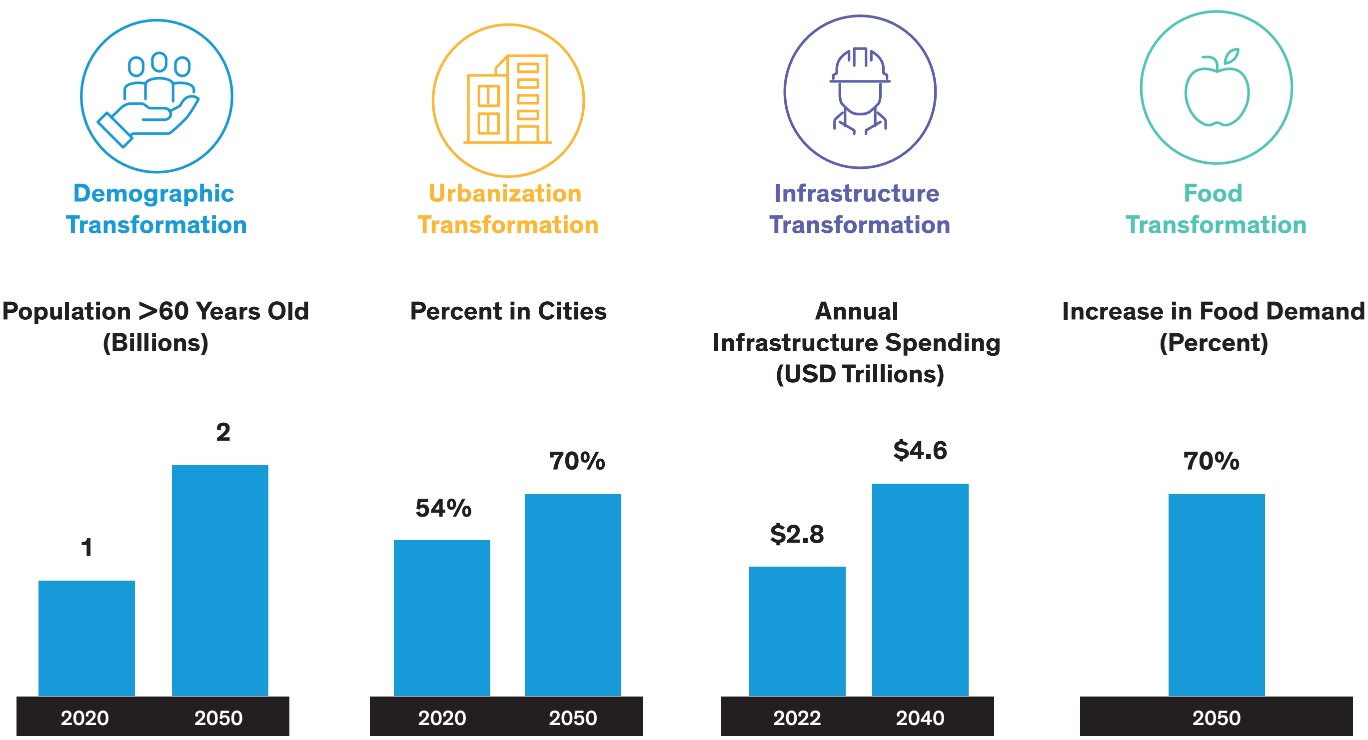
Defining Thematic Portfolios

Traditional equity portfolios are usually defined by their basic characteristics. Some are based on an investing style—such as value or growth equities. Portfolios can be diversified across a large number of stocks or concentrated in a smaller group of holdings. They may focus on different parts of the market-capitalization spectrum, from larger to smaller stocks.

Thematic portfolios differ because they're built upon a foundation of ideas. Automation and robots are spreading at a rapid pace. The green-energy transition is accelerating. Medical devices and innovative technology are transforming the healthcare sector. Big ideas like these anchor a thematic portfolio in the transformative trends that are reshaping the world.

But not every trend is a viable theme for investors. To qualify as an investable theme, we think a trend must be lasting, meaning it is likely to unfold over a longer period than a typical economic cycle and to spur massive investments through financial markets. Identifying themes requires fundamental analysis of market trends, demographics, regulation, politics, technological transformation and changing consumer behavior. Large thematic shifts will typically attract sizable capital flows from public and/or private sources. Examples include urbanization; the percentage of people living in cities is predicted to rise from 54% in 2020 to 70% in 2050. Infrastructure transformation is another powerful trend, with global spending expected to surge from US$2.8 trillion in 2022 to US$4.6 trillion by 2040 (*Display 4*).

DISPLAY 4: A CHANGING WORLD—MAJOR TRENDS THROUGH 2050



As of March 30, 2024

Source: Food and Agriculture Organization of the United Nations, Global Infrastructure Hub, University of Michigan and World Health Organization

Of course, non-thematic investors might focus on some of these themes when researching stocks, as they provide important fuel for growth. But the difference is that a thematic portfolio builds its investing process around a defined theme or themes as its primary driver of future growth, and aims to gain diversified access to the theme by selecting companies that benefit in different ways.

But themes must also be investable. That requires a sufficient universe of publicly traded companies that are clear beneficiaries of the trend. By these criteria, we don't think the global coronavirus pandemic, for example, qualified as a theme because it didn't last long enough, and there weren't many companies with business models explicitly aimed at addressing issues driven by COVID-19. However, the changing nature of the workplace, which was accelerated by the pandemic, could be an investable theme; it's a transformational change that will unfold over years, and many companies are profiting from business models that address the related challenges.

Identifying sub-themes can help define an investable universe (*Display 5*). Consider food transformation, in which the world is expected to experience a 70% global increase in food demand through 2050, according to the World Health Organization (WHO). Food-related sub-themes include agricultural productivity, food technology and waste management, since there are enough companies related to each issue to form an investable, thematic opportunity set.

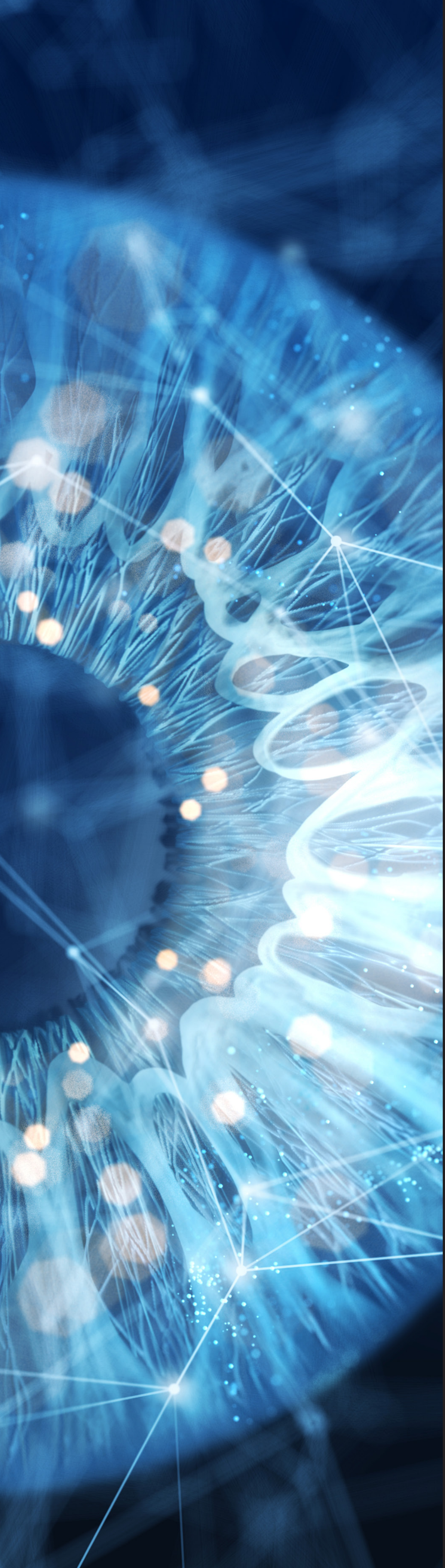
Clearly defined sub-themes provide tangible manifestations of the larger trend. Sub-themes help investors define the types of stocks that form a universe from which portfolio candidates can be selected. Robust thematic portfolios should be able to clearly articulate processes for identifying themes, capturing thematic "purity" in the allocation and finding those companies that are likely to benefit from the theme over time.

DISPLAY 5: DRILLING DOWN INTO INVESTABLE THEMES

Example Themes	**Demographic Transformation**	**Urbanization Transformation**	**Infrastructure Transformation**	**Food Transformation**
Example Sub-Themes	Automated Driving E-Commercee Insurers Internet of Things Medical Breakthroughs Medical Devices Retirement Homes Robotics Travel	Building Construction E-Commerce Energy Transition Future Mobility Internet of Things Recycling Waste/Water Wireless & Cellular	Airports Data Centers/Cloud Infrastructure Construction Equipment Energy Transition Logistics/Transport Renewable Deployment Road Construction Wireless & Cellular	Agricultural Productivity Biodiversity Biofuel Consumer Foods Food Technology Logistics/Transport Waste/Water

For illustrative purposes only

As of August 31, 2024 | **Source:** AB



Fads or Themes? From K-Pop to Sin Stocks

What do pet lovers, Korean pop music and sin stocks have in common? Each is the subject of dedicated investment portfolios that aim to capitalize on offbeat trends. From the growing industry of pet-care products and services to the enduring appeal of booze and gambling, these types of portfolios aim to attract niche investors who want to channel their money toward areas of personal affinity and apparent return potential.

But not so fast. Such narrow areas fall short of our basic criteria for investable themes. They don't benefit from a big trend that spurs spending over years, and they may not offer enough business diversity to allow for the construction of portfolios with high-quality companies and diverse sources of returns. In our view, fads simply don't provide a sound foundation for long-term equity investment.

What about sector-specific funds? Portfolios that focus on sectors such as healthcare and technology are popular vehicles for tapping into trends. Some investors may not consider sector portfolios to be thematic investments. We think it depends on how the portfolio is designed and constructed. For example, a weakly defined utilities-focused portfolio might hold stocks in the same sector that have very different growth trajectories, such as a nuclear utility and a coal utility. In contrast, portfolios that clearly define a philosophy and process for capturing trends within a sector could qualify as a thematic investment approach, such as a technology fund focused on enablers of innovative disruption. In healthcare, a portfolio designed to target high-quality businesses that are exposed to long-term healthcare trends such as longevity and medical technological advances—rather than trying to predict scientific success—can provide access to the attractive growth and return potential prominent in the sector.

AI is a case in point. Some may consider AI to be a fad; others might call it a theme. For investors, what's most important is how a portfolio defines AI as a theme and searches for opportunities. Without a coherent definition, an AI-focused portfolio could pile into a few heavyweight US mega-cap companies, which could leave investors without sufficient diversification to manage risk. We think a thematic portfolio driven by the AI revolution must first explain the types of companies it will target in order to build an allocation that offers strong risk-adjusted return potential.

Thematic portfolios can tap into stocks from different sectors that benefit from a trend. The relevant companies may change over time. Consider climate-focused investing—it draws on a theme with a very long duration, yet the technologies and growth areas within it are likely to evolve. Opportunities tied to security themes, such as cybersecurity or defense, could similarly evolve as regulations change and the political backdrop for relevant industries shifts. Identifying long-term themes can help reduce reliance on short-term macroeconomic outcomes while gaining resilience from slow but steady transitions that are less vulnerable to rapidly changing fashions and market whims.

Does Thematic Investing Work?

Buying into themes and long-lasting investment cycles isn't necessarily a ticket to investing success. Critics argue that thematic funds have delivered disappointing returns, yet they are still popular because they offer a very simple selling point. "Thematic funds prey on our desire for clarity by making everything easy," wrote Joe Wiggins in Behavioural Investment in 2023. "Something significant is happening in the world (usually some seismic and profound change) and we can profit by investing in it."[1]

By some measures, aggregate performance has been lackluster. In an article in Morningstar, John Rekenthaler says thematic funds delivered annualized returns of 7.2% from January 2017 through April 2023, underperforming the Morningstar US Market Index, which advanced by 10.6% per annum.[2] That disparity amounted to a huge gap in cumulative gains of 63% for the thematic funds versus 103% for the index.

In contrast, other studies confirm the efficacy of thematic investing. An academic study published in 2024 probed whether actively managed US mutual fund managers can generate alpha through thematic investment strategies. It concluded that funds with a higher concentration of thematic stocks significantly outperformed between 2006 and 2018, with the top decile of such funds delivering 4.25% more alpha per annum than the bottom decile.[3]

In 2023, academic research published in the Financial Analysts Journal said that thematic investing "brings a new dimension that transcends classifications based on regions, sectors and styles." The authors say thematic portfolios can earn excess return "from assets that have their returns impacted by the structural changes underlying relevant themes," though it requires "adequate risk management in order to assess by how much a given theme is exposed to traditional risk factors and to assess how much alpha a given theme is likely to add to the portfolio in excess of such exposures."[4]

So does thematic investing work or not? We think the truth lies in the middle—and the devil is in the details. Like all types of investing, it comes down to research, discipline and portfolio construction. Investors who buy into a theme purely based on a hunch or personal preferences without vetting how a portfolio targets that theme may be disappointed. Passive investing strategies could be prone to unintended risks, since there is a tendency for thematically focused companies to create a style, sector or regional bias in a portfolio. They also may be less rigorous in defining which companies are truly exposed to the relevant theme. We believe that to deliver results, a thematic portfolio must be rooted in clearly defined strategic goals, stockpicking skills and thorough risk controls.

How to Build a Thematic Portfolio

It's tempting to think that thematic equity portfolios are fundamentally different from other types of portfolios. After all, if a thematic trend is fueling earnings growth in clearly defined sectors, industries and markets, it sounds like it should be relatively easy to build a portfolio of companies that are at the heart of the action.

Unfortunately, it's a bit more difficult than that, which in our view explains why some thematic portfolios have disappointed investors. We believe the grounding principle of any thematic portfolio is that it must adhere to the same rigor and discipline as any other active equity portfolio. The main difference is how the opportunity set is defined— that is, as a universe of stocks with exposure to the theme—and even this must be done methodically. That process begins with identifying a theme and clear sub-themes, and then creating a universe of stocks that reflect thematic purity (*see "Keeping It Pure," page 15*).

The grounding principle of any thematic portfolio is that it must adhere to the same rigor and discipline as any other active equity portfolio.

1 Joe Wiggins, "Why Do Thematic Funds Fail," Behavioural Investment (July 25, 2023).
2 John Rekenthaler, "Thematic Investing: Just Say No," Morningstar.com (June 8, 2023).
3 Based on a comprehensive sample of over 2,000 actively managed US equity mutual funds between 2006 and 2018. John (Jianqiu) Bai et al., "Thematic Concentration and Mutual Fund Performance," Northeastern University D'Amore-McKim School of Business, research paper no. 4164823 (May 1, 2024).
4 Koye Somefun et al., "Allocating to Thematic Investments," Financial Analysts Journal 79, no.1 (2023): 18–36.

Since themes and sub-themes are constantly evolving (*Display 6*), a thematic universe of stocks will naturally evolve over time, too. That means investors should update the thematic universe at regular intervals to ensure that it faithfully reflects the chosen theme. However, don't fall into the short-termism trap by reactively redefining an investment theme's criteria in order to shoehorn a hot stock into a portfolio. In our view, the definition of the theme should be rigid, while changes to sub-themes and holdings must be done based on principles and a rigorous process.

DISPLAY 6: INVESTMENT REGIMES CHANGE FREQUENTLY

10 Largest Companies by Market Cap

1980: Peak Oil	1990: Japan Will Take Over the World	2000: TMT Bubble	2010: Peak of China Commodities Supercycle	2023: Only Tech can Deliver Growth
IBM	NTT	Microsoft	ExxonMobil	Apple
AT&T	Bank of Tokyo-Mitsubishi	General Electric	PetroChina	Microsoft
Exxon	Industrial Bank of Japan	NTT DoCoMo	Apple	Saudi Aramco
Standard Oil	Sumitomo Mitsui	Cisco Systems	BHP Billiton	Alphabet Inc.
Schlumberger	Toyota Motors	Walmart	Microsoft	Amazon
Shell	Fuji Bank	Intel	ICBC	NVIDIA
Mobil	Dai-Ichi Kangyo Bank	NTT	Petrobras	Meta Platforms
Atlantic Richfield	IBM	ExxonMobil	China Construction Bank	Tesla
General Electric	UFJ Bank	Lucent Technologies	Royal Dutch Shell	Berkshire Hathaway
Eastman Kodak	Exxon	Deutsche Telekom	Nestlé	Eli Lilly

Past performance does not guarantee future results. Analysis provided for illustrative purposes only and is subject to revision.

As of May 31, 2024 | **Source:** Gavekal and AB

Choosing Stocks with Staying Power

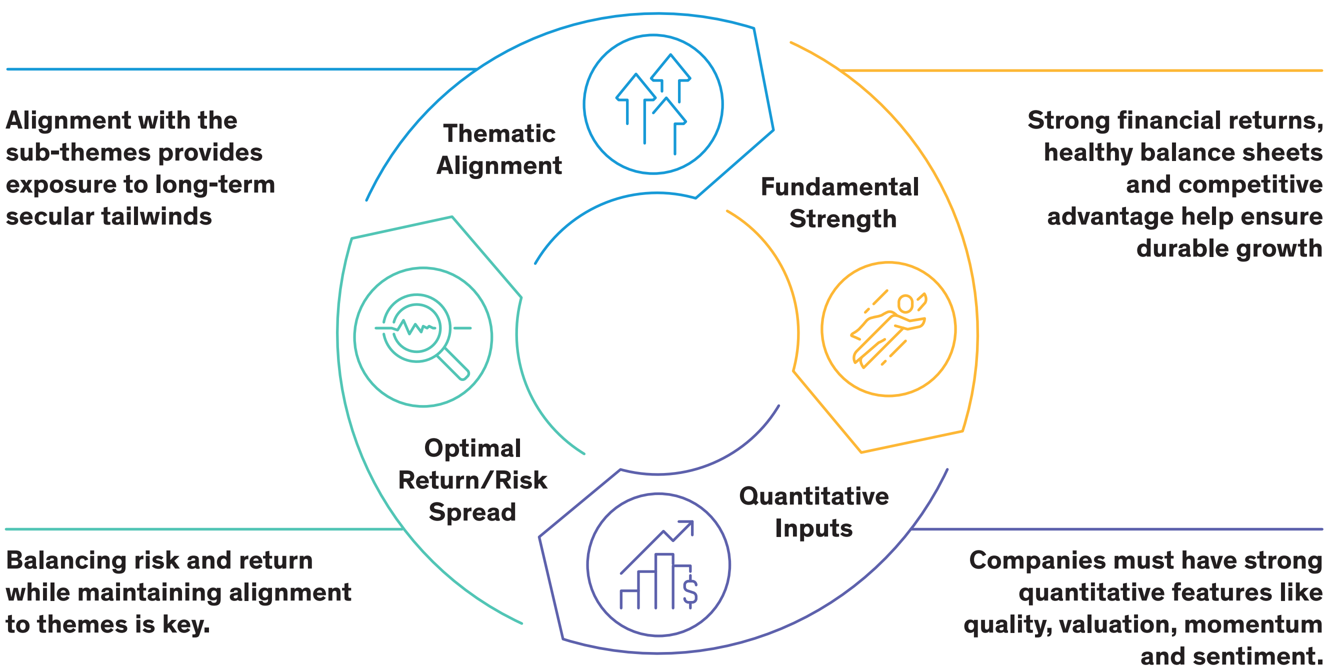
How investors select stocks for a thematic portfolio will ultimately determine whether it delivers on the theme's return potential. That's why we believe active management is especially important in thematic portfolios. Some companies that are exposed to a theme may simply not have good businesses or may suffer from bad management, yet passive thematic portfolios will hold them anyway. And even in active portfolios, a clearly defined process is necessary to ensure that investors aren't seduced by sexy thematic stories in outperforming stocks that aren't supported by strong fundamentals (*see* "Good Themes ≠ Good Investments," *page 13*).

Of course, stock-selection processes will differ according to a portfolio's investment philosophy. But some basic principles should underpin any disciplined stockpicking approach.

We believe quantitative tools and fundamental research should be used together to create portfolios (*Display 7*). Fundamental research is used to develop investment insights related to the company's business outlook and competitive advantages. Quantitative analysis can be used to sift through a broader universe of stocks and identify companies with strong quantitative features, such as quality (e.g., profitability and balance-sheet strength), valuation, momentum and sentiment.

Research must evaluate a company's business strategy, management teams and pricing power—and the share price valuation relative to its earnings potential. Even robust companies might trade at expensive valuations that add investment risk. To generate alpha—or above-market returns—investors should target compelling themes, track the evolution of the related trends and companies, and discover the best related stocks in the defined universe. Risk-management tools are crucial because thematic universes may be more concentrated or skewed toward different investment styles, factors and market capitalizations.

DISPLAY 7: KEY ATTRIBUTES OF ATTRACTIVE THEMATIC INVESTMENTS



For illustrative purposes only.

Source: AB

Tapping into the Big Storylines That Will Redefine Our World

People are living longer than ever. Healthcare needs are growing, and solutions are being reshaped by innovation and technology. The energy transition is in full swing, while global defense and cybersecurity are gaining prominence on national agendas. AI is poised to reshape business productivity and countless areas of life.

Here are some succinct storylines representing major trends that we believe will create thematic opportunities for equity investors in the coming decades.

	Key Sub-Themes
Demographics: The proportion of people aged 65 and above is set to increase from 8% today to 19% by 2050, according to the UN. Meanwhile, the proportion of children in the global population is set to fall from 33% to 22%.	Automated driving Medical devices Retirement homes Robotics Insurance
Healthcare: Healthcare is a basic human need that is being redefined by innovative services, treatments and technology.	Food security Clean water Medical innovation Well-being
Energy Transition and Climate Change: Global efforts to combat climate change are being supported by massive incentives, yet they require private sector initiatives and innovation to succeed.	Cleaner energy Resource efficiency Sanitation Recycling Sustainable transportation
Empowerment: Helping marginalized groups improve their economic position is a growing priority for countries seeking to address structural socioeconomic imbalances that restrain growth.	Education Financial security and inclusion Information and communication technologies
Artificial Intelligence: AI is poised to transform the way we live and how companies do business. Companies that enable the proliferation of AI infrastructure and help unlock its productivity will continue to gain prominence.	Cloud infrastructure Semiconductors IT applications

Key Sub-Themes

Urbanization: People are flocking to cities. In 2020, about 54% of the world's population lived in urban areas. By 2050, according to the UN, this is set to surge to 70%, which would add 2.5 billion people to the world's cities.

Energy
Construction
Waste
Communication services

Defense: The Russia-Ukraine war, tensions in East Asia and conflict in the Middle East have refocused global attention on territorial and digital defense. In our digitally connected world, cybersecurity has become an urgent priority, with an addressable market projected to triple to at least $1.5 trillion, according to McKinsey.

National security
Cybersecurity

Supply Chain Security: The coronavirus pandemic exposed serious vulnerabilities in supply chains across industries, and more than half a century of globalization is coming to an end due to geopolitical realignment.

Semiconductor reshoring
Industrial logistics

Infrastructure: Increasing demand for infrastructure is outpacing the investment needed to keep up. Bridging this infrastructure gap will require infrastructure spending as a proportion of global GDP to grow from the current level of 3% to 3.7% by 2040. The US will have the largest investment gap, at $3.8 trillion, double China's gap of $1.9 trillion and over three times greater than Brazil's, at $1.1 trillion.

Airports
Construction equipment
Road construction
Logistics and transport
Wireless and cellular

Calibrating the Features of a Thematic Portfolio

Portfolio construction is about more than just choosing stocks. The technical considerations that shape portfolio construction must also be considered in any thematic allocation, though some features require special attention.

Benchmarks and Sources of Risk

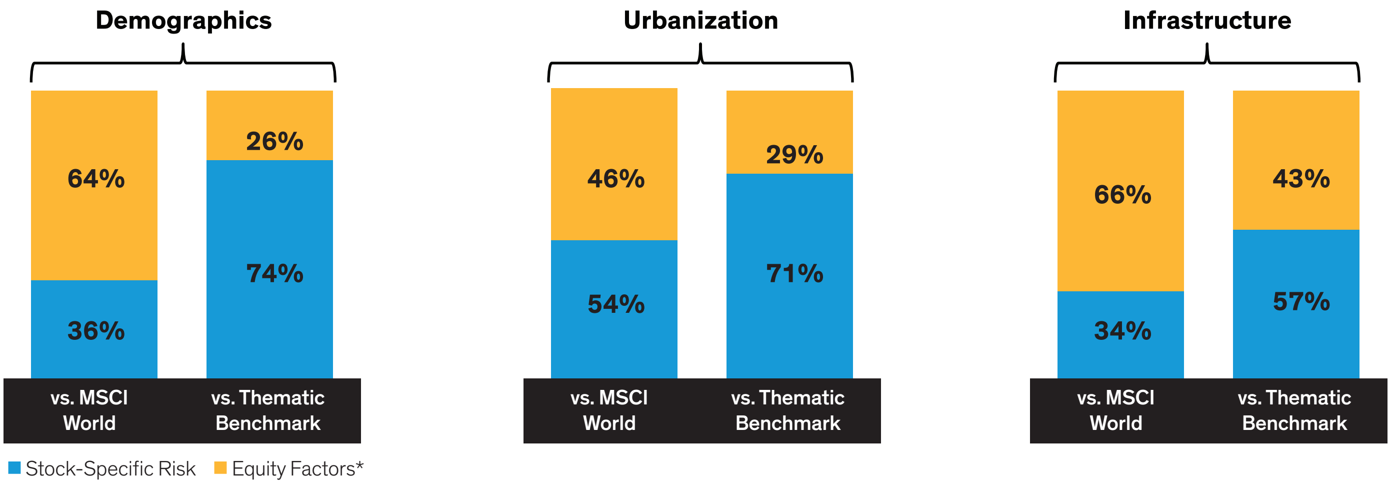
Choosing a traditional broad-based benchmark can be tricky because the group of stocks selected to represent a particular theme are likely to create a substantially different allocation than a traditional broad market index. Thematic portfolios will almost certainly have different sector or industry weights than broad benchmarks. In addition, the factor or style exposures will be markedly different even across themes. As a result, thematic portfolios will typically have significantly higher ex-ante tracking error to a broad benchmark.

But a thoughtful manager should be able to measure and clearly articulate the sources of active risk versus a defined universe of companies that align with a specified theme or themes. While some thematic portfolios do benchmark to a broad market index, we believe that investors can benefit from referencing a thematic benchmark to gain a better understanding of performance patterns—especially during shorter periods. Clearly articulating and communicating how active risk is sourced in a thematic portfolio can help clients make more-informed portfolio allocation decisions.

Thematic benchmarks can be useful to help a portfolio generate investment ideas by providing a naïve screen of companies as an opportunity set to sift for good investments.

This approach can also provide a more meaningful way to benchmark the risk/reward profile of a thematic portfolio (*Display 8*). For example, we measured the attributes of three model thematic portfolios versus a thematic benchmark and the broad MSCI World Index. These portfolios showed much lower tracking error, of about 3.0%, versus the thematic benchmarks, and between 4.1% and 4.9% in relation to the broad benchmark. What's more, the model portfolio's risk versus that of the broad benchmark is driven by factors including countries, sectors and styles; in contrast, when measured against the thematic benchmark, the model thematic portfolio's risk is driven by stock-specific risk.

DISPLAY 8: THEMATIC BENCHMARKS CAN HELP GAUGE THE RISK/REWARD TRADE-OFF



	Demographics		Urbanization		Infrastructure	
	vs. AB Theme Benchmark	vs. MSCI World	vs. AB Theme Benchmark	vs. MSCI World	vs. AB Theme Benchmark	vs. MSCI World
Tracking Error	2.94%	4.82%	2.90%	4.12%	3.00%	4.86%

Past performance does not guarantee future results.

*Equity factors include countries, sectors and styles. | As of May 31, 2024 | **Source:** MSCI Barra and AB

Good Themes ≠ Good Investments

Sustainable food provides a good example of a thematic stock story gone awry.

Plant-based meat substitutes have become a very popular technology for promoting a more-sustainable food supply. So when Beyond Meat went public in May 2019, the shares surged nearly tenfold from the offer price of $25 a share to a peak of $234.90 just two months later. But since mid-2021, the stock has slumped; by the end of July 2024, it was trading at just $6.28 a share.

What went wrong? Put simply, the meat-substitute buzz that fueled investors' enthusiasm wasn't backed by solid business fundamentals. As Beyond Meat faced increasing competition from companies including some of the industry's largest players, revenues came under pressure and the company's profit margins were squeezed.

The moral of the story? Even when investors identify a strong theme with powerful growth drivers, there must be an equally solid thesis to support the stocks chosen for a portfolio. In other words, a good theme won't save a bad business—and investors ultimately pay the price for that miscalculation.

We can also gauge the factor, sector, style and currency risks accordingly. But investors must be aware of the ramifications of using a bespoke thematic benchmark. In the short run, expect big deviations versus a broad index. Yet over the long term, we expect themes with higher expected growth to outperform the broad benchmarks. If the trade-off between diversification and short-term performance is understood, clients will be better prepared for periods when a thematic strategy lags the broad market.

Understanding these trade-offs can help portfolio managers consider the pros and cons of each approach. For instance, a portfolio that has lower risk versus a thematic benchmark is positioned relatively passive to the theme. Yet this portfolio would still have high active risk compared to the broad market benchmark. We believe active thematic portfolios should be able to demonstrate that they are taking active risk versus the thematic benchmark.

Thematic benchmarks can also help investors measure performance and gauge the efficacy of an active thematic strategy. If the thematic benchmark performs well but the portfolio underperforms, it suggests that poor stock selection is the culprit, rather than the theme itself.

Narrowing the Lens—or Taking a Wide Angle?

While the tracking error of a thematic portfolio will naturally be higher than the broad benchmark, it will differ by portfolio. For example, narrower themes will have higher tracking error versus the broad benchmark. Broader themes will have lower tracking error, providing the manager with greater freedom to manage risk versus a broader benchmark. Much depends on how the themes are defined and targeted. In our view, very narrow themes could be especially risky, so investors should proceed with caution if a theme doesn't seem to have a large-enough opportunity set.

Some themes have inherent exposures to various styles, like growth or value, or to specific industries or regions. For example, a theme like infrastructure will naturally line up with the value style because of the types of companies targeted. But a theme like AI would naturally add more growth-factor exposure because it would be heavy on growth-oriented technology stocks. These thematic dimensions could all add to the portfolio's tracking error versus broad benchmarks—and they can also help investors understand how the theme fits with their broader capital allocations.

Getting tracking error right is more than just a technical matter. By effectively measuring tracking error versus an appropriate benchmark, investors can evaluate how active the portfolio is relative to a passive theme exposure.

The ESG Angle on Thematic Investing

For some investors, thematic portfolios provide a great way to focus on different environmental, social and governance (ESG) considerations. Yet thematic portfolios don't necessarily have to focus on ESG issues or companies. This distinction is important in an increasingly polarized world, where the term ESG has passionate supporters and opponents.

ESG factors can have a material impact on investing outcomes. Climate change, social empowerment of marginalized groups and healthcare are big sustainability themes driven by long-term structural changes and investment. Like any theme, portfolio managers should have a coherent methodology for defining an ESG theme and investing in related companies. For example, the UN Sustainable Development Goals provide a good roadmap to identifying major ESG issues that are set to benefit from massive public and private investment in the years to come, from biodiversity to the energy transition to water scarcity.

Investors seeking to capitalize on opportunities being created by these trends will find that an active thematic equity portfolio can target companies playing leading roles in addressing key ESG issues. When combined with a rigorous fundamental research and stock-selection process, we believe thematic portfolios focused on these ESG issues can offer investors attractive long-term return potential.

Yet thematic portfolios don't need an ESG bent to be effective. For example, portfolios focused on technological disruption or infrastructure development can be suitable for investors who seek exposure to a thematic trend but don't want an ESG-focused or ESG-integrated portfolio. The secret to success in thematic investing is rooted in choosing themes that have strong multiyear momentum behind them while choosing stocks with a selective eye. These principles apply to any thematic portfolio—ESG or not.

Keeping It Pure

Investors who choose a thematic approach need confidence that the strategy is adhering to thematic purity. That is, they need assurance that the targeted theme is properly reflected in the companies held in the portfolio. Because structural transformations can be very broad, it's important to scrutinize the underlying sub-themes—which can be more easily defined—to ensure thematic purity.

That's easier said than done. Many companies that are beneficiaries or enablers of a theme have other, unrelated businesses. Portfolio managers could also target specific sectors and industries that are widely seen as being associated with a theme, but certain companies within the sector might not be aligned with the issue.

Portfolio managers must provide clear definitions of thematic purity and explain the limitations of any methodology. Product revenue is a common approach for measuring a company's alignment with a sub-theme, but this is not reported equally by all firms. And product revenue can be backward-looking as businesses shift.

Targeting sub-industries or sector classifications is another approach. The drawbacks? This can fail to capture related firms, like customers or suppliers. Portfolio managers also use AI techniques, such as natural language processing or textual approaches, to identify firms that write and speak about different sub-themes. However, some companies don't produce as much text as others, and some firms might be more talk than action.

So how can thematic purity be evaluated with conviction? We think all three of these approaches should be used (*Display 9*), alongside fundamental research, which allows analysts to decide whether and how a stock is related to sub-themes.

DISPLAY 9: HOW CAN PORTFOLIO MANAGERS ENSURE THEMATIC PURITY?

Approach	Pros	Cons
Product Revenue	Demonstrates a firm's business alignment with a chosen theme	Not all firms report product revenue in the same way
Targeting Specific Sectors and Sub-Industries	Some sectors and industries are firmly aligned with a theme	Customers and suppliers of these companies might not be detected—even though they too benefit from the theme
Artificial Intelligence	Company reports and calls can provide insight on a thematic focus	Some companies don't produce as much text as others. And some companies are more talk than action

For illustrative purposes only.

Source: AB

Performance: Understanding the Drivers of Alpha

Ensuring that a thematic equity portfolio is true to its mission is crucial for maintaining investor confidence in the strategy. Just as a portfolio manager must monitor and adjust holdings to ensure appropriate exposure to a targeted equity style or market capitalization, a thematic portfolio should ensure it is exposed to the intended theme. Clients must also monitor performance trends to ensure that a thematic portfolio isn't being driven by equity-style return patterns.

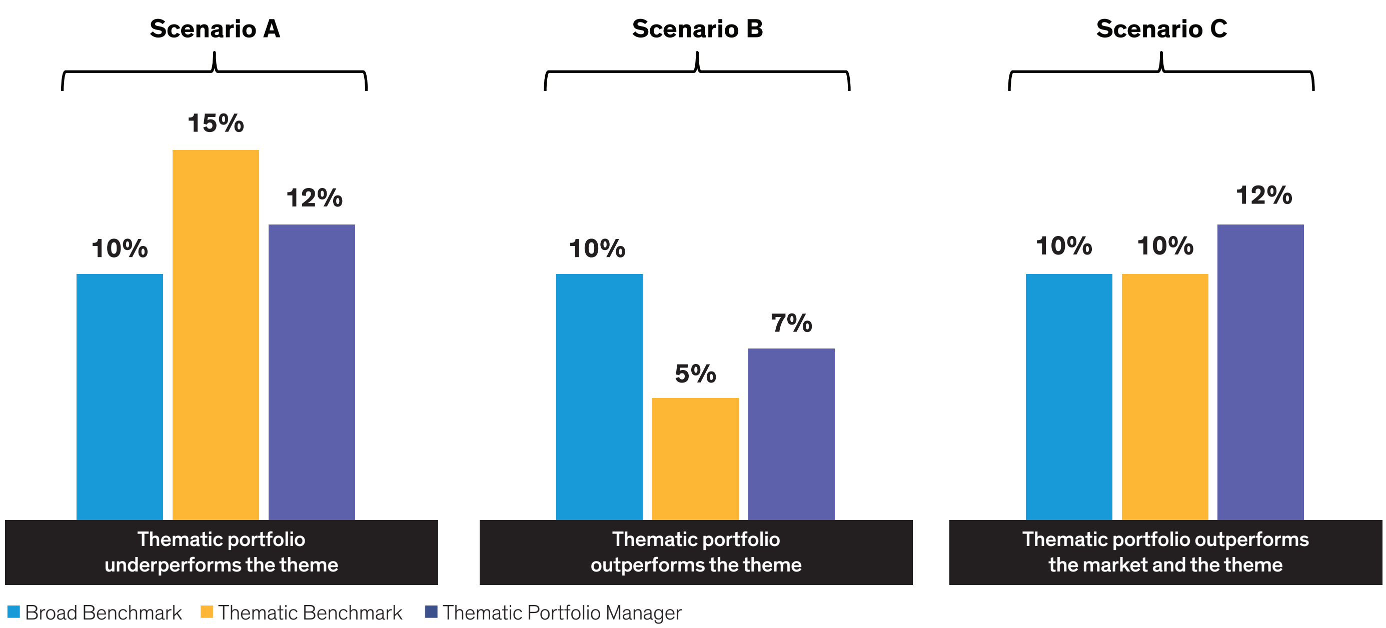
How can this be done? When looking at short-term performance, check the portfolio relative to the theme universe and ensure that most differences in the performance are being driven by positive or negative stock selection. For longer-term performance, compare the portfolio to the broad market benchmark—this can help an investor confirm that performance patterns are being driven by the theme.

To achieve this, we think a thematic manager must be able to decompose the portfolio into thematic performance versus the benchmark and alpha within themes, in the same way that traditional equity portfolio managers can break down returns into sector selection and stock selection within sectors.

In the illustrative example below (*Display 10*), the thematic manager in scenario A delivered alpha versus the broad market yet underperformed the theme. In scenario B, the portfolio manager added value during a period in which the theme underperformed the benchmark. The portfolio manager in scenario C added value and outperformed the thematic index, which was in line with the broad market. So in scenarios B and C, the performance thematic manager added value through security selection. Comparing performance to a thematic benchmark—or to peer performance, as an alternative—allows an investor to assess whether stock selection is working well in a thematic portfolio.

DISPLAY 10: EVALUATING A THEMATIC PORTFOLIO'S PERFORMANCE

Hypothetical Examples



For illustrative purposes only

Source: AB

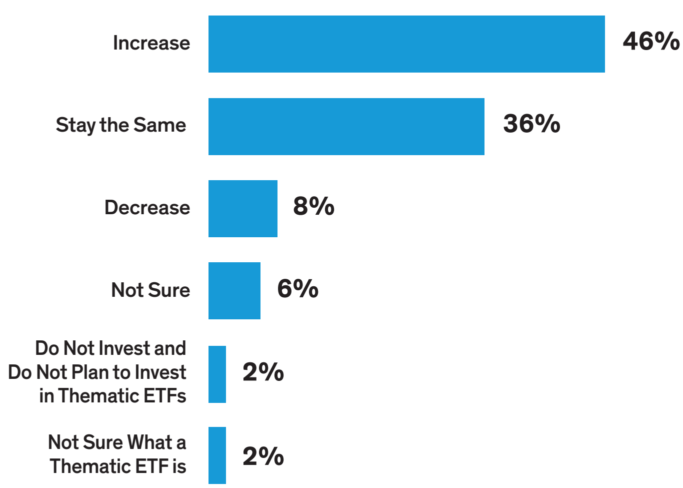
How to Allocate to Thematic Equity Portfolios

With a firm understanding of the nuances of creating thematic equity portfolios, investors can begin to think about where these strategies fit in a wider asset-allocation plan.

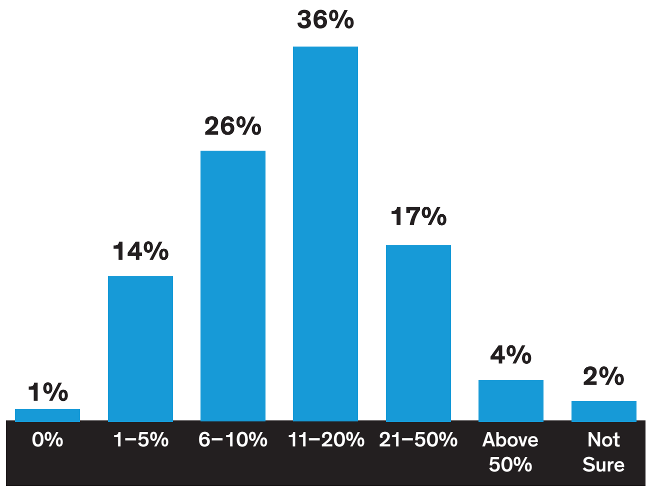
Thematic portfolios are becoming increasingly popular in allocations. In a 2023 survey of 325 investors, 46% said they planned to increase their exposure to thematic exchange-traded funds (ETFs) (*Display 11*). More than a third said they expected between 11% and 20% of their portfolio to be invested in thematic ETFs in three years.

DISPLAY 11: INVESTORS PLAN TO INCREASE ALLOCATION TO THEMATIC PORTFOLIOS

Do You Plan to Increase Your Exposure to Thematic ETFs This Year?

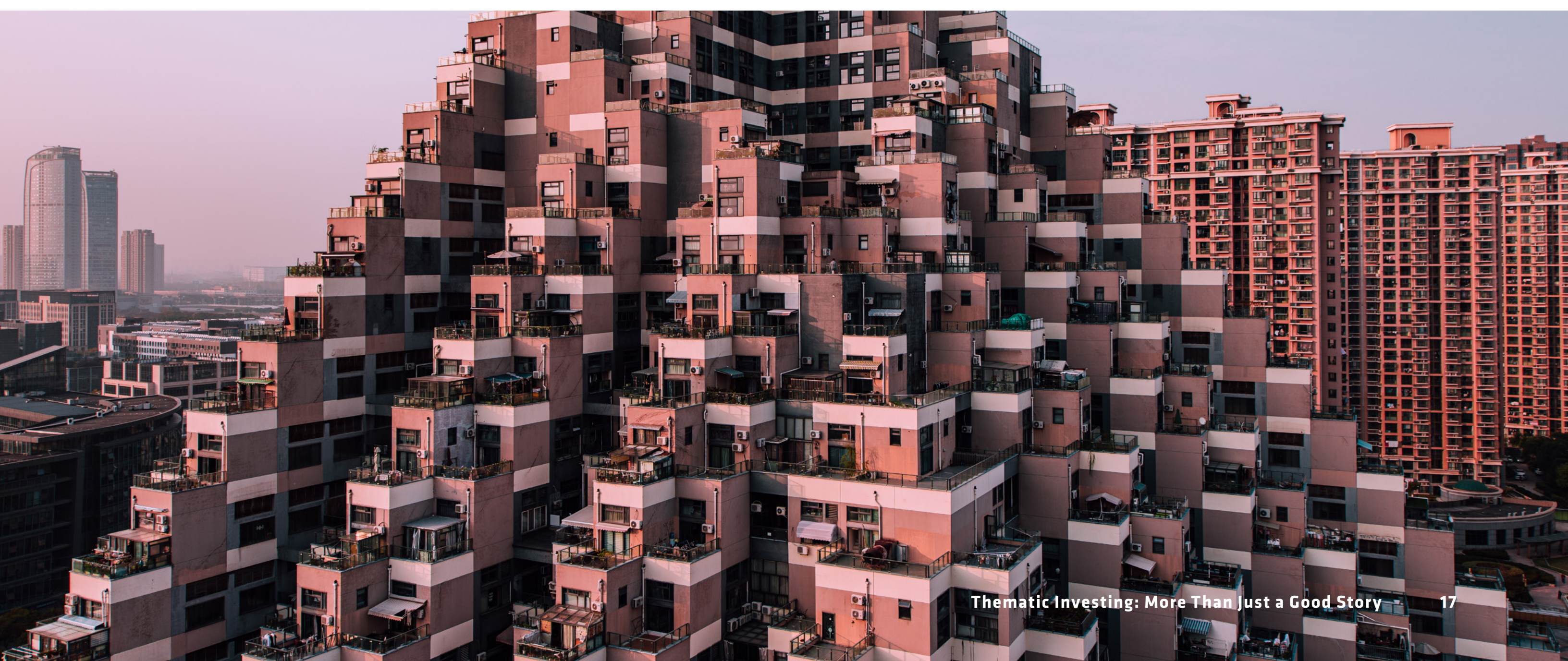


In Three Years, What Percentage of Your Portfolio Will Be in Thematic ETFs?



Survey responses came from 325 ETF institutional investors, financial advisors, and fund managers from the US, Europe (including the UK) and Greater China.

As of April 2023 | **Source:** Brown Brothers Harriman 2023 Global ETF Investor Survey and AB



After deciding to allocate, the next question is: Where should a thematic portfolio sit in a client's allocation? We believe thematic portfolios should function as a satellite in a core-satellite allocation framework.

Investors must also consider the characteristics of the chosen thematic strategy in the allocation process. Prudent principles of asset allocation must be applied, as with any investment strategy. And since thematic portfolios often have style or regional biases, investors must make sure that they aren't doubling down on exposures that could add risk rather than provide the intended diversification benefits.

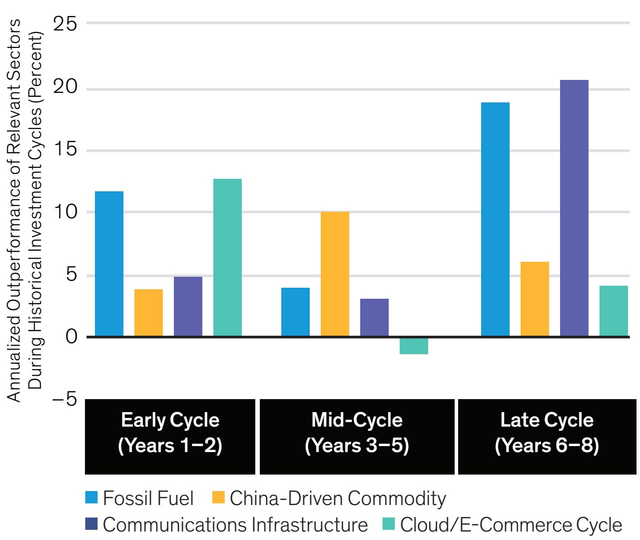
For example, an urbanization-theme portfolio will, by definition, have significant exposure to emerging-market (EM) stocks and countries. When including this type of portfolio, make sure it isn't creating excessive exposure to EMs in general or China in particular. If so, consider reducing some EM exposure elsewhere to incorporate the urbanization theme without creating imbalances in the broader allocation.

Similarly, a climate-focused equity portfolio is likely to have a style tilt toward growth and European-domiciled stocks. Investors seeking to include a portfolio like this should first check the style exposures of the broader allocation and make adjustments, if necessary, to maintain the appropriate balance across equity holdings.

Time horizons also deserve attention. Generally speaking, thematic trends take years to play out, so the strategic investing rationale requires patience and a long-term investing horizon. Our research suggests that the outperformance associated with four key thematic trends in the past varied at different points in the cycle (*Display 12, left*). We believe that staying invested through the cycles offers the best opportunity to maximize returns from a thematic portfolio, as missing the best quarter, half-year or year of a thematic cycle reduces relative returns significantly (*Display 12, right*). Investors with shorter-term liquidity needs should be wary of allocating too heavily to a thematic portfolio that could experience short-term volatility on the path toward reaping the rewards of long-term trends.

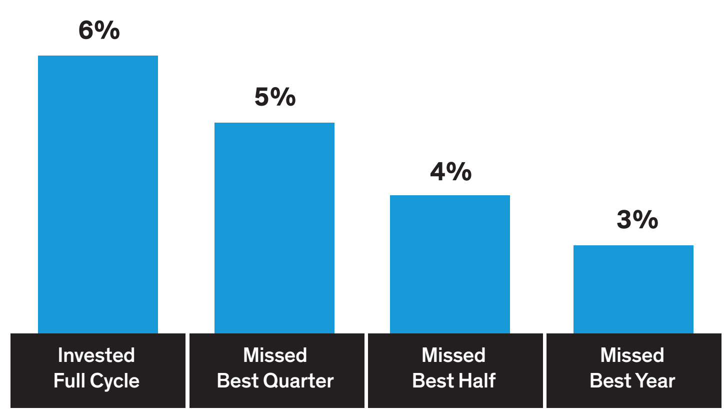
DISPLAY 12: STAY INVESTED TO CAPTURE THE STRONGEST RETURN POTENTIAL

Outperformance Varies Through Historical Themes*



Missing the Best Year Can Reduce Relative Returns

Estimated Annualized Relative Return During Cycle (Percent)*



Past performance does not guarantee future results.

Analysis assumes that dividend payments remain consistent throughout the examined periods.

*Outperformance versus theme based on performance of relevant GICS sector from the start of the first year through the middle of the last year vs. the S&P 500. Fossil fuels is energy from January 1, 1999, to June 30, 2014; China-driven commodity is materials from January 1, 2000, to June 30, 2012; communications infrastructure is 50/50 weighted communication services and technology from January 1, 1992, to June 30, 2000; and cloud/e-commerce is technology from January 1, 2009, to June 30, 2021.

As of March 31, 2024 | **Source:** Bloomberg, IHS Global Insight and AB

Key Principles for Investing in Thematic Portfolios

Of course, identifying future themes is no easy task. There is no guarantee that investing in a thematic equity portfolio will deliver the type of outperformance that we have witnessed during major thematic cycles in the past. Yet with a clearly defined strategic approach, we think investors can improve the chances of success.

To be effective, investors must first understand that thematic investing introduces new considerations that should inform questions about the portfolio's strategy and how it fits into an allocation (*Display 13*). A thematic portfolio must clearly articulate the transformation that is driving future growth and provide a well-defined methodology for identifying relevant stocks. Yet the old rules of strategic asset allocation still apply: be aware of style, region and capitalization biases across holdings, and make sure a thematic portfolio targets sources of alpha that are uncorrelated with other assets. Confirm that a thematic portfolio has a robust stock selection process, focused on high-quality businesses with resilient company fundamentals that underpin equity return potential. We believe that portfolios rooted in skillful stock selection will be much more likely to deliver on a theme's return potential than portfolios deploying a purely top-down approach to thematic investing.

Keeping these principles front and center can help ensure that a thematic portfolio fulfills its purpose. Thematic investing is rapidly evolving, and investors should remain open-minded and thoughtful about how to best capture the exciting opportunities it offers. By strategically connecting big world trends to business performance, a thematic portfolio can surmount the prevailing short attention span in markets today and guide investors toward the long-term return potential created by the truly transformational stories of our time.

DISPLAY 13: CHECKLIST FOR INVESTORS—WHAT TO LOOK FOR IN THEMATIC PORTFOLIOS

Theme Definition

- ☑ Can the portfolio manager clearly define the themes and sub-themes?
- ☑ Are the themes motivated by real economic trends?
- ☑ Are these long-term themes or just a short-term fad?
- ☑ Does the portfolio manager have a clear process for identifying sub-theme stocks?
- ☑ Are there enough stocks to invest in?
- ☑ How does the portfolio measure thematic purity?

Portfolio

- ☑ What kinds of exposures and risks to sectors, styles and regions does the thematic portfolio inherently have?
- ☑ Does the investment team have a way to measure the portfolio's performance versus the theme or peers?
- ☑ How does the team select stocks for alpha? Does it use fundamental research, quantitative analysis or both?
- ☑ How does the team manage risk versus the broad benchmark or a thematic benchmark?
- ☑ What are the expected tracking errors?

Allocation

- ☑ Consider the style of the theme to see which asset allocation bucket fits best.
- ☑ Consider a core-satellite approach for allocating to a variety of thematic portfolios.
- ☑ Understand the time horizon of the thematic portfolio, which may be longer than that of traditional portfolios.
- ☑ How will this thematic investment's returns correlate with the rest of the allocation?

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