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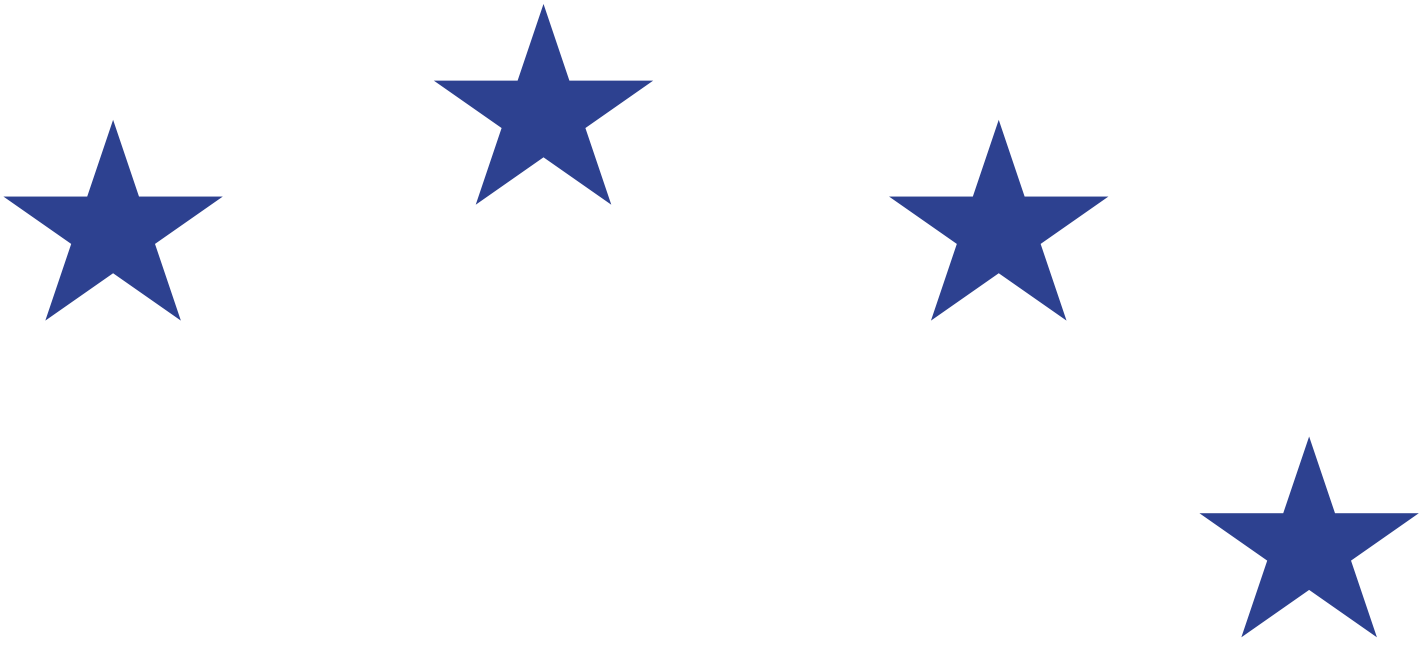
TRV Risk Analysis

The drivers of the costs and performance of ESG funds



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Investor Protection

The drivers of the costs and performance of ESG funds

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Summary

Investment funds that include environmental, social and governance (ESG) features have grown rapidly over the last years. ESMA recently determined that ESG equity undertakings for collective investment in transferable securities (UCITS), excluding exchange-traded funds, were cheaper and better performers in 2019 and 2020 compared to non-ESG peers. The reasons behind this relative cheapness and outperformance of ESG funds are of particular interest. Understanding the cost and performance dynamics may bring insights for the overall fund industry on how to make funds more affordable and profitable for retail investors. This study builds on past analyses by assessing whether portfolio composition can help to understand the cost and performance differentials between ESG and non-ESG funds. It identifies several differences between the two categories of funds, with ESG funds being more oriented toward large caps and developed economies, and it demonstrates that these factors are correlated with lower ongoing costs. However, even after controlling for fund characteristics and differences in portfolio exposures, ESG funds remain statistically cheaper and better performing than non-ESG peers between April 2019 and September 2021. Further research is thus needed to identify the other factors driving these cost and performance differences.

Introduction

In a context of increased retail participation in capital markets[2], the question of the costs and performance of investment products is key to preserve investors' confidence. These two elements are strongly linked as costs can significantly impact the net final return of an investment.[3] Clear and complete information in this area is crucial to allow investors to make informed decisions and to foster their participation in capital markets.

With the aim to provide regular information on the costs and performance of investments across the European Union (EU), ESMA publishes every year an annual statistical report displaying the costs and past performance of retail investment products under its remit.[4] [5]

1 The author thanks Claudia Guagliano, Steffen Kern, Adrien Amzallag and Julien Mazzacurati for helpful comments and suggestions. All remaining errors are my own.

2 See for example ESMA (2022b), *Report on Trends, Risks and Vulnerabilities*, No 1.

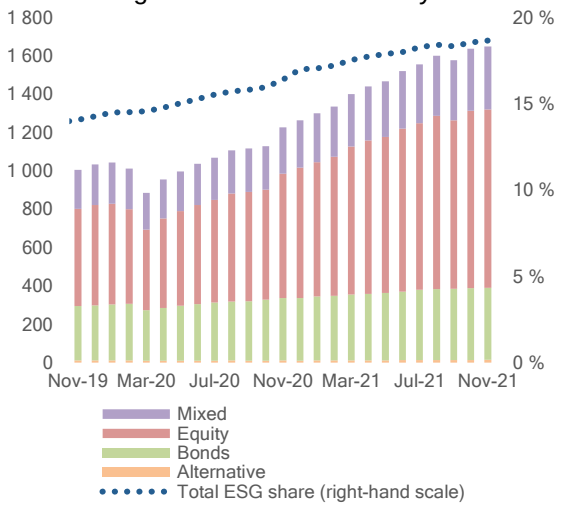
3 The 2022 ESMA annual statistical report on performance and costs of retail investment products in the EU showed that an investment of EUR 10 000 in a hypothetical retail portfolio composed of equity (40 %), bond and mixed funds (30 % each) between 2011 and 2020 would have returned approximately EUR 18 000 in gross terms and around EUR 15 400 after deduction of costs.

4 ESMA (2022a), *Annual statistical report on performance and costs of retail investment products in the EU*.

5 Originally, ESMA (and other European supervisory authorities) received a request from the European Commission to publish recurrent reports on the cost and performance of retail investment, insurance and pension products (Request sent to ESAs in October 2017 to report on the cost and past performance of the main categories of retail investment, insurance and pension products). Following the review of its regulation, ESMA is now explicitly mandated to analyse the costs and charges of retail financial services and products (see Article 9 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC).

Following the continuous growth of ESG funds over the past years[6] (Chart 1), a specific analysis of those funds was introduced in the last two editions of the report.

Chart 1
ESG fund assets
ESG funds grow almost continuously since 2019

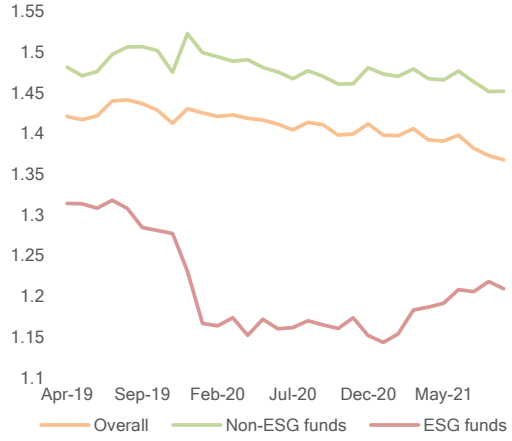


Note: Assets under management of EU-domiciled ESG funds by type of fund (EUR billion) and share of ESG fund (in terms of assets under management, in percent, right-hand scale). Both retail and institutional funds are included.
Sources: Morningstar, ESMA.

The reports showed that ESG equity UCITS (excluding exchange-traded funds) were on average cheaper and performed better compared to non-ESG peers in 2019 and 2020. Indeed, in 2020 the gross annual performance[7] of ESG retail equity UCITS (exchange-traded funds excluded) stood at 3.3 % compared to 0.8 % for the non-ESG peers. ESG equity UCITS were also cheaper with total costs of 1.5 % in 2020 compared to 1.8 % for non-ESG equivalents.[8]

While the relative cheapness of ESG funds was also demonstrated on the French[9] and Austrian markets[10], the reasons behind the difference are unclear, as opposite factors can come into play. As highlighted in Darpeix and Mosson (2021), ESG funds might bear additional costs related, first, to the analysis of extra-financial criteria, and second, to the procurement of a label and the production of *ex post* extra-financial reporting, which might be costly. Finally, the popularity of ESG funds might incentivise fund managers to increase the fees, especially if ESG fund investors are more concerned with the environmental or social impact of their investments than the level of fees (compared to other investors). On the other hand, following an ESG strategy might reduce the investment universe and lead to lower research costs. Besides, the increasing popularity of ESG funds could lead to a decrease in fees from economies of scale. Since ESG funds are on average more recent, their pricing eventually reflects the gradual reduction of fees over time (Chart 2).

Chart 2
Average ongoing costs of equity UCITS
Decrease of costs over time



Note: Average ongoing costs of EU equity UCITS, in percent.[11]
Sources: Morningstar, ESMA.

Understanding how ESG funds can charge lower fees and outperform non-ESG funds is key as it could provide some insights on how to make the overall fund industry more affordable and profitable for retail clients.

Previous analyses that assessed the difference of costs and performance between ESG and non-ESG funds notably took into consideration the

6 See for example ESMA (2022b), *Report on Trends, Risks and Vulnerabilities*, No 1 or ESMA (2022a), *Annual statistical report on performance and costs of retail investment products in the EU*.

7 The gross annual performance is computed as the geometric mean of the four annual performances obtained at the end of each quarter.

8 For further details see ESMA (2022a), *Annual statistical report on performance and costs of retail investment products in the EU*.

9 Darpeix, P.-E. and Mosson, N. (2021), 'Costs and performance of funds incorporating a non-financial approach marketed in France between 2012 and 2018', AMF risk and trend mapping, AMF France.

10 FMA (2021), 'Market study on fees charged by Austrian retail funds'.

11 We observe for ESG funds a drop in the average ongoing costs in December 2019 and January 2020. This decrease can be explained by the significant number of ESG funds that are included in the sample for the first time in December 2019. 355 new ESG funds integrate the sample in December 2019, whereas for the period May 2019 – September 2021 (December 2019 excluded) an average of 30 new ESG funds are added to the sample each month. Also in November 2019, the proportion of ESG funds with ongoing costs lower or equal to 1 % is 35 % but this share increases to 40 % in December 2019 and to 43 % in January 2020.

inception date of the funds (to control for the relative youth of ESG funds), the size of the funds (to control for the growing popularity of ESG funds and the fact that they are on average larger) or the share of passive funds among ESG and non-ESG funds.[12] They also demonstrated that ESG funds remain cheaper even after including these considerations.

This article builds on past analyses with the aim to test whether additional drivers could be identified to explain the cost and performance differential between ESG and non-ESG funds. In particular, the goal is to assess the extent to which portfolio characteristics impact the ongoing costs and gross performance of funds.

First, we investigate whether the size of underlying issuers of securities plays a significant role in the differences observed between ESG and non-ESG funds. Research suggests that ESG rating can be biased in favour of large cap firms.[13] Less communication from small cap firms on ESG issues may be one reason for this bias. For instance, more than 80 % of very large European Economic Area firms (i.e. firms whose market capitalisation is greater than EUR 20 billion) have a CO_2 emissions reduction target, but this proportion falls to 2 % for small and medium-sized European Economic Area firms (i.e. firms whose market capitalisation is below EUR 200 million)[14]. This bias in favour of large cap firms could translate into a greater exposure to large caps for ESG funds. Yet, large caps are generally associated with higher liquidity, which might lower the trading costs for funds more exposed to these companies.

Similarly, the ESG ratings can also be biased in favour of developed economies, because of lower ESG disclosures among emerging market companies.[15] Investing in emerging markets might also be associated with higher costs if, for instance, the currency of the purchased asset is different from the fund's currency (this purchase might then require a currency hedging).

Regarding performance more specifically, one of the main hypotheses to explain the outperformance of ESG funds was the different sectoral allocation.[16] For instance, ESG funds are more exposed to the healthcare sector, which performed well during the peak of the COVID-19 crisis. However, this hypothesis has not been statistically proven yet; this analysis intends to fill this gap.

Portfolio exposures were left out of previous analyses, assessing their impact is the main contribution of this study. By analysing the factors driving the costs and performance of investment funds, the aim of this article is to improve our understanding of this market.

The following analyses rely on an initial database containing 9 866 equity UCITS[17] funds domiciled in the EU and operating at the time of the extraction (December 2021). The dataset contains several funds' characteristics and time series variables that were extracted on a monthly basis between January 2019 and October 2021.[18] Several filters were then applied to only keep funds that could be included in at least one regression analysis[19] and to remove suspicious observations (negative ongoing costs or observations reported before the fund's inception).[20] The final sample is composed of 6 528 equity UCITS funds.

12 A European Fund and Asset Management Association study showed that the share of passive funds was higher among ESG funds compared to non-ESG peers (see EFAMA (2021), 'ESG investing in the UCITS market, a powerful and inexorable trend', *Market Insights*, No 4).

13 Boffo, R. and R. Patalano (2020), 'ESG Investing: Practices, progress and challenges', OECD Paris.

14 See ESMA (2021b), *Report on Trends, Risks and Vulnerabilities*, No 2, p. 44.

15 Boffo, R. and R. Patalano (2020), 'ESG Investing: Practices, progress and challenges', OECD Paris.

16 See for example ESMA (2022a), *Annual statistical report on the performance and costs of EU retail investment products*.

17 The choice was made here to focus on UCITS funds to maximise the homogeneity of the sample and avoid potential biases.

18 The analysis focuses on the April 2019–September 2021 period. At the time of the extraction (December 2021), data for the fourth quarter of 2021 were incomplete. We observe a significant improvement in the coverage (i.e. the number of funds we can analyse) between 2019 and 2021. However, the number of funds reporting information in the first quarter of 2019 appears low (less than 1 400 observations for January 2019 compared to a monthly average of almost 2 800 funds for the three other quarters). For these reasons, we decided to exclude the first quarter of 2019 and the last quarter of 2021 from the analysis.

19 This requires for funds to have, at least once between April 2019 and September 2021, all the variables listed in the equation on page 7. The information (especially on the portfolio composition) is reported by investment funds to Morningstar on a voluntary basis. Since there is no obligation, some funds do not report and are then excluded from our sample.

20 Also, in order to maximise the sample size, the missing information on costs has been replaced for each fund with the last known cost figure until a new figure is reported.

Differences in portfolio composition

In our first analysis, we compare the aggregate exposures of ESG and non-ESG fund portfolios with several allocation categories.[21]

Large caps versus small caps[22]

Between April 2019 and September 2021, non-ESG funds have on average increased their exposure to large caps and reduced their exposure to small caps, whereas the exposure of ESG funds remained broadly unchanged. In September 2021, ESG funds remained more exposed to large caps and less exposed to small caps compared to non-ESG funds.

Table 1

The exposure of equity funds to small and large caps

Exposure of ESG funds broadly unchanged

	April 2019			September 2021		
	Non-ESG		ESG	Non-ESG		ESG
Large caps	62 %	<***	67 %	65 %	<**	67 %
Small caps	14 %	>***	9 %	12 %	>***	9 %

Note: Average of EU equity UCITS individual exposure to large and small caps as of April 2019 and September 2021. The symbols "<" and ">" indicate whether the exposure is greater for ESG or non-ESG funds. The stars represent the significance level of the differences which is reported as follows: 0.01 (***), 0.05 (**), 0.1 (*). For instance, the symbol "<***" indicates that the exposure is greater for ESG funds than for the non-ESG funds and the difference is significant at the 1 % confidence level.
Sources: Morningstar, ESMA.

The COVID-19 crisis might have led to 'flight to quality/liquidity' behaviours, with fund managers divesting their small caps participations to increase their exposure to large caps.

Value stocks versus growth stocks[23]

Both ESG and non-ESG funds reduced their exposure to value and growth stocks between April 2019 and September 2021. As of September 2021, the exposure to value stocks is greater for non-ESG funds, whereas the exposure to growth stocks is greater for ESG funds (Table 2).

Table 2

Exposure of equity funds to value and growth stocks

ESG funds less exposed to value stocks

	April 2019			September 2021		
	Non-ESG		ESG	Non-ESG		ESG
Value	29 %		29 %	27 %	>***	21 %
Growth	39 %	>*	38 %	30 %	<***	31 %

Note: Average of EU equity UCITS individual exposure to value and growth stocks as of April 2019 and September 2021. The symbols "<" and ">" indicate whether the exposure is greater for ESG or non-ESG funds. The stars represent the significance level of the differences which is reported as follows: 0.01 (***), 0.05 (**), 0.1 (*). For instance, the symbol "<***" indicates that the exposure is greater for ESG funds than for the non-ESG funds and the difference is significant at the 1 % confidence level.
Sources: Morningstar, ESMA.

Geographical exposure

The geographical focus of ESG funds shifted towards developed economies between 2019 and 2021. During this period, ESG funds increased their exposure to North America and Europe and decreased their exposure to other regions. Conversely, non-ESG funds significantly reduced their exposure to Europe and mainly increased their exposure to North America and Asia.

Table 3

Average geographical exposure of equity funds

Equity funds highly exposed to Europe

	April 2019		September 2021	
	ESG	Non-ESG	ESG	Non-ESG
Africa Middle East	1.5 %	1.1 %	0.6 %	1.2 %
Asia	18.5 %	22.2 %	16.8 %	22.9 %
Australia & New Zealand	1.1 %	1.4 %	1.0 %	1.2 %
Europe	46.9 %	46.0 %	48.3 %	43.3 %
North America	29.4 %	27.3 %	32.0 %	29.5 %
South America	2.7 %	1.9 %	1.3 %	2.0 %

Note: Average of EU equity UCITS individual geographical exposure as of April 2019 and September 2021. The dark green colour indicates the largest geographical exposure, the light green colour indicates the next-largest geographical exposure, while the yellow colour indicates the third-largest geographical exposure.
Sources: Morningstar, ESMA.

On an aggregate level, the exposure to developed economies[24] was similar between ESG and non-ESG funds in April 2019. However,

21 For this study, we rely on the Morningstar definition of a sustainable investment fund. Morningstar classifies the following strategies as sustainable investment: ESG integration, ESG company engagement, impact investing and thematic investing. This definition excludes funds that only employ 'exclusions', which are identified via norm-based screening and the exclusion of specific activities/sectors. See Morningstar (2019), 'Morningstar sustainable attributes: Framework and definitions for "sustainable investment" and "employs exclusions" attributes'.

22 This classification relies on the Morningstar style box, see Morningstar (2018), 'Morningstar Style Box Methodology', Morningstar Methodology Paper.

23 This classification relies on the Morningstar style box, see Morningstar (2018), 'Morningstar Style Box Methodology', Morningstar Methodology Paper.

24 The exposure to developed economies is the sum of exposures to North America, developed Europe, the United Kingdom, Japan, developed Asia, Australia and New Zealand.

ESG funds became more exposed to this area during the 2019–2021 period and the difference is statistically significant in September 2021.

Sectoral exposures[25]

Between April 2019 and September 2021, UCITS equity funds increased their exposure to communication services[26] (the magnitude is greater for non-ESG funds) and healthcare stocks (the rise was more important for ESG funds). Both types of funds partially divested their consumer defensive, energy and financial stocks, but in all cases the magnitude was greater for ESG funds.

Table 4

Average sectoral exposure of equity funds

Equity funds highly exposed to technology

	April 2019		September 2021	
	ESG	Non-ESG	ESG	Non-ESG
Basic materials	6.4 %	7.2 %	5.9 %	7.0 %
Communication	3.3 %	2.7 %	6.9 %	7.6 %
Consumer cyclical	11.5 %	12.9 %	10.8 %	12.2 %
Consumer defensive	9.0 %	7.8 %	6.7 %	6.9 %
Energy	3.4 %	5.2 %	1.8 %	4.0 %
Financials	16.2 %	16.0 %	13.2 %	14.4 %
Healthcare	10.8 %	10.5 %	13.0 %	11.8 %
Industrials	15.3 %	12.8 %	16.6 %	12.8 %
Real Estate	4.0 %	5.5 %	3.7 %	4.0 %
Technology	16.5 %	16.8 %	18.1 %	16.6 %
Utilities	3.7 %	2.6 %	3.4 %	2.6 %

Note: Average of EU equity UCITS individual sectoral exposure as of April 2019 and September 2021 (share of each sector in percent). The dark green colour indicates the first sectoral allocation, the light green colour indicates the second sectoral allocation, while the yellow colour indicates the third sectoral allocation.
Sources: Morningstar, ESMA.

Low-cost ESGs: Multitude of drivers

In order to provide more statistical evidence to the stylised facts presented above, we regress funds' ongoing costs and gross performance on several characteristics (e.g. domicile, management style, type of clients targeted or size) and on the exposure of funds.[27] The equation to be estimated on the overall sample is the following.

$$
\begin{aligned}
&Y_{i,t} \\
&= \alpha_0 + \alpha_1\, ESG_{i,t} + \alpha_2\, date_t + \alpha_3\, clients_i \\
&+ \alpha_4\, management_i + \alpha_5\, feederFOF_i \\
&+ \alpha_6\, developed\ economies_{i,t} + \alpha_7\, domicile_i \\
&+ \alpha_8\, large\ caps_{i,t} + \alpha_9\, value\ stock_{i,t} \\
&+ \alpha_{10}\, utility\ sector_{i,t} + \alpha_{11}\, basic\ materials\ sector_{i,t} \\
&+ \alpha_{12}\, communication\ sector_{i,t} \\
&+ \alpha_{13}\, consumer\ cyclical\ sector_{i,t} \\
&+ \alpha_{14}\, consumer\ defensive\ sector_{i,t} \\
&+ \alpha_{15}\, energy\ sector_{i,t} + \alpha_{16}\, financial\ sector_{i,t} \\
&+ \alpha_{17}\, healthcare\ sector_{i,t} \\
&+ \alpha_{18}\, industrial\ sector_{i,t} + \alpha_{19}\, technology\ sector_{i,t} \\
&+ \alpha_{20}\, age_{i,t} + \alpha_{21} \log (net\ assets)_{i,t} \\
&+ \alpha_{22}\, Asset\ Management\ Company_i + \varepsilon_{i,t}
\end{aligned}
$$

The variables are defined as follows.

- $Y_{i,t}$ is the annual ongoing costs or the monthly gross performance.
- $ESG_{i,t}$ is a dummy variable taking the value of 1 if a fund is an ESG fund at a given date.[28] This is our main variable of interest.
- $date_t$ is a time dummy identifying the month and year of the observation. This variable controls for the decrease of fees over time and for the volatility of performances during the period under review.
- $clients_i$ is a time invariant dummy variable which equals 1 if the fund is sold to institutional clients. This variable controls for the cost difference between retail and institutional funds.
- $management_i$ is a time invariant dummy variable equal to 1 if the fund is passively managed. This variable controls for the cost difference between passive and active funds.
- $feederFOF_i$ is a time invariant dummy variable equal to 1 if the fund is a feeder fund or a fund of funds (FoF). This variable controls for the higher costs of funds investing in other funds.
- $developed\ economies_{i,t}$ is a continuous time series variable indicating the share of the

[25] This classification relies on the Morningstar global equity classification structure.

[26] Morningstar includes in this sector 'Companies that provide communication services using fixed-line networks or those that provide wireless access and services. This sector also includes companies that provide internet services such as access, navigation and internet-related software and services.' For further details, see Morningstar global equity classification structure.

[27] Not all sectors were included in the regression to avoid collinearity issues. The real estate sector was namely removed from the explanatory variables. For this reason, we also removed from the regressions the share of small caps (highly correlated to the share of large caps) and the share of growth stocks (also highly correlated to the proportion of value stocks). The correlation between the remaining continuous variables stands between – 0.4 and 0.4. The generalised variance inflation factor was also controlled and shows no multicollinearity issue.

[28] Contrary to the other dummy variables in the equation the ESG variable can change over time to reflect the potential change of strategy.

fund's portfolio exposed to developed economies. The inclusion of this variable is a novelty compared to previous studies.

- $domicile_i$ is a time invariant dummy variable identifying the fund's domicile. This variable controls for the heterogeneity of costs across countries.[29]
- $large\ caps_{i,t}$ is a continuous time series variable indicating the share of the fund's portfolio exposed to large caps. The inclusion of this variable is a novelty compared to previous studies.
- $value\ stock_{i,t}$ is a continuous time series variable indicating the share of the fund's portfolio exposed to value stocks. The inclusion of this variable is a novelty compared to previous studies.
- The sectoral exposures are continuous time series variables indicating the share of the fund's portfolio exposed to each sector. The inclusion of those variables is a novelty compared to previous studies.
- $age_{i,t}$ is a continuous time series variable calculated as the difference between the observation date and the fund's inception date. This variable controls for the gradual reduction of fees over time, leading recent funds to be on average cheaper.
- $\log(net\ assets)_{i,t}$ is a continuous time series variable reflecting the logarithm of the fund's net assets. This variable controls for the costs/performance differences due to the fund's size.
- $Asset\ Management\ Company_i$ is a time invariant dummy variable identifying the fund's management company. This variable controls for the different pricing policies across management companies.

For some of the independent variables, there is a strong presumption of their expected effect.

- $\boldsymbol{ESG_{i,t}}$. Previous analyses demonstrated that ESG funds are cheaper.
- $\boldsymbol{clients_i}$. We expect funds sold to institutional investors to be cheaper than retail funds, consistent with the findings of the ESMA annual statistical report on performance and costs of retail investment products in the EU.[30]
- $\boldsymbol{management_i}$. We expect passive funds to be cheaper than active funds, consistent with the findings of ESMA's annual statistical report on performance and costs of retail investment products in the EU.
- $\boldsymbol{feederFOF_i}$. We expect FoFs and feeder funds to be more expensive as the investors indirectly bear the costs of several layers of funds.
- $\boldsymbol{developed\ economies_{i,t}}$. As explained previously, we expect funds that are more exposed to developed economies to be cheaper.
- $\boldsymbol{large\ caps_{i,t}}$. As explained previously, we expect funds that are more exposed to large caps to be cheaper.
- $\boldsymbol{age_{i,t}}$. We expect older funds to be more expensive, in keeping with the decreasing trend of fees.
- $\boldsymbol{\log(net\ assets)_{i,t}}$. We expect larger funds to be cheaper due to economies of scale.

The model is estimated through pooled Ordinary Least Square (pooled OLS), with standard errors clustered at the individual level.

As highlighted in the previous section, ESG funds were on average less exposed to small caps and were more oriented towards developed economies. These divergences might indeed contribute to lowering the fees of ESG funds.

However, the regression on the overall sample (Model (1) of Table 5) shows that ESG funds remained cheaper even when controlling for the differences in the portfolio composition. All else being equal, an ESG fund appears less expensive than a non-ESG fund by 0.080 percentage points (or 8.0 basis points[31]).

[29] For further details, see ESMA (2022a), *Annual statistical report on performance and costs of retail investment products in the EU*.

[30] The 2022 ESMA annual statistical report on performance and costs of retail investment products in the EU shows that an investment of EUR 10 000 in a hypothetical retail portfolio composed of equity (40 %), bond and mixed funds (30 % each) between 2011 and 2020 would have returned approximately EUR 18 000 in gross terms and around EUR 15 400 after deduction of costs. The hypothetical retail investor consequently pays around EUR 2 600 in costs. Comparatively, a hypothetical institutional investor with a similar portfolio would only have paid around EUR 1 600 in costs.

[31] This figure is consistent with previous findings. The 2022 ESMA annual statistical report on performance and costs of retail investment products in the EU showed that ESG funds were less costly compared to non-ESG peers across the four quarters of 2020. The difference of total expense ratio oscillates between 8.0 and 8.8 basis points. The AMF study demonstrated that a fund share class sold in France, claiming non-financial

Table 5
Regression analysis of the costs for equity funds
ESG funds remained cheaper

Pooled OLS
Dependent variable: Ongoing costs

	Standard model (1)	*Model with interaction terms* (2)	*Model with tracking error* (3)
ESG	**– 0.080 *** **	**– 0.118 ***	**– 0.076 *** **
Institutional	– 0.436 ***	– 0.437 ***	– 0.459 ***
Passive	– 0.645 ***	– 0.646 ***	– 0.626 ***
FoF	0.390 ***	0.391 ***	0.347 ***
Developed	– 0.003 ***	– 0.003 ***	– 0.003 ***
Large caps	– 0.002 ***	– 0.002 ***	– 0.001 ***
Value	– 0.001 **	– 0.001 **	– 0.001
Utilities	– 0.002	– 0.002	– 0.003 *
Materials	0.001	0.001	0.0002
Communication	– 0.0005	– 0.0005	– 0.001
Consumer cyclical	– 0.001	– 0.001	0.0001
Consumer defensive	– 0.002	– 0.002	– 0.002 *
Energy	0.003 ***	0.003 ***	0.002 **
Financials	0.0002	0.0002	0.001
Healthcare	0.001	0.001	0.001
Industrials	0.002 **	0.002 **	0.002 **
Technology	0.0004	0.0004	– 0.0003
Age	0.021 ***	0.021 ***	0.022 ***
Size	– 0.007 *	– 0.007 *	– 0.003
Age * ESG		0.001	
Developed * ESG		0.0001	
Large * ESG		0.0003	
Tracking error			0.032 ***
Intercept	1.498 ***	1.502 ***	1.245 ***
Observations	96 146	96 146	67 180
R^2	0.655	0.655	0.674

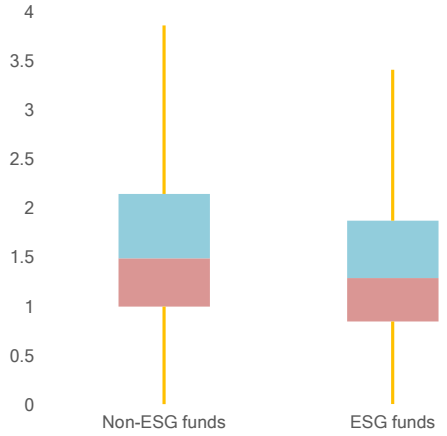
Note: 'ESG' is a dummy taking the value of 1 if a fund is an ESG fund at a given date. 'Institutional' is a dummy taking the value of 1 if the fund targets institutional clients. 'Passive' is a dummy taking the value of 1 if the fund is passively managed. 'FoF' is a dummy taking the value of 1 if a fund is a fund of fund or a feeder fund. 'Developed' indicates the share of the portfolio invested in developed economies. 'Large caps' indicates the share of the portfolio invested in large caps. 'Value stocks' indicates the share of the portfolio invested in value stocks. 'Utilities', 'Materials', 'Communication', 'Consumer cyclical', 'Consumer defensive', 'Energy', 'Financials', 'Healthcare', 'Industrials' and 'Technology' indicate the share of the portfolio invested in each sector. 'Age' measures the age of the fund from its inception date expressed in years. 'Size' represents fund size in terms of net assets in logarithmic terms. 'Tracking error' is the yearly tracking error. The date, domicile and Asset Management Company variables are hidden from the results. Significance levels are reported as follows: (0.01 (***), 0.05 (**), 0.1 (*)).
Sources: Morningstar, ESMA.

Previous analyses (e.g. Darpeix and Mosson (2021) or ESMA (2022a)) demonstrated the relative cheapness of passive funds, of funds targeting institutional clients or larger funds, and the current study confirms those results once more. Conversely, FoFs and older funds are associated with higher costs. As expected, increasing exposure to developed economies or large caps is correlated with lower costs.

Model (2) of Table 5 presents the results of a regression using the same variables but adding interaction terms. Since ESG funds are on average more recent, assessing whether the effect of age on costs is different for ESG and non-ESG funds is of interest. However, this interaction term is not significant, implying that the effect of age on costs is similar between ESG and non-ESG funds. Likewise, increasing the exposures to large caps or developed economies does not have a different impact, in terms of costs, for either ESG or non-ESG funds.

Finally, Model (3) of Table 5 adds the yearly tracking error[32] as an explanatory variable. We observe that the distribution of the tracking error is shifted downward for ESG funds (Chart 3) and that the distribution of the tracking error for ESG funds is statistically different at the 1 % confidence level from the distribution of the tracking error for non-ESG funds. We then test whether this difference explains the cost differential between ESG and non-ESG funds.

Chart 3
Distribution of tracking error for equity funds
ESG funds show a lower distribution



Note: Distribution of the yearly tracking error for EU equity UCITS. All yearly tracking errors ending between April 2019 and September 2021 are pooled. The extremities of the box plots represent the smallest and largest adjacent values[33], the bottom of the box represents the first quartile, the middle line the median and the top of the box represents the third quartile.
Sources: Morningstar, ESMA.

characteristics (through its name) and having a label appears less expensive (in terms of total expense ratio) than a "conventional" fund share class by 10.4 basis points in 2019. The spread was smaller in the case of Austrian funds as the funds investing in accordance with the Austrian Ecolabel 49 were less expensive (in terms of ongoing costs) by 4 basis points compared to all retail funds in 2020.

32 The calculation of the tracking error requires first to compute for each fund the monthly return in excess of the prospectus benchmark. The annual tracking error is then obtained by taking the standard deviation of twelve consecutive excess returns.

33 The smallest adjacent value is obtained by the following formula: $Q_1 - \frac{3}{2}(Q_3 - Q_1)$, while the largest adjacent value is obtained by the following formula: $Q_3 + \frac{3}{2}(Q_3 - Q_1)$, where Q1 corresponds to the first quartile and Q3 to the third quartile.

Model (3) of Table 5 shows that the coefficient of the tracking error variable is positive and significant, meaning that a higher tracking error is correlated with higher ongoing costs. However, even after the inclusion of this variable, ESG funds remain associated with lower costs.

Given the growing number of funds that converted to ESG[34], we created a detailed ESG variable to distinguish funds that have included ESG characteristics since their launch and funds that included ESG features into their existing strategy. Funds identified as ESG in the quarter following their creation are considered as funds created as ESG ('Created ESG'). Funds identified as ESG more than a quarter after their launch are considered as converted funds ('Converted ESG'). Since the information on the ESG characteristics was retrieved from January 2019, it is not possible to assess whether a fund created before 2019 was created as ESG or not. To solve this issue, we created a third category to classify funds identified as ESG and created before 2019 ('Older ESG').

Model (1) of Table 6 shows a significant difference between the ongoing costs of those categories of ESG funds. Funds created as ESG appear to be the cheapest, followed by funds that converted to ESG. Hence, a fund created as ESG appears less expensive than a non-ESG fund by 0.279 percentage points. The difference between costs of funds created as ESG and funds that converted to ESG is significant at the 1 % confidence level. The smallest difference with non-ESG funds can be observed for ESG funds created before 2019.

Interestingly, when we restrict the sample to converted funds only, we observe a difference in cost between the period where they were identified as non-ESG and the period where they were identified as ESG. Before converting, the average cost for these funds is 1.1 % compared to 1.0 % after their conversion. However, it is difficult to say whether the decrease in fees is related to the change of strategy or to the broader decrease of fees over time (this gradual reduction of fees can be observed on Chart 2).

We also distinguish ESG funds according to their strategies and put them into two categories: impact funds[35] and funds following other ESG strategies.

Table 6

Regression analysis of the costs for equity funds

Funds created as ESG are cheaper

Pooled OLS

Dependent variable: Ongoing costs

	Model with the different ESG funds (1)	*Model with the different ESG strategies (2)*
Created ESG	**– 0.279 *** **	
Older ESG	**– 0.046 *** **	
Converted ESG	**– 0.117 ***	
Impact funds		**– 0.092 *** **
Other ESG		**– 0.073 *** **
Institutional	– 0.447 ***	– 0.437 ***
Passive	– 0.646 ***	– 0.641 ***
FoF	0.390 ***	0.389 ***
Developed	– 0.003 ***	– 0.003 ***
Large caps	– 0.002 ***	– 0.002 ***
Value	– 0.001 **	– 0.001 **
Utilities	– 0.002	– 0.002
Materials	0.001	0.001
Communication	– 0.001	– 0.0005
Consumer cyclical	– 0.001	– 0.001
Consumer defensive	– 0.002 *	– 0.002 *
Energy	0.003 ***	0.003 ***
Financials	0.0002	0.0002
Healthcare	0.001 *	0.001
Industrials	0.002 **	0.002 **
Technology	0.001	0.0004
Age	0.021 ***	0.021 ***
Size	– 0.009 **	– 0.007 *
Intercept	1.528 ***	1.531 ***
Observations	96 146	95 479
R^2	0.657	0.653

Note: 'Created ESG' is a dummy taking the value of 1 if the fund was created as an ESG fund. 'Older ESG' is a dummy taking the value of 1 if the fund is identified as ESG but created before 2019. 'Converted ESG' is a dummy taking the value of 1 if the fund was repurposed as an ESG fund. 'Impact fund' is a dummy taking the value of 1 if the fund is identified as an impact fund. 'Other ESG' is a dummy taking the value of 1 if the fund follows other ESG strategies. For all the ESG variables, the relation is with respect to non-ESG funds. 'Institutional' is a dummy taking the value of 1 if the fund targets institutional clients. 'Passive' is a dummy taking the value of 1 if the fund is passively managed. 'FoF' is a dummy taking the value of 1 if a fund is a fund of fund or a feeder fund. 'Developed' indicates the share of the portfolio invested in developed economies. 'Large caps' indicates the share of the portfolio invested in large caps. 'Value stocks' indicates the share of the portfolio invested in value stocks. 'Utilities', 'Materials', 'Communication', 'Consumer cyclical', 'Consumer defensive', 'Energy', 'Financials', 'Healthcare', 'Industrials' and 'Technology' indicate the share of the portfolio invested in each sector. 'Age' measures the age of the fund from its inception date expressed in years. 'Size' represents fund size in terms of net assets in logarithmic terms. The date, domicile and Asset Management Company variables are hidden from the results. Significance levels are reported as follows: (0.01 (***), 0.05 (**), 0.1 (*)).

Sources: Morningstar, ESMA.

Model (2) of Table 6 shows that both impact funds and funds following other ESG strategies are cheaper than non-ESG funds. Impact funds appear to be the cheapest category (the difference between impact funds and funds

[34] See Losavio, E. (2021), 'ESG demand prompts more than 250 European funds to change tack', *Financial Times*.

[35] According to Morningstar, impact funds employ 'strategies that seek to make a measurable impact alongside financial return on specific issue areas through their investments'. See Morningstar (2019), 'Morningstar sustainable attributes: Framework and definitions for "sustainable investment" and "employs exclusions" attributes'.

employing other ESG strategies is also significant at the 1 % confidence level).

ESG outperformance: Beyond sectoral effects

The second part of the analysis focuses on the monthly gross performance[36] and investigates the drivers behind the outperformance of ESG funds. The hypothesis tested is whether the different sectoral exposures might explain the outperformance of ESG funds. Indeed, as highlighted in the previous sections, ESG funds increased some of their exposure to sectors that performed well at the peak of the COVID-19 crisis (e.g. the healthcare sector).

Model (1) of Table 7 shows that the inclusion of sectoral exposures does not change the previous result: ESG funds are indeed associated with a larger gross performance. All else being equal, an ESG funds outperformed a non-ESG funds by 0.057 percentage points on average.

The type of clients targeted or the investment in other funds does not seem to impact the gross performance. Besides, the gross performance of passive funds is not statistically different from the performance of active funds.

Moreover, a fund with more large caps or value stocks in its portfolio is associated with a lower gross performance on average.[37] Some sectors such as energy, financials, industrials or technology are on average correlated with a greater performance, while the consumer defensive and utilities sectors appear to negatively impact the funds' performance. However, ESG funds still outperformed non-ESG funds when we control for these sectoral exposures.

Table 7
Regression analysis of EQ fund performance
ESG funds performed better

Pooled OLS

Dependent variable: Monthly gross performance

	Standard model	*Model with tracking error*	*Model with tracking error and interaction term*
	(1)	*(2)*	*(3)*
ESG	**0.057 *** **	**0.038**	**0.328 *** **
Institutional	– 0.017	– 0.002	– 0.004
Passive	– 0.046	0.037	0.023
FoF	– 0.012	0.056 *	0.073 **
Developed	0.004 ***	0.005 ***	0.005 ***
Large caps	– 0.003 ***	– 0.001	– 0.001
Value	– 0.016 ***	– 0.017 ***	– 0.017 ***
Utilities	– 0.002	– 0.003	– 0.001
Materials	0.009 ***	0.008 ***	0.008 ***
Communication	0.009 ***	0.011 ***	0.010 ***
Consumer cyclical	0.010 ***	0.011 ***	0.010 ***
Consumer defensive	– 0.006 ***	– 0.008 ***	– 0.008 ***
Energy	0.017 ***	0.016 ***	0.015 ***
Financials	0.014 ***	0.014 ***	0.014 ***
Healthcare	0.006 ***	0.005 ***	0.005 ***
Industrials	0.009 ***	0.007 ***	0.008 ***
Technology	0.017 ***	0.014 ***	0.014 ***
Age	– 0.002 **	– 0.001	– 0.001
Size	0.017 ***	0.012 **	0.013 **
Tracking error		0.129 ***	0.167 ***
Tracking error * ESG			– 0.195 ***
Intercept	2.958 ***	2.878 ***	2.803 ***
Observations	124 250	83 185	83 185
R^2	0.699	0.707	0.707

Note: 'ESG' is a dummy taking the value of 1 if a fund is an ESG fund at a given date. 'Institutional' is a dummy taking the value of 1 if the fund targets institutional clients. 'Passive' is a dummy taking the value of 1 if the fund is passively managed. 'FoF' is a dummy taking the value of 1 if a fund is a fund of fund or a feeder fund. 'Developed' indicates the share of the portfolio invested in developed economies. 'Large caps' indicates the share of the portfolio invested in large caps. 'Value stocks' indicates the share of the portfolio invested in value stocks. 'Utilities', 'Materials', 'Communication', 'Consumer cyclical, 'Consumer defensive', 'Energy', 'Financials', 'Healthcare', 'Industrials' and 'Technology' indicate the share of the portfolio invested in each sector. 'Age' measures the age of the fund from its inception date expressed in years. 'Size' represents fund size in terms of net assets in logarithmic terms. 'Tracking error' is the yearly tracking error. The date, domicile and Asset Management Company variables are hidden from the results. Significance levels are reported as follows: (0.01 (***), 0.05 (**), 0.1 (*)).

Sources: Morningstar, ESMA.

This means that sectoral exposures cannot entirely explain the outperformance of ESG funds. The technology and industrials sectors are the two prominent sectoral exposures for ESG funds in September 2021, and these two sectors had strong performances between April 2019 and September 2021[38] (Table 8). However, ESG funds significantly reduced their exposure to the financial sector, which was the best performing sector between April 2019 and September 2021.

[36] Morningstar defines the gross performance as the 'return an investor would have received had they not paid any expenses. The calculation of gross return adjusts the monthly total return for the share class by the share class level fees prevailing at that time'.

[37] These results were expected as the MSCI Europe Small cap Index outperformed the MSCI Europe Large cap Index between April 2019 and September 2021. Likewise, the MSCI Europe Growth Index outperformed the MSCI Europe Value Index during the same period.

[38] Based on the MSCI Europe sectoral indexes.

Table 8

Equity funds' change in sectoral exposures

ESG funds reduced their exposure to financials

	Change in mean exposure		Return
	ESG	Non-ESG	
Basic materials	– 0.55	– 0.16	24 %
Communication	3.52	4.92	– 8 %
Consumer cyclical	– 0.63	– 0.65	36 %
Consumer defensive	– 2.29	– 0.88	5 %
Energy	– 1.62	– 1.26	– 25 %
Financials	– 3.02	– 1.51	52 %
Healthcare	2.26	1.27	25 %
Industrials	1.34	– 0.04	40 %
Real Estate	– 0.30	– 1.42	– 6 %
Technology	1.58	– 0.24	14 %
Utilities	– 0.31	– 0.02	15 %

Note: The two left columns represent the change (in percentage points) in sectoral exposure between April 2019 and September 2021 for ESG and non-ESG EU equity UCITS. The right column represents the return of the MSCI Europe sectoral indexes (in percent) between April 2019 and September 2021. The figures in green represent the two highest returns or changes whereas the red and orange figures represent the two lowest returns or changes.

Sources: Morningstar, ESMA.

Model (2) of Table 7 shows that a higher tracking error is associated to a higher gross performance. In this model, the coefficient attached to the ESG variable loses its significance. Model (3) of Table 7 interacts the tracking error with the ESG variable and shows that the effect of tracking error on the gross performance is different for ESG and non-ESG funds. For non-ESG funds, the tracking error is positively correlated with the performance, whereas for ESG funds, the tracking error has no impact on the performance.[39]

The regressions with the detailed ESG variable (Table 9) show that funds identified as ESG and created before 2019 ('Older ESG') outperformed non-ESG funds. The performance of the funds created after 2018 ('Created ESG' or 'Converted ESG') is not significantly different from the performance of non-ESG funds. In addition, Model (2) shows that even if impact funds seem to outperform non-ESG funds, the significance level is low and the difference of performance between impact funds and funds employing other ESG strategies is not significant.

Table 9

Regression analysis of EQ fund performance

ESGs created before 2019 perform better

Pooled OLS

Dependent variable: Monthly gross performance

	Model with the different ESG funds (1)	*Model with the different ESG strategies (2)*
Created ESG	**– 0.018**	
Older ESG	**0.075 *****	
Converted ESG	**– 0.078**	
Impact funds		**0.047 ***
Other ESG		**0.064 *****
Institutional	– 0.023	– 0.018
Passive	– 0.047 *	– 0.045
FoF	– 0.012	– 0.010
Developed	0.004 ***	0.004 ***
Large caps	– 0.003 ***	– 0.003 ***
Value	– 0.016 ***	– 0.016 ***
Utilities	– 0.002	– 0.002
Materials	0.009 ***	0.009 ***
Comm	0.008 ***	0.009 ***
Consumer cyclical	0.010 ***	0.010 ***
Consumer defensive	– 0.006 ***	– 0.007 ***
Energy	0.017 ***	0.017 ***
Financials	0.014 ***	0.014 ***
Healthcare	0.006 ***	0.006 ***
Industrials	0.009 ***	0.009 ***
Technology	0.017 ***	0.017 ***
Age	– 0.002 ***	– 0.002 **
Size	0.016 ***	0.017 ***
Intercept	2.977 ***	2.957 ***
Observations	124 250	123 544
R^2	0.699	0.699

Note: 'Created ESG' is a dummy taking the value of 1 if the fund was created as an ESG fund. 'Older ESG' is a dummy taking the value of 1 if the fund is identified as ESG but created before 2019. 'Converted ESG' is a dummy taking the value of 1 if the fund was repurposed as an ESG fund. 'Impact fund' is a dummy taking the value of 1 if the fund is identified as an impact fund. 'Other ESG' is a dummy taking the value of 1 if the fund follows other ESG strategies. For all the ESG variables, the relation is with respect to non-ESG funds. 'Institutional' is a dummy taking the value of 1 if the fund targets institutional clients. 'Passive' is a dummy taking the value of 1 if the fund is passively managed. 'FoF' is a dummy taking the value of 1 if a fund is a fund of fund or a feeder fund. 'Developed' indicates the share of the portfolio invested in developed economies. 'Large caps' indicates the share of the portfolio invested in large caps. 'Value stocks' indicates the share of the portfolio invested in value stocks. 'Utilities', 'Materials', 'Communication', 'Consumer cyclical', 'Consumer defensive', 'Energy', 'Financials', 'Healthcare', 'Industrials' and 'Technology' indicate the share of the portfolio invested in each sector. 'Age' measures the age of the fund from its inception date expressed in years. 'Size' represents fund size in terms of net assets in logarithmic terms. The date, domicile and Asset Management Company variables are hidden from the results. Significance levels are reported as follows: (0.01 (***), 0.05 (**), 0.1 (*)).

Sources: Morningstar, ESMA.

Even if funds created as ESG and impact funds have the lowest fees, they do not outperform non-ESG funds in net terms. The regressions (not reported here) with the monthly net performance

[39] The impact of tracking error on performance for non-ESG funds is given by the coefficient attached to the tracking error variable (0.167 ***). For ESG funds, the impact of tracking error on performance is obtained by summing the coefficient of the tracking error variable and the coefficient of the interaction term (0.167 + (- 0.195) = - 0.028). This summed coefficient is not significant.

show that the coefficient attached to the variable 'created ESG' is not significant and the coefficient attached to the 'impact funds' variable is only significant at the 10 % confidence level.

Replacing the ESG dummy variable with different metrics of carbon exposure[40] shows that a higher exposure to carbon is associated with a greater performance. The coefficients attached to the measure of the portfolio environmental risk score[41] or to the carbon risk score[42] are both positive and statistically significant, at least at the 5 % confidence level. In consequence, the higher the exposure to environmental risks, the higher the performance (see Model (1) of Table 10).

This result could indicate that the outperformance of ESG funds might not hold for funds focusing on the E pillar. To test this hypothesis, we assign to each ESG fund a specific focus (E, S or G). To do so, we compare the portfolio environmental risk score, the portfolio social risk score and the portfolio governance risk score for every ESG fund. The lowest risk score determines the specific focus for each ESG fund (i.e. if for a given fund the governance risk score is lower than the environmental risk score and the social risk score, then we consider the fund as oriented towards the G pillar).

Model (2) of Table 10 shows that funds focusing on the S or G pillars strongly outperform non-ESG funds, whereas the performance of E funds is not statistically different from the performance of non-ESG funds. S funds appear to be the best performing category, all else being equal a S fund outperformed a non-ESG fund by 0.257 percentage points. The difference of performance between S or G funds on the one hand and E funds on the other hand is statistically significant at the 5 % confidence level.

Table 10

Regression analysis of EQ fund performance

Social funds outperform environmental funds

Pooled OLS

Dependent variable: Monthly gross performance

	Model with the env. score (1)	*Model with the ESG focus (2)*
Env. risk score	**0.030 *****	
Environmental		**– 0.0003**
Social		**0.257 ** **
Governance		**0.141 *****
Undefined		**– 1.061 ** **
Institutional	– 0.006	– 0.011
Passive	– 0.050 *	– 0.041
FoF	0.007	– 0.003
Developed	0.005 ***	0.004 ***
Large caps	– 0.001 ***	– 0.002 ***
Value	– 0.016 ***	– 0.016 ***
Utilities	– 0.006 ***	– 0.006 ***
Materials	0.008 ***	0.009 ***
Comm	0.011 ***	0.010 ***
Consumer cyclical	0.010 ***	0.010 ***
Consumer defensive	– 0.008 ***	– 0.006 ***
Energy	0.011 ***	0.016 ***
Financials	0.016 ***	0.015 ***
Healthcare	0.005 ***	0.007 ***
Industrials	0.009 ***	0.008 ***
Technology	0.014 ***	0.016 ***
Age	– 0.001 *	– 0.002 **
Size	0.010 **	0.013 ***
Intercept	1.459 ***	2.982 ***
Observations	111 395	122 484
R^2	0.701	0.701

Note: 'Env. risk score' measures 'the degree to which a company's economic value may be at risk driven by environmental factors' (Morningstar), 'Environmental' is a dummy taking the value of 1 if the fund is identified as ESG and focuses on the E aspect. 'Social' is a dummy taking the value of 1 if the fund is identified as ESG and focuses on the S aspect. 'Governance' is a dummy taking the value of 1 if the fund is identified as ESG and focuses on the G aspect. 'Undefined' is a dummy taking the value of 1 if it is not possible to assess the focus of an ESG fund (in most cases this is due to equal risk scores). For the E, S, G and undefined variables, the relation is with respect to the non-ESG funds. 'Institutional' is a dummy taking the value of 1 if the fund targets institutional clients. 'Passive' is a dummy taking the value of 1 if the fund is passively managed. 'FoF' is a dummy taking the value of 1 if a fund is a fund of fund or a feeder fund. 'Developed' indicates the share of the portfolio invested in developed economies. 'Large caps' indicates the share of the portfolio invested in large caps. 'Value stocks' indicates the share of the portfolio invested in value stocks. 'Utilities', 'Materials', 'Communication', 'Consumer cyclical', 'Consumer defensive', 'Energy', 'Financials', 'Healthcare', 'Industrials' and 'Technology' indicate the share of the portfolio invested in each sector. 'Age' measures the age of the fund from its inception date expressed in years. 'Size' represents fund size in terms of net assets in logarithmic terms. The date, domicile and Asset Management Company variables are hidden from the results. Significance levels are reported as follows: (0.01 (***), 0.05 (**), 0.1 (*)).

Sources: Morningstar, ESMA.

[40] However, including these variables reduces the sample's size. Indeed, to calculate such metrics, Morningstar first needs to know the portfolio composition. Then, the companies composing the portfolio should disclose enough information about their environmental exposures and transition in order to be assigned an environmental or carbon risk score.

[41] According to Morningstar, the portfolio environmental risk score is 'The asset-weighted average of the Company Environmental Risk scores […]. Company Environmental Risk Scores from Sustainalytics measure the degree to which a company's economic value may be at risk driven by environmental factors. The environmental risk represents the unmanaged environmental risk exposure after taking into account a company's management of such risks.'

[42] According to Morningstar, the carbon risk score is 'The asset-weighted carbon-risk score of the […] holdings in a fund […]. To calculate the portfolio carbon-risk scores, Morningstar uses Sustainalytics' company carbon-risk ratings, which indicate the risk that companies face from the transition to a low-carbon economy.' The regression with this variable is however not reported here.

Conclusion

This analysis has first shown that ESG funds are on aggregate more exposed to large caps and more oriented towards developed economies and the econometric analyses have demonstrated that these exposures are correlated with lower ongoing costs. The analyses also confirmed previous findings: funds targeting institutional clients, passive funds and more recent funds are associated with lower costs.

However, ESG funds remained cheaper even after controlling for these various factors. All else being equal, an ESG fund appears less expensive than a non-ESG fund by 0.080 percentage points over the period April 2019 – September 2021. Besides, among ESG funds, the study showed that funds created as ESG funds present on average lower fees than funds that were launched as conventional funds and later converted to ESG funds. Similarly, impact funds are cheaper than ESG funds employing other ESG strategies.

In addition, the analysis highlights some differences in sectoral allocation between ESG and non-ESG funds. ESG funds are for instance more exposed to the healthcare and technology sectors, but these differences are not the only driver of the ESG funds' outperformance. Funds created as ESG and impact funds that were among the cheapest funds are not, however, the best performing funds (both in gross and net terms).

Finally, the analysis demonstrated that higher environmental risk is associated with higher performance. This apparently counterintuitive result can be explained by the outperformance of funds focusing on the S pillar or on the G pillar compared to funds focusing on the E pillar between April 2019 and September 2021.

In a context of strong interest for costs and performance of investment funds and exponential growth of the ESG market, the specific issue of costs and performance of ESG funds is of primary interest from an investor protection angle. This study provides additional information on this field.

As part of ESMA's risk analysis work, the monitoring of costs will continue given its relevance from an investor protection perspective. Monitoring the evolution of costs will be all the more important as on the ESG side, the market is still developing and might quickly evolve. Besides, assessing to what extent the relative cheapness of ESG funds will impact the costs of non-ESG funds would also be interesting.

In the meantime, further research is needed to fully understand the reasons behind the relative cheapness of ESG funds, as it might provide some useful insights. One hypothesis to test would be whether ESG funds remain cheaper when total costs are considered and not only ongoing charges. However, the possibility to conduct in-depth analyses on costs will be limited by the scarcity of data in this area.

Besides, analysing the environmental/social performance alongside the financial performance would be of primary interest. Finally, it would be interesting to study the risk-adjusted performance to assess whether the higher performance of ESG funds still holds with this metric.

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