CHIEF INVESTMENT OFFICE

Impactonomics®

Performance Realities: Revisited

November 2024

Click on any of the navigation elements below to jump to that section

AVOID	BENEFIT	CONTRIBUTE
Seeks to reduce negative social or environmental effects and manage risk by limiting certain exposures	Seeks to support positive social or environmental practices and enhance potential for long-term competitive financial returns	Seeks to advance positive, measurable social or environmental outcomes and target opportunities where impact is intrinsic to financial performance

AUTHORED BY:

Anna Snider
CIO Head of Investment Manager Selection and CIO Head of Sustainable and Impact Strategy

Ekaterina Gradovich
CIO Investment Manager Selection Specialist

Clare DiMaiolo
CIO Investment Manager Selection Analyst

EXECUTIVE SUMMARY

The world is transforming faster than ever before, spurred by technological innovation and changing demographics. Energy security, infrastructure and transportation efficiency, innovation in healthcare, education, and the way we consume have created some of the largest investment opportunities of our time. But these developments also introduce new investment risks that investors need to consider.

At the same time, a new generation of investors has emerged and is growing, with both a desire and the ability to understand more about how their consumption habits and investment choices affect the world around them.[1] These investors are the beneficiaries of the largest intergenerational transfer of wealth in history[2] and are clearly interested in sustainability.

Having recognized these trends early on, the Chief Investment Office (CIO) has been focused on identifying investment strategies that can help clients take advantage of these emerging opportunities. We believe sustainable investing is a powerful tool that helps investors to drive specific financial outcomes and enhance return potential while aligning their investments with their values to help drive positive change and invest in the momentum of a changing world.

It is the CIO's opinion that with significant structural changes in global demographics, technology and innovation, as well as better access to data and analytical tools, using sustainable investment criteria could offer a powerful way to evaluate risks and uncover opportunities in the market.

KEY POINTS

In this paper we examine a number of factors including:

- Sustainable investing has become a critical part of the investment process because of the significant evidence that supports its potential to reduce risk and improve total or absolute returns.[3]
- Selecting sustainable investments is not as simple as looking at an investment's ESG rating, fund name or marketing materials. There are several valid approaches to integrating sustainability and "one size does not fit all."
- Successfully balancing financial outcomes and creating positive change requires skill and continuous integration into an investment process.

1 First Insight, "The State of Consumer Spending: Gen Z Shoppers Demand Sustainable Retail." January 2020. BofA Global Research, "Everybody Counts! Diversity & Inclusion Primer." March 2021.

2 Cerulli Associates, "The Cerulli Report: U.S. High-Net-Worth and Ultra-High-Net Worth Markets." 2021.

3 See box titled "Sustainable investing is seeing sustained growth despite short-term setbacks" on page 2.

6774390 11/2024

Enhanced data and analytical capabilities are creating the potential for both better investment solutions and greater impact. In many countries, the disclosure of climate risk and social data are now required by policymakers. In 2022, a record 98% of S&P 500 and 90% of Russell 1000 companies published sustainability reports — up from 96% and 81%, respectively, in 2021.[4] At the same time, a record number of investors and asset managers have become signatories of the United Nations-supported Principles for Responsible Investment (PRI), with more than 4,800 having signed on, managing over $120 trillion collectively.[5] Additionally, the number of third party data providers who focus on sustainability metrics is growing, and as some of them are starting to leverage artificial intelligence (AI) capabilities they are better able to generate valuable insights.

However, the proliferation of sustainable solutions, benchmarks and different definitions of sustainable investing have also created confusion and evoked some criticism. There are valid investment questions about whether sustainable and impact strategies are achieving their dual goals of generating positive social and environmental effects while generating returns. Additionally, there is politicization of the perceived goals of this type of investing and a changing global regulatory and accounting backdrop. While some of this criticism is valid, the CIO believes that investing with a sustainable approach that combines analysis of sustainability risks and opportunities with financial and investment analysis can help investors make more informed investment decisions.

This paper sorts through these approaches to help clients and investors of all types understand how to select strategies that align with both financial goals and client preferences while seeking to dispel some of the misconceptions that continue to exist about risk and return in the sustainable investing space.

Sustainable investing is seeing sustained growth despite short-term setbacks

- In 2023, U.S. sustainable assets under management remained strong, surpassing $300 billion, an increase of 12% from the year prior.[6]
- Assets under management (AUM) growth persisted despite overall negative flows for U.S. sustainable funds. This has to be evaluated in context, however, as both actively managed sustainable funds and actively managed non-sustainable funds experienced outflows in 2023 ($5.6 billion for active sustainable funds[6] vs. $450 billion for broad active funds[7]).
- Total 2023 sustainable outflows netted $13 billion, with only one ETF accounting for almost 70% of total outflows due to one asset manager rebalancing a model portfolio.[6]
- The impact investing market size represents over a trillion dollars in AUM as of 2022, with $322.2 billion in private market impact funds.[8]
- The 2022 U.S. SIF report found that 1 in 8 dollars of total U.S. assets under management are invested in sustainable investing strategies.[9]
- BofA Global Research found that 1 in 12 U.S. funds is an ESG fund.[10]
- Investors have more options than ever before. In 2023, there were 183 passive sustainable funds and 463 active funds available in the U.S., more than 5x and 6x the 2014 totals, respectively.[6]

A significant body of research now points to the potential for sustainable investing to offer investors competitive returns and serve as a useful tool to help manage risk in both public and private markets.

CIO views Sustainable & Impact Investing as an approach with a dual objective to achieve financial returns and an environmental, social or governance related objective. While various definitions of ESG exist, we view it simply as an investment process that incorporates information around the environmental, social or governance risks or benefits of a proposed investment, alongside, not instead of, traditional financial analysis. Therefore, sustainable investing is using more data to make investment decisions, not using different or less data.

Impact investments, however, do have a specific environmental or social objective that determines the universe of underlying investment opportunities.

4 Governance & Accountability Institute, "2022 Sustainability Reporting in Focus: Examining 2021 trends of companies on the S&P 500 + Russell 1000." 2023.
5 UN PRI, as of 1/29/24. Latest AUM data available is from 2021.
6 Morningstar "U.S. Sustainable Funds Landscape Report." February 2024.
7 First Trust, "Passive vs. Active Fund Flows." January 2024.
8 Impact Capital Managers, "Alpha in Impact: Strengthening Outcomes." May 2023.
9 U.S. SIF Foundation, "2022 Report on U.S. Sustainable Investing Trends." December 13, 2022.
10 BofA Global Research, "U.S. ESG outflows defy 5 years of flow gains," January 29, 2024.

- Nearly half of households in a Cerulli survey — across all wealth tiers — say that they would prefer sustainable investing, and 41% of institutional investors are already allocating capital to responsible investment strategies and 35% plan to do so in the next two years.[11]
- In PwC's Global Investor Survey conducted in 2023, close to 75% of respondents said that how companies manage sustainability-related risks and opportunities is an important factor in their investment decision-making.[12]

Sustainable investing is as easy as ABC

Sustainable investing principles can be applied in any asset class and the objectives of strategies may be different. This varied sustainable investing landscape has necessitated a way to categorize this intent.

The CIO has adopted the A-B-C Framework,[13] as seen in Exhibit 1, to help investors understand the sustainable and impact investing landscape. The main difference between the three categories is the strategy's primary sustainability objective. Establishing this objective not only helps to differentiate between types of sustainable strategies but also helps to mitigate "greenwashing."

Bank of America Corporation defines "greenwashing" as implicitly or explicitly claiming that policies, activities, products or services have positive environmental or social outcomes when this is false or cannot be substantiated, or when any positive impact is not meaningful.

Exhibit 1: The A-B-C Framework explained

A: Avoid	B: Benefit	C: Contribute
Strategies that seek to reduce negative social or environmental effects and manage risk by limiting certain exposures.	Strategies that seek to support positive social or environmental practices and enhance potential for long-term competitive financial returns.	Strategies that seek to advance positive, measurable social or environmental outcomes and target opportunities where impact is intrinsic to financial performance.
Examples	**Examples**	**Examples**
• Ex "sin stock" strategy. • Low carbon index strategy. • Strategy that excludes holdings with high risk of regulatory action due to poor labor practices.	• Passive strategy that selects holdings of companies leading on gender metrics. • Strategy holistically using materiality-based ESG information to select "leaders" or improvers in each industry to construct portfolios. • Strategy that invests in companies that are leading in running sustainable businesses or whose products create positive environmental or social benefits.	• Strategy that has an explicit goal of moving capital to the most resource-efficient companies. • Thematic strategy with focus on United Nations Sustainable Development Goals (SDGs) alignment where every holding has a positive contribution. • Microfinance strategy, social impact bonds, Community Development Financial Institutions (CDFI) investing.

The original approach: "Avoid"

The first sustainable investing approach investors took was avoiding certain types of companies — for instance, certain religious groups laid out guidelines to their followers over the types of companies in which they should invest.[14] Another example that started in the 1970s was the divesting of companies that supported apartheid. As awareness about companies' impacts on the environment and society grows, more and more investors are interested in understanding which companies may not align with their values.

Screening out certain types of companies or sectors is an approach to reflect clients' beliefs. It is a service and a set of solutions that we make available to clients who request it, but this can be limiting as an investment approach over some time periods.

[11] Cerulli, "U.S. Environmental, Social, and Governance Investing 2023." Q1 2023.

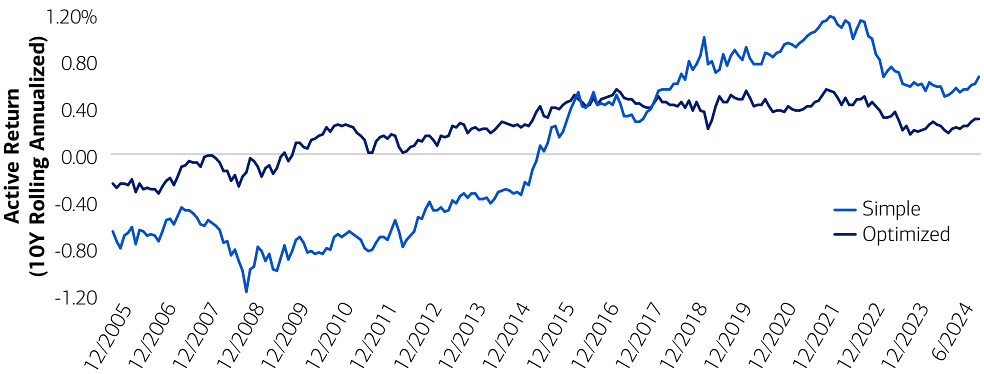
[12] PwC's Global Investor Survey 2023, "Trust, tech and transformation: Navigating investor priorities." November 15, 2023.

[13] The "A-B-C" framework that helps classify the impact objective of a sustainable strategy was adapted from The Impact Management Project (IMP). The IMP is a forum for building global consensus on how to measure, compare, and report ESG risks and positive impacts.

[14] Schroders, "A short history of responsible investing," November 28, 2016.

Removing a large number of securities via negative screening can result in a portfolio that may have a harder time keeping up in different market environments, although this effect may be muted over longer periods of time. The "Avoid" approach may even amplify risk by eroding diversification through either leaving out certain holdings that could contribute positively to returns or potentially causing unintended concentration risk. Modern portfolio construction techniques, such as use of an optimizer, can help mitigate this risk. A study conducted by Aperio showed that active returns can be smoothed when optimization is used to construct portfolios of securities after exclusions are applied. The study built a Simple Exclusion portfolio constructed by cap-weighting the remaining stocks, and an Optimized Exclusion portfolio by weighting the remaining securities to minimize forecast tracking error to the benchmark. Two versions based on the same securities but weighted differently can have very different return and risk profiles, as seen in Exhibit 2.[15]

Exhibit 2: Energy exclusions



Rolling 10-year annualized active returns to Simple and Optimized Energy exclusion strategies benchmarked to the MSCI ACWI Index. December 2005-June 2024. Source: BlackRock SMA Solutions and MSCI, Inc.

While some investors accept this potential impact on portfolios as the price for honoring their beliefs, many do not. Seeking other investment approaches that can meet both an investor's performance and risk tolerance objectives, as well as their personal investing preferences, can be achieved, all while helping to hedge against the potential risk of complete avoidance of certain sectors. This is what the CIO calls a "Benefit" approach and has observed that strategies that follow inclusionary approaches may exhibit more consistent risk-adjusted returns compared to strategies applying screens.

Seeking to "Avoid" real investment risk

As sustainable investing and sustainability data has evolved, the opportunity has emerged to evolve negative screening approaches by linking data to material economic and price risks. Today, many "Avoid" strategies are focused on investment risk; removing bad actors or avoiding an industry that is in structural decline due to changes in technology or cost.

For example, a study on coal divestment after the Paris Climate Agreement shows that anticipated structural changes to the coal industry may have actually had a meaningful effect on where investment dollars were directed.[16] The U.S. is on track to close half of its coal-fired generation capacity by 2026, just 15 years after it reached its peak in 2011.[17] With this, many investors are concerned about stranded asset risk. Calvert Research & Management has observed that during the financial crisis, U.S. coal plants transacted at prices comparable with renewable plants. Given the rise in low-cost natural gas and renewables, federal and state legislation, and improving economics, the value of coal dropped significantly from $1,800/kW in 2008 to $100-200/kW just a few years later. Given this significant market movement, there are many recent examples of coal plants selling for just $1 or struggling to find buyers at all. This is happening despite the profits in the sector observed after the pandemic, as investors focus on long-term structural trends.

[15] Journal of Investment Management, "Sustainable Investing From a Practitioner's Viewpoint: What's in Your ESG Portfolio?" Q2 2022.
[16] United Nations Climate Change Council Release, "Paris Agreement Triggers Divestment from Coal." January 30, 2018.
[17] IEEFA, "U.S. on track to close half of coal capacity by 2026." April 3, 2023.

While removing coal from a portfolio can be viewed as an investor preference, the reason the majority of investors removed coal was because it has been getting more expensive than other energy sources and therefore has become an investment risk. At the same time, natural gas expanded as a go-to fuel for power generation, replacing coal because of lower operating costs and significant regulatory changes. This has resulted in a lower credit rating for the sector, making it a sector that many institutional investors cannot invest in by policy.

Another investment risk generating significant attention recently is Per- and polyfluoroalkyl substances (PFAS), a class of synthetic chemicals used commonly in consumer products and industrial processes that pose significant risks to biodiversity, health, and safety and are, subsequently, posing financial and reputational challenges to companies and investors. BofA Global Research found that in two notable historical cases, companies lost 70%-90% of their market cap during PFAS litigation and there have been almost 10,000 such lawsuits filed in the U.S. federal courts between July 2005 and December 2023. BofA Global Research has identified a noticeable uptick in company disclosure of toxic chemical reduction initiatives, indicating the sharp focus companies are placing on this serious investment risk.[18]

Social factors, including presence or lack of competitive employee benefits, are also important investment risk considerations. One study examined the link between caregiver support benefits and employee turnover and the subsequent impact on return on investment. The same study estimated that companies that offer caregiving support are likely to see an actual reduction in turnover of between 5 and 6 percentage points.[19] This aligns with research suggesting that family-friendly benefits and policies reduce turnover intentions in employees by 9 to 15 percentage points.[20] Given replacement costs can be significant, this contributes to the company's bottom line.

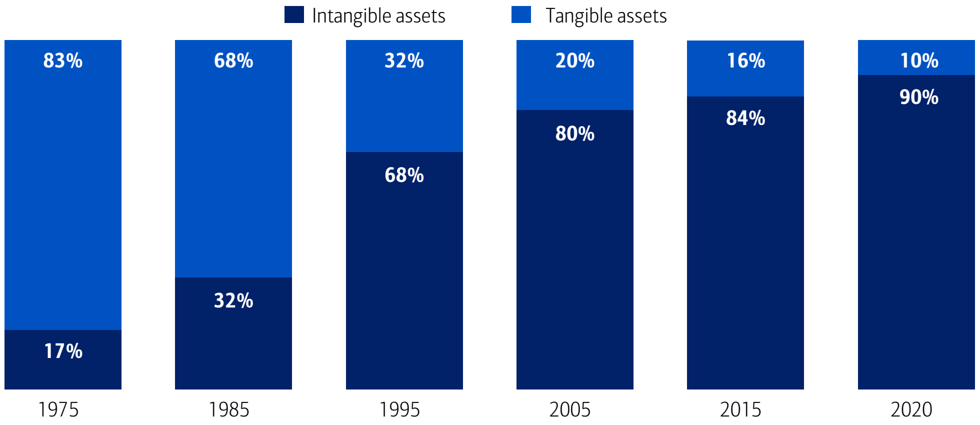
As you might expect, portfolios that seek to address certain social or environmental risks through excluding issuers they believe either pose or will be affected by these material concerns realize these risks across different time horizons. Some risks, such as employee turnover, are realized on relatively short-term time horizons with investment risk primarily limited to specific companies, while other risks, such as climate-related shifts in the physical environment, may take decades to be recognized, but may slow economic growth and increase the likelihood of disruptions and reductions in output, employment and business profitability. Furthermore, the substantial economic transformation required to adapt to the structural changes society is going through may affect which businesses remain relevant, competitive and profitable in the not-too-distant future.

Why traditional financial analysis may not capture all the value; or all of the risks

Today's firms look very different than they have in the past. Forty years ago, tangible assets — items like property, factories and equipment — made up more than 80% of the value of S&P 500 companies, while intangible assets represented the remainder.[21] Today, that ratio has been reversed, with 90% of value now comprised of intangible assets such as intellectual property, market share, brand awareness and perceptions of a company's effect on society and the environment, as shown on page 6.[21]

[18] BofA Global Research, "Treading the dark waters of PFAS." January 2024.
[19] Fuller, J., "Healthy Outcomes, Published by Harvard Business School." January 2024.
[20] Paycor, "New Research from Paycor Finds Companies Can Reduce Turnover by up to 138% with the Right Mix of Benefits." July 9, 2019.
[21] Ocean Tomo, "Intangible Asset Market Value Study." 2020.

Exhibit 3: Components of S&P® 500 Market Value



Source: Ocean Tomo, *Intangible Asset Market Value Study*, 2020. Interim study update as of 7/1/2020.

When most of the valuation of public companies is made up of intangible assets, seemingly nonfinancial measures such as a company's brand and how they are transforming to meet trends from digitalization to human capital and consumer protection have become key to the financial evaluation of a company. But even outside of this structural change, the significant enhancements in sustainability-focused data sets have enabled management teams to understand these risks and opportunities as part of their operational strategy.[22] A survey from McKinsey found that organizations in many industries are going beyond merely trying to meet regulatory requirements and a significant number of respondents view environmental, social, and governance (ESG) subjects as a growth opportunity.[23] In addition, they view this as a factor that helps to meet consumer expectations and attract, motivate and/or retain employees.

A similar study by McKinsey found that companies that were outperforming on fundamentals delivered 2% of additional annual total shareholder return when they were also demonstrating improving sustainability relative to peers that only outperformed on financial metrics and not also on ESG metrics.[24] The survey cited numerous examples of companies that were successfully capturing sustainable growth opportunities. One global shipping company set up committees focused on sustainability at all levels of the organization and linked renumeration to related key targets. Another company, a multinational cosmetics company, focused on acquiring many synergistic companies that focused on sustainable products. Not only are companies focusing on these factors as a growth opportunity, but they are also being rewarded for this focus.

Using data to identify materiality of factors in corporate analysis

Not all sustainability data is equally important for all investments, however. Focusing on the major sustainability-related risks to particular issuers or sectors is the way most sophisticated sustainable investors begin their investment process. Working with industry experts, the International Sustainability Standards Board (ISSB)[25] has identified material sustainability issues across each sector that affect the value of a company: see Exhibit 4.

Foundational research by Harvard using the ISSB definitions of materiality has shown that "firms with good ratings on material sustainability issues significantly outperform firms with poor ratings on these issues."[26] More recent research from Russell Investments affirms these results, finding that material issues, as defined by ISSB, were the most "promising signal" for informing investment decisions based on ESG performance.[27]

[22] Harvard Law School Forum on Corporate Governance, February 2019.

[23] McKinsey & Company, "The triple play: Growth, profit, and sustainability." April 9, 2023.

[24] McKinsey & Company, "ESG momentum: Seven reported traits that set organizations apart." May 26, 2023.

[25] The Sustainability Accounting Standards Board (SASB) is now the International Sustainability Standards Board (ISSB).

[26] Robert G. Eccles, Ioannis Ioannou and George Serafeim, "The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance." Harvard Business School Working Paper 12-035, November 25, 2011.

[27] Emily Stienbarth, "Materiality Matters: Targeting the ESG issues that impact performance - the Material ESG Score." Issued March 2018, Revised January 2022.

Exhibit 4: ISSB Materiality Map® for consumer goods, financials, and oil & gas — exploration & production industries

Dimension	General Issue Category	Consumer Goods	Financials	Oil & Gas — Exploration & Production
Environment	GHG emissions	Immaterial	Immaterial	High Material
	Air quality	Immaterial	Immaterial	High Material
	Energy management	Lower Material	Immaterial	Immaterial
	Water & wastewater management	Lower Material	Immaterial	High Material
	Waste & hazardous materials management	Immaterial	Immaterial	Immaterial
	Ecological impacts	Immaterial	Immaterial	High Material
Social Capital	Human rights & community relations	Immaterial	Immaterial	High Material
	Customer privacy	Lower Material	Lower Material	Immaterial
	Data security	Lower Material	Lower Material	Immaterial
	Access & affordability	Immaterial	Lower Material	Immaterial
	Product quality & safety	High Material	Immaterial	Immaterial
	Customer welfare	Immaterial	Immaterial	Immaterial
	Selling practices & product labeling	Immaterial	High Material	Immaterial
Human Capital	Labor practices	Lower Material	Immaterial	Immaterial
	Employee health & safety	Immaterial	Immaterial	High Material
	Employee engagement, diversity & inclusion	Lower Material	Lower Material	Immaterial
Business Model & Innovation	Product design & lifecycle management	High Material	High Material	Immaterial
	Business model resilience	Immaterial	Immaterial	High Material
	Supply chain management	High Material	Immaterial	Immaterial
	Materials sourcing & efficiency	Lower Material	Immaterial	Immaterial
	Physical impacts of climate change	Immaterial	Lower Material	Immaterial
Leadership & Governance	Business ethics	Immaterial	High Material	High Material
	Competitive behavior	Immaterial	Immaterial	Immaterial
	Management of the legal & regulatory environment	Immaterial	Immaterial	High Material
	Critical incident risk management	Immaterial	Immaterial	High Material
	Systemic risk management	Immaterial	High Material	Immaterial

High Material: Issue is likely to be material for more than 50% of industries in sector.
Lower Material: Issue is likely to be material for fewer than 50% of industries in sector.
Immaterial: Issue is not likely to be material for any of the industries in sector.

Source: The IFRS Foundation's International Sustainability Standards Board (ISSB). Data as of February 2024.

This is a key point as factors that are material and may affect the company's bottom line vary across industries. One of the main points of recent criticism of sustainable investing focuses on how it simply excludes companies in certain sectors, such as energy. In reality, most sustainable managers evaluate energy companies for relevant material aspects, such as employee health and safety, management of the Legal & Regulatory environment, critical incident risk management, and ecological impacts in order to make more thoughtful decisions on how to avoid risks in this sector.

In addition to looking at material risks, there are multiple studies that support the potential benefits of investing in companies with strong sustainability profiles to reduce the overall risk within a portfolio:

- BofA Global Research concluded that companies that faced at least one controversy between 2017-2022 "collectively underperformed those with none at all," by more than 35 percentage points in Europe over the period and 14 percentage points in the U.S.[28]
- After assessing ESG rankings one year prior to bankruptcy of U.S. stocks that filed for bankruptcy between 2008-2023, BofA Global Research identified that strong ESG profiles may have helped avoid approximately 70% of bankruptcies.[29]
- BofA Global Research also found that their proprietary ESG factor consistently drove alpha when added to other fundamental investment screens.[29]

A wide range of studies has shown that investors do not have to sacrifice potential returns to create impact with their investment choices.

[28] ESG from A to Z — ESG Controversies: measuring the impact on share and bond prices.
[29] BofA Global Research, "U.S. ESG Research: A Changing Landscape." January 17, 2024.

"Benefit": Allocating capital to create a stronger, more resilient market

Sustainability data and thorough analysis can do more than help investors avoid risk; it can also serve as a powerful roadmap to help guide investors. By identifying companies that may offer a combination of potential competitive long-term returns (the "original" definition of "sustainability" in financial analysis) as well as positive societal effects, we believe investors can actually benefit from the momentum of a changing world. To do this, investors need to incorporate sustainability-based information into a traditional investment approach, adding to the information they use to make better informed investment decisions.

Incorporating sustainability data has been shown to have two potential effects on a portfolio: It may enhance risk-adjusted performance or may lead to stronger long-term total return through the identification of more competitive companies that potentially outperform their peers.

Strong sustainability practices may help drive the potential for strong, long-term performance

The most compelling evidence regarding performance of sustainable strategies is that firms that have made a proactive commitment to being environmentally and socially sustainable and keep a high degree of corporate transparency have the potential to exhibit strong, long-term performance. Many sources have been able to quantify this outperformance, including BofA Global Research, who found that in 2023, U.S. ESG indices returned 26.5% on average, outperforming their non-ESG counterparts by 1.9%.[30] For example, the S&P 500 ESG total return in 2023 was 27.99%, while S&P 500 return was 26.29%.[31] Morningstar found similar results over a five-year period, observing that from 2019 through 2023, 61% of Morningstar's sustainability indexes outperformed their non-sustainable equivalents. During down periods in the same time period, 57% of the sustainability indexes lost less than their non-sustainable equivalents.[32]

While market-based data captures the overall performance effect of sustainable integration, significant research has been done on specific sustainability factors that are helping to drive this outperformance.

- Research by Bloomberg Intelligence showed that over a nearly 6-year period ending in April 2023, companies with the greatest improvements in governance outperformed those with declining scores.[33]
- Impax Asset Management found that companies that rank in the top 25% of the MSCI World according to the proprietary Impax Gender Score — that is based on gender leadership factors including women in executive management and women on the board — experienced significant long-term cumulative excess returns relative to the bottom 25% of the index, with cumulative outperformance of 18.25% from June 2014 to February 2023.[34]
- McKinsey found a strong business case for ethnic diversity is also consistent over time, with a 39% increased likelihood of outperformance for those in the top quartile of ethnic representation versus the bottom quartile.[35]

Sector-specific research has also linked the importance of sustainability integration as a driver of outperformance. In one study, BofA Global Research found that environmental factors in commodity-oriented sectors were among the best signals of future return on equity and earnings risk.[36]

Examples of sustainability focus areas

Environmental:
Greenhouse gas emissions, energy usage, water usage, waste and pollution, carbon intensity, climate risk mitigation

Social:
Human rights, diversity, employee turnover, child and forced labor, local community involvement, working conditions

Governance:
Board independence, board diversity, incentivized pay, data privacy, ethics and anticorruption, disclosure practices

[30] BofA Global Research, ESG Matters - U.S. "ESG outflows defy 5 years of flow gains." January 29, 2024. Indices included in the US ESG index universe: S&P 500 ESG Index vs. S&P 500 and MSCI USA ESG Index vs. MSCI USA Index.

[31] S&P Global as of December 31, 2023. S&P 500 ESG total return benchmark 1 year was 27.99%, 3 year was 11.57%, 5 year was 17.28%, 10 year was 12.79%. S&P 500 total return benchmark 1 year was 26.29%, 3 year was 10%, 5 year was 15.69%, 10 year was 12.03%. Morningstar data as of 12/31/2023.

[32] Morningstar, "Why Didn't Sustainable Investments Thrive Amid 2023's Tech Rebound?" January 2024. Morningstar's sustainability index universe includes 146 indices. Please reference "Section 1 - ESG Risk" of the report for more information.

[33] Bloomberg Intelligence, "Best way to screen governance scores? Improvers vs. decliners." July 5, 2023.

[34] IMPAX Asset Management, "Identifying and measuring sources of alpha in gender factors." July 12, 2023.

[35] McKinsey & Company, "Diversity matters even more: The case for holistic impact." December 5, 2023.

[36] BofA Global Research, ESG Matters - U.S. "Follow the numbers, not the naysayers." September 19, 2022.

Market-based data as well as specific factor and sector-based research have all pointed to the same conclusion: integration of sustainable information is linked to historical outperformance. We see this information as additive in helping investors make well-informed investment decisions based on material sustainable risks and opportunities, something an “Avoid-based” approach does not allow for.

Addressing the misconception around sustainable investments and the energy sector

There is a misconception that all sustainable investment approaches divest entirely from the energy sector. While some strategies may divest because they have a specific mandate to do so, others tend to invest in companies on the forefront of the energy transition. It is where these strategies deploy capital that may actually create a “Benefit” by seeking out more resilient, long-term opportunities or even “Contribute” to carbon neutrality by directing capital to high-risk, high-reward technologies.

Very few sustainable strategies remove the entire energy sector since this would prevent them from investing in best-in-class and renewable energy companies. As a result, the effect on average performance was more muted. This is where context is important. In the last decade, the energy sector has been one of the most volatile when it comes to performance, fluctuating between being the worst and the best performer quite frequently:[37]

- Between 2017 and 2020, energy was the worst performing sector in the S&P 500 index for four consecutive years, with approximately -33% return in 2020.
- In 2021 and 2022, however, energy was the top performer in the index.

Despite being the top performer during these years, the energy sector makes up only a small weight of the benchmark, minimizing the total contribution that this significant outperformance could have:

- In 2022, for instance, the energy sector had a 4.5% weighted average exposure in the benchmark,[38] which translated into an almost 2% contribution to return for the year, even while the sector return was close to 65%.
- In 2023, energy performance turned again. While the index return was over 26% and most sectors had substantial positive returns, energy was a detractor with a return of approximately -1.3%.

In the face of recent geopolitical conflict underscoring the role traditional fossil fuels play in securing a country’s energy security, it is unlikely that the energy transformation and efforts to curb carbon emissions will cease. In fact, the acceleration of alternative energy development and production is driven by economics, and higher fossil fuel prices raise the relative competitiveness of renewable energy. Lower renewable energy costs may also accelerate companies seeking out these solutions to lower the cost of their inputs. In the longer term, competitive pricing of alternative energy may even propel some nations to shift to clean energy for a different reason — energy independence. While the opportunity for renewables and the capacity required is significant, the world cannot just switch to alternative energy sources. Even with this substantial investment, renewable energy sources are estimated to provide 68% of the world’s total electricity supply by 2030,[39] with the rest of energy use coming from traditional sources such as natural gas and oil.

[37] Novel Investor, "Annual S&P Sector Returns." July 2024.
[38] Factset, March 2024.
[39] IRENA, "World Energy Transitions Outlook 2023."

Sustainable analysis can also help investors as a potential indicator of credit quality

The benefits of sustainable practices are not limited to equity share price performance. As more companies and governments are realizing the necessity of transforming their practices to be more sustainable, issuance of labeled green, social and sustainability bonds have been on a steady increase. A study by MSCI found that these labeled-bond issuers had lower overall borrowing costs. Issuers that had outstanding labeled bonds displayed lower borrowing costs compared to their peers that did not. These results held even after controlling for several issuer characteristics — namely, ease of access to capital markets, issuer size, credit quality and ESG risk profile. Interestingly, the study also found that after commencing labeled bond issuance, most of the sampled issuers notably improved their ESG profile and had overall higher MSCI ESG Ratings compared to the wider issuer universe.[40]

Companies with sustainable practices may also exhibit less credit risk when compared to companies that have poor sustainability practices. A BofA Global Research study found that sustainability is impacting conventional bond spreads. To illustrate this impact, they compared the credit spread of the oil and gas sector to the investment grade average and found that new issue coupons were 50bps to 70bps higher on average. They "see evidence that the perception of 'brown industries' and/or investment alternatives to oil and gas is leading to higher borrowing costs."[41] ESG-related criteria may help to augment traditional financial analysis, increasing an investor's ability to assess risks that sit outside of the balance sheet.

Sustainability factors are even a value indicator in private markets

While much research focuses on the impact of sustainability factors on publicly traded companies, the same factors apply to private markets. In a survey of more than 150 private equity firms, over 70% of survey respondents identified value creation as one of their top three drivers for inclusion of environmental, social, and governance information in their investment decisions, up from 66% in 2020.[42] The survey also found that one-third of respondents say ESG was a primary driver of value creation in more than half of their organizations recent deals and that 53% of respondents have chosen not to pursue at least one deal in the last 12 months due to ESG factors. Surveyed firms sourced reputational risks, supply chain risks, and inadequate material disclosures as some of the key ESG factors that influenced decisions not to make certain investments.[43]

Net Zero

"Net Zero" refers to a state in which the amount of greenhouse gases (GHG) going into the atmosphere is balanced by the amount removed from the atmosphere.[44] Companies adopting the Net Zero Standard are required to set both near-term and long-term science-based targets, halving emissions by 2030, and by 2050 producing close to zero emissions while neutralizing any residual emissions that are not possible to eliminate.[45]

Net Zero has rapidly moved to the mainstream. In 2019, Net Zero pledges covered just 16% of the global economy, but, by 2023, Net Zero commitments covered 92% of the global economy and 88% of global GHG emissions, with half of the world's largest companies committed to Net Zero.[46] These significant commitments create both opportunities to invest in developing technologies that will aid in the Net Zero transition as well as risks, such as increasing cost of capital, which may inhibit a company's ability to stay competitive while meeting targets. While estimates across the industry vary, it is estimated that $200 to $275 trillion will need to be invested in clean energy technologies between now and 2050 in order to deliver a 1.5°C target.[47]

[40] MSCI, "Labeled-Bond Issuance and Cost of Debt." July 7, 2023.
[41] BofA Global Research, "ESG in fund flows and cost of capital." November 1, 2021.
[42] PWC, "Private equity's ESG journey: From compliance to value creation." 2021.
[43] PWC, "Will ESG factors create or destroy value in your next deal? Six orange flags for dealmakers." February 27, 2023.
[44] University of Oxford, "What is Net Zero?" November 2022.
[45] Science-Based Targets, "SBTI Corporate Net-Zero Standard." October 2021.
[46] Net Zero Tracker, "New analysis: Half of world's largest companies are committed to net zero." November 5, 2023.
[47] BofA Global Research, "EU & U.S. Transition CAPEX investment opportunities." January 16, 2024.

Do ESG ratings "Benefit" investors?

Much of the controversy in whether sustainable investments meet their sustainability objectives and financial goals is based on analysis using ESG ratings. In May of 2022, a well-known electric vehicle company was excluded from the S&P 500 ESG Index because its ESG ratings had dropped.

While ratings can be useful as a tool for comparison, it is crucial to understand how they are decided. Each ratings provider determines the weighting of different ESG metrics and what data they are using, causing varying results across the third-party ESG ratings landscape and much confusion. Therefore, it is most important to note that:

- Any rating depends on proprietary methodology and therefore has inherent subjectivity to it.
- All ratings are only as good as the underlying data.
- And maybe most importantly, some ratings are both backward looking and do not consider the financial condition of the company so they shouldn't be compared to traditional credit ratings.

Most ratings focus heavily on the existence and disclosure of policies that do not always translate into practice and also ignore positive outcomes companies may achieve through their products and services. A company may get a high ESG score because it ranks well from a governance standpoint, which may offset the fact that the company is a big polluter.[48]

Furthermore, the weighting methodologies for different raters differ significantly across E, S and G characteristics causing outcomes to be quite dissimilar. Therefore, when investors use one firm's rating, they are tacitly accepting the provider's decisions on which data points are important and their calculation methodology. In reality, investors may have varying views on whether ESG aspects should be a priority and which underlying data points help to evaluate those aspects.

This subjectivity and the fact that ratings are actually trying to evaluate hundreds of different aspects of a company's ESG profile and boil them into one value is reasonable criticism. But it doesn't completely invalidate sustainable or ESG investing as a sound investment approach or mean that ratings are useless. As long as the user has evaluated and agrees with the approach, they can rely on ratings to help make decisions. Ratings can help more easily compare companies and assess overall portfolio-level ESG profiles. And while they should not be used as a forward-looking investment tool, there are many studies that do show a historical correlation between better ESG ratings and improved investment portfolio risk and return characteristics.

Sustainable investing may "Contribute" both to a portfolio's financial and societal goals

A "Benefit" strategy is one that seeks beneficial social or environmental outcomes by investing in companies or issuers that will be competitive because they are incorporating sustainability into the way they manage their businesses. This strategy in part relies on multiple allocators investing in this way to create a systemic, positive outcome.

However, investors can also allocate to strategies that seek to create a direct and measurable outcome or impact. The "Contribute" strategy provides investors who seek to address targeted environmental or social issues with opportunities to make an impact while also seeking to make a return — complementing more pure-play philanthropy. For instance, we've observed investors increasingly searching for strategies that provide specific social and environmental outcomes in areas such as climate change, food scarcity, renewable energy and economic empowerment.

Impact Investing and Philanthropy

While many philanthropic areas are not investable, investors are often surprised to learn there are high impact solutions that can generate competitive returns while achieving what could be considered philanthropic goals. Impact investing may be an important consideration alongside philanthropy. Those interested in generating positive outcomes via philanthropic activity can, through impact investing, simultaneously accomplish outcome-oriented objectives while pursuing a competitive investment return that can be used to reinvest profits into one's philanthropic portfolio.

[48] Impact Cubed, "Musk Ado About Something." May 2022.

Phenix Capital[49] found that between 2022 and 2023 new impact funds grew by 16.7% and committed capital stood at approximately $635 billion, growing 78% over three years.[50] A report from the Global Impact Investing Network (GIIN) also reported significant growth in impact AUM, reporting a compound annual growth rate (CAGR) of 18% from 2017 to 2022. Furthermore, GIIN found that pension funds and insurance companies grew their capital allocation toward impact strategies by a CAGR of 32% between 2017 and 2022.[51]

In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which provides "a shared blueprint for peace and prosperity for people and the planet, now and into the future."[52] This roadmap focuses on 17 Sustainable Development Goals (SDGs) that were developed in conjunction with the private sector to engage in a global partnership to "improve health and education, reduce inequality and spur economic growth — all while tackling climate change and working to preserve our oceans and forests."[52] The SDGs frame a tremendous investment opportunity to address some of the world's biggest challenges, with one report from the UN Conference on Trade and Development estimating it will cost between $5.4 and $6.4 trillion per year between 2023 and 2030 to achieve the sustainable development targets.[53] Clearly, tremendous private capital will be needed to support the SDGs in addition to significant government support.

United Nations Sustainable Development Goals

In addition to helping corporations explain to the market how they are directing capital towards environmental and social issues, the SDGs also provide a way for both public and private markets managers to develop thematic investment strategies that, in addition to seeking return and growth potential for a portfolio, offer investors potential direct impact into the issue areas in which they are interested.

Investors can participate in impact investing in a variety of ways across many asset classes. In fixed income, for example, investors can contribute to expanding affordable housing through taxable municipal bonds or agency commercial mortgage-backed securities (CMBS) focused on developing or maintaining affordable housing units for low- and middle-income families and veterans.[54] Corporate bonds are also being issued with a focus on impact, including by Bank of America who issued its third $2 billion Equality Progress Sustainability Bond in 2022, designed to advance racial and gender equality, economic opportunity and environmental sustainability.[55] Projects financed through this bond include business loans to minority-owned businesses, financing for medical professionals, and financing, leasing and investments that support the transition to a low-carbon economy focusing on renewable energy and clean transportation.[56]

Public equity investors can participate in impact investing as well. Public equity impact funds may invest in companies aiding the energy transition by contributing to the development of renewable energy sources, for example.[57] Public companies may also address inequalities by implementing advanced hiring practices to develop and attract more women and minorities to historically male-dominated fields.

Private market investors can have access to deals that can create impact in very specific areas and invest in companies that have revenue aligned almost entirely with impact. For example, one recently launched fund enables investors to participate in the development and deployment of sustainability-themed infrastructure that seeks to accelerate the global energy transition, with a focus on many sectors including the clean grid, hydrogen and renewable fuels, the circular economy, and infrastructure enabling technologies.

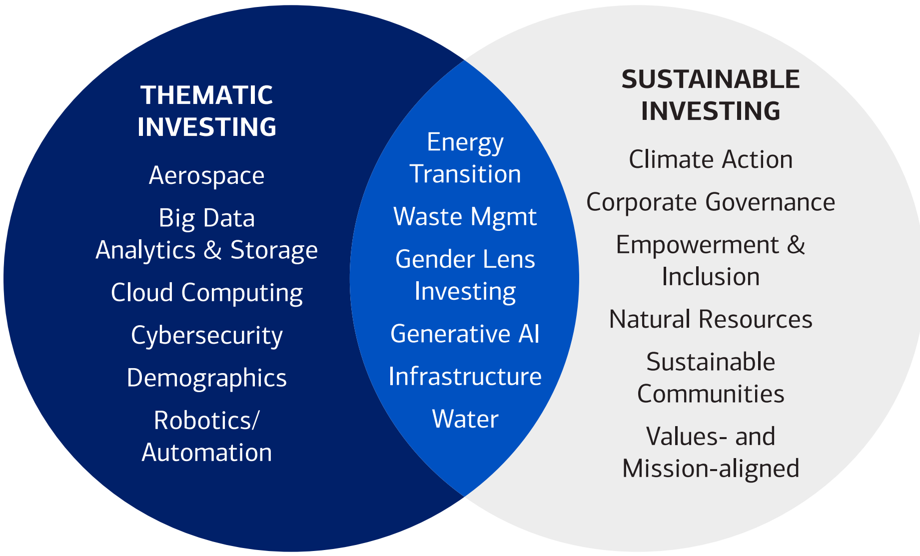
In addition, a survey by GIIN found that 74% of impact investors target risk-adjusted market-rate returns and 79% of these investors reported either outperforming or performing in line with expectations from a financial perspective.[58] Another survey studied the exits of 230 impact-focused market rate investors and found that 65% of the surveyed deals were at or above their financial targets.[59]

[49] Phenix Capital maintains an Impact Fund Database of private and public market impact funds.
[50] Phenix Capital, "Impact Fund Universe Report." January 2024.
[51] The GIIN, "2023 GIINsights: Impact Investing Allocations, Activity & Performance." 2023.
[52] United Nations Division for Sustainable Development Goals, March 2022.
[53] United Nations, "Annual cost for reaching the SDGs? More than $5 trillion." September 19, 2023.
[54] CCM, "2023 Impact Report." January 2024.
[55] BofA Newsroom, "Bank of America Issues Its Third Equality Progress Sustainability Bond for $2 Billion." November 10, 2022.
[56] BofA Newsroom, "Bank of America Issues $2 Billion Equality Progress Sustainability Bond." Sept. 25, 2020.
[57] Mirova, "Mirova Global Sustainable Equity Fund Impact Report 2023." June 14, 2024.
[58] The GIIN, "2023 GIINsights: Impact Investing Allocations, Activity & Performance." June 27, 2023.
[59] Impact Capital Managers, "Alpha in Impact: Strengthening Outcomes." May 8, 2023.

Thematic investing: A way to invest in defined impact

Thematic investing has a lot of areas of opportunity for impact; while not all thematic investments would fit into the "contribute" classification, there is some overlap, see Exhibit 5 for illustrative examples. Thematic investing has seen notable growth in recent years, largely due to significant economic drivers of various themes. Investors seem eager to take advantage of these opportunities. According to a survey conducted by Schroders, 69% of United States respondents identified thematic investing as their preferred approach to investing sustainably.[60] Sustainable and impact oriented thematic investing opportunities span numerous themes and are implementable in a variety of vehicles and approaches. Exhibit 6 highlights some opportunities available to investors.

Exhibit 5: Intersection of Thematic and Sustainable Investing examples



Source: CIO as of August 2024.

Exhibit 6: Thematic Investing Opportunities: key trends, economic drivers and investment examples

Example theme	Key trend	Economic driver	Investment example
Energy Transition	The Net Zero transition requires significant investment in clean energy technologies.	From 2010 to 2022, solar, wind, and biomass energy experienced staggering cost declines that made them either more competitive than fossil fuel-fired electricity or on the lower end of the fossil fuel cost range.[61]	Public equity fund focused on the transition to clean energy. Investment could include: • Onshore/offshore wind producers • Utility-scale solar producers • Grid owners
Infrastructure Upgrades	The U.S. infrastructure base, given its highest grade of C- in 2021, requires $2.6 trillion of public and private investment for upgrades and replacements through 2030, without which the country risks economic losses and decreases in quality of life.[62]	The Inflation Reduction Act (IRA) provides approximately $400 billion to modernize the electrical grid, build a nationwide network of electric vehicle chargers, strengthen the battery supply chain, and invest in new clean energy generation, storage and distribution as well as emissions reduction technologies.[63]	Private markets fund focused on investing in sustainable infrastructure upgrades. Investments could include: • Investment into an EV battery cell manufacturer • Development of a leading sustainable aviation fuel platform • Deployment of e-buses and light-duty EV fleets
Healthcare	More than half of the world's population lacks access to essential healthcare services and nearly 1/3 of the world's population will remain underserved by 2030.[64]	The American Rescue Plan ("ARP") has allocated about $140 billion in funding across the healthcare system to improve access and lower costs.[65]	Multi-thematic global public equity fund with exposure to health themes. Investments could include: • Healthcare company improving patient care and outcomes through better understanding of chronic disease and infection
Water	Water demand is up approximately 40% over the past 40 years and is estimated to increase another 25% by 2050, yet supply has more than halved since 1970. Growing economic development, in combination with population growth, is a key contributor to the water supply-demand imbalance.[66]	One of the biggest investments in the water industry is maintaining and upgrading infrastructure — the pipes, pumps, valves, and tanks that make water systems work. This segment is growing at around 10% a year, and in the U.S., water-pipe replacement rates are likely to peak in 2035 at 16,000 to 20,000 miles each year, which is 4x the current annual replacement rate.[66]	Thematic strategy focused on companies with solutions across water supply, water efficiency, and water quality.

[60] Schroders, "Thematic investments in focus as investors seek to harness sustainability trends." October 18, 2023.
[61] IRENA, "Renewable Power Generation Costs in 2022." August 29, 2023.
[62] American Society of Civil Engineers, "Grade released every 4 years, assessed across 17 categories." March 3, 2021.
[63] Bank of America, "What to watch: Four trends in 2024." January 27, 2024.
[64] World Economic Forum, "How autonomous mobile clinics can help transform healthcare." July 1, 2022.
[65] AHA, "Summary of American Rescue Plan Act of 2021 and Provisions Affecting Hospitals and Health Systems." March 17, 2021.
[66] Bank of America, "Global water scarcity: H2O no!" November 27, 2023.

In the public markets, thematic investments differ from the more diversified "Benefit-oriented" strategies and tend to have a more defined set of outcomes, and, at times, a direct impact objective. Because these investments tend to target one or a handful of themes, there can be a smaller universe of companies or issuers in which to invest. As a result, single-theme outcome- or impact-oriented thematic strategies have the potential for outsized returns as they tend to be in new or higher-growth parts of the market, but often with a higher volatility of return, especially in the public markets and over shorter time periods. This is why multi-thematic strategies are generally employed: to accommodate the fact that different themes will perform differently across different market conditions.

In addition to providing the capital needed to develop new markets and new solutions, thematic-oriented strategies also may be diversifying to a portfolio. Exhibit 7 below shows how many themes can have either low or no correlation to each other, which implies that adding themes to a traditionally balanced portfolio could offer additional sources of both return and risk.

Exhibit 7: Correlations of impact themes vs global equity market

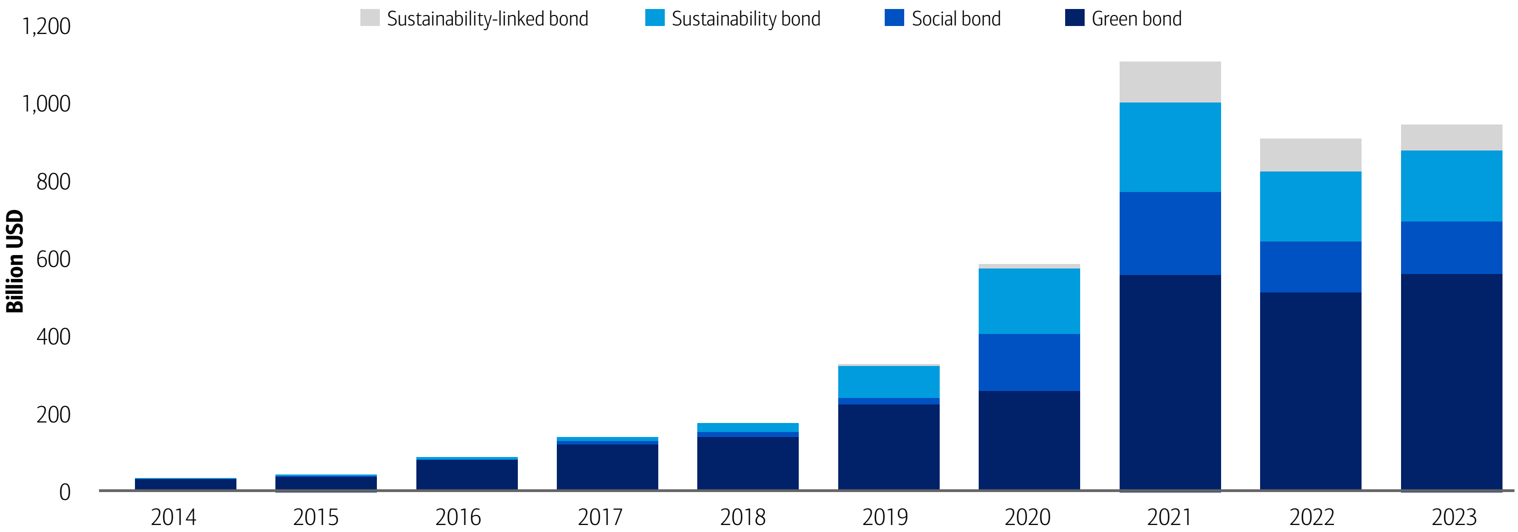
	Affordable housing	Alternative energy	Clean water and sanitation	Digital divide	Education and job training	Financial inclusion	Health	Multi-theme	Resource efficiency	Resource stewardship	Safety and security	Sustainable agriculture and nutrition
Affordable housing	1.00											
Alternative energy	0.20	1.00										
Clean water and sanitation	0.32	0.21	1.00									
Digital divide	0.15	0.05	0.13	1.00								
Education and job training	0.16	0.21	0.16	0.10	1.00							
Financial inclusion	0.43	0.23	0.26	0.15	0.24	1.00						
Health	0.05	0.24	-0.07	0.07	0.19	0.02	1.00					
Multi-theme	0.09	0.14	-0.03	0.00	-0.02	0.07	0.15	1.00				
Resource efficiency	0.18	0.48	0.27	0.08	0.27	0.23	0.16	0.18	1.00			
Resource stewardship	0.28	0.30	0.30	0.10	0.10	0.14	0.15	0.15	0.51	1.00		
Safety and security	-0.05	0.17	-0.12	0.00	0.04	-0.03	0.38	0.44	0.26	0.16	1.00	
Sustainable agriculture and nutrition	0.21	0.24	0.11	0.17	0.16	0.15	0.20	0.00	0.17	0.26	0.02	1.00

Source: Wellington Management, 12/1/2015 -12/31/23, updated annually. Equally weighted portfolios were constructed representing each one of the 10 themes in Wellington Management's proprietary impact investing universe, which consists of public companies identified as impact companies. The portfolios included each company held in their respective theme. Correlations for each thematic portfolio were determined by calculating the one-year rolling weekly excess return over the MSCI All Country World Index.[67] Cross correlations of the excess returns were then computed.

[67] See index definitions at the end of this document.

Fixed income markets have also seen an increase in issuances that target certain issues, including the steady growth of green, social and sustainability-linked bonds and loans, as well as corporate bond funds that invest in high-impact areas. Between 2019 and 2023, the global issuance of impact bonds increased by almost 300%, nearing or exceeding $1 trillion in annual issuance (Exhibit 8). Additionally, the U.S. municipal market gives investors a potentially unique way to direct capital to impactful projects in healthcare, education and sustainable cities and infrastructure.

Exhibit 8: The global issuance of impact bonds



Source: Bloomberg, "Green bonds reached new heights in 2023." Data as of 12/31/2023. Data shows yearly issuance of impact bonds.

Examples of impact investments in public bond market

Green Bond	Social Bond	Sustainability Bond
Bond where use of proceeds is directed toward a renewable energy project	Bond financing food security access for individuals living below the poverty line	Use of proceeds finances a combination of green and social projects (SDG-linked bonds, Paris Agreement-linked, etc.)

Examples adapted from: PIMCO, “Understanding Green, Social and Sustainability Bonds,” accessed February 2024.

Range of risk and return profiles for sustainable and impact investments

Sustainable and impact investments range the risk and return and asset class spectrum. However, in aggregate, sustainable and impact investments do have the potential to meet investor return expectations while also meeting the impact outcomes. Investors who begin the journey to integrate investments that "Contribute" or advance measurable positive impact will find there is not just one risk and return profile to consider.

Exhibit 9: Range of risk and return profiles for sustainable and impact investments under the "Contribute" approach

	Public Markets		Private Markets
	Debt/Credit-Based Impact Solutions	Equity-Based Impact Solutions	Alternative or Opportunistic Impact Solutions
Potential Above		Resource Efficiency Equities Thematic Sector Equity Fund	Alternative Energy Small & Medium Enterprises (SME) Financing Impact Venture/Growth Equity
Market Return	Green Bonds Impact oriented Municipal Debt	SDG/Impact focused public equities	SDG focused growth equity Impact oriented real assets/infrastructure
Potential Below	Community Loan/Development Funds		Microfinance debt fund
	Lower Risk ⟷		Higher Risk

Source: Chief Investment Office, January 2023. For illustrative purposes only.

Along with this emerging evidence, many sustainable and impact strategies also provide access to some of the most significant economic and structural changes, including the energy transition, building of sustainable cities and infrastructure, healthcare and education innovation, and many others.

Sustainable and impact investments at Bank of America Corporation

The CIO Due Diligence team is responsible for evaluating strategies in order for them to qualify internally as sustainable or impact strategies. All strategies must meet both sustainability and investment standards to qualify for a sustainable classification. The assessment for both criteria is performed simultaneously. The key components of this process are to evaluate the quality and competitiveness of the investment strategy by establishing investment conviction. In parallel, for sustainable strategies, the CIO Due Diligence team reviews the intentionality, consistency and depth of ESG integration. While there is a spectrum of approaches to integrating sustainability into a strategy, when determining sustainability status, the CIO Due Diligence team requires all strategies to meet two criteria in order to qualify for a sustainable classification:

Intentionality: Strategy is structured with clear sustainability objectives. The investment decision-making process reflects this.

Consistency: Sustainability criteria are part of the process at all times.

Our goal is to provide clients with a strong investment process that helps to increase the probability that both their financial and sustainability objectives can be pursued simultaneously.

For all strategies that we define as sustainable or impact, the investment manager strategies must meet our investment and business due diligence processes that look for investment strategies that have a high probability of meeting or exceeding their investment objectives. This means that all recommended sustainability strategies have the potential to meet or exceed the risk and return profiles of the full investment category including all sustainable and non-sustainable strategies.

We also simultaneously evaluate how deeply an investment manager integrates sustainability into their daily investment process. This evaluation considers the different approaches outlined in this paper, from strategies looking to avoid material investment risks, to those that are looking to invest in the most sustainable companies and issuers, to those that use thematic and social or environmental goal-driven data to inform their investment thesis. We perform analyses using various qualitative inquiries, such as going through the investment manager's portfolio to understand the sustainability thesis and the depth of the analyses the investment manager uses to inform its selection; how the decision-making process works across sustainability specialists, research analysts and portfolio management teams; and how the investment manager uses ESG information in the portfolio construction and ongoing risk management practices. We also use third-party quantitative sustainability-focused data sets to perform independent checks on portfolio holdings to help determine the investment manager's depth of knowledge on certain ESG issues, and to help us connect the sustainability characteristics of the strategy to its financial risk and return profile.

Finally, arguably the most important component of our strategy assessment is the sustainability, outcome or impact goal of the strategy. Each investment manager we work with needs to be able to clearly articulate the sustainability objective of their strategy. Investment managers may have different approaches to sustainable investing just as clients may have different preferences. Below are illustrative examples of the different approaches investment managers may employ when implementing sustainable & impact investing:

- For "Avoid" strategies, this might be as simple as an intention to decrease exposure to fossil fuels or to avoid companies that may be prone to reputational risk.
- For "Benefit" strategies, a manager could have as an objective to have a better overall ESG profile than its benchmark or to demonstrate how resource-efficient companies perform better than their peers.
- For "Contribute" strategies, a manager must demonstrate specific, measurable outcomes or impact for each individual investment, but also at the portfolio level.

We believe that being able to track the sustainability and impact goals of an investment against our expectations is as important as tracking the risk and return of these investments through a robust monitoring process.

IN CONCLUSION

The world is facing rapid change — environmental factors, societal shifts and increasing regulatory pressures are transforming the economy and society across so many aspects of daily life — the way we communicate, consume food and products, travel, places we live and ways we work. These shifts are impacting the markets in many ways, sometimes in ways that were not expected.

Luckily for investors, data and analytical processes that take into account these changing environmental and social factors are evolving at a fast pace. Firms are being more transparent about their business practices and long-term strategies, and governments and financial organizations are demanding more reporting to help investors make informed decisions.

Many firms are also taking a new look at their role in the capital markets and realizing that sustainable businesses may equate to more knowledge of risks as well as growth.

The CIO believes these trends are only going to accelerate, and we see more and more investors using the concepts of sustainability that we've discussed as a key input into their investment strategy. The CIO also believes that investors who embrace sustainable investing practices will be better able to position their portfolios for potential long-term success.

Index definitions

The **MSCI ACWI** captures large- and mid-cap representation across 23 Developed Markets (DM) and 26 Emerging Markets (EM) countries. With 3,060 constituents, the index covers approximately 85% of the global investable equity opportunity set.

The **S&P 500 Index** includes 500 leading companies and covers approximately 80% of available market capitalizations.

The **S&P 500 ESG Index** is a broad-based, market-cap-weighted index that is designed to measure the performance of securities meeting sustainability criteria, while maintaining similar overall industry group weights as the S&P 500.

The **MSCI USA Index** is designed to measure the performance of the large and mid cap segments of the US market. With 601 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

The **MSCI USA ESG Select Index** is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index. The Index is optimized to be sector diversified, targeting companies with high ESG ratings in each sector.

The **MSCI World Index** captures large and mid-cap representation across 23 Developed Markets (DM) countries.* With 1,430 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

* DM countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the U.S. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

Important Disclosures

All investing involves risk, including the possible loss of principal. Past performance is no guarantee of future results.

This material does not take into account a client's particular investment objectives, financial situations, or needs and is not intended as a recommendation, offer or solicitation for the purchase or sale of any security or investment strategy. Merrill offers a broad range of brokerage, investment advisory (including financial planning) and other services. There are important differences between brokerage and investment advisory services, including the type of advice and assistance provided, the fees charged, and the rights and obligations of the parties. It is important to understand the differences, particularly when determining which service or services to select. For more information about these services and their differences, speak with your Merrill financial advisor.

Bank of America, Merrill, their affiliates, and advisors do not provide legal, tax, or accounting advice. Clients should consult their legal and/or tax advisors before making any financial decisions.

This information should not be construed as investment advice and is subject to change. It is provided for informational purposes only and is not intended to be either a specific offer by Bank of America, Merrill or any affiliate to sell or provide, or a specific invitation for a consumer to apply for, any particular retail financial product or service that may be available.

The Chief Investment Office (CIO) provides thought leadership on wealth management, investment strategy and global markets; portfolio management solutions; due diligence; and solutions oversight and data analytics. CIO viewpoints are developed for Bank of America Private Bank, a division of Bank of America, N.A., ("Bank of America") and Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S" or "Merrill"), a registered broker-dealer, registered investment adviser and a wholly owned subsidiary of Bank of America Corporation ("BofA Corp.").

BofA Global Research is research produced by BofA Securities, Inc. ("BofAS") and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation.

Asset allocation, diversification and rebalancing do not ensure a profit or protect against loss in declining markets.

Risk management and due diligence processes seek to mitigate, but cannot eliminate risk, nor do they imply low risk.

Sustainable and Impact Investing and/or Environmental, Social and Governance (ESG) managers may take into consideration factors beyond traditional financial information to select securities, which could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. Further, ESG strategies may rely on certain values based criteria to eliminate exposures found in similar strategies or broad market benchmarks, which could also result in relative investment performance deviating.

Investments have varying degrees of risk. Some of the risks involved with equity securities include the possibility that the value of the stocks may fluctuate in response to events specific to the companies or markets, as well as economic, political or social events in the U.S. or abroad. Bonds are subject to interest rate, inflation and credit risks. Investments in foreign securities involve special risks, including foreign currency risk and the possibility of substantial volatility due to adverse political, economic or other developments. These risks are magnified for investments made in emerging markets. Investments in a certain industry or sector may pose additional risk due to lack of diversification and sector concentration. Investing directly in Master Limited Partnerships, foreign equities, commodities or other investment strategies discussed in this document, may not be available to, or appropriate for, clients who receive this document. However, these investments may exist as part of an underlying investment strategy within exchange-traded funds and mutual funds.

Social impact bonds are a relatively new and evolving investment opportunity, which is highly speculative and involves a high degree of risk. An investor could lose all or a substantial amount of their investment.

An investment in **Green Bonds** involves risks similar to an investment in debt securities of the issuer, including issuer credit risk and risks related to the issuer's business. You should review the relevant offering document carefully before investing.

Alternative investments are intended for qualified investors only. Some or all alternative investment programs may not be in the best interest of certain investors. No assurance can be given that any alternative investment's investment objectives will be achieved. Alternative investments such as derivatives, hedge funds, private equity funds and funds of funds can result in higher return potential but also higher loss potential.

Certain information herein has been obtained from third-party sources and, although believed to be reliable, has not been independently verified and its accuracy or completeness cannot be guaranteed.

The CIO has developed Impactonomics®, a sustainability-related analytic lens that includes societal and environmental factors while also examining a range of relationships between economic growth and investing for impact and profit, as well as the measurable social and environmental change sustainable investing can enable.