BSAMC

Bocconi Students Asset Management Club

MARCH 2024

ESG FOCUSED FUND

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Fund Description

The ESG Focused Investment Fund of Bocconi Student Asset Management Club was created in September 2023. The aim of the fund is to overperform its assigned benchmark, while paying particular attention to the ESG score of the portfolio, achieved through a combination of techniques acquired thanks to contribution of academic research in the last decades.

The evolution of ESG Investing

The last twenty years have strengthened the place of ESG in finance, not only on the investment side, but also on the financing side. Regulators are now involved, accounting standards have been developed, climate change is recognized as a key risk factor, controversies may harm corporate reputation, social pressure impacts corporate governance, etc. In the next chapters, we will extensively document the evolution of sustainable finance during the last period. The motivations to implement a socially responsible investment are now multiple, they can be classified into two groups. The first one (economic sustainability, moral values and social pressure) is related to the "do not harm principle", and can be applied to many situations or decisions. The second group, which includes financial performance, fiduciary duty and risk management, is related to investment principles. The underlying idea is that ESG risks have to be managed and cannot be ignored within portfolio construction.

The market of ESG investing has been growing steadily growing over the years, as you can see in Figure 1, 2 and 3 reaching an outstanding $35.3 tn in 2020

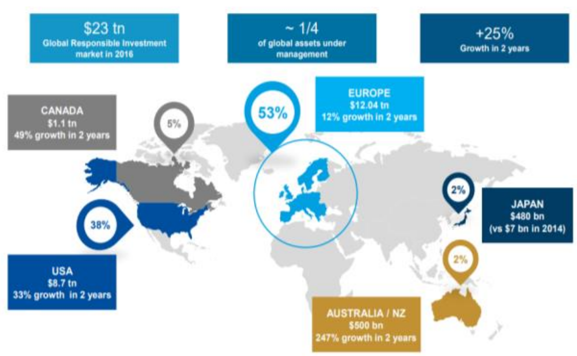


Figure 1 ESG at the start of 2016, Source (Global Sustainable Investment Alliance)

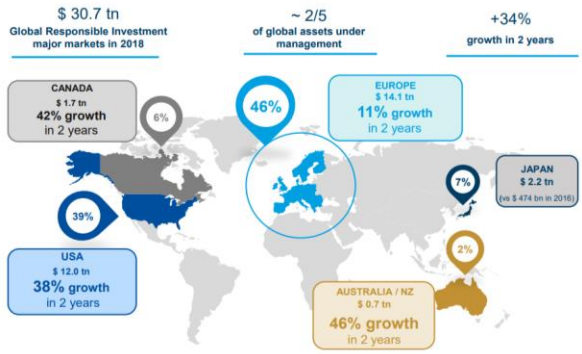


Figure 2 ESG at the start of the 2018

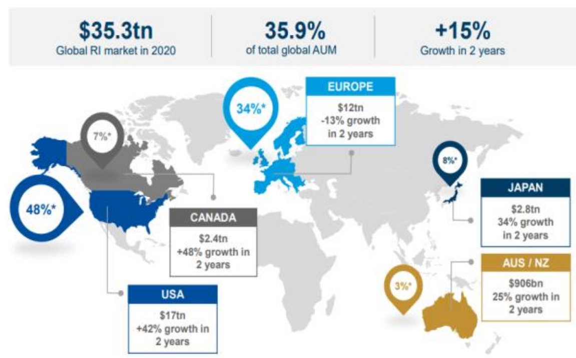


Figure 3 ESG at the start of 2020

Investment Approach

Asset management allows various ways to integrate ESG factors into the investment process, here's a quick overview of them provided by Eurosif:

Exclusion/Negative Screening: The exclusion from a fund or portfolio of certain sectors, companies or practices based on specific ESG criteria (worst-in-class). For example:

- Systematic exclusion of issuers rated CCC Exclusion of issuers rated BB, B and CCC Sector exclusion (e.g., Energy) Sub-industry exclusion (e.g. Coal & Consumable Fuels) Exclusion list of individual issuers

Values/Norms-based Screening (and Red Flags): Screening of investments against minimum standards of business practice based on international norms, such as those issued by the OECD, ILO, UN (Global Compact) and UNICEF. In Europe, the top exclusion criteria are (1) controversial weapons (Ottawa and Oslo treaties), (2), tobacco, (3) all weapons, (4) gambling, (5) pornography, (6) nuclear energy, (7) alcohol, (8) GMO and (9) animal testing (Eurosif, 2019). For example:

- Controversial sectors: controversial weapons, conventional weapons, civilian firearms, nuclear weapons, nuclear power, thermal coal, tobacco, alcohol, gambling, adult entertainment, genetically modified, fossil fuels production & reserves

- Many ETF funds

Selection/Positive Screening: Investment in sectors, companies or projects selected for positive ESG performance relative to industry peers (best-in-class). For example:

- Selection of issuers rated AAA, AA, and A
- Selection of issuers that have improved their rating (Momentum ESG strategy)

Thematic/Sustainability Themed Investing: Investment in themes or assets specifically related to sustainability (for ex. clean energy, green tech., or sustainable agriculture). For example:

- Funds invested in Green Bonds
- Funds invested in Social Bonds
- Funds invested in Sustainable Infrastructure
- Funds invested in Natural Resources

ESG Integration: They systematic and explicit inclusion by investment managers of ESG factors into financial analysis. For example:

- The stock picking score is a mix (50/50) of a fundamental score and an ESG score
- The fund must have an ESG score greater than the score of its benchmark

Corporate Engagement/Shareholder Action: The use of shareholder power to influence corporate behavior, including through direct corporate engagement (i.e., communicating with senior management and/or boards of companies), filing or co-filing shareholder proposals, and proxy voting that is guided by comprehensive ESG guidelines. For example:

- Voting policy
- Public divestment
- Biodiversity and deforestation financing
- Engagement with target companies on a specific subject (e.g., pay ratio or living wage)
- Escalated engagement: concerns public, proposing shareholder resolutions & litigation

Impact Investing: Targeted investments aimed at solving social or environmental problems, and including community investing, where capital is specifically directed to traditionally underserved individuals or communities, as well as financing that is provided to businesses with a clear social or environmental purpose. For example:

- Funds with a Social Impact objective
- Funds invested in Green Bonds

Impact Investing/Community Investing:

- Impact Investing: Investing to achieve positive, social and environmental impacts – requires measuring and reporting against these impacts, demonstrating the intentionality of investor and underlying asset/investee, and demonstrating the investor contribution

- Community Investing: Where capital is specifically directed to traditionally underserved individuals or communities, as well as financing that is provided to businesses with a clear social or environmental purpose. Some community investing is impact investing, but community investing is broader and considers other forms of investing and targeted lending activities.

To decide which strategy to adopt, our team brainstormed and came up with an **original mix**: focusing on positive screening, sustainability themed investing, and ESG integration, all possible thanks to the available tools in the library (Bloomberg and Refinitiv).

Portfolio Allocation

The portfolio allocation preferences of our ESG team adhere to a structured approach, emphasizing sustainable investments primarily within the European and US markets.

The allocation strategy encompasses a diversified blend across asset classes, characterized as follows:

Cash: conservative allocation intended to provide liquidity and serve as a risk buffer within the portfolio. Cash holdings offer flexibility for opportunistic investments and portfolio rebalancing.

ETFs (Exchange-Traded Funds) - Benchmark (15%): Allocation towards ETFs provides exposure to broader market indices, serving as a reference point for performance evaluation and benchmarking. ETFs selected align with ESG principles and may track indices focused on sustainable investment themes.

Bonds (16%):

Green Bonds: Investment in bonds issued specifically to finance environmentally friendly projects or initiatives, promoting sustainable development and carbon footprint reduction.

Social Bonds: Bonds issued to fund projects with a positive social impact, such as affordable housing, healthcare, or education, contributing to societal welfare and equality.

Corporate Bonds of ESG-Friendly Companies: Bonds issued by corporations demonstrating strong ESG practices and commitments, aligning with our ethical investment criteria.

Stocks (64%):

Renewable Energy Companies (20%): Investments in companies engaged in renewable energy production and technology development, promoting the transition to cleaner energy sources.

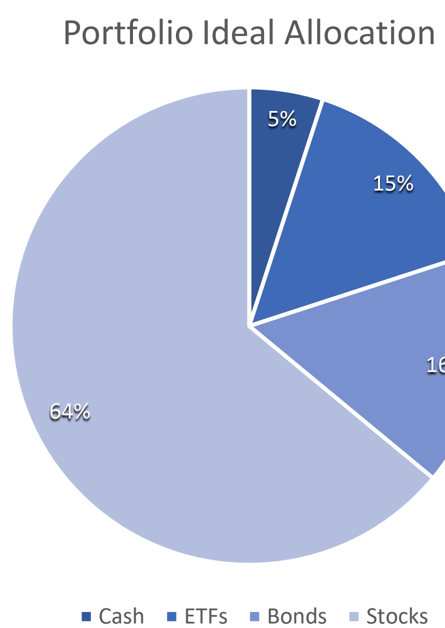
Sustainable Tech Companies (20%): Allocation towards companies developing innovative technologies with a focus on sustainability, such as clean energy solutions, resource efficiency, or eco-friendly products.

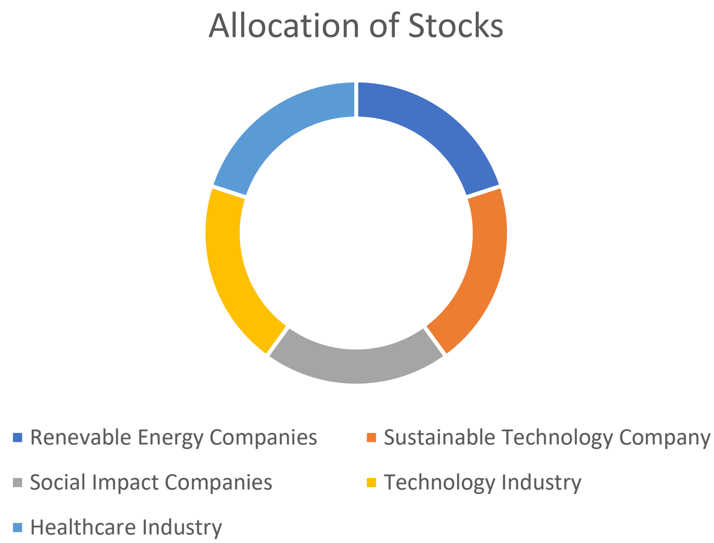
Impact Companies (20%): Investments in companies generating measurable positive social or environmental impact alongside financial returns, aligning with our ESG objectives.

Specific Industry Technology (20%): Targeted investments in technology companies within selected industries that demonstrate potential for sustainable growth and innovation.

Health Industry (20%): Allocation towards companies operating in the healthcare sector, emphasizing fundamental analysis metrics such as Price-to-Earnings (P/E) ratio and Book-to-Price ratio. Investments focus on companies with sustainable business models, innovative healthcare solutions, and favorable growth prospects.

Furthermore, thematic investments are integrated into the portfolio strategy, emphasizing high-growth industries and sectors aligned with long-term sustainability trends. The portfolio allocation reflects a balanced approach, aiming to optimize risk-adjusted returns while advancing ESG objectives and contributing to positive societal and environmental outcomes.





Performance

The performance of the fund has been analyzed relative to the ETF ESG Enhanced (EEWD), its benchmark. In the past 6 months of activity, the fund achieved an impressive 19.84% return, compared to the 13.8% return of the benchmark.

Symbol	Trade Date	Purchase Price	Current Price	Quantity	Absolute Returns	% Returns	Weight
SENS.SW	9/1/2023	$ 71.35	$ 66.30	1402	$ (7,080.10)	-7.08%	0.0628
YUM	9/1/2023	$ 123.00	$ 138.60	851	$ 13,275.60	12.68%	0.07969
TFX	9/1/2023	$ 196.00	$ 224.79	300	$ 8,637.00	14.69%	0.04556
GIB-A.TO	9/1/2023	$ 135.00	$ 155.72	1351	$ 27,992.72	15.35%	0.14214
IE00BHZPJ569.SG	9/1/2023	$ 6.52	$ 7.56	51000	$ 53,193.00	16.00%	0.26061
SGRO.L	9/1/2023	$ 725.00	$ 845.00	152	$ 18,240.00	16.55%	0.08678
SRT3.DE	9/1/2023	$ 294.00	$ 345.40	200	$ 10,280.00	17.48%	0.04667
ABT	9/1/2023	$ 96.00	$ 120.05	501	$ 12,049.05	25.05%	0.04064
2330.TW	9/1/2023	$ 548.00	$ 698.00	251	$ 37,650.00	27.37%	0.11837
LODHA.NS	9/1/2023	$ 680.00	$ 1,151.65	150	$ 70,747.50	69.36%	0.11672

The security which performed best is Macrotech Developers Limited, with an impressive 69.36% return over the initial investment, driven by the increasing optimism in the real estate Indian market and the positive recommendations of analysts. The second best performing is Taiwan Semiconductor Manufacturing Company Limited, semiconductor analysis (TSMC's expansion plans). Worst performing security, on the other side, has been Sensirion Holding AG with a -7.6%.

Macrotech Developers Limited (LODHA) saw a remarkable 69.36% surge, specializing in residential and real estate properties in India and the UK. Projections show the UK real estate sector reaching US$21.99 trillion by 2024, with an expected 2.57% annual growth rate until 2028. In India, a growing middle class and changing housing trends drive transformation. These trends signal promising growth for Macrotech and the real estate sector amidst significant evolution.

6-months returns Macrotech Developer

CGI Inc (GIB), with an increase of 16.56%, is a global IT and business consulting services firm specializing in delivering end-to-end solutions to clients worldwide. CGI Group (GIB) announced its first-quarter fiscal 2024 non-GAAP earnings of $1.34 per share, surpassing the Zacks Consensus Estimate by 2.29% and marking a 9.8% year-over-year increase. In Canadian dollars (C$), the company reported non-GAAP earnings of $1.83 per share, reflecting a 10.2% year-over-year growth. Revenues totaled $2.65 billion, exceeding the consensus estimate by 2.02%, with a 1.5% increase at constant currency. In C$, revenues reached $3.6 billion, up by 4.4% year over year.

6-months returns CGI Inc

Abbott Laboratories (ABT), with a 25.05% increase, is a multinational healthcare company that operates in various segments, including diagnostics, medical devices, nutrition, and branded generic pharmaceuticals.

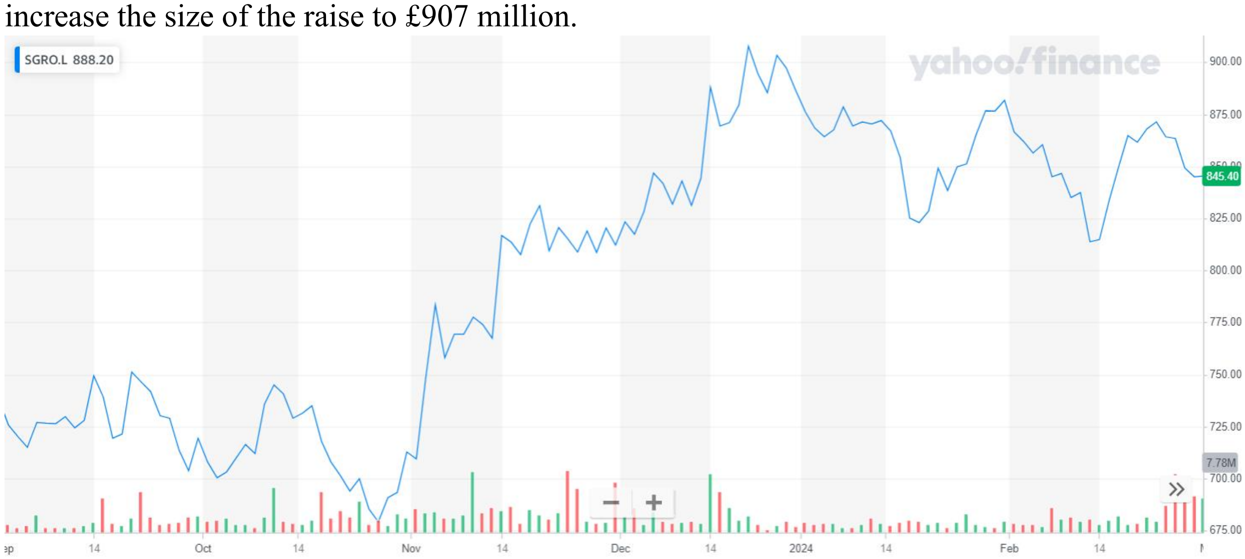
In terms of top and bottom-line numbers, the company has posted three quarters of accelerating earnings growth. Sales growth has also risen during the same period. Abbott Laboratories stock holds the No. 3 rank among its peers in the Medical-Diversified industry group. On Jan. 24, Abbott reported its year-end and fourth-quarter results for the last three months of 2023. Quarterly revenue increased by 1.5% to $10.2 billion, but excluding COVID-19 testing revenue, it grew by 11% organically. Earnings reached just under $1.6 billion, a 54% increase compared to the previous year, attributed to reduced operational costs, lower taxes, and higher revenue. Abbott anticipates organic sales growth, excluding COVID-19 testing, to be between 8% and 10% this year, despite historically slower growth in this sector.

6-months returns Abbot Laboratories

Taiwan Semiconductor (TSM), increasing 27.37% in our portfolio, shares surged as the company's fourth-quarter earnings report hinted at a return to revenue growth in the first quarter post a semiconductor sector slowdown. Despite a slight revenue dip of 1.5% to $19.62 billion in Q4, beating estimates of $19.45 billion, the quarter saw a 13.6% growth from the previous quarter. TSMC's gross margin fell to 53%, driving earnings per share down to $1.44 from $1.82, though still surpassing expectations of $1.37. Notably, the company is expanding its 3-nanometer chip technology, which accounted for 15% of its revenue, up from zero a year ago, strengthening its competitive edge in advanced technologies.

6-months returns Taiwan Semiconductor

SEGRO Plc (SGRO.L), increasing 16.55%, a London-based property investment firm, has announced its intention to raise up to £800 million through a share placing and retail offer. This new equity will enable the company to pursue various growth opportunities, including both new and existing development projects, as well as potential acquisition opportunities. SEGRO highlighted its substantial development pipeline, which has the potential to generate over £440 million in additional rent, requiring approximately £3.8 billion in development capital expenditure. Due to strong demand from existing and potential investors, SEGRO has decided to increase the size of the raise to £907 million.



6-months returns Segro PLc

Teleflex Incorporated (TFX) stock price increased 13.78% since investment date due to its consistent revenue growth demonstrated throughout the fourth quarter and full year of 2023, despite facing challenges such as fewer shipping days. Moreover, while the GAAP diluted EPS from continuing operations showed a decline, the adjusted diluted EPS remained relatively strong, indicating operational efficiency and effective cost management. The full year financial summary also showcased robust revenue growth, both in absolute terms and on a constant currency basis, alongside steady GAAP and adjusted diluted EPS figures. Additionally, the optimistic revenue growth guidance for 2024, coupled with a promising outlook for both GAAP and adjusted EPS, signaled the company's resilience and potential for continued growth. As such, investors likely viewed this company as a sound investment opportunity, anticipating further value appreciation and long-term returns, thereby driving up its stock price.

6-months returns Teleflex Incorporated

Sensirion Holding AG (SENS.SW) was worst performer of the portfolio, with a -2.39%. Weak demand from end consumers, combined with ongoing inventory reduction and the removal of last year’s one-off business, resulted in sales declining by 25.2% compared to the previous year. This decline is solely attributable to reduced demand volume; no customers or ongoing projects were lost. The medium and long-term outlook remains positive. Sensirion thus continues to expand the R&D capacities to enable important product launches in new applications in 2024 and 2025. Consolidated sales amounted to CHF 123.2 million. The gross margin was stable at 56.3%, and the EBITDA margin was 8.7%.

6-months returns Sensirion Holding AG

Yum! Brands Inc (YUM) 11.72%, is poised to benefit from its digital initiatives and strong same-store sales growth. Also, robust Taco Bell performance and unit expansion efforts bode well. In the past year, shares of Yum! Brands have gained 10.8% compared with the industry's 6% growth. An upward revision in earnings estimates for 2023 reflects analysts' optimism regarding the company's growth potential. In the past 60 days, the Zacks Consensus Estimate for 2023 earnings has increased 0.39% to $5.19 per share.

6-months returns in Yum! Brands Inc

Risk Management

Our risk management approach was based both on a quantitative analysis of the fund risk through a beta approach, and on a qualitative analysis on the economic impact of climate risk on firms.

Quantitative analysis

The quantitative analysis of the fund was performed by computing the beta values for each security and to calculate then the beta of the entire portfolio.

	Portfolio Weight	6-months Beta
SENS.SW	6.3%	0.73
YUM	8.0%	0.73
TFX	4.6%	1.56
GIB-A.TO	14.2%	0.83
IE00BHZPJ569.SG	26.1%	1.00
SGRO.L	8.7%	0.74
SRT3.DE	4.7%	0.83
ABT	4.1%	0.42
2330.TW	11.8%	1.23
LODHA.NS	11.7%	0.51
	ESG Fund Beta	**0.88**

The 6-months beta were computed for each security with respect to the S&P500, as for the moment the fund is only invested in equity. The security that showed the highest sensitivity to market movements has been Teleflex Incorporated (TFX), with an extremely high value of 1.56, while the security with the lowest sensitivity has been Abbot Laboratories (ABT), with a beta of 0.42 .

To minimize risks, we aimed at achieving the lowest correlation between the securities in the portfolio. The Pearson Correlation Matrix of the fund demonstrates that this objective was successfully reached, with extremely low correlations for all the possible combination of stocks.

	SENSI.S	TSM.N	YUM	TFX	ABT	MACE.NS	GIB	SGRO.L
SENSI.S	1	0.268	0.1737	0.2656	0.0745	0.1201	0.2858	0.3669
TSM.N	0.268	1	0.2878	0.1835	0.0597	0.0124	0.4434	0.1224
YUM	0.1737	0.2878	1	0.4041	0.4686	0.0773	0.3952	0.2438
TFX	0.2656	0.1835	0.4041	1	0.4749	0.1799	0.4026	0.3652
ABT	0.0745	0.0597	0.4686	0.4749	1	0.054	0.2221	0.0944
MACE.NS	0.1201	0.0124	0.0773	0.1799	0.054	1	0.1081	0.1694
GIB	0.2858	0.4434	0.3952	0.4026	0.2221	0.1081	1	0.2029
SGRO.L	0.3669	0.1224	0.2438	0.3652	0.0944	0.1694	0.2029	1

Pearson Correlation Matrix. Source: BSAMC analysis, LSEG

ESG analysis

Bansal et al. (2016) find a positive relation between temperature rise and the risk premium of firms traded in global capital markets. Their empirical analysis employs 25 portfolios of U.S. stocks sorted on size and book-to-market and finds that all U.S. equity portfolios face negative exposure (beta) to long-run temperature fluctuations. These findings provide evidence that the rise in temperature is associated with a higher premium for long-run temperature risks. The authors further confirm these results using a panel of 39 countries. In contrast, Addoum et al. (2019) fail to find evidence that temperature exposures are related to sales, productivity, and measures of profitability of listed U.S. firms, which suggests that there is no relation between climate change risk and near-term cash flows. Despite the growing evidence on the relation between climate risk and economic outcomes, much is yet “unknowable” (Pindyck, 2013) and research does not provide conclusive results about the effects of climate risk on individual firms. Although research such as Bansal et al. (2016) and Addoum et al. (2019) explore the effect of climate risk on firms, their research approach does not include identification of firm-level climate risks, which can include potential physical damage to facilities, increased operating costs, new regulatory costs, supply chain disruptions, changes in revenue streams from shifts in the markets for products or services, and other future costs (Berkman et al., 2021, p. 6). Thus, one of the research challenges to date is construction of a firm-level climate risk measure (Engle et al., 2020) that will provide market participants with material information that can be incorporated into their valuation processes.

The ESG Fund investments were performed bearing in mind all of those previously explained variables. As a result, the BSAMC ESG Fund achieved an ESG score which is higher than the score of its benchmark:

	Portfolio	Benchmark	Difference
ESG Combined Score	61.81	56.63	5.18
ESG Score	74.42	73.89	0.53
ESG Controversies Score	59.40	48.76	10.65
Emissions Score	83.27	75.21	8.06
Environmental Innovation Score	37.16	48.54	-11.39
Resource Use Score	85.39	84.62	0.77
Community Score	88.31	81.24	7.06
Human Rights Score	66.93	74.05	-7.12
Product Responsibility Score	88.58	69.16	19.42
Workforce Score	91.09	84.14	6.95
CSR Strategy Score	72.77	80.22	-7.45
Management Score	72.82	72.01	0.81
Shareholders Score	45.97	58.80	-12.83

ESG Score of the Fund, compared to the benchmark. Source: LSEG, ex Refinitiv

Also, our team decided to apply dollar cost average methodology, meaning that we invested a fixed amount of money on a regular basis on all of the securities in our portfolio, leading to less exposure to price variability.

This proved to be a winning strategy, since many of our securities actually dropped once, we invested on them first, however on the long run they proved profitable thanks to the lower average entry cost.

Improvements for the future

Due to tools restriction, it was not possible to invest on many of the securities we found, and this meant we had to rebalance our portfolio by investing more on the benchmark provided. Specifically, all the planned fixed income share was invested in the benchmark. This meant that our strategy could not be implemented fully, however this also represents a potential quick win, since it is a problem easily solvable. We aim, in the near future, to insert the fixed income securities, for which a picking strategy has already been developed. These were the candidates for the past 6 months:

RIC	Name	Coupon	Mat.Dat	Ccy		Bid	Ask	Net.Chn	Type	A Yield	Issuer R	ESG Bond Type	ESG Score	ESG Ris core
86562MCC2=	SMFG	0.51%	12-Jan-24	USD	B⇧	99.2842	99.2934	0.0379	STR	5.8379	A-	CBI Aligned Green bond	75.2118555	71.13923
SE0012012995=	WILLHEM	1.49%	16-Jan-24	SEK	B	99.549	99.571	0	STR	4.449	A-	CBI Aligned Green bond		84.71715
CN136914SH=	BEIJING II	4.70%	23-Nov-23	CNY	B	100.006	100.006	0	STR	2.382	A+	CBI Aligned Green bond		49.10813
FR181835648=	NATIXIS	0%	08-Jan-24	EUR	B⇧	99.03	100.03	0.02	IDX		A	CBI Aligned Green bond		Unable to collect data
CN131800018=	SASADH MTN 18001	4.09%	03-Dec-23	CNY	B⇩	100.055	100.057	0	STR	2.118	A	CBI Aligned Green bond		49.10813
SE0012013001=	WILLHEM	5.06%	16-Jan-24	SEK	B⇧	100.09	100.112	0.016	FRN	4.296	A-	CBI Aligned Green bond		84.71715
FR0013385515=	CREDIT AGRI LON	0.75%	05-Dec-23	EUR	B	99.67	100.17	-0.226	STR	-4.382	A+	CBI Aligned Green bond		75.27447
/AT000B015086=VI	0.6 RBI 20-23/d	0.60%	11-Dec-23	USD					STR		A-	CBI Aligned Green bond	76.54161679	78.84774
FR188596789=	CA CIB	0%	27-Dec-23	MXN					STR		A+	CBI Aligned Green bond		Unable to collect data

Also, for this reason it was quite difficult to apply theme-specific strategies, which were part of our risk management.

For the future, we plan to increase the number of securities to which we will apply our strategy, in order to improve its effectiveness.

Conclusion

In conclusion, results of the first 6 operational months of the ESG Fund were extremely rewarding. There are still many challenges to address, but through continuous improvements of the strategies and rebalancing of the portfolio we aim at continue the trend of overperformance of the benchmark.

Sources:

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