

2024 Sustainable & Impact Investing Outlook: *Regime Change*



Introduction

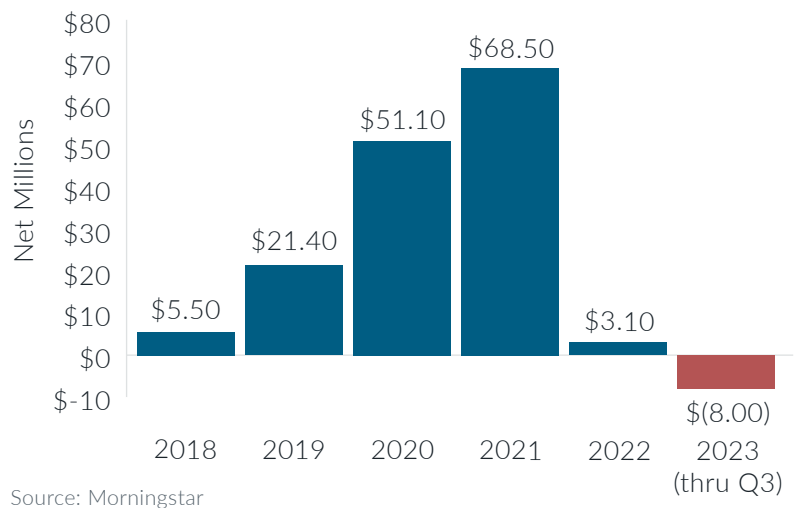
2023 represented a reckoning for the sustainable & impact investing industry. Following several years of inflows, rising investor interest, and competitive investment performance, scrutiny converged on the space from regulators, politicians, and investors alike. The Securities and Exchange Commission (SEC) sought to uproot greenwashing by asset managers, bringing fines against managers of “ESG” strategies with a lack of consistent incorporation or documentation.

Meanwhile, some ESG-related strategies underperformed traditional strategies, particularly those with significant exposure to sectors acutely sensitive to rising interest rates such as renewable energy. Finally, politicians at the state and national level questioned ESG as a viable investment discipline and took largely effective action to prevent state pools of capital from investing along ESG dimensions.

The effect of this scrutiny is clear: The U.S. sustainable & impact investing industry has experienced net outflows for the first time since Morningstar began tracking the space in 2012.¹

This reckoning, while painful for many, largely lays a more durable foundation for the industry in the long term. We believe what will remain is a smaller, yet more authentic group of asset managers with more clearly defined intentions, documentation, and reporting on why, how, and when ESG information is being used in decision-making.

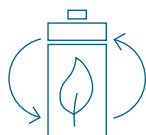
U.S. Sustainable Fund Flows: 2018-2023



Given this backdrop, we believe the following three themes will most significantly affect the industry and sustainable investment portfolios in 2024:



Sustainable investing rises above the political scum



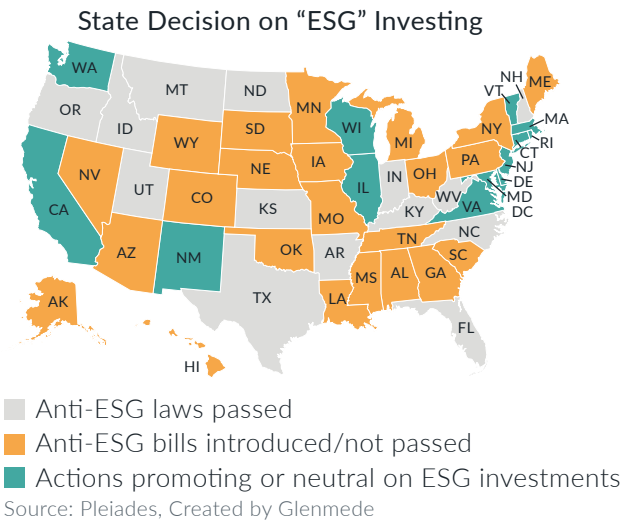
Critical minerals as the next cornerstone of the energy transition



Setting boundaries: harnessing AI responsibly

Theme 1: Sustainable Investing Rises Above the Political Scrum

Investors enter 2024 with anti-ESG political rhetoric at a fever pitch. As of January 2024, 37 states have introduced 165 pieces of legislation to prevent state pools of capital from incorporating ESG information in investment decision-making.² While only 28 pieces of legislation across 16 states in total have been passed, the widespread push has already had a clear market effect: From 2021 to 2023, the percentage of public pension plans citing they incorporate ESG criteria in investment decisions dropped from 63% to 24%.³



Political scrutiny on ESG is unlikely to dissipate as the industry awaits the results of the 2024 presidential election. As the table below shows, a Republican win, presuming Donald Trump as the party's candidate,⁴ has clear potential implications for the space.

ESG-Related Policies by Candidate				
Topic Area	Subtopic	Trump Stated Second Term Policies	Biden 2023 Policies / Stated Second Term Policies	
Broad "ESG Investing" Policy	ERISA-Plan Investment	"Immediate ban" of ESG investing at Federal level ▲	Vetoed attempt to ban ERISA plans at the Federal level from ESG investing ▲	
		Reversal of Department of Labor language permitting ESG in Employee Retirement Income Security Act of 1974 (ERISA) plans ●		
Environmental Issues	Energy & Transport	Exit Paris Agreement ▲	Stated goal of climate change and the U.S. energy independence as one of the "key focuses" of second term ●	
		Repeal Inflation Reduction Act (IRA): Target emissions standards, electric vehicle credits, wind ●		
		Tax breaks to oil, gas, and coal producers ●		
		Reverse 54% EV quota share by 2030 ●		
Social Issues	Labor Rights	Roll back of protection (Schedule F) for federal employees ▲	Increased funding for equal opportunity employment ●	
	DE&I	Ban federal government & contractors from Diversity, Equity & Inclusion (DE&I) training ▲	Mandated "equity teams" within all government agencies ▲	
	Education	Abolish the Department of Education ●	Expansion of diverse educator workforce ▲	Plan post Supreme Court decision to promote diversity in colleges ●
			Statement on continuation in 2024 on promotion of ACA ●	Safeguarded access to reproductive rights ▲
	Healthcare	Replace Affordable Care Act (ACA) ●	Continued support for restoring Roe v. Wade protections ●	Lower hurdle for advanced degree graduates to obtain visas ●
			Reduce family-based immigration and available H-1 visas ●	Continuation of shareholder-friendly SEC ●
Governance Issues	Proxy Voting	Re-introduce legal liability for proxy advisors (ISS, Glass-Lewis); Increase ability for corporations to reject issues ●		

▲ Anticipated Executive Order ● Anticipated Congressional Action

Sources: Piper Sandler, Trump Campaign, Biden Campaign, Wolfe Research, PoliticoPro, U.S. Department of Education

Stated policies aside, it is important to contextualize campaign rhetoric against realistic constraints to execution. For example, consider the many competing priorities an incoming president faces: voters consistently cite issues such as taxes, inflation, and immigration policy above ESG issues.⁵ In addition, consider which policies a president can execute via Executive Order versus through Congress, the latter a path likely to continue to prove arduous with a thin margin down the aisle post-election.⁶

Investment Implications

We believe there are three key outcomes that will occur independent of the outcome of the election, but with varying levels of magnitude depending on which candidate emerges victorious.

Further rollback of broad-based ESG investing in state pension funds

- **Trump win:** State pools would be further hampered in their ability to invest along ESG lines, leading to less capital allocation, and thus, fewer investors driving a financial impact. Such a shift would most significantly negatively affect ESG-integrated or ESG-mandated strategies.⁷
- **Biden win:** We expect status quo from Biden on the issue – with a continued blocking of any attempts at the federal level to ban ESG, but instead an openness to letting states decide. As such, a gravitation away from broad ESG labeled strategies, particularly from state pools, is likely to persist.

Growth in private markets-focused climate investing

- **Trump win:** While an IRA repeal is viewed as unlikely given the popularity of some aspects in historically Republican states, specific repeals (e.g., EV tax credits and wind subsidies) and new coal or natural gas subsidies can be expected. As such, public market investments with exposure to renewable infrastructure projects such as wind may face some opposition.⁸ Investors may seek more nuanced approaches to the climate transition such as private investment opportunities in technologies representing the full supply chain of renewable energy.
- **Biden win:** Existing 2024 campaign rhetoric suggests climate change will continue to be a focus of this administration, with the potential for legislation that further supports clean energy incentives. Further regulatory incentives strengthen the climate transition opportunity set across a larger set of technologies in both public and private markets.

Magnified role of mission-driven investors to mobilize capital

- **Trump win:** Given the expected environmental and social rollbacks alongside a hampered pension investor base, we expect mission-driven investors to coalesce and play a more significant role in addressing climate issues and socioeconomic disparities in alignment with their values or mission. This phenomenon also occurred following the 2016 election, with further magnification following the U.S. withdrawal from the Paris Accord, the Black Lives Matters movement, and the Supreme Court decisions related to Affirmative Action and Roe v. Wade. As shown on the right, coalitions formed to catalyze private pools of capital toward key environmental and social issues. Sustainable assets grew significantly in what some refer to as the “Trump Effect.”⁹

Growth of Sustainable & Impact Investing Industry and Key Investor Coalitions During Trump Administration



Signatories more than doubled during presidency

Sources: PRI, US SIF, GIIN



S&I AUM increased 44% from 2016-2018



Impact Investing AUM in U.S. and Canada has grown 53% since 2017, outpacing Europe

- **Biden win:** We expect investor coalitions and networks, already strengthened by the Biden administration to date, to advance this space forward, further supported from both the government and state pools to address change at scale.

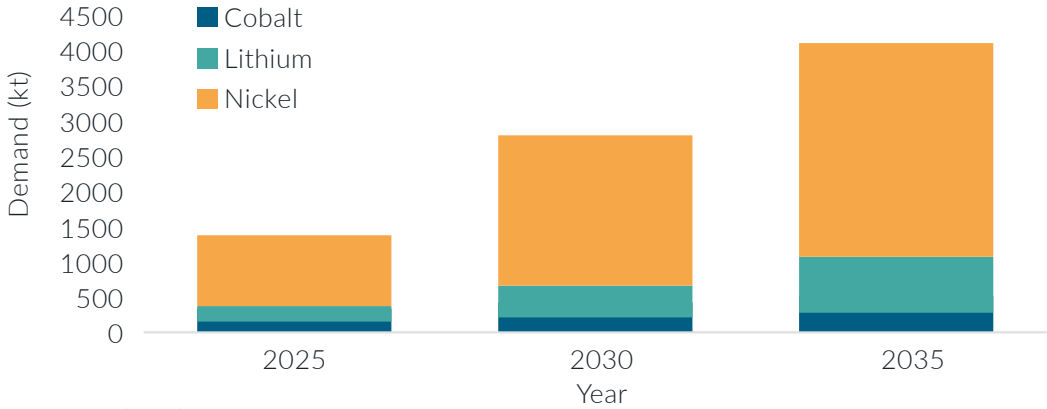
Theme 2: Critical Minerals as the Next Cornerstone of the Energy Transition

As nearly 200 participants at the United Nations COP 28 agreed to “transition away from”¹⁰ fossil fuels, the world is arguably inching closer to consensus on the inevitable energy transition. However, as 2023 showed, the road to a low-carbon energy system will be long and bumpy. The U.S. renewable energy sector exhibited its worst year of performance in over 30 years, geopolitical tension continued to fuel pervasive energy insecurity, and a looming U.S. election cycle with clear policy implications is also underway. Investors leave 2023 with more questions than answers around how the energy transition will evolve in practice.

To help assess the next leg of the energy transition, investors should consider critical energy transition minerals as a proxy for the pace and scale of the energy transition. The deployment of low-carbon energy technologies relies on a wide range of factors, from policy incentives and current infrastructure lifecycles, to macroeconomic conditions and supply chain costs, but with one constant underpinning: the need for a consistent supply of critical minerals. For investors, identifying future potential speed bumps to their supply chains will be crucial to understanding the trajectory of the transition and corresponding investment opportunities in 2024 and beyond.

- **Assessing demand:** The Department of Energy (DOE) defines critical minerals as any nonfuel element or material that has a high risk of supply chain disruption and serves an essential function in energy technologies. Minerals such as lithium, nickel, cobalt, germanium, and silicon are included in the latest DOE 2023 Critical Mineral Assessment¹¹ as they are essential to today’s rapidly growing alternative energy technologies – from solar panels and electric vehicles to battery storage and semiconductors. The market size of critical energy transition minerals has doubled over the past five years, reaching 320 billion USD in 2022.¹² Despite recent market volatility and tightening macroeconomic conditions, investment in low-carbon energy technologies is outpacing the increase in fossil fuel investment by nearly 3:1, driven by decreasing operating costs, policy support, and strategic alignment of corporate climate goals and nations’ energy security goals.¹³ It comes as no surprise, then, that projected demand of critical energy transition minerals is also expected to grow, dependent on the specific mineral and end application (Figure 1).

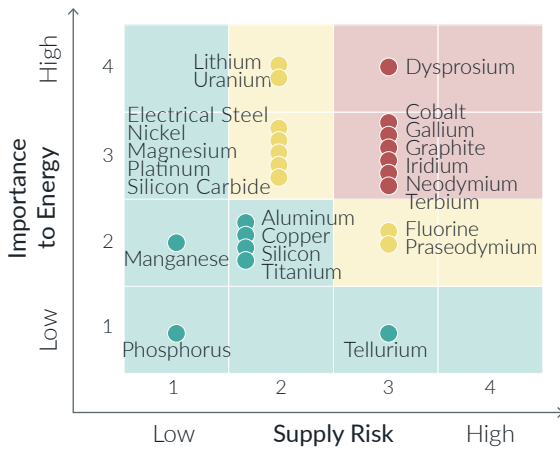
Figure 1: Total Projected Demand for Critical Minerals, Based on Announced Pledges



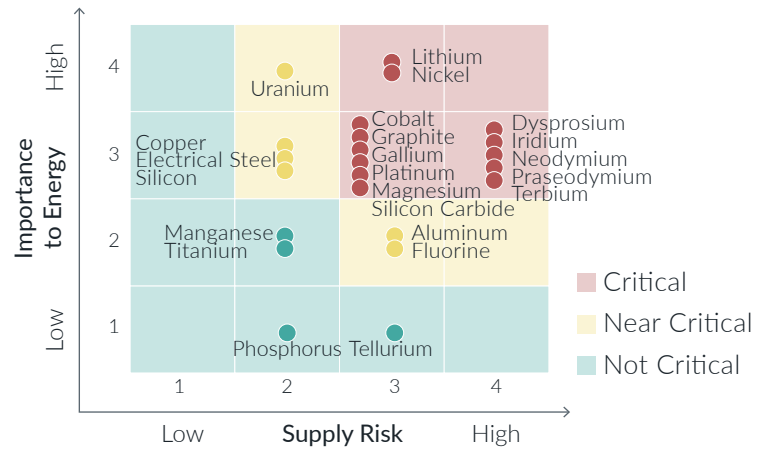
Source: IEA (2023), Critical Minerals Data Explorer

- **Assessing supply:** As demand for low-carbon energy technologies ramps up, today’s supply chain constraints are likely just the beginning. According to the 2023 Critical Mineral Assessment, minerals such as lithium are expected to become critical due to its broader use in batteries and the rampant growth of the EV industry. More common materials like aluminum, copper, and silicon also expect tightening supply due to their

Figure 2: Short Term 2020-2025



Mid Term 2025-2035



Source: United States Department of Energy, 2023

importance in electrification (Figure 2).¹⁴ Additionally geopolitical risks are a rising concern, as a small number of countries play an outsized role in the mining and processing of critical materials. For example, Australia mined nearly half of the world’s lithium in 2022, while China led 65% of global graphite output and The Democratic Republic of Congo mined 70% of the world’s cobalt.¹⁵ The majority of anticipated mining projects through 2030 are also in these incumbent regions.¹⁶ Environmental and social factors that may ensure efficient and safe mining and processing of such minerals are also key issues influencing supply security.

- Assessing the evolving regulatory landscape :** Manufacturers, policymakers, and investors alike are asking: Will future supply of critical energy transition minerals keep up with the rapid demand? Can supply chains be diversified and come from clean and responsible sources?¹⁷ Over the past year, the first wave of policies aimed to address these concerns emerged. For example, the EU Critical Raw Materials Act calls on member countries to set up raw material observatories to track dependencies, and U.S. policies such as the IRA, the Infrastructure Investment and Jobs Act, and the CHIPS Act attempt to play a role in securing critical minerals supplies. For example, the IRA permits tax credits for EVs so long as 80% of the market value of the critical minerals in its battery is extracted, processed, or recycled in the U.S. or any of its 20 free-trade countries. While the efficacy of such policies has been questioned, the increasing policy action is yet another market signal toward investments in critical energy transition minerals and technologies.

Investment Implications

Assessing the supply and demand dynamics of critical energy transition minerals may provide a lens to gauge the pace and scale of the transition, as well as identify investment opportunities across public and private markets.

- Public markets opportunities:** In light of the importance of supply security, investors may focus on public companies in the metals and mining industry that are diversifying geographic footprint and possess high operational excellence while being considerate of social and environmental impacts. Identifying such companies today may lead to better risk mitigation in portfolios as critical mineral supplies are likely to be increasingly volatile with the rise in demand for low-carbon energy technologies.
- Private markets opportunities:** Identifying more nascent opportunities with longer investment periods may provide differentiated exposure to upstream levers of the energy transition. These might include private companies with new technologies enabling more sustainable and efficient mining and processing of rare earth extraction and treatment. Downstream critical mineral recycling is also a technology likely to garner investor interest as it may help bolster supply of critical energy transition minerals.

Put together, an investment approach that accounts for the supply chain of critical energy transition minerals may generate a more robust and durable position for portfolios in 2024.

Theme 3: Setting Boundaries: Harnessing AI Responsibly

This past year witnessed the explosion of generative artificial intelligence (AI) technology, which has already transformed nearly every sector of the economy. Building on predictive machine learning models, generative AI goes beyond perceiving and classifying content to creating complex new images, text, code, and audio, often indistinguishable from human-generated content. Expected to reshape the global economy, AI technology has been applied to tasks as varied but significant as enhancing medical imaging, climate change models, and government services.¹⁸ Companies are racing to integrate AI into their business model, or are citing their intention to do so. Almost 40% of S&P 500 companies mentioned AI or related terms in Q2 2023 earnings calls, even in industries not known for technological innovation, such as restaurant chain Chipotle, which boasted using AI to improve their efficiency in making tortilla chips.¹⁹ And with good reason – FactSet found that companies referencing “AI” in Q2 earnings calls experienced an average change in price of 13.3% over the previous six-month period compared to an average change in price of 1.5% for companies that did not,²⁰ a directional trend that continued in Q3 as well.

In 2023, earnings calls witnessed CEOs claiming the benefits of AI in their business models, regardless of sector. Tourism companies cited using AI to enhance the efficiency of reservation systems; restaurant chains referenced AI-powered technology to improve drive-through ordering machines; luxury fashion houses alluded to leveraging AI for product design and textile prototyping.¹⁹

While referencing AI is one thing, effectively and responsibly integrating the technology into a company’s business model is another. For every revenue-boosting mention, the use of generative AI has also been associated with generating false images, deepening racial and social inequities, and offering scammers and criminals a tool. Sustainable investors should note three key areas of risk, portrayed in the graphic below:

Generative AI: Key Risks for Sustainable Investors			
	Description	Significance	Example of Material Impact
Data Accuracy	Idea of “bias in, bias out:” Generative AI tends to reproduce biases present in the data it’s been trained on, disseminating errors and raising questions about accuracy	Biased data can lead to the perpetuation of systemic racism, civil rights violations, and the spread of misinformation or disinformation	Facebook’s and Instagram’s algorithms promoted inaccurate news stories consumed by voters in the 2020 election
Ethical Considerations	Generative AI platforms use “black box” models, rendering it impossible to explain their decisions AI is trained on open-source content, with little regard for copyright or intellectual property	Little protection exists for copyright and intellectual property, bearing consequences for journalists, artists, musicians, actors, etc.	The New York Times sued OpenAI and Microsoft in December 2023, asserting that AI platforms were being trained on copywritten material; the media outlet is seeking compensation and legal action, setting a potential precedent
Environmental Sustainability	Generative AI remains extremely energy intensive – one ChatGPT inquiry requires 10x-100x more power than one email - and raises questions around how global energy infrastructure can support it	AI inquiries heavily rely on energy, land and water, threatening to exacerbate resource shortages	Soaring demand for data centers has translated into demand for land, water and energy in untapped rural areas, creating economic opportunity and additional environmental strain

Source: NPR, WSJ, Business Insider, Forbes, created by Glenmede

Investment Implications

There will be winners and losers in how companies deploy AI in their business models, evidenced by the material implications of companies' misuse of AI to date. Investors should a) monitor the effect of government regulation and intervention in the space, b) seek to understand how systemic issues are deeply embedded into the data on which generative AI relies and c) consider the use of shareholder engagement to improve corporate best practices and mitigate risk in the use of AI in business.

- **Monitor the effect of government regulation and intervention:** Sustainable investors should seek companies prepared for imminent regulation with clear governance and oversight structures that illustrate how they are assessing accuracy, safety, and bias ahead of regulations going into effect. Emerging frameworks include the EU's AI Act, which focuses on the highest risk aspects of AI, including restricting the use of facial recognition in law enforcement and regulating its use in the operation of critical services like water and energy. Companies such as OpenAI offering the largest AI platforms, like ChatGPT, would face new transparency requirements with serious consequences: Companies violating the EU law could face fines up to 7% of their global sales.²¹ In the U.S., an October 2023 Executive Order asks AI developers to share safety test results with the government before a platform is publicly released.²² Outside of government legislation, sustainable investors can assess if companies are leveraging emerging standards to identify and monitor risks associated with AI, including the National Institute of Standard and Technology (NIST) and the International Organization for Standardization (ISO) respective documents on risk management for AI.²³ The effects of regulation are already apparent, as the call-out box on this page shows.²⁴
- **Assess how systemic issues are deeply embedded into the data on which generative AI relies:** In a recent study, Stanford University researchers asserted that chatbots are exacerbating racial inequities in healthcare. The report found that four major AI platforms, including ChatGPT, ChatGPT-4, Bard, and Claude, all responded to medical questions in a way that perpetuated long-held false medical beliefs about Black people, which can result in medical providers rating Black patients' pain lower, misdiagnosing health concerns, and recommending less relief.²⁵ As a result, the misapplication of these technologies can lead to regulatory risk, legal action, and inefficient or insufficient services. For example, UnitedHealth is facing a lawsuit alleging that the company knowingly used a faulty AI algorithm to deny elderly patients coverage for extended care deemed necessary by doctors. The investigation unveiled that UnitedHealth was relying on an AI model known by the company to have a 90% error rate.²⁶ Other cases in AI discrimination have been documented related to creditworthiness, fair employment, and criminal justice. Consequently, sustainable investors should seek to understand how companies balance the efficiency and innovation associated with AI with the critical check of human-powered decision-making and oversight.
- **Consider leveraging shareholder engagement as a tool to dig into company approaches to AI:** Investors may utilize shareholder engagement tools (e.g., resolutions, proxy votes, direct dialogue) to dig into company approaches to AI, including governance and oversight, impact assessments on stakeholders, and energy usage. For example, investors may push public companies which own the largest AI platforms, such as Alphabet, to disclose information about how their systems evaluate for systemic risk across social and environmental issues, for instance, discrimination against people of color, or AI models' reliance on energy infrastructure and water withdrawal. Engagement on these topics may help mitigate financially material risks

RiteAid Case Study: Regulatory Risk

In December 2023, RiteAid was banned from using AI facial recognition for five years, following the Federal Trade Commission's allegation that the retailer failed to implement reasonable procedures in erroneously accusing consumers of wrongdoing.

The order required that RiteAid implement comprehensive safeguards, including a robust information security program to ensure it can control potential risks to consumers.²⁴

such as financial losses through lawsuits, regulatory actions, and reputational damage. Investors can also use shareholder engagement to dig into copyright protections and workers' rights. In 2023, the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) filed resolutions with Apple, Comcast, Disney, Netflix, and Warner Brothers Discovery asking them to publish AI transparency reports, disclosing how they intend to adopt ethical guidelines to protect workers, customers, and the public from the harm of AI.²⁷

Conclusion

2024 brings a regime change in the sustainable investing industry. We expect to emerge from the next 12 months with a smaller group of investors who have more clearly defined intentions on why, how, and when ESG information is being used in decision-making – whether to drive investment returns, environmental or societal impact, or both. With this as a backdrop, we believe sustainable investors should consider the following three takeaways:

- While the election result poses clear risks to some portions of the industry – with a particularly acute effect on state pension allocation to ESG-labeled strategies should Trump win and seek to sign an executive order further limiting such investing – we expect continued growth irrespective of the result in a) thematic investments, particularly those in the private markets, and b) endowment and foundation allocation, with a goal to catalyze this market forward.
- The path to the energy transition will remain a bumpy one; however, investors may increasingly focus on critical minerals as a key driver to the energy transition across public and private markets, ultimately providing a more durable foundation for portfolios investing in the transition.
- Companies will continue to pursue AI technology, and sustainable investors will seek to assess, whether through clear governance and oversight protocols or through shareholder engagement practices, how companies are both effectively and responsibly integrating the technology into business models in practice.

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- ¹ Morningstar as of Q4 2023
- ² Pleiades Strategy “2023 Statehouse Report”
- ³ Callan 2023 ESG Survey
- ⁴ Note that two other candidates, Nikki Haley and Ron DeSantis, have been outspoken critics on “ESG” as well, with the latter being one of the early critics in his home state of Florida.
- ⁵ NPR December 2023 Survey
- ⁶ Wolfe Research
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