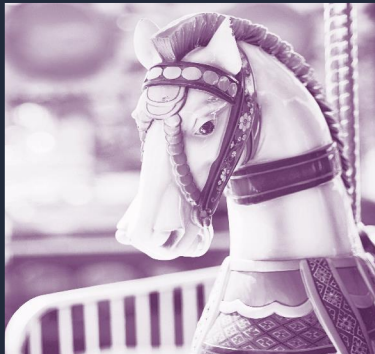
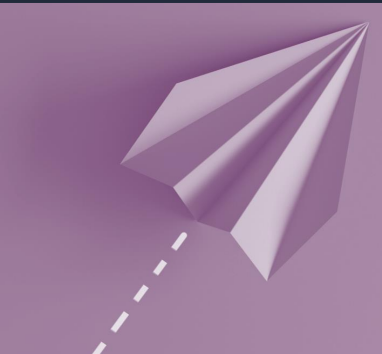


Lazard
Perspectives



The Seven Sins of Thematic Investing

Common Implementation Mistakes in Long-Term Equity Strategies

Thematic investing offers a compelling way to capture the most important structural changes of our time—but only if implementation is robust. A deeper understanding of implementation issues can help an investor ask the right questions to distinguish a genuine investment thesis from slick marketing.

Lazard's Global Thematic Equity team shares its decades of experience in seeking to identify and avoid the seven sins of thematic investing.



Executive Summary

We believe thematic investing offers investors a compelling opportunity to capture the most important structural changes of our time—but only if implementation is robust. The Lazard Global Thematic Equity team has honed its approach to long-term investing for decades, and we have learned through experience and close observation some of the mistakes investors can and do make.

In our companion paper, “Capturing Structural Change: A Guide to Thematic Investing,” we offered a comprehensive introduction to thematic investing, highlighting benefits in terms of return generation, risk mitigation, and sustainability integration. That paper also noted the importance of robust implementation. Over the years, we have identified many key implementation errors and, indeed, made a few of our own. Unfortunately, we see these errors playing out across the industry to this day, with potentially negative consequences for unwitting investors.

In our view, many of the “thematic” investments available today are little more than slick marketing and may not offer an opportunity to achieve excess returns over the long term. In this paper, we offer our insights as to how to seek to identify and help mitigate implementation of some of the material risks our team has identified in thematic equity strategies. We provide suggested solutions, alongside a checklist of questions to ask managers to help determine if they are committing one of the “seven sins of thematic investing.”



SIN NO. 1: NARRATIVE FALLACIES

In our view, thematic strategies are particularly vulnerable to building themes around slick, but potentially empty, marketing narratives rather than genuine return opportunities. Single-theme strategies are likewise susceptible to narrative fallacies as they create additional incentives for confirmation bias, where investment teams seek out evidence that confirms a strategy's relevance and ignore evidence that undermines it. We believe these risks can be mitigated by introducing competition for capital across multiple themes.



SIN NO. 2: FOGGY FORECASTING

Forecasting, particularly as far out as the next decade, is at best imprecise and at worst dangerous. Investors should ask managers where their ideas originate and prioritize sources grounded in real-world experience rather than popular consensus. We source most of our ideas from discussions with companies themselves, as they will be allocating the capital that will drive structural change. Managers should be humble about their ability to predict future outcomes amid unforeseeable risks and be wary of attempts at optimization ahead of an inherently uncertain future.



SIN NO. 3: SLEDGEHAMMER SCOPE

We view generic investment ideas as sledgehammers—simple, broadly defined investment propositions that make an immediate marketing impact but can leave lasting damage to portfolios. Themes that are designed too broadly in scope may not target the actual return opportunity. For this reason, we develop our own proprietary themes with an eye toward isolating what we believe to be specific structural changes that can generate returns. We also permit themes to evolve over time which is designed to avoid obsolescence. Theme design should ultimately be as precise as possible rather than convey a grand vision—and as such, we believe managers should use a scalpel, not a sledgehammer.



SIN NO. 4: PUZZLING PURITY

Stocks that appear to be valid candidates for a theme might actually have very little relevance. Managers should look beyond simple purity metrics to identify companies that truly stand to benefit from the diverse potential drivers of structural change. Managers should also cross-check for idiosyncratic risk and valuation. Finding the right pieces to solve a thematic puzzle necessitates going beyond the obvious.



SIN NO. 5: ONE-TRICK PONY

In our view, having multiple themes is of no benefit if they are all the same underneath the surface. We believe a thematic strategy should try to access multiple sources of return from structural change without permanently embedding a reliance on a particular geography, sector, or style. Sensible portfolio construction should employ diversification across different fundamental thematic ideas.



SIN NO. 6: FAILURE TO INTEGRATE

We observe that managers tend to make three mistakes when claiming to incorporate sustainability into their investment processes: failing to do it, pretending to do it, or doing it badly. We incorporate both traditional fundamental analysis and sustainability-related externalities in our assessments, which we view as the definition of ESG integration.



SIN NO. 7: THE WRONG RESUME

In our experience, genuine thematic experience is scarce. We believe it is crucial that investment teams on thematic strategies have had specific training and experience in analyzing many structural changes, not just time in the market. Covering a specific geography or industry, even for decades, might not produce enough learning opportunities. We advocate instead for a global, cross-sector approach. An independent relationship with highly experienced research analysts can provide a valuable reality check.



Ideas are easy. Execution is everything.”

—John Doerr, *Measure What Matters*¹

Introduction

In 2017, the Thinking Ahead Institute published a paper² that detailed eight ways investors could create value over the long term, whether through enhanced returns or lower costs and loss mitigation. One of the potential sources of enhanced returns was thematic investing. The paper, however, noted the complexity of robust implementation and we believe this remains the case today.

Our decades of experience running thematic equity strategies lead us to heartily agree that investors can only realize the significant benefits of thematic investing if a strategy is implemented properly. Over the years, we have identified many key implementation errors—and indeed made a few of our own. Unfortunately, we see these errors playing out across the industry to this day, with potentially negative consequences for unwitting investors.

Many “thematic” investments on offer are little more than slick marketing, in our view, and do not offer an opportunity to achieve excess returns over the long term. A deeper understanding of implementation issues can help an investor ask the right questions to distinguish a genuine investment thesis from storytelling.

We have grouped potential mistakes into seven categories. This is not an exhaustive list and we focus only on certain aspects of thematic investment. There is a strong behavioral element to many of these mistakes because, in our view, human nature does not change. In addition to documenting the problems we have seen, we offer our solutions to support a robust investment process and portfolio implementation, as well as a checklist of what to look for (and look out for) in a thematic strategy. Many of the observations here are equally applicable to other long-term equity approaches and even other asset classes.

Sin No. 1

Narrative Fallacies

In our view, thematic strategies are particularly vulnerable to building themes around slick, but potentially empty, marketing narratives rather than genuine return opportunities. Single-theme strategies are likewise susceptible to narrative fallacies as they create additional incentives for confirmation bias, in which investment teams seek out evidence that confirms a strategy’s relevance and ignore evidence that undermines it. We believe these risks can be mitigated by introducing competition for capital across multiple themes.



Implementation Risk	Description	Lazard Global Thematic Approach
Narrative fallacies	Simple, appealing stories which ultimately do not translate into investment returns	Themes must represent a genuine underlying investment opportunity
Single-theme strategies	Outsources the key decision of theme selection; greater risk of confirmation bias and agency problems in assessment and disclosure of theme merits, risks, and expiry conditions	Multi-theme approach establishes competition for capital between themes; theme selection is insourced and acknowledged as portfolio manager’s responsibility and source of added value

Long-term investors are highly susceptible to what we call the narrative fallacy—an appealing story that fails to translate into long-term investment returns.

We believe a theme should represent not just a broad idea but a potentially positive long-term investment opportunity. The world of thematic investing is unfortunately rife with products that capture the imagination but on further scrutiny do not confer a

genuine benefit in terms of return, risk, or sustainability objectives. This commercial window dressing potentially does a disservice to more robust thematic strategies, which may find themselves dismissed without due consideration.

The narrative fallacy problem can pose a particularly potent risk when a single theme is the entire investment proposition. Single-theme strategies should come with a crucial acknowledgment: They outsource to the client one of the most critical investment questions—is this theme a good investment?

To be clear, single-theme strategies can be robust investments, and some clients and asset owners will have the knowledge and expertise to select winning themes. Yet, single-theme strategies can compound agency risks around confirmation bias, in which the portfolio manager seeks corroborating evidence to support the thematic thesis and discards evidence that undermines it. The alternative—retiring the theme and hence closing the strategy—is typically an unpalatable option.

In contrast, a key benefit of multi-theme portfolios is that they ensure competition for capital across themes. When the retirement of a theme is not an existential crisis for a money manager, but rather an allocation decision, it can be approached dispassionately. There is every incentive to identify the themes that are truly compelling at any given time and no penalty for an honest assessment that a theme has run its course.

Sample Questions to Ask the Manager

1. How does each theme reflect an underlying return opportunity?
2. What themes have you considered and rejected?
3. Where could the overall thesis of a single-theme strategy be wrong?
4. Under what circumstances would you retire or change the strategy or theme(s)?

Sin No. 2
Foggy Forecasting

Forecasting, particularly as far out as the next decade, is at best imprecise and at worst dangerous. Investors should ask managers where their ideas originate and prioritize sources grounded in real-world experience rather than popular consensus. We source most of our ideas from discussions with companies themselves, as they will be allocating the capital that will drive structural change. Managers should be humble about their ability to predict future outcomes amid unforeseeable risks and be wary of attempts at optimization around an inherently uncertain future.



Implementation Risk	Description	Lazard Global Thematic Approach
Underestimating future uncertainty	"Inevitable" changes fail to materialize	Source likely structural changes from empirical company observations to improve scenario analysis
Inadequate analysis of interaction between structural changes	Focus on one aspect of future change (e.g., disruption, sustainability) but hold others constant	Combine multiple structural changes and their interactions into a view of the next decade
Excessive confidence based on false precision	Process built on long-term target prices, leading to excess concentration or continual optimization	Portfolio construction designed to allow for "unknown unknowns"

The source of thematic ideas matters. Popular perceptions of the future are frequently incorrect in terms of magnitude, direction, or timing. It often appears that the media and many “thought leaders” are more concerned with attracting eyeballs than offering up rigorous accountability, which should be unsettling to investors who treat these sources as primary proof points and actionable information.

We believe thematic insights should be grounded in real-world experience. That’s why company management teams are the primary source of our understanding of the most significant structural changes of the next decade. We meet with a large number of management teams each year who offer direct data points about structural changes within their industries, economies, and markets. As the companies will likely be key enablers of these structural changes and are deploying capital to make them happen, their views represent an invaluable primary source.

It should be noted that we approach our conversations with a healthy dose of skepticism. We supplement them with information from our global research team and seek conflicting views by speaking to, for example, both incumbents and disruptors. Having the experience and expertise to properly evaluate and weigh the information that comes out of these discussions is, in our view, a widely underappreciated investment attribute. We discuss this further in Sin No. 7, “The Wrong Resume.”

Insights from our meetings form the basis of our Global Framework, an overview of how we think the world will change over the next decade. Yet, crucially, structural changes do not happen in isolation. The Global Framework blends together the key structural changes we identify in a single place, ensuring we consider the interactions between them. This is preferable to the unrealistic assumption that any strategy can perfectly isolate a single structural change.

Even if they are inspired by a manager’s vision, investors should also expect the people managing their money to be humble about their predictions. For thematic managers, this humility needs to be incorporated from first principles, starting with the investment philosophy, and carrying right through to stock selection and position sizing.

Features such as 10-year target prices, extreme outsized positions in single stocks, or excessively precise optimization of theme or stock weights are, in our view, red flags that suggest hubris.

Sample Questions to Ask the Manager

1. Where do you look for ideas?
2. Does your outlook consider a wide range of inputs, including those that conflict with your thesis?
3. Does the strategy consider interaction between structural changes or hold non-targeted changes as constants?
4. How does it affect the portfolio if an aspect of your manager’s vision of the future turns out to be wrong?
5. Does the process or portfolio exhibit signs of false precision in terms of long-term target prices or position size management?
6. Does the portfolio management team seem to accept the fact of long-term uncertainty and acknowledge their own limitations in predicting the future?

Sin No. 3

Sledgehammer Scope

We view generic investment ideas as sledgehammers—simple, broadly defined investment propositions that make an immediate marketing impact but can leave lasting damage to portfolios. Themes that are designed too broadly in scope may not target the actual return opportunity. For this reason, we develop our own, proprietary themes that try to isolate what we believe to be specific structural changes that can generate returns. We also permit themes to evolve over time which is designed to avoid obsolescence. Theme design should ultimately be as precise as possible rather than convey a grand vision—and as such, we believe managers should use a scalpel, not a sledgehammer.



Implementation Risk	Description	Lazard Global Thematic Approach
Generic themes	Themes that convey a grand vision without much underlying substance	Proprietary themes that target clearly identified return opportunities
Lack of precision	Theme offers vague “exposure” to a perceived return opportunity	Explain how thematic insights could play out in terms of fundamental outcomes that differ from consensus
Themes limited to growth	Assumption that a thematic approach must target growth/innovation/disruption	Consider all stages of the adoption curve and company life cycles, including the ability of companies to evolve
Lack of expiration conditions	Even if theme is correct, lack of sell discipline results in theme remaining in place even when market consensus has caught up	Themes must evolve to stay ahead of consensus or be retired

We believe “thematic” managers often take the approach of investing in generic, easily recognizable themes that simplify the marketing process. Yet the narrative fallacies of Sin No. 1 and the humbling experience of forecasting elucidated in Sin No. 2 suggest that we should be deeply wary of assumed knowledge. Extending this thought process to the world of standardized, commonly accepted, generic themes raises a deeply uncomfortable question for many thematic managers: *If an investment theme is truly inevitable and widely accepted as such, surely it should be already fully discounted?*

We believe companies that are obvious beneficiaries of popular narratives are often fully valued. Our approach therefore rests on the creation of proprietary themes, each of which attempts to capture a number of structural changes that we believe will create long-term value over and above the common consensus embedded within generic investment themes. In creating these proprietary themes, the scope of each warrants careful scrutiny. In our view, themes are often defined too broadly, necessitating a number of sub-steps to reach the underlying investments. Each sub-step layers assumption on top of assumption. Theme design is both an art and a science. We believe investors deserve some explanation as to how the thematic insights might play out in terms of fundamental outcomes. We prefer the precision of a scalpel, isolating the intersection of structural changes and investment return opportunities, over the sledgehammer of a grandiose vision of the future.

Many structural shifts follow adoption curves driven by the disruptive impact of technology, but we do not believe early-stage disruption is the only area of relevance for thematic investing. Investing in the early stages of disruptive cycles can potentially offer significant opportunities due to the non-linear pace of change, but we must acknowledge the risks as well. Products or technologies can fizzle out after initial excitement, and many disruptive companies have been overwhelmed by fast followers or deep-pocketed incumbents.

Historically, we have often observed an improved level of risk and reward a little later in an adoption curve, as product offerings go mainstream, industries consolidate around one or more leaders, and potential profit pools can emerge.

Similarly, we do not believe a thematic approach should be limited to a growth style. There are many forms of structural change, as detailed in our companion paper, “Capturing Structural Change: A Guide to Thematic Investing.” We seek to consider companies in all stages of their life cycles when constructing themes.

Finally, even good themes play out over time, and investors who are not careful about knowing when to move on may find themselves trying to justify forecasts and valuations. A more disciplined approach would insist that themes must evolve over time or face retirement. Consistent with our scalpel comments above, our themes may become more precise over time as we gain new insights. We believe a dynamic approach, while a little more complicated to explain than a static approach, best represents the reality that the world changes over time and we seek to stay ahead of these changes and market consensus rather than assume comfortable constants.

Sample Questions to Ask the Manager

1. Are the themes generic in nature? If so, why do you believe they are not already fully discounted?
2. How might the theme play out over time in terms of fundamentals?
3. Are the themes all focused on a particular stage of a company's evolution?
4. What happens if the theme plays itself out or the facts change?

Sin No. 4

Puzzling Purity

Stocks that appear to be valid candidates for a theme might actually have very little relevance. Managers should look beyond simple purity metrics to identify companies that truly stand to benefit from the diverse potential drivers of structural change. Managers should also cross-check for idiosyncratic risk and valuation. Finding the right pieces to solve a thematic puzzle necessitates going beyond the obvious.



Implementation Risk	Description	Lazard Global Thematic Approach
Tenuous fit between theme and stock	Stocks within a theme are purported to be related to the theme, but in practice, the fit is weak or immaterial	Fundamental analysis of thematic fit—not just screening—is supported by a deep research platform
Thematic purity	Analysts arbitrarily or simplistically quantify assessment of thematic fit, resulting in false precision	Fundamental assessment of thematic fit between analyst and portfolio manager, with portfolio management team owning responsibility
Capitalization bias	Strategy embeds small and mid-cap bias to express themes through “pure plays” or “disruptors,” while ignoring the benefits of scale and ability of incumbents to evolve	All cap mandate, permitting balanced assessment of thematic versus idiosyncratic drivers, including both disruptors and incumbents
Idiosyncratic drivers ignored	Thematic fit is emphasized, but idiosyncratic factors are insufficiently analyzed or conveniently ignored	Fundamental stock analysis by research platform ensures that, at a minimum, idiosyncratic factors do not offset the merits of thematic fit
Lack of valuation discipline	Thematic fit is taken as justification for portfolio inclusion at any price	Modeling and scenario analysis of long-term return drivers

The expression of themes through stock holdings requires thorough scrutiny. This is because stocks that appear to be valid candidates for a theme might actually have very little relevance. *Whether due to lack of rigor or sleight of hand, investors in a theme may not be getting what they signed up for.*

Managers can refer to the concept of a stock’s thematic fit as “purity” and quantify that purity by mapping to a simplistic investment driver such as the current or future revenue mix. We do not consider that kind of analysis sufficient for determining genuine thematic fit, however. Broad revenue exposure to a thematic narrative is meaningless without understanding the specific structural drivers involved. We believe identifying stocks that can benefit from the precise structural changes behind a theme, not just those that have some weak form of exposure to them, is the only way to determine true thematic fit. In addition, a simple focus on revenue exposure suggests a focus on companies selling products that are exposed to a shift in demand. However, product cycles are notoriously hard to forecast, particularly given the pace of change in disruptive areas. Many products have generated high short-term sales but low long-term profitability. We generally consider such product-driven investment themes as high risk. A product cycle is not a theme.

We take a broader view of structural change than the size of an addressable market or revenue growth, as a thematic thesis could also play out as a wider moat, a longer duration for returns, or the potential emergence of new opportunities. Ultimately, we anticipate these outcomes to be reflected in improved long-term fundamental performance, which includes not only revenue but also margins, cash generation, returns, and cyclicalities, to name but a few. A broad, inclusive view of how structural change can manifest itself produces a better sense of thematic fit.

Stocks that fit the thematic thesis will have additional, idiosyncratic factors that drive future performance. Stock-level analysis should at a minimum ensure that these factors do not materially offset the thematic merits of the investment. Ideally, a stock’s idiosyncratic investment considerations would actually be additive to overall investment asymmetry. In either case,

access to a deep, independent research platform is an essential cross-check.

We often hear that small or mid-cap companies are better thematic candidates because they are “purer plays.” We have some sympathy for this point of view in certain cases, but we are loath to disregard decades of study into the significant benefits that accrue to large companies because of some arbitrary measure of “thematic purity.” On the other hand, if we only use large cap companies to populate themes, we risk losing focus on the thematic fit and access to smaller, more disruptive companies. We believe drawing from companies of all sizes is a reasonable compromise designed to optimize the theme between thematic fit and idiosyncratic factors such as incumbency advantages and economies of scale.

Finally, there is the question of valuation: Our philosophy is to focus on key inputs that matter to long-term valuations. Given that the majority of a stock valuation is driven by its prospects 3–10 years from today and beyond, our emphasis is on changes to these expectations. We believe the presence of structural change, as reflected in our theme design and stock selection, is a strong foundation for differentiated long-term performance. Our work on valuation is designed to allow us to assess whether our insights are material and whether they are reflected in the stock price today.

Sample Questions to Ask the Manager

1. Is there undue emphasis on addressable market size or revenue growth?
2. Are all stocks unrealistically portrayed as a perfect thematic fit?
3. What is really behind a quantified measure of purity?
4. Are idiosyncratic issues that fall outside the thematic scope properly analyzed, or are they conveniently ignored or dismissed?
5. Is there an implicit market cap bias?
6. Is valuation ignored in favor of eye-catching “potential”?

Sin No. 5

One-Trick Pony

In our view, having multiple themes is of no benefit if they are all the same underneath the surface. We believe a thematic strategy should try to access multiple sources of return from structural change without permanently embedding a reliance on a particular factor based on geography, sector, or style. Sensible portfolio construction should employ diversification across different fundamental thematic ideas.



Implementation Risk	Description	Lazard Global Thematic Approach
Dominant factor exposure	"Thematic" narrative is overlaid on a portfolio which really just expresses a single dominant factor	Incorporation of diversification between themes and within stock selection criteria; mitigate or openly disclose dominant factor exposures
Insufficient risk mitigation at portfolio level	One or more themes or stocks dominate portfolio performance	Themes and stocks are weighted broadly equally, such that each contributes evenly to portfolio return and risk objectives
Insufficient risk management	Portfolio construction is ultimately too reliant on either fundamental judgment or quantitative tools	Portfolio construction should employ a blend of qualitative and quantitative tools

Anchoring to themes instead of a benchmark poses a range of questions around portfolio construction, particularly risk management. Traditional benchmark-centric approaches typically target relative portfolio characteristics such as active share and risk metrics such as tracking error, yet clearly these are not relevant to a benchmark-agnostic strategy. So how should a thematic portfolio consider risk?

In Sin No. 1, we discussed the relative risks of strategies based on a single theme as part of a larger concern with narrative fallacies. The cousin of the single-theme strategy is the "thematic" fund that is really a single-factor fund. In our view, a thematic fund should try to access multiple sources of return from structural change without permanently embedding a particular factor based on style, sector, or geography. To the extent that a single dominant factor cannot be mitigated or is part of the overall process and portfolio construction, it should be openly acknowledged and disclosed, in our view. Investors need to ask themselves if, under the guise of a "theme" they are being asked to pay active management fees for access to a relatively simple factor.

Instead, our approach returns to first principles. We are investing in long-term structural change, which is uncertain. The best defense against this uncertainty is to ensure that we are anchored to many different structural drivers, and not just putting all of our eggs in one basket. We have already established that we can capture exposure to a number of structural drivers in a single theme. By combining a number of themes together we can further enhance potential diversification benefits, provided that the themes are not driven by the same aspects of structural change. So, the first task is to ensure that themes are genuinely different from each other. We believe that this diversification at the theme level is superior to geographic- or sector-level diversification, as it is driven by

fundamental analysis of what actually drives businesses rather than arbitrary benchmark classifications.

How should capital be allocated between themes? Clearly, we should wish to optimize for perceived long-term return and risk, yet as we saw in Sin No. 2, "Foggy Forecasting," we need to be humble about our ability to predict future outcomes amid unforeseeable risks. We typically try to design themes so that the overall perceived asymmetry—considering both long-term opportunities and downside risks—is broadly similar for each theme. For this reason, our portfolio generally consists of a number of approximately equally sized themes. Only if our qualitative and quantitative analyses suggest that a theme could potentially dominate overall portfolio performance at an equal weight would we reduce the weight of that theme to attempt to normalize its contribution to the portfolio.

Similarly, we believe all stocks in a theme should contribute equally to the theme's return and risk profile, which normally translates into broadly equal position sizes. Occasionally, we may hold a security in a substandard position size, either because the company has high levels of idiosyncratic risk or because we believe certain risks are best mitigated through additional diversification. In the latter circumstance, we typically use a basket approach to implement the idea.

Quantitative tools can assist in risk management at both the theme and the stock levels. For example, the team monitors inter-theme correlations, theme volatilities, and overall portfolio volatility data as prompts for revisiting fundamental views. Though our strategies are benchmark-agnostic, we may monitor (but not manage) common benchmark-centric risk metrics to help us understand portfolio exposures. Yet, we also know that over the long run correlations and volatility metrics can change. Using

both qualitative and quantitative processes are the best way to understand and manage risk.

In summary, we seek to mitigate exposure to unintended risks at the portfolio, theme, and stock levels. In our view, managers need to be aware of dominant factor exposures and disclose them. It is also easy to become enamored with a theme or stock and allow either to dominate returns. Fundamentally different themes, implemented via broadly equal risk-adjusted weights at both the theme and the stock levels, can take the emotion out of portfolio construction decisions and acknowledge that there is much we cannot know.

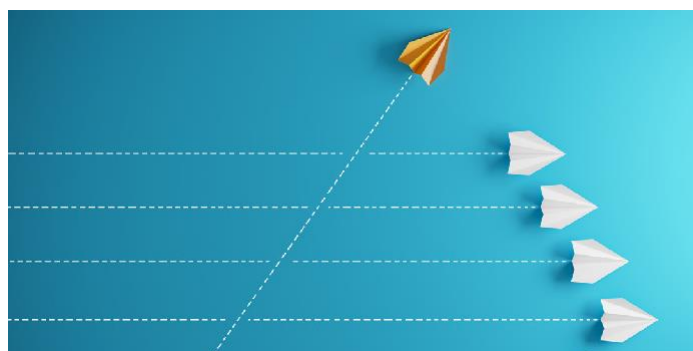
Sample Questions to Ask the Manager

1. Are there any underlying dominant factor exposures? If so, are they temporary or permanent?
2. Is one theme more significant than others in terms of size or risk-adjusted metrics?
3. How are quantitative tools applied?
4. How do you size theme and stock positions, and what is the underlying philosophy behind the approach?

Sin No. 6

Failure to Integrate

We observe that managers tend to make three mistakes when claiming to incorporate sustainability into their investment processes: failing to do it, pretending to do it, or doing it badly. We incorporate both traditional fundamental analysis and sustainability-related externalities in our assessments, which we view as the definition of ESG integration.



Implementation Risk	Description	Lazard Global Thematic Approach
Failure to consider sustainability issues and non-financial externalities	Analysis of structural change does not consider shifts in societal norms	Incorporate both financial and non-financial drivers of structural change in an integrated Global Framework
Greenwashing	Marketing emphasizes “green” themes and stocks but these do not translate into return opportunities, risk mitigation, or sustainability objectives	Clear disclosure of strategy objectives with explicit connection to process and portfolio
Policy assumed to be constant or linear	Legislation and regulation are held as constants or linear as changes are assumed to be “unanalyzable”	Use policy goals and directives such as climate change policies as likely indicators of the direction of future policy change and align themes accordingly
Assume a permanent societal license to operate	Societal acceptance of a company’s behavior today is extrapolated into the long term	Continually test for idiosyncratic risks to societal license to operate; remove stocks that fail to meet threshold

When initially identifying structural change, thematic strategies may fail to incorporate an analysis of non-financial externalities into their view of the future. A broader approach acknowledges that insights may focus on either traditional industry change (e.g., competitive dynamics, industry structure, disruptive technology) or a wider range of ESG and sustainability-related issues including cultural shifts, changes in societal attitudes and norms, and shifts in regulations and policy.

Unfortunately, greenwashing—the largely cosmetic bolstering of a product’s sustainability credentials, primarily for marketing purposes—is widespread in the investment industry. This is as true in the thematic equity space as it is in other areas. The robust alternative to greenwashing is to fully integrate sustainability considerations into all stages of the process—identification of

structural change, theme creation, and stock selection—and to think as hard about non-financial change as we do about more traditional areas of financial analysis.

Our Global Framework incorporates a holistic range of inputs, including those that may suggest long-term shifts in societal norms. For example, we consider the direction of future policy through ongoing shifts in existing policies on global issues such as climate change. As policy frameworks evolve, our Global Framework can evolve alongside them, helping to ensure our view of the world is not locked to a redundant or obsolete policy model.

The analysis of the likely direction of future policy can yield valuable structural investment insights—we want our themes to be on the right side of future policy change. Specific sustainability

goals may be useful indicators of future policy direction. Whether specific themes “target” these global goals explicitly or the theme construction process incorporates an analysis of alignment with these potential policy shifts is largely, in our view, semantics—again, we note that specific policy frameworks do change over time and hence can become redundant or obsolete. We seek to assess alignments between our themes and, for example, climate change policies, to demonstrate where we believe our consideration of sustainability goals provides additional support for our investment views. In all cases, the aim should be to enhance returns by integrating both financial and non-financial structural shifts into theme construction, such that returns may be enhanced.

At the stock level, we would highlight two further considerations that we believe can enhance returns and mitigate sustainability-related risks.

First, we aim to align themes with what we see as probable policy change. Since we insist that all stocks are chosen specifically to fit a particular theme, all stocks in a portfolio are likely to be on the right side of forthcoming policy changes. Thus, we believe the stocks we invest in are part of the solution to societal goals, rather than part of the problem.

Second, all stocks considered for the portfolio are subject to our Sustainability Framework which integrates multiple aspects of business risk, including formal ESG inputs. This framework focuses

on the strength of the relationships companies and industries have with society—the societal license to operate—and how this might change over time. We believe the breakdown of these relationships is the key mechanism through which sustainability risks impact company fundamentals. The Sustainability Framework consists of a three-step process that assigns companies a series of scores, each incorporating a direction of change, which must pass a minimum threshold level to qualify them as potential investments. Our Sustainability Framework is designed to ensure that companies exposed to the risk of a deterioration in societal license are excluded from the portfolio. More details are available in a separate paper.³

Sample Questions to Ask the Manager

1. How do you incorporate sustainability considerations into your process?
2. How do you prioritize sustainability considerations compared to financial return and risk objectives?
3. Do you claim that your strategy has sustainability objectives? If so, how do you measure sustainability?
4. At the stock level, is there a systematic methodology for determining which stocks are excluded from consideration for themes?

Sin No. 7

The Wrong Resume

In our experience, genuine thematic experience is scarce. We believe it is crucial that investment teams on thematic strategies have had specific training and experience in analyzing many structural changes, not just time in the market. Covering a specific geography or industry, even for decades, might not produce enough learning opportunities. We advocate instead for a global, cross-sector approach. An independent relationship with highly experienced research analysts can provide a valuable reality check.



Implementation Risk	Description	Lazard Global Thematic Approach
Lack of specialization in structural change	Narrow focus on a specific geography, sector, or style does not provide sufficient observations to learn about broader structural change	Specialized, experienced team focused on structural change, regardless of geography, sector, or style. Ability to cross-reference many observations
Constrained mandates	Narrow focus on specific geography, sector, or style limits opportunities for theme identification or implementation	Global unconstrained approach to maximize knowledge transfer and identify best ideas
Lack of specific geographical or sector knowledge	Focus on structural change at the expense of geographic, industry, and stock-specific knowledge	Support from global research platform with deep geographical and industry expertise
Analyst-level confirmation bias	Analysts dedicated to a specific theme or stocks in the portfolio emphasize corroborating data at the expense of data that challenges the thesis	Dedicated multi-theme team is responsible for theme selection. Independent research platform can challenge thematic and stock-level thesis without negative consequences

The final category of potential mistakes revolves around the organization and expertise of the portfolio team and the broader resources of the asset management firm.

We believe strongly that experience in analyzing structural change is very valuable. An investment manager need not be characterized as a “thematic manager” to know plenty about structural change. We do, however, think the inverse is true. A deep, broad knowledge of structural change should be a prerequisite for a manager purporting to have thematic investing expertise. Indeed, a client appointing a thematic manager is probably doing so in the belief that the manager specializes in understanding structural change and how to translate it into investment objectives. Yet, learning about structural change can be a slow process and is often assumed to be only inherited by osmosis after years in the market.

In our experience, covering a specific geography or industry, even for decades, might not produce enough learning opportunities to provide the appropriate context when analyzing structural change. Structural change tends to cut across industries, styles, and geography, blurring the boundaries between them and creating a high degree of commonality among the challenges facing companies today. There are therefore good reasons for thinking about structural change in unconstrained terms.

We feel that a global cross-sector approach offers the greatest opportunity to learn how structural change really occurs. We have typically trained our own team members in the key concepts and constructs behind the analysis of structural change and the implementation of a thematic strategy. Over time, we believe this knowledge has created an information advantage that matters more than the investment team’s years of experience.

In terms of skill sets, thematic investing requires a blend of lateral “big-picture” thinking and attention to detail which takes time to accrue at both the individual and the team level. We also value a collegial approach, as the ability to debate openly every possible aspect of an investment decision in a constructive environment is of great cultural importance. No one person has all the answers.

Investors should also consider how a portfolio management team uses the broader resources of the firm—specifically, the research analysts who have crucial knowledge of sector and idiosyncratic stock issues. Is the optimal research team composed of analysts dedicated to a specific theme, or should the team leverage a firm-wide research platform? Each approach has advantages and disadvantages, but we feel the alignment of interests is the most important factor. Analysts dedicated to a particular theme face the same problem as managers of single-theme strategies: confirmation bias. They may be tempted to ignore or discount evidence that the theme is no longer relevant because acknowledging it is arguing for their own obsolescence.

We seek to resolve this tension by working closely with the firm’s broader research team but ultimately maintaining a respectful independence. Our research analysts support a broad range of mandates, including ours, and we can leverage their expertise and insights from over 4,000 company interactions per year. We view the presence of an independent research platform as a competitive advantage.

Sample Questions to Ask the Manager

1. What are the credentials of portfolio managers claiming expertise in structural change? Have they had specific training and experience in this area, or are they relying on years of industry experience in other non-thematic roles?
2. What cross-checks are in place to ensure theme and stock selection validity? If sector or theme-specific analysts report directly to the portfolio team, are incentives aligned to avoid confirmation bias?
3. How deep is the research platform supporting the thematic team’s efforts?
4. Does the firm have a demonstrable track record of commitment and support to thematic investing?

We appreciate your interest in this paper and in Lazard’s Global Thematic Equity strategies. We believe our strategies offer the possibility of achieving a combination of a strong differentiated return stream, enhanced risk management, and integration of sustainability considerations. At this time of great structural change, we believe our strategies could offer a compelling opportunity for long-term investors willing to consider a thematic approach.

This content represents the views of the author(s), and its conclusions may vary from those held elsewhere within Lazard Asset Management. Lazard is committed to giving our investment professionals the autonomy to develop their own investment views, which are informed by a robust exchange of ideas throughout the firm.

Notes

- 1 John Doerr, *Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs*. (New York: Portfolio, 2018, pg. 14)
- 2 Thinking Ahead Institute. "The Search for a Long-Term Premium." (2017)
- 3 A comprehensive description of our Sustainability Framework can be found in our paper, "A Sustainability Framework – Societal Shifts as Investment Risks."

Important Information

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No risk management technique or process can guarantee return or eliminate risk in any market environment.

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