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Responsible Capital: The Evolution and Performance of ESG Investing

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Abstract: *Environmental, Social, and Governance (ESG) investing has rapidly evolved now into a critical component of global investment strategies, despite its roots in Socially Responsible Investing (SRI) dating back over two centuries. ESG gained prominence in the 1980s and was formally recognized in 2006 by the United Nations Principles for Responsible Investment (PRI), aligning it with global frameworks such as the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. This paper reviews the evolution of the ESG investment ecosystem, examining key contributors, including regulators, fund managers, corporations, and rating agencies, and their roles in promoting ESG adoption. Recent regulatory initiatives, such as the U.S. SEC's ESG disclosure rules, the European Commission's Sustainable Finance Disclosure Regulation (SFDR), and India's Business Responsibility and Sustainability Reporting (BRSR) framework, represent significant efforts to streamline ESG reporting and reduce greenwashing. However, the lack of harmonized global standards and inconsistencies in ESG reporting and scoring methods remain critical challenges. This study analyses the performance of leading ESG funds in the U.S. and India over a four-year period, benchmarking their returns against major market indices. Additionally, it explores the correlations between ESG fund performance and market benchmarks, as well as the similarities in stock holdings between ESG and non-ESG funds. The findings reveal that while ESG funds perform comparably to or below traditional indices, significant gaps persist in defining ESG criteria and measuring performance effectively. The paper concludes with a call for global harmonization of ESG reporting standards and scoring methodologies to ensure consistency, transparency, and investor confidence. As ESG investing is poised for substantial growth, establishing clear definitions and robust frameworks will be essential to unlocking its potential as a transformative force in sustainable finance.*

Introduction

ESG Investing is decision-making for investments in companies based not only on financial factors, but also including the Environmental, Social and Governance (ESG) performance of the company. Indicators like emission controls, climate change policies, management of waste and effluents constitute the environmental factors while social factors include relationship management with employees and local communities while Governance indicators include compliance, audits, and shareholders' rights.

In 2015, the United Nations General Assembly adopted 17 Sustainable Development Goals (SDGs)by setting the goals for all the stakeholders by defining 169 specific targets and 232 measurement indicators. An estimate by The United Nations Conference on Trade and Development (UNCTAD) asserts that about USD 5 to 7 trillion of funds shall be required from the private sector in order to achieve the SDGs by the year 2030. This requires growth in investment and also channelizing the existing investment to entities aligned with the goals of the SDG. (Betti et al., 2018) have mapped the SDGs with the ESG targets set by the Sustainability Accounting Standards Board (SASB). (Khaled et al., 2021) analyzed the factors under ESG pillars and mapped their relevance to the SDGs (Figure 1)

Figure 1 ESG Factors mapped to SDGs

The Paris Climate Agreement that came into force in Nov 2016, is a legally binding international agreement signed by 196 parties. The agreement limits the rise in global average temperature to 2 deg Celsius by achieving Net Zero Carbon emissions and reducing the greenhouse gasses emissions. Hence investment in companies that are decreasing their carbon footprint is being encouraged. The agreement received a setback with USA leaving the agreement in 2017. However, the country rejoined the agreement in 2021 with the change of presidency.

Objective

The present study provides insights on the evolution and trends in ESG Investing, regulations and ESG investing Ecosystems.

Also an analysis of ESG Mutual Fund Performance has been carried out in comparison to the Market Index and non ESG Mutual funds.

Methodology

An analysis of performance of Top eight ESG funds in USA has been conducted and a comparative study has been made with S&P500 index.

A similar analysis has bene done for ESG funds in India, which have an inception date earlier than 1 August 2020. Their performance has been compared with Nifty Index and with non ESG funds. Further a comparative analysis has been carried out of the top 10 holdings of ESG and non ESG Mutual funds.

The analysis covers the period from 1 August 2020 to 1 August 2024, a period of 4 years. Data for performance analysis has been sourced from Yahoo finance, mutual fund portals and ESG Rating agencies. For descriptive insights of ESG investing information has been sourced from regulators, rating agencies, various portals and published reports.

ESG Investing: Evolution

Socially Responsible Investing (SRI) started more than 200 years ago with the early Methodists in North America who did not support investments in the so-called sin-stocks which dealt in businesses such as liquor, gambling and armaments. Islam prohibits offering funds for haram products and charging interests on loans which is a form of SRI. Vietnam war in 1960s led to investors avoiding companies engaged in manufacturing of arms. The civil equalities movement led to setting up of community banks. The Three Mile Island incident of 1979, the Exxon Valdez oil spill in Alaska (1989), and other ecological catastrophes similarly encouraged individuals to avoid investing their money into those industries. As a form of SRI, investments in companies having business in South Africa were avoided globally during the apartheid regime.

The federal Securities Exchange Commission permitted social responsibility issues to appear on a proxy ballot in annual meeting of General Motors. Socially Responsible investing (SRI) in the USA became widely accepted during 1980s and 1990s. Domini Social Index was launched in 1990 and included 400 mostly large-capitalization U.S. companies. The index has been renamed as the MSCI KLD 400 Social Index[i]. It excludes companies engaged in businesses like Tobacco, Genetically Modified Organisms, Adult Entertainment, Nuclear Power, Gambling, Alcohol and Weapons.

The Glasgow Financial Alliance for Net Zero (GFANZ)[ii] setup in April 2021 is today the largest alliance of financial institutions committed to Net Zero targets. Net-Zero Asset Owner Alliance (NZAOA)[iii], a part of GFANZ, is a member-led initiative of asset owners and is convened by the United Nations Environment Programme and the PRI.

Global Sustainable Investment Alliance reported[iv] that globally USD $30.3 trillion is invested in sustainable assets. The investing under sustainable assets increased by 15% between 2018-20. This further increased by 20% since 2020 in non-US markets. It is to be noted that US changed its methodology and hence the sustainable assets reduced from 17t USD to 8.4t USD.

The sustainable assets managed(region wise)showed an increase in Japan and moderate increase in Australia. US, Canada, Australia and New Zealand changed their methodology and hence 2022 figures are not comparable to the earlier years

Table 1: Proportion of Global Sustainable Investing assets vs total managed assets

REGION	2014	2016	2018	2020	2022
Europe	59%	53%	49%	42%	38%
United States	18%	22%	26%	33%	13%
Canada	31%	38%	51%	62%	47%
Australia & New Zealand	17%	51%	63%	38%	43%
Japan		3%	18%	24%	34%

Source: GLOBAL SUSTAINABLE INVESTMENT REVIEW 2022

Comparing the distribution of global sustainable investment for each region, in 2020 with that in 2022 (Figure 3), it is seen that global share of Europe and Japan have seen a significant growth. The comparison for USA, Canada, Australia and New Zealand is not accurate due to change in assessment methodology.

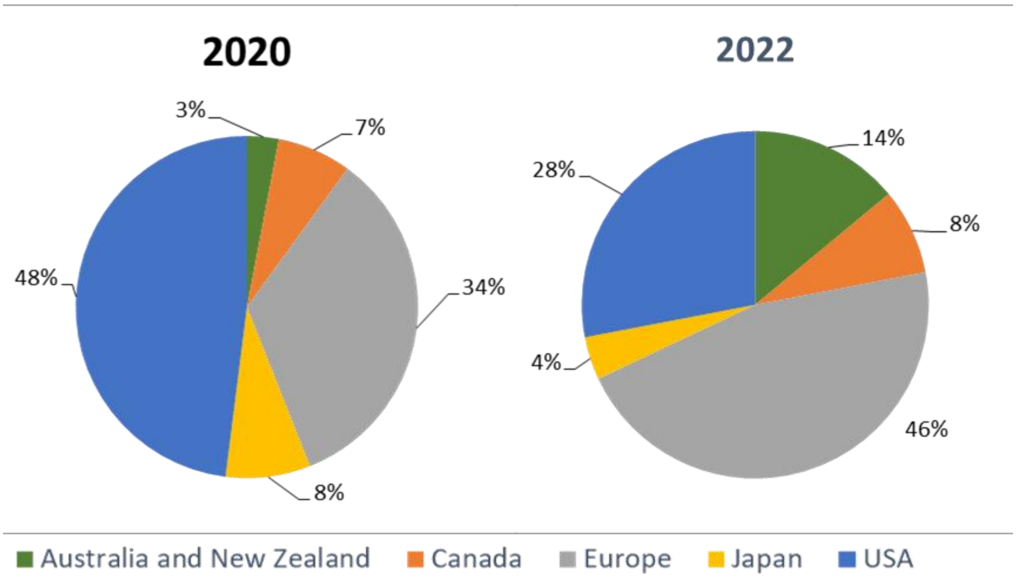

Figure 2: Percentage of sustainable investing assets by region

Source: GLOBAL SUSTAINABLE INVESTMENT REVIEW 2022 and 2020

In India, CRISIL analysed 586 companies[v] (CRISIL Sustainability Yearbook, 2022) and found that 20% of them published sustainability reports in 2021.

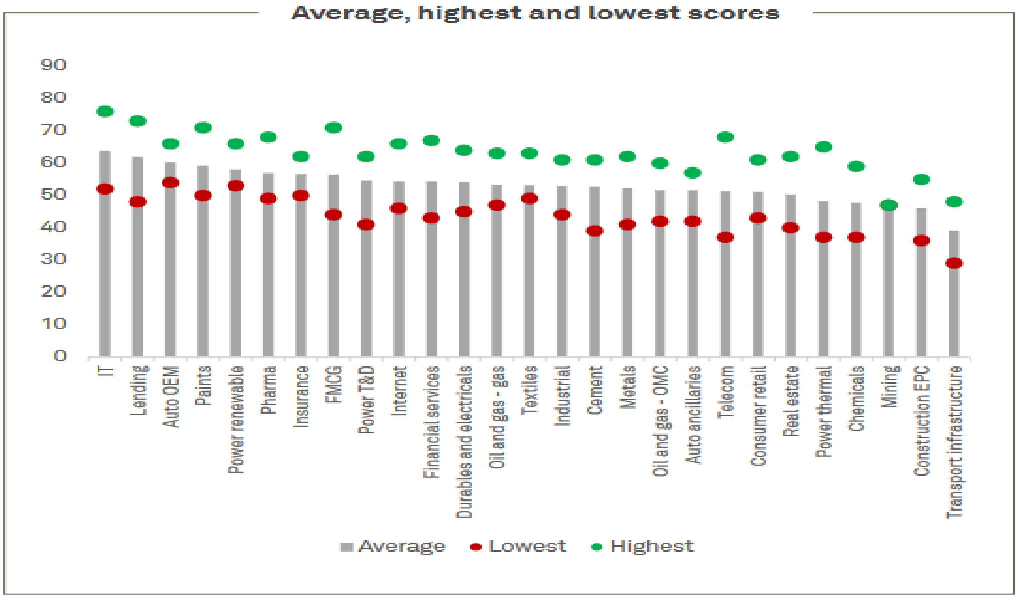

Figure 3: ESG Scores: Indian Sectoral Analysis

Source: CRISIL research

Large cap companies score higher than SMEs (Figure 4), but no significant difference is seen between Private and Public enterprises.

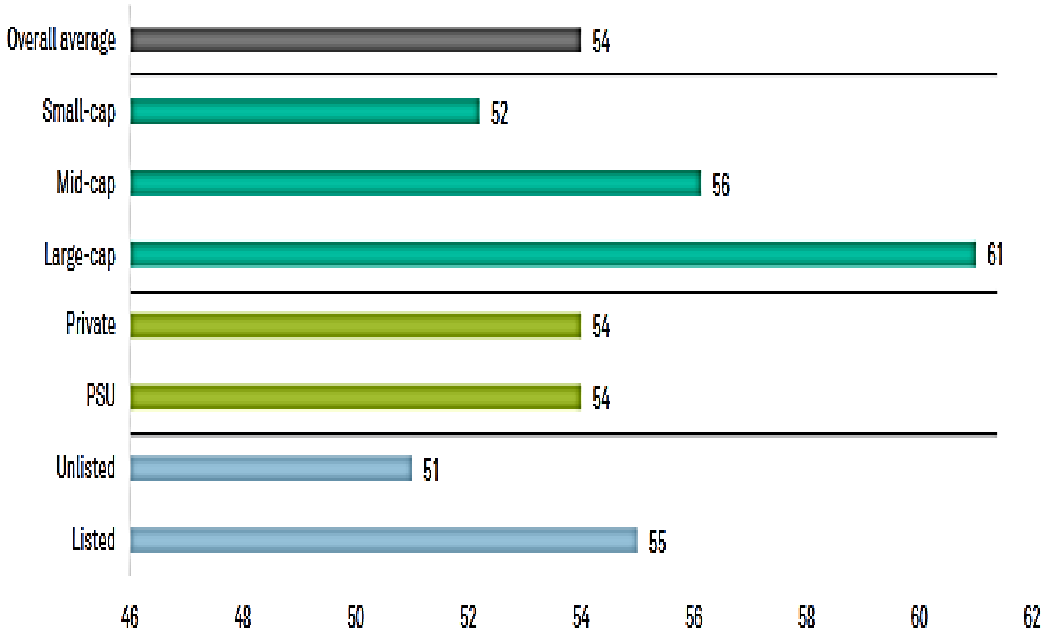

Figure 4: ESG Scores by Market Cap: Indian

Source: CRISIL Research

Environmental, Social and Governance (ESG)Factors

The ESG reporting is classified and measured by three pillars, Environmental, Social and Governance. Various factors considered by different countries and institutes in these pillars are listed below:

Table 2: Pillars of ESG Reporting

KEY FACTORS	**Environmental**	**Social**	**Governance**
	Carbon Emissions	Human rights	CSR Strategy
	Waste, Toxic emissions	Supply Chain Labour Conditions	ESG Reporting and Transparency
	Biodiversity and land use	Data Privacy	Board Structure (independence, diversity, committees)
	Environmental management systems	Diversity and Inclusion	Executive Compensation
	Product innovation	Development and Training	Tax Transparency
	Capex in Green R&D	Working Conditions	Legal and Regulatory Compliances
	Water Use and source	Workers Welfare Schemes	
	Energy Use and source	Health and Safety	
	Sustainable Packaging and Waste Management		
	Electronic Waste		

ESG: Financial Ecosystem

The ESG financial Ecosystem consists of the Issuers, regulators, rating agencies who provide ESG scores, corporates, fund managers and ultimately the end investors.(figure 5).

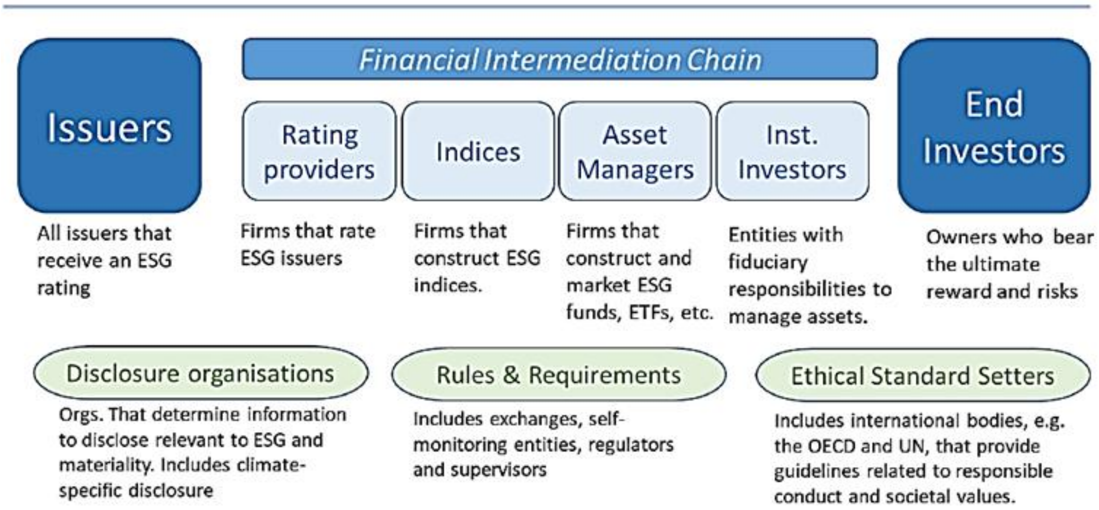

Figure 5: ESG Financial Ecosystem

Source: ESG Investing: Practices, Progress and Challenges, OECD 2020[vi]

Regulatory Drivers

The evolution of ESG (Environmental, Social, and Governance) frameworks globally has been marked by various key initiatives and regulations:

- **United Nations Principles for Responsible Investment (PRI)** (2006)[vii]: Introduced six principles promoting the integration of ESG factors into investment decisions, active ownership, ESG disclosures, and reporting on progress.
- **European Union (EU)**
  - **Sustainable Finance Action Plan (2018)**[viii] and **SFDR (2021)**[ix]: Established transparency in sustainable investment products, combating greenwashing, and mandatory ESG claims disclosure under European law.
  - **European Green Bonds Standard (2023)**[x]: Introduced uniform requirements for bonds labelled as European Green Bonds.
  - **Corporate Sustainability Reporting Directive (CSRD) (2023)**[xi]: Mandated ESG impact disclosures for large companies operating in Europe, aligned with SFDR and implemented through European Sustainability Reporting Standards (**ESRS**)[xii].
- **United States (US)**
  - **Climate Disclosure Act (2021)[xiii]**: Directed SEC to mandate annual climate risk disclosures.
  - In March 2022, the SEC proposed a new rule to standardize and enhance the ESG disclosure by listed companies[xiv].
  - **SEC ESG Rules (2024)[xv]**: Required companies to report climate-related risks and mitigation strategies, mandatory in annual reports starting 2025.
- **Japan**
  - **Green Growth Strategy (2020)[xvi]**: Aimed for carbon neutrality by 2050, with action plans for 14 sectors, including energy and manufacturing.
- **International Standards**
  - **IFRS Sustainability Standards (2023)**[xvii]: Introduced IFRS S1 (general sustainability disclosure requirements) and IFRS S2 (climate-specific disclosures), aligned with TCFD standards.

- **India**
  - **Business Responsibility and Sustainability Report (BRSR)**[xviii]: Mandatory for the top 1000 listed companies from April 2022, gradually transitioning to **BRSR Core**[xix] reporting by FY 2026-27.

These initiatives underscore global efforts to standardize ESG reporting, enhance transparency, and promote sustainable investment practices across diverse regions and sectors.

Global Sustainability Frameworks

Varying frameworks for addressing ESG indicators have been issued by different organisations. The frameworks like GRI, CDP, SASB, TCFD, and WDI are most widely used.

The Global Reporting Initiative (GRI)[xx]is one of the widely used frameworks. It was set up in 1997 in Boston, USA, after the Exxon Valdez oil spill. GRI aims to provide a framework for companies to report their responsible environmental business practices.

The Carbon Disclosure Project (CDP) setup in 2000, established an environmental disclosure program in 2002.There are now companies, cities, states and regions from over 90 countries that disclose to CDP.[xxi]

In 2011, the Sustainability Accounting Standards Board (SASB) was set up. The goal for SASB framework is to allow investors to compare performance on critical social and environmental issues. SASB is different from other frameworks since it focuses on information that is defined per industry. These frameworks are available for 77 industries as of Aug 2022[xxii].

The Taskforce on Climate-related Financial Disclosures (TCFD) 2015, was founded by Michael Bloomberg. In 2021, it reported more than 2600 supporters and 8 countries aligned to TCFD reporting requirements, with assets of USD 194 trillion[xxiii].

In India, Securities Exchange Board of India (SEBI) has issued directives for disclosure under BRSR from 2022. A summary of nine principles of BRSR is given below.

Figure 6: Nine Principles of BRSR

Rating Agencies

ESG Rating Agencies analyse the ESG performance of a company to arrive at an ESG score or rating, benchmarking them against global ESG targets. Sustainalytics provides ESG ratings on more than 20,000 companies across 172 countries. MSCI rates 8,500 companies and 14,000 issuers including subsidiaries. Bloomberg ESG Disclosures Scores provides ratings for more than 15,000 companies across over 100 countries covering more than 94% of global market capitalisation. FTSE Russell's ESG Ratings rate more than 8,000 securities over 47 countries.

Other agencies include S&P Global ESG Scores, CDP Scores, Institutional Shareholder Services (ISS) ESG Ratings, Refinitiv and Thomson Reuters

ESG ratings are non-financial instruments and therefore are not regulated so far. The challenges in providing an ESG rating include the quality of the raw data based on corporate disclosures and lack of transparency in the process of arriving at an ESG rating.

Current status of ESG Investing

The total assets under ESG Investing exceed USD 30.3 Trillion in 2022 as per Global Sustainable Investment Review 2022 (Table 4)

Table 3: Global Assets under Management (USD billions)

Region	2016	2018	2020	2022
Europe	12,040	14,075	12,017	14,054
United States	8,723	11,995	17,081	8,400*
Canada	1,086	1,699	2,423	2,358
Australasia	516	734	906	1,220*
Japan	474	2,180	2,874	4,289
Total (USD billions)	22,839	30,683	35,301	

Source: GLOBAL SUSTAINABLE INVESTMENT REVIEW 2022

** USA, Canada, Australia and New Zealand changed the methodology of sustainability assessment and hence 2022 figures cannot be correlated to the 2020 figures.*

The proportion of ESG Assets compared to total assets under management (AUM) is growing in Canada, US and Japan. The reduced numbers in Australasia and Europe reflect the change in definitions of ESG assets due to the recent regulations (Table 1)

According to a 2019 BNP survey of institutional investors and asset managers, more than half aimed to incorporate ESG practices to achieve better long-term returns, while 47% were driven by the desire to enhance brand image and firm reputation. Fewer than 30% cited altruistic motives or product diversification as reasons for adopting ESG.

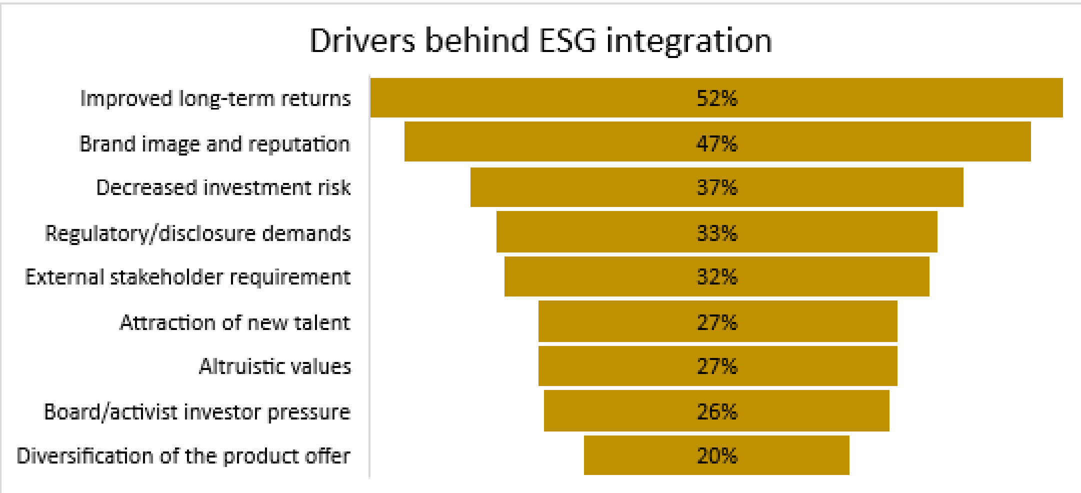

Figure 7: Drivers behind ESG Integration

Source: THE ESG GLOBAL SURVEY 2019, BNP Paribas

A study by Morgan Stanley in 2020 analysed 110 assets management entities[xxiv] in 2020, with 92% of them having assets over USD 1 billion. While 78% of the investors agreed that sustainable investing is a risk mitigation strategy, nearly 57% responded that they would only allocate investments to ESG in future. 31% of the asset managers reported that they do not have right tools for assessing ESG investments.

Data Analysis: Performance of ESG Funds

To analyse the impact of ESG investing on the performance of mutual funds, the study analyses the performance of top ESG and non ESG funds in USA and India.

Analysis of ESG and Non ESG Funds in USA

Performance of top eight ESG funds in the USA, with (non ESG) S&P 500 index over 4 years (Aug 2020 to Aug 2024) is analysed.

Table 4: Analysis of ESG Funds

FUND	Assets USD	start date	CAGR Aug 20-Aug 24	Portfolio Sustainability Score	Sustainability rating	Environment Risk Score	Social Risk Score	Governance Risk Score
Vanguard FTSE Social Index Fund (VFTAX)	21.72B	07/02/2019	12%	21		2.8	10.2	7.8
iShares MSCI USA ESG Select ETF (SUSA)	3.72B	24/01/2005	12%	18.5		3.52	8.67	6.62
Parnassus Core Equity Fund (PRBLX)	30.84B	31/08/1992	5%	20		3.6	9.6	6.8
iShares Global Clean Energy ETF (ICLN)	2.2B	24/06/2008	-4%	21		6.37	7.99	6.32
Shelton Sustainable Equity Investor (NEXTX)	109.44M	12/03/2013	2%	21		3.49	6.33	5.53
1919 Socially Responsive Balanced A (SSIAX)	884.88M	06/11/1992	7%	21		2.5	9.9	7.3
AB Sustainable Global Thematic Advisor (ATEYX)	1.93B	01/10/1996	3%	21		3	8.3	6.3

Source: Data from Yahoo Finance and Fund portals

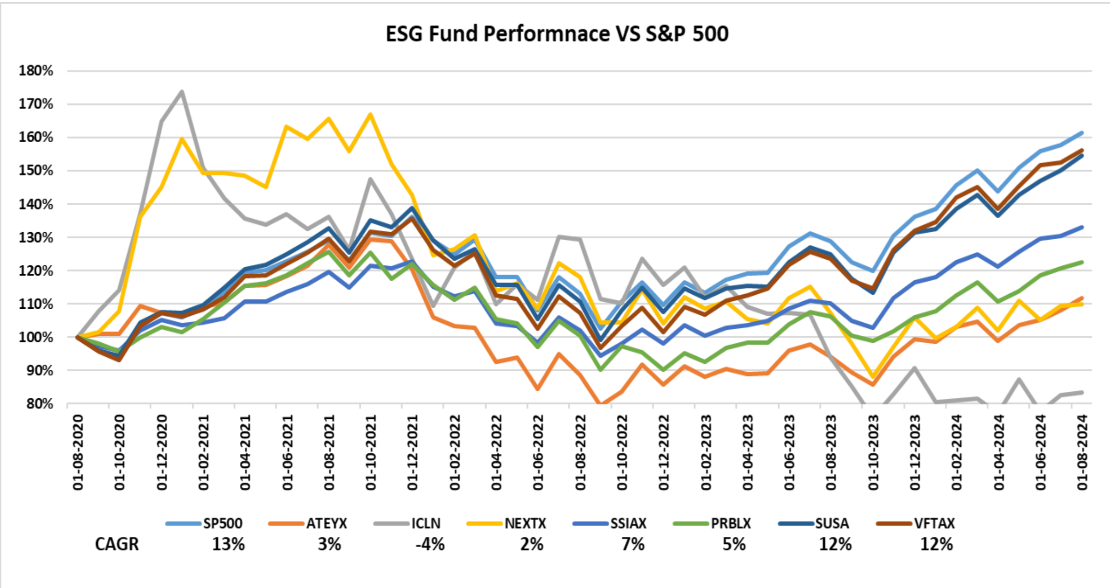

Figure 8: ESG Fund performance compared to S&P500 index

A time-series dataset covering 49 months (August 2020 to August 2024) has been analysed to evaluate trends and relationships between the **SP500** index and other related indices or funds (**ATEYX**, **ICLN**, **NEXTX**, **SSIAX**, **PRBLX**, **SUSA**, **VFTAX**). Key descriptive statistics and correlations are summarized below.

- **SP500**
  - The **SP500** index exhibits an average normalized value of 1.23 (SD = 0.16), with values ranging from 0.93 (September 2020) to 1.61 (August 2024).
  - Growth is consistent over time, with a sharp increase observed post-2023.
- **ATEYX**
  - The mean normalized value for **ATEYX** is 1.02 (SD = 0.12), with values ranging from 0.80 to 1.29.
  - The correlation with **SP500** is moderate (r = 0.30), suggesting a weaker direct relationship.
- **ICLN**
  - **ICLN** shows the widest variation (SD = 0.24) and a mean of 1.14, ranging from 0.76 to 1.74.
  - Interestingly, it has a negative correlation with **SP500** (r = -0.54), indicating an inverse trend.
- **NEXTX**
  - The mean normalized value for **NEXTX** is 1.21 (SD = 0.22), ranging from 0.88 to 1.67.
  - Its correlation with **SP500** is negligible (r = -0.09), suggesting independence in movement.
- **SSIAX**
  - **SSIAX** demonstrates a strong positive correlation with **SP500** (r = 0.94), indicating similar trends over time.
  - The mean value is 1.10 (SD = 0.10), ranging from 0.95 to 1.33.
- **PRBLX**
  - The normalized values for **PRBLX** have a mean of 1.07 (SD = 0.10), ranging from 0.90 to 1.26.
  - A moderate positive correlation with **SP500** is observed (r = 0.69).
- **SUSA**
  - **SUSA** shows a mean of 1.21 (SD = 0.14) with a strong correlation with **SP500** (r = 0.98), aligning closely in trend.
- **VFTAX**
  - With a mean of 1.20 (SD = 0.16), **VFTAX** shows the highest correlation with **SP500** (r = 0.99), almost mirroring its behaviour.

The analysis revealed strong positive correlations between **SP500** and indices such as **VFTAX** (r = 0.99), **SUSA** (r = 0.98), and **SSIAX** (r = 0.94). These findings suggest that these indices or funds align closely with the overall market represented by **SP500**.In contrast, **ICLN** exhibited an inverse relationship with **SP500** (r = -0.54), indicating that clean energy trends might be moving counter to broader market dynamics. Similarly, **NEXTX** showed limited alignment with **SP500**, suggesting independent performance drivers.

This study underscores the interconnectedness of financial indices and funds with broader market performance. The strong correlations observed reinforce the role of indices like **VFTAX** and **SUSA** in tracking market movements, while the divergence of **ICLN** offers avenues for further exploration.

Of the funds analysed, none of the funds beat the performance of S&P500 over this period, though VFTAX and SUSA give comparable returns. Comparing the CAGR over this period, an investor in ICLN is losing money by 17%, while investors in ATEYX and NEXTX lose money by 10% compared to if they had invested in SP500 index fund.

Table 5: CAGR: USA ESG Mutual Funds and S&P500 (2020-2024)

S&P500	ATEYX	ICLN	NEXTX	SSIAX	PRBLX	SUSA	VFTAX
13%	3%	-4%	2%	7%	5%	12%	12%

Analysing the correlation between the ESG funds and S&P500 index, a high degree of correlation is reported for VFTAX, SSIAX and SUSA.

Table 6: Correlation between S&P500 and USA ESG Funds

Fund	Correlation with S&P 500
ATEYX	0.30
ICLN	-0.54
NEXTX	-0.09
SSIAX	0.94
PRBLX	0.68
SUSA	0.98
VFTAX	0.99

Analysis of ESG and Non ESG Funds in INDIA

A similar analysis of ESG funds in India has also been carried out in this study. ESG funds that have been active for over four years and have a start date before 1 August 2020, have been analysed compared to NIFTY Index.

Table 7: Analysis of ESG Funds in India

FUND	Assets INR (Cr)	CAGR 2yr	start date	Portfolio Sustainability Score	Sustainability rating	Environment Risk Score	Social Risk Score	Governance Risk Score
SBI Magnum Equity ESG Fund	4,085	26%	01-01-2013	25		4.6	9.8	9.1
Quantum India ESG Equity Fund	78	25%	12-07-2019	26				
Axis ESG Equity Fund	1,638	20%	12-02-2020	24		3.2	8.8	8
Nifty 50		24%						

Source: Yahoo Finance and Fund Portals

The performance of ESG funds has been benchmarked against Nifty Index over four years (Aug 2020 to Aug 2024).

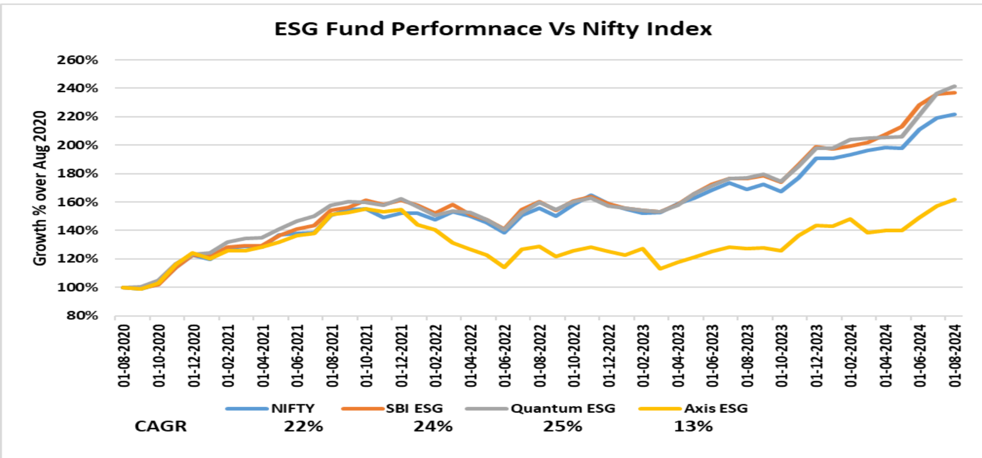

Figure 9: ESG Fund Performance Vs Nifty Index.

Source: Yahoo Finance and Fund Portals

A time-series analysis has been conducted to evaluate the trends and relationships among four indices: **NIFTY 50**, **SBI ESG**, **QUANTUM ESG**, and **AXIS ESG**, spanning from August 2020 to August 2024. All indices are represented as percentages relative to their respective baselines. Key descriptive findings and correlations are summarized below.

- **Index NIFTY 50**
  - The index **NIFTY 50** shows a consistent upward trend over the observation period, starting at 100% in August 2020 and reaching 222% in August 2024.
  - Initial growth from 2020 through 2021 appears gradual, while post-2022 growth is more rapid, highlighting a potential structural shift in the data.
- **Index SBI ESG**
  - A highly correlated index, **SBI ESG**, exhibits trends closely mirroring **NIFTY 50** ($r = 0.996$, $p < .001$). This strong positive correlation suggests that changes in **SBI ESG** are almost directly proportional to those in **NIFTY 50**.
  - The growth trajectory of **SBI ESG** also reflects an increasing trend, with values rising from 100% to 237% over the same period.
- **Index QUANTUM ESG**
  - The index **QUANTUM ESG** demonstrates a strong correlation with **NIFTY 50** ($r = 0.993$, $p < .001$). Both indices follow a similar trend, with **QUANTUM ESG** increasing from 100% to 242% by August 2024.
  - The trajectory indicates that **QUANTUM ESG** aligns consistently with both **NIFTY 50** and **SBI ESG**, implying strong interdependence across the dataset.
- **Index AXIS ESG**
  - Index **AXIS ESG** displays a weaker correlation with **NIFTY 50** compared to the other indices ($r = 0.666$, $p < .001$). While **AXIS ESG** also exhibits an upward trend (100% to 162%), it fluctuates more prominently in the early period (2020–2022), reflecting potential external influences.
  - The divergence from **NIFTY 50**, **SBI ESG**, and **QUANTUM ESG** suggests that **AXIS ESG** might capture additional, unrelated dimensions of the observed phenomenon.
  - The findings reveal significant positive correlations between **NIFTY 50** and **SBI ESG** and **QUANTUM ESG**, underscoring a shared trend among these indicators. Both **SBI ESG** and **QUANTUM ESG** nearly replicate the behaviour of **NIFTY 50**, suggesting their roles as co-dependent or derivative variables within the system. However, **AXIS ESG** shows weaker alignment, indicating a potentially distinct function or variability driven by unique factors.

The visual trends further support the correlation findings (Table 9). **NIFTY 50**, **SBI ESG**, and **QUANTUM ESG** steadily rise in tandem with minimal deviation, whereas **AXIS ESG** exhibits irregular movements, especially in the earlier years of observation.

Table 8: ESG Fund Correlation with Nifty Index

Fund	Correlation with Nifty
SBI Magnum ESG	1.00
Quantum ESG	0.99
Axis ESG	0.67

Analysis of ESG and Non ESG Funds in India: Portfolio Holdings

Further an analysis is done of the top 10 holdings of the Indian ESG funds under study and mapped with the ESG ratings of the stocks they hold. The ESG ratings are sourced from Sustainalytics and total ESG score of top 10 holdings is compared. Additionally, comparison is made with Non ESG finds from the same Mutual fund provider.

Table 9: Stock Holdings ESG Funds and Non-ESG Funds

Mutual Fund	Is It ESG Fund	ESG RISK				TOTAL ESG SCORE
		Negligible	Low	Medium	High	
Axis ESG Integration Strategy	Yes		2	6	2	236.6
SBI ESG Exclusionary Strategy	Yes		4	4	2	230.7
Quantum India ESG Equity	Yes	1	5	4		194.5
Axis Blue-chip	No	-	4	3	3	234.90
SBI Blue-chip	No	-	3	5	2	245.10
Quantum Long Term Equity Value	No	-	6	4		183.00

Both Axis and SBI ESG Mutual funds have a high ESG score for the top 10 holdings and have 2 stocks each rated High ESG Risk by Sustainalytics. Quantum ESG fund has significantly lower total ESG score and has more companies with lower risks, with none in the high-risk category.

Since the performance of Quantum ESG has been close to Nifty, it can be seen that it is possible to have good returns by choosing and managing the ESG relevant portfolio carefully.

Comparing the stock selection and ESG ratings for ESG and non-ESG funds from the same provider, it is seen that there is no significant difference in stock selection and ESG scores. The small difference in selection of the stocks ESG and non ESG funds highlights the regulatory gap in qualifying a mutual fund as ESG compliant. This shows that ESG investing is not having a major effect on the financial performance of the funds. This was also brought out by an analysis of over 20,000 funds categorised as ESG funds by Mourning star (Hartzmark& Sussman, 2019) which found that no fund with a high sustainability ranking was able to exceed the performance of the funds with low sustainability ranking.

(Raghunandan & Rajgopal, 2021)have analysed the holdings of 147 funds listed by Morningstar as ESG funds. They compare these funds with 2,428 non-ESG portfolios over the period of 2010 to 2018. The study finds that companies included in the portfolio of the ESG fund exhibit a worse record in labour and environmental compliances as compared to the companies in Non ESG portfolios.

Challenges In ESG Investing

A lack of a uniform worldwide standard to develop ESG scores is a hindrance to recognition of companies that perform well in ESG. Different stock exchanges and regulators specify different reporting frameworks.

Sustainable Stock Exchange Initiative[xxv] reports on performance of 122 stock exchanges globally consisting of 64,403 companies and nearly USD 125 trillion of capitalisation (as on 11 Oct 2024).

Table 10: Stock Exchanges ESG Performance (as on 11 oct 2024). Source: Sustainable Stock Exchange Initiative

Requirement	Stock Exchanges	Companies	Market Cap (trillion USD)
Has annual sustainability report	61	47,231	112.7
ESG reporting required as a listing rule	38	24,703	31.5
Has written guidance on ESG reporting	73	49,958	118.8
Total Exchanges covered	122	64,403	124.9

Table 11: Reporting frameworks referenced in stock exchange ESG guidance

Global Reporting Initiative (GRI)	96%
Sustainability Accounting Standards Board (SASB)	82%
International Integrated Reporting Council (IIRC)	75%
Carbon Disclosure Project (CDP)	71%
Task Force on Climate-related Financial Disclosures (TCFD)	67%
Climate Disclosure Standards Board (CDSB)	34%

Source: Sustainable Stock Exchange

The organisations also follow different reporting frameworks. KPMG reports[xxvi] that 96% of top 250 global companies report on sustainability in 2022. The major frameworks followed are the GRI, frameworks defined by stock exchanges (eg. BRSR) and SASB.

The OECD published the Global Corporate Sustainability Report 2024 highlighting that in 2022, out of 43,970 listed companies globally (market capitalization USD 98t), almost 9,600(market capitalization USD 85t) disclosed sustainability-related information. In the same year, 6,308 companies which represent 77% of market capitalization made disclosures on scope 1 and 2 GHG emissions.

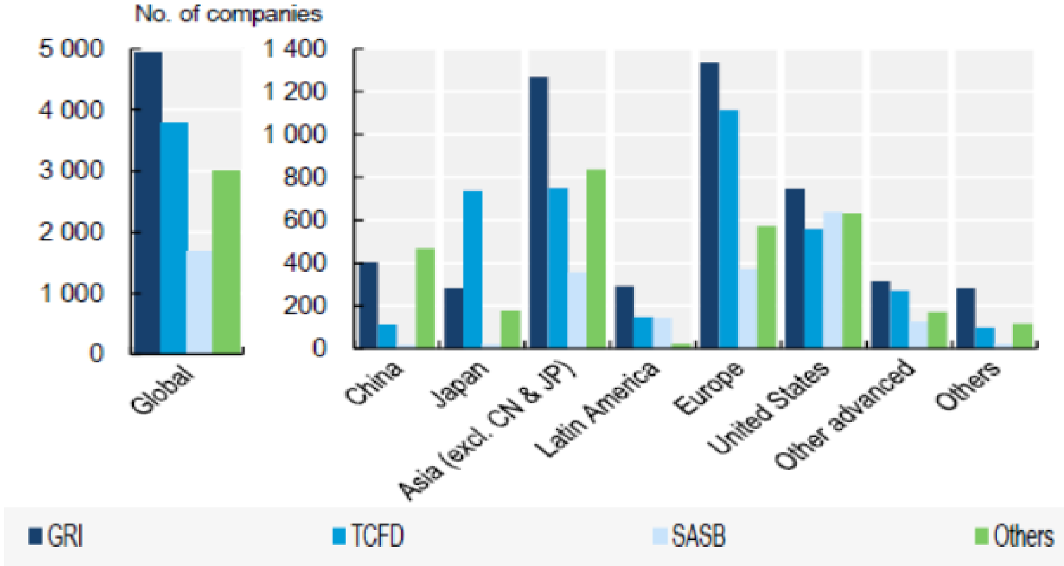

Figure 10: Reporting Standards followed by Companies-OECD Global Corporate Sustainability Report 2024

An analysis by Statista[xxvii], reports that most stock exchanges refer to GRI for their reporting framework

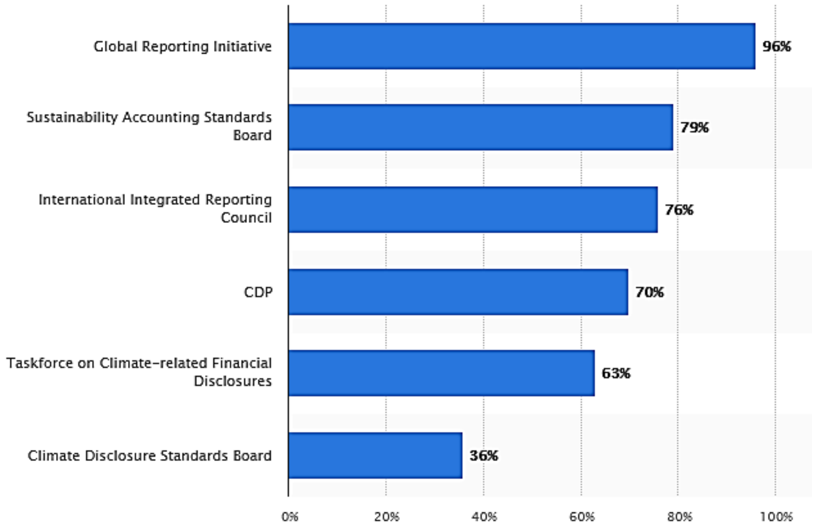

Figure 11: Share of reporting frameworks referenced in stock exchange, Statista 2024

The European Union published a report on SFDR assessment in May 2024[xxviii], covering the period from September to December 2023. 89% of the respondents felt that sustainability disclosures are relevant. However, 77% of the respondent reported lack of legal clarity and found limited relevance of some of the disclosures. In addition, they expressed concerns on availability of data.

There is no regulation for ESG ratings and rating agencies use their own methodologies and requirements for scoring. Different methodologies create discrepancies in different rating reports and the ratings depend on metrics that are included, the weight for each factor as well as the quality of disclosures by the companies.

An example of wide disparities in ESG ratings for the same company by different rating agencies is highlighted in the figure below.

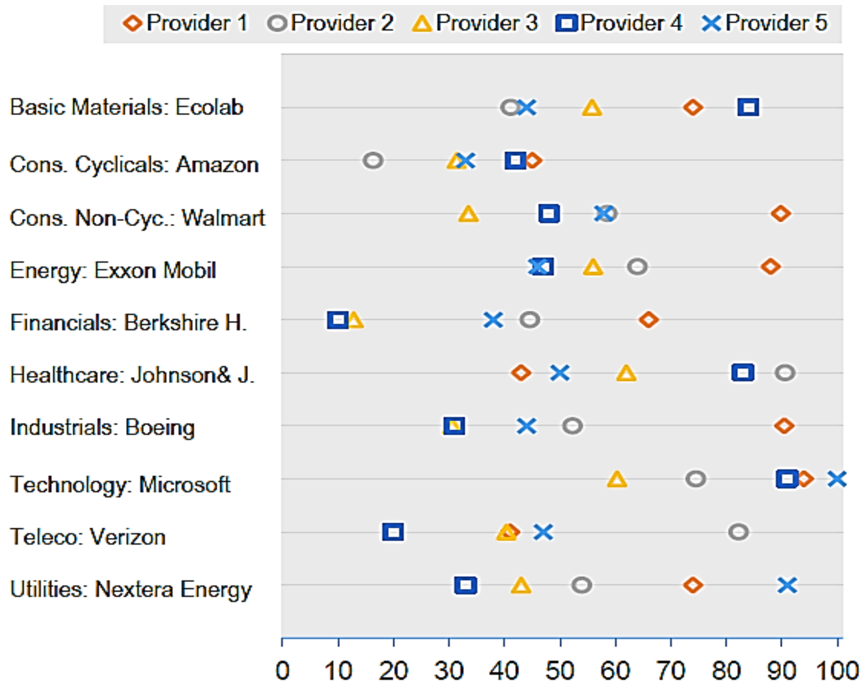

Figure 12: ESG Scores by different rating agencies.

Source: ESG INVESTING: PRACTICES, PROGRESS AND CHALLENGES © OECD 2020

A 2021 report by CFA Institute[xxix] highlighted the low correlation between the ratings given by different provides.

	MSCI	S&P	Sustainalytics	CDP	ISS	Bloomberg
MSCI		35.7%	35.1%	16.3%	33.0%	37.4%
S&P	35.7%		64.5%	35.0%	13.9%	74.4%
Sustainalytics	35.1%	64.5%		29.3%	21.7%	58.4%
CDP	16.3%	35.0%	29.3%		7.0%	44.1%
ISS	33.0%	13.9%	21.7%	7.0%		21.3%
Bloomberg	37.4%	74.4%	58.4%	44.1%	21.3%	

Figure 13 ESG Ratings Comparison: Correlations

Source: ESG Ratings: Navigating Through the Haze, CFA institute 2021

It is also challenging for corporations to provide a coherent position regarding their ESG initiatives. According to a study conducted by Workiva (ESG Reporting Global Insights 2022)[xxx],63% of the decision makers responded that they do not feel ready to conform to the ESG reporting guidelines set by their organization and by external regulators. There are both technical and financial barriers to producing a proper ESG report for organizations.

The practice of greenwashing has raised concerns in the ESG industry and amongst fund managers. InfluenceMap (2021)[xxxi]studied 723 equity funds amounting to over USD 330 billion net assets which use the terms ESG and climate in their marketing. It found that among the broad ESG category, 71% of funds have in their portfolios firms that invest in activities that do not align with the global climate goals. In the climate-themed fund category, 72 out of 130 funds are found not be aligned with Paris Climate agreement.

Conclusion and Suggestions

An investor looking to invest in an ESG stock or fund faces numerous challenges. A uniformly accepted guideline or standard on what would qualify a company or a fund as ESG complaint is not available. Since the definition of ESG fund or company is not clear, an investor cannot compare the performance of ESG and non ESG investments. Seven common myths regarding ESG were explored by Larcker et al., in 2022. They found that there is little agreement on what constitutes ESG and what would be solved by investing in ESG funds and companies. They also found that no correlation exists between ESG rating and performance.

(Berg et al., 2021) analyse ESG scores given by eight ESG rating agencies. They find that there is low correlation between ESG scores given by different agencies (Figure 14)

	MSCI	ISS	RepRisk	TVL	Vigeo-Eiris	SP Global	Refinitiv
North America							
MSCI	1						
ISS	0.42	1					
RepRisk	-0.09	-0.33	1				
TVL	0.23	0.14	0.10	1			
Vigeo-Eiris	0.44	0.68	-0.39	0.12	1		
SP Global	0.39	0.57	-0.40	0.09	0.67	1	
Refinitiv	0.40	0.63	-0.45	0.10	0.70	0.65	1
Sustainalytics	0.24	0.14	0.06	-0.03	0.12	0.12	0.21

Figure 14: Correlation between ESG Scoresby Different Rating Agencies

Morningstar studied the expenses related to funds in 2020 and found that ESG funds have an average expense (asset weighted) at 0.61% compared to non ESG funds at 0.41%. A higher expense is likely to discourage investors into investing in such funds.

In recognition of the challenges faced in ESG investing, stakeholders are streamlining the ecosystem by bring new regulations and standards. ESG reporting has been made mandatory across many jurisdictions and ratings are being standardized. The report in June 2021 by the International Organization of Securities Commissions (IOSCO)[xxxii]has given suggestions on how to regulate the ESG market and standardize ratings

OECD reports[xxxiii] that companies representing 86% of total global market capitalisation disclose sustainability data while 77% report scope 1 and scope 2 GHG emissions in 2022.

However, ESG investing is projected to increase significantly in the future. By 2025 it is expected that about 33% of all global assets under management would have ESG mandates[xxxiv].Bloomberg[xxxv] reports that Global ESG investments exceeded USD 30 trillion in 2022 and are expected to be more that USD 40 trillion by 2030.

The future of ESG investing is poised for transformative growth, driven by evolving regulations, increasing stakeholder expectations, and technological advancements. Global regulatory frameworks signal a shift toward standardized and transparent ESG reporting. These developments are expected to reduce greenwashing and foster trust in sustainable investment products.

Technological innovations, including artificial intelligence and blockchain, will further enhance ESG data accuracy, enabling investors to make more informed decisions. Additionally, a generational shift in investor priorities, with millennials and Gen Z favouring sustainable investments, is likely to amplify the demand for ESG-aligned portfolios.

While ESG integration is largely driven by its potential to improve long-term financial performance and mitigate risks, future trends suggest a deeper emphasis on addressing global challenges such as climate change, biodiversity loss, and social inequities. The alignment of ESG practices with international frameworks like the UN Sustainable Development Goals (SDGs) will further solidify its role as a cornerstone of responsible investing.

As ESG becomes a mainstream consideration, the focus will likely expand beyond risk management to include value creation, making it a critical component of investment strategies in the years to come.

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