

A COMPARATIVE STUDY OF INVESTMENT IN ESG AND ANTI ESG FUNDS

Soni Mitali, *Research Scholar, Faculty of Management Studies,*

Email: Sonimitali77@gmail.com

Dr. Deepak Kumar, *Assistant Professor, Commerce Department, Manyawar Kanshiram Govt.*

Degree College, Email: drdeepak.mkrge@gmail.com

Dikshita Thakkar, *Research Scholar, Netaji Subhas University of Technology,*

Email: thakkardikshita2107@gmail.com

ABSTRACT

In the realm of investment, Environmental, Social, and Governance (ESG) criteria have gained prominence as critical factors influencing investment decisions. ESG-focused funds invest in companies that demonstrate strong practices in environmental sustainability, social responsibility, and sound governance. Conversely, Anti-ESG funds may invest in companies that do not prioritize or align with these principles. The research process here involves a Literature Review and Data Collection on ESG investing and Anti-ESG strategies, followed by the Selection of Investment Portfolios for a well-rounded analysis. Secondly, there is a Performance Analysis of the portfolios, Risk Assessment, and Stakeholder opinion. Further, Statistical Analysis and Sensitivity Analysis are used to draw meaningful Conclusions and Recommendations for investors.

Keywords: ESG funds, Anti-ESG funds, Long-Term Value Creation, Risk Management, Risk-Return Optimization, Sensitivity Analysis

INTRODUCTION

In the current dynamic investment landscape, Environmental, Social, and Governance (ESG) criteria have emerged as transformative factors, compelling investors to reconsider their capital allocation strategies (Kraik, A. T., 2019). To generate both robust financial returns and a beneficial societal effect, ESG funds direct investments towards firms that prioritize environmental sustainability, social responsibility, and sound governance (Panagopoulos & Tzionas, 2023). According to CRISIL (2022), these funds prioritize enterprises that engage in sustainable energy consumption, advance social fairness by implementing fair labor standards, and possess robust governance frameworks, including ethical leadership and transparent reporting. The objective is to achieve a harmonious equilibrium between financial prosperity and ethical corporate conduct; therefore, promoting significant long-term value generation for both investors and society (Sharma & Talwar, 2005). In contrast, Anti-ESG funds are motivated only by the desire for financial gains, frequently

allocating their investments to sectors that ESG funds steer clear of, such as fossil fuels, tobacco, and defense (Economy, U. S. Environmental, Social, and Governance (ESG) Scores). These funds prioritize conventional financial indicators, deliberately investing in industries characterized by consistent demand, high profitability, and robust cash flows, irrespective of their environmental or social consequences (Kumar et al., 2016). The increasing preference of investors for ESG-focused strategies may lead to the undervaluation of some sectors, therefore presenting Anti-ESG funds with potential to exploit these dynamics (Bengtsson, 2008). Although ESG funds prioritize the mitigation of risks associated with climate change, labor conflicts, or inadequate corporate governance, Anti-ESG funds adopt a distinct approach of increasing short-term financial profits, frequently to the detriment of long-term sustainability. For ESG investors, financial returns are of paramount importance, but as vital is the influence of their investment on the environment and society (Chen et al., 2023).

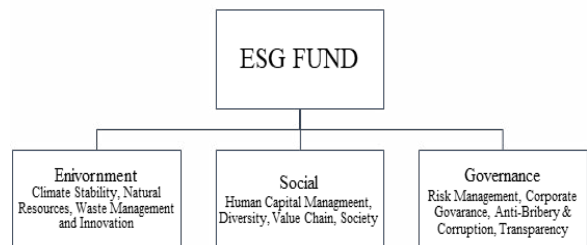
Anti-ESG investors prioritize profitability above all else, even dealing with industries that may be exposed to long-term legal and reputational issues (Maso, A., 2024). As the practice of ESG investing continues to transform the financial markets, the conflict between these two strategies indicates a more profound philosophical change (Fulton et al., 2012). Contemporary investors are facing growing inquiries regarding not just the potential financial gains, but also the methods by which those gains are generated, as well as the wider implications their investments may have on society (Lourenço & Branco, 2013). A

comprehensive grasp of the trade-offs and goals of both ESG and Anti-ESG funds is crucial for making well-informed investing choices based on specific beliefs (Lourenço & Branco, 2013).

FACTORS ATTAINED AFTER INVESTMENT IN ESG FUND

Harsha Upadhyaya, CIO at Kotak AMC, has stated that starting from October 1, 2023, it will be compulsory for any new investments in this specific fund to be made only in companies that include Business Responsibility and Sustainability (BRSR) reports in their annual reports. As the conditions become more rigorous and the emphasis on ESG continues to grow, this should benefit investors due to the increased regulatory oversight on the focus of the ESG theme. Various factors are involved behind the ESG fund that various governments have targeted to achieve.

Figure 1: Factors attained after the implementation of ESG fund investments



Sources: <https://www.worldbank.org/en/news/feature/2013/06/19/india-climate-change-impacts>

LITERATURE REVIEW

Recent studies on ESG funds and ESG investing

revealed a complex scenario with mixed findings. A few studies strongly supported ESG funds or non-ESG funds, while other studies showed no statistically significant performance difference between the two investment options (Milonas et al., 2022). The literature in the studies discussed the various aspects of ESG investing, including investor behavior, risk mitigation, portfolio screening, and performance management of the firms (Kapil & Rawal, 2023). While ESG funds have gained traction with powerful bodies like the EU and the UK, making it compulsory, the Anti-ESG investment trend has also risen, criticizing ESG disclosure as potentially superficial and failing to address core ethical issues (Hu, 2024).

According to the research conducted by Chowdhury and colleagues (2022), the COVID-19 epidemic has caused significant disruptions to the worldwide economy, resulting in instability in financial markets and presenting difficulties for investors, which inspired the stakeholders to take sustainability more seriously (Daugaard, 2019). The Global Sustainable Investment Alliance (GSIA, 2014) has demonstrated that sustainability parameters like ESG ratings, which assess a company's environmental, social, and governance aspects, may effectively mitigate the information asymmetry in financial markets and may help investors include sustainability as an important factor in investment decision-making. As these ratings indicate a company's dedication to improving social well-being and creating sustainable prosperity for stakeholders (Mohammad & Wasiuzzaman, 2021), Lourenço and Branco (2013) contend that ESG considerations are crucial for socially

responsible investments, particularly in producing advantageous long-term economic outcomes. As Johann (2022) proposes, during moments of volatility, ESG factors become a crucial measure of financial health. ESG investments are highly valued by investors due to their ability to promote ethical activities and improve portfolio performance (Galbreath et al., 2014). Although the worldwide growth of sustainable investing is decelerating in several emerging nations (Nair and Ladha, 2014), ESG-focused funds are drawing significant investors in India (CRISIL, 2022). ESG criteria enable investors to evaluate risks and identify development prospects (CFA, 2022). Recent studies have examined the performance and resilience of ESG funds compared to conventional funds. Milonas et al. (2022) found no statistically significant difference in performance between ESG and non-ESG funds, although ESG funds showed slightly higher returns.

Capotă et al. (2022) observed that ESG funds exhibit a weaker flow-performance relationship, suggesting greater resilience during market turmoil and potentially reflecting investors' longer-term horizons. This stability may contribute to financial stability and support the green transition. Li et al. (2023) investigated ESG spillovers in mutual fund families, finding that non-ESG funds co-managed with ESG funds increased their holdings of high ESG stocks and demonstrated superior performance among these stocks. However, despite being less constrained, co-managed non-ESG funds underperformed their ESG counterparts. The study also identified potential mechanisms for shifting

performance from non-ESG to ESG funds, including preferential trading of illiquid stocks and IPO allocations. The study conducted by Bannier et al. (2019) showed that increased ESG ratings positively mitigate corporate risk, therefore providing shareholders with protective attributes. Scholarly investigations on the influence of ESG reporting, particularly in developing economies, are growing. Research conducted in Korea (Park, 2017), China (Xiong, 2021), and Europe (Verheyden et al., 2016; Lööf et al., 2022) empirically validates the beneficial impact of ESG factors on financial performance, especially in times of market upheaval such as the COVID-19 epidemic. The investment field thus acknowledges the need for more empirical studies to cover the theoretical and real-world application differences, especially in balancing between the long-term and short-term ESG practices (Hu, 2024). Thus, this paper investigates the impact of environmental, social, and governance (E, S, and G) factors on shareholder wealth in India. It specifically focuses on the investors' decision to choose between ESG funds and Anti-ESG funds. The study builds upon a fragmented body of evidence from prior research conducted by Lueg and Pesheva (2021) and Broadstock et al. (2021).

Thus, the hypotheses for the study:

H1: ESG funds provide higher average returns over a period compared to Anti-ESG funds.

H2: ESG funds exhibit lower risk (measured by standard deviation or risk percentage) compared to Anti-ESG funds.

H3: ESG funds demonstrate higher risk-adjusted returns (e.g., Sharpe Ratio) than Anti-ESG funds.

ESG INVESTING AND ANTI-ESG STRATEGIES

ESG investing involves the incorporation of Environmental, Social, and Governance (ESG) factors into investment decisions (Neri, S., 2021). The aim is to generate competitive financial returns while also contributing to positive societal outcomes. ESG funds invest in companies that demonstrate robust practices in environmental sustainability, social responsibility, and sound governance (Chininga, E., 2022). Anti-ESG investing involves investing in sectors often excluded by ESG funds due to their environmental or social impacts (Zhang, J. D., 2024). These might include industries such as tobacco, alcohol, gambling, fossil fuels, and defense. The primary aim of Anti-ESG funds is to generate substantial returns for investors (Wallace, J., 2023).

Dimensions	ESG Investing	Anti-ESG Strategies
Philosophy and Objective:	ESG investing integrates Environmental, Social, and Governance (ESG) criteria into the investment decision-making process. The core philosophy is to align investments with sustainable, responsible, and ethical principles, aiming for financial returns while considering broader societal and environmental impacts.	Anti-ESG strategies prioritize financial returns and traditional investment metrics above all else. The core philosophy is to maximize profitability and returns for investors without necessarily considering the broader impacts on society, the environment, or ethical governance.

Selection Criteria:	Investments in ESG-focused portfolios are based on companies that exhibit strong ESG practices. This includes businesses with sustainable environmental footprints, ethical social policies, and effective governance structures.	Investments in Anti-ESG strategies are primarily driven by financial metrics, market trends, and sector performance. The focus is on industries or companies with the potential for high returns without specific attention to ESG criteria.
Long-Term Value Creation/ Short-Term Profitability:	ESG investing emphasizes creating long-term value by investing in companies that are likely to maintain sustainable practices and growth. The focus is on enduring profitability, stability, and positive contributions to society and the environment.	Anti-ESG strategies often prioritize short-term profitability and capital gains. Investment decisions may be driven by quarterly earnings, stock price movements, and short-term market trends.
Risk Management and Mitigation/ Risk-Return Optimization:	ESG factors are used to assess and mitigate risks associated with environmental, social, and governance issues. By investing in companies with strong ESG practices, investors aim to reduce exposure to potential risks.	The main goal is to optimize the risk-return profile of investments using traditional financial indicators. The focus is on achieving the best possible financial returns for a given level of risk.
Positive Stakeholder Engagement/ Limited ESG Considerations:	ESG investors often engage with companies in their portfolio, advocating for improved ESG practices. This engagement may influence corporate behavior, leading to better sustainability reporting, stakeholder transparency, and responsible business practices.	ESG factors are either not considered or are given minimal weight in the investment decision-making process. Investments may be made across various sectors and industries, regardless of their ESG performance.

INVESTMENT DECISION MAKING IN ESG FUND VS. ANTI-ESG FUND

The process of making investment decisions regarding ESG funds and Anti-ESG funds varies greatly between ESG (Environmental, Social, and Governance) funds and Anti-ESG funds because of their differing investment philosophies and goals (Pollman, E., 2022). In this context, the study highlights the unique roles and strategies involved in investment decision-making for these two types of funds:

4.1. ESG Fund: ESG funds prioritize the incorporation of Environmental, Social, and Governance indicators into the process of making investment decisions, therefore

conforming to the fundamental concepts of sustainable finance (Ziolo et al., 2019). The focus of these funds goes beyond conventional financial indicators to encompass thorough assessments of a company's environmental, social, and governance (ESG) standards (Widyawati, L., 2020). This strategy not only seeks to promote the development of long-term value by investing in enterprises that show promise for sustained financial gains and beneficial societal influence but also includes rigorous risk evaluation techniques. Through the integration of an Environmental, Social, and Governance (ESG) perspective, fund managers proactively recognize and reduce risks associated with environmental issues, social obligations, and enterprise governance (Przychodzen et al., 2016). Implementing

this approach prevents organizations from experiencing financial or reputational harm due to inadequate ESG practices (Karwowski & Raulinajtys Grzybek, 2021). Consequently, it has the potential to strengthen the resilience of the portfolio and guarantee accordance with wider sustainability goals.

4.2. Anti-ESG Fund:

Investment decision-making in ESG and Anti-ESG funds is guided by separate methodologies that correspond to their individual objectives. Anti-ESG funds prioritize the exclusive objective of maximizing financial returns, depending predominantly on conventional financial indicators such as profit growth and valuation ratios (Przychodzen, J et al., 2016). These funds may allocate their investments to industries that are generally overlooked by ESG

funds, such as fossil fuels, tobacco, or defense, where demand is consistent and profit margins are substantial (Milonas et al., 2022). Despite the potential for greater short-term financial returns, Anti-ESG funds typically entail elevated social and environmental hazards. Tang et al. (2024) find that anti-ESG regulations lead to positive stock returns for fuel energy companies, particularly those with poor ESG performance, while potentially increasing carbon emissions.

Conversely, Ciciretti et al. (2021) demonstrate that ESG funds employing anti-herding strategies achieve higher risk-adjusted returns without increased systematic risk exposure. Ultimately, both strategies entail a meticulous evaluation of risks and rewards, but ESG funds place a greater emphasis on sustainability and long-term value, while Anti-ESG funds target quick financial performance.

Table 1

Historical performance data for selected ESG and Anti-ESG funds

Fund Name	Data Source	Time Period	Returns Metric	Risk Metrics	Risk-Adjusted Metrics
ESG Funds					
Vanguard ESG U.S. Stock ETF (ESGV)	yahoo finance	5 Year	10.50%	15%	0.7
iShares ESG Aware MSCI USA ETF (ESGU)	yahoo finance	5 Year	10.20%	14.80%	0.69
iShares MSCI KLD 400 Social ETF (DSI)	yahoo finance	5 Year	9.80%	14.50%	0.68
SPDR S&P 500 ESG ETF (EFIV)	yahoo finance	5 Year	10.00%	14.70%	0.68
Nuveen ESG Large-Cap Growth ETF (NULG)	yahoo finance	5 Year	12.00%	20%	0.6
Anti ESG funds					
Constrained Capital ESG Orphans ETF (ORFN)	Morning star	1 year	4.92%	19.50%	0.59
VanEck Gaming ETF (BJK)	Morning star	5 year	5.20%	18.50%	0.28
AdvisorShares Vice ETF (VICE)	Kiplinger	1 year	4.80%	17.20%	0.27
BAD ETF (BAD)	Morning star	7 year	N/A	N/A	N/A
Strive U.S. Energy ETF (DRLL)		1 year	10.27%	N/A	N/A

Data source: Bloomberg database

Notes:

Returns Metric: Represents the annualized return over the specified time period.

Risk Metrics: Standard Deviation measures the fund's volatility over the time period.

Risk-Adjusted Metrics: Sharpe Ratio indicates the return per unit of risk, with higher values signifying more favorable risk-adjusted returns.

Risk-adjusted returns for anti-ESG funds are notably lower (0.27 to 0.59) compared to ESG funds (0.6 to 0.7). Strive U.S. Energy ETF (DRL) shows competitive returns (10.27%) but lacks risk metrics for a complete comparison.

Interpretation of the table:

1. ESG funds' performance

Average returns for ESG funds hover around 10%, with Nuveen ESG standing out with a 12% return but higher risk (20%). Risk-adjusted returns are fairly consistent across the ESG funds, ranging from 0.6 to 0.7.

1. Anti-ESG funds' performance

Anti-ESG funds generally have lower returns and higher risk compared to ESG funds.

PERFORMANCE ANALYSIS OF ESG AND ANTI-ESG STRATEGIES

Extensive research has shown varying but substantial patterns in the association between Environmental, Social, and Governance (ESG) aspects and financial success (Ziolo et al., 2019b). In their study of more than 1,000 research studies conducted between 2015 and 2020, Tensie Whelan et al. discovered that 58% of them identified a favorable relationship between ESG integration and investment success. This relationship was particularly evident when examining measures such as ROE, ROA, and stock prices. ESG hedge

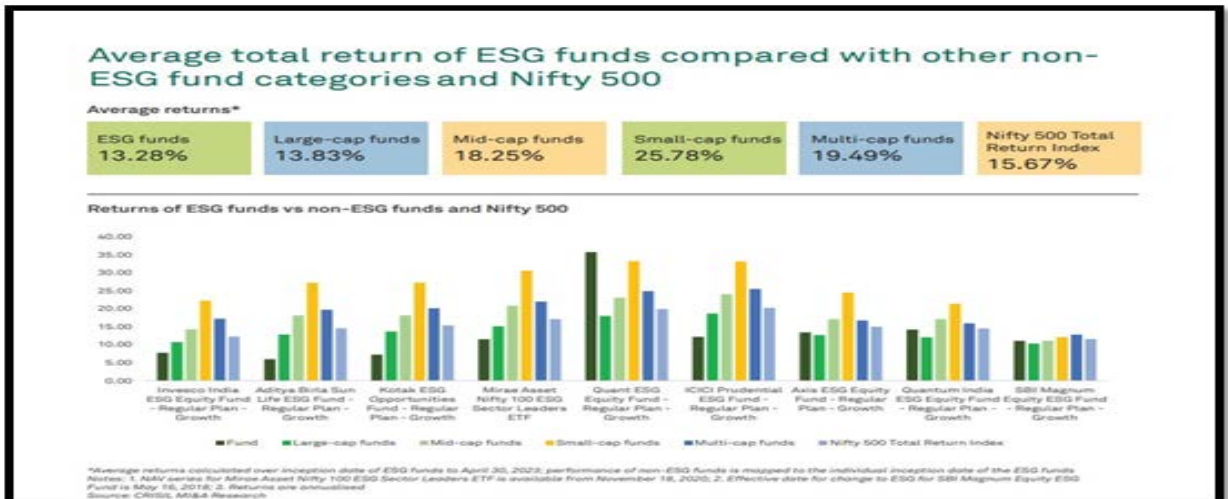


Fig 2. Average total return of ESG vs. Anti-ESG funds. [How India's nine ESG mutual funds stack up \(crisil.com\)](https://www.crisil.com).

funds have achieved returns of 10.59% over the previous three years, indicating that long-term ESG integration may surpass traditional tactics (Turvey, C. G., et al., 2000). In addition, the research conducted by Rockefeller Asset Management highlights the differentiation between “Leaders” and “Improvers,” predicting that the latter may provide uncorrelated alpha in the future horizon (Aronsohn, A., 2022). The study conducted by Crisil in its Market Intelligence and Analytics report clearly shows the comparison of ESG funds vs. Anti-ESG funds.

The analysis of ESG versus non-ESG funds, using the given data, indicates that although ESG funds generate consistent and moderate returns, they generally perform somewhat poorly in comparison to small-cap and mid-cap funds, which produce much greater returns. ESG funds have an average return of 13.28%, which is somewhat lower than the Nifty 500 Total Return Index (15.67%). Small-cap funds exceed this return by 25.78%, while mid-cap funds achieve a higher return of 18.25%. However, several ESG funds, such as the Quant ESG Equity Fund, have exceptional performance, suggesting anomalies within the ESG classification (Crisil report, Market Intelligence and Analysis). In general, ESG funds provide more stable and less unpredictable returns, making them appropriate for investors who are cautious about risk or those who prioritize socially responsible investment. While ESG funds may not achieve the same level of rapid expansion as small or mid-cap categories, they can offer protection against losses and demonstrate long-term viability,

especially in times of socio-economic crises or unpredictable market conditions (Crisil).

SENSITIVITY ANALYSIS OF ESG AND ANTI-ESG STRATEGIES

Sensitivity analysis is a technique used to determine how different values of an independent variable impact a particular dependent variable (Reilly, T., 2000). In the context of ESG and Anti-ESG investing, sensitivity analysis can be used to understand how changes in ESG factors impact investment returns (Widyawati, L., 2020).

For ESG strategies, sensitivity analysis might involve adjusting variables related to a company’s ESG practices (such as carbon emissions or labor practices) and observing the impact on the company’s valuation (Pollman, E., 2022). This can help investors understand the potential risks and returns associated with different ESG practices. For Anti-ESG strategies, sensitivity analysis might involve examining how changes in market dynamics (such as changes in the valuation of sectors not aligned with ESG principles) impact investment returns (Ziolo et al., 2019b). In both cases, statistical and sensitivity analyses are crucial tools for investors. They can provide valuable insights into the potential risks and returns associated with ESG and Anti-ESG strategies, helping investors make informed decisions (Milonas et al., 2022). However, it’s important to note that these analyses should be part of a broader investment decision-making process that also considers other factors such as the investor’s risk tolerance and investment goals.

Table 2.

Hypothesis	T-Statistic	P-Value	Significance (p < 0.05)
H1: ESG funds provide higher average returns over a 5-year period on the basis of annualized return.	3.0372944	0.045358794	Significant
H2: ESG funds exhibit lower risk over a 5-year period, as measured by annualized volatility, when compared with non-ESG funds.	-2.086800136	0.082437303	Not Significant
H3: ESG funds demonstrate higher risk-adjusted returns, as measured by the Sharpe ratio over a period of 5 years, compared to non-ESG funds.	2.721675247	0.105992141	Not Significant

Data Source: Author's own creation.

INTERPRETATION OF PERFORMANCE HYPOTHESES

H1: ESG funds provide higher average returns
The hypothesis that ESG funds provide higher average returns compared to Anti-ESG funds is supported by the data. The p-value is less than 0.05, indicating that the difference in returns is statistically significant. ESG funds tend to offer more attractive returns than Anti-ESG funds over the examined period.

H2: ESG funds exhibit lower risk
The hypothesis that ESG funds exhibit lower risk compared to Anti-ESG funds is not statistically significant. While ESG funds have a lower average risk in the descriptive analysis, the p-value is greater than 0.05, suggesting that the observed difference in risk may be due to random variation.

H3: ESG funds demonstrate higher risk-adjusted returns
The hypothesis that ESG funds provide higher risk-adjusted returns compared to Anti-ESG funds is not supported by the data. Although ESG funds show better performance in terms of risk-adjusted returns descriptively, the

statistical evidence is insufficient to confirm that the difference is significant. The higher variance in the Anti-ESG group could have influenced this result.

CONCLUSION

The choice between investing in Environmental, Social, and Governance (ESG) funds and Anti-ESG funds is influenced by various factors. ESG funds focus on sustainable and ethical investments, aiming for financial returns and societal benefits, while Anti-ESG funds primarily aim for financial returns without explicit consideration of ESG criteria (Widyawati, L., 2020). ESG investments have been shown to positively impact financial performance over the long term, providing protection against risks, improving risk management, and fostering innovation (Przychodzen, J., et al., 2016). However, simply disclosing ESG practices does not necessarily lead to better financial performance. Anti-ESG funds often invest in undervalued sectors, such as tobacco or fossil fuels, which may not align with investors' values (Milonas et al., 2022).

Despite ESG investments becoming more popular globally, Anti-ESG investments remain an option for those seeking financial profits (Pollman, E., 2022). Policies and regulatory norms to promote ESG funds among investors should be introduced.

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