ESG challenges in the construction of UK balanced portfolios for private investors:

an analysis of the availability and performance of ESG funds across various asset classes

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Abstract

Environmental, Social and Governance (ESG) and sustainability investing have become very popular with institutional, family office and more recently, retail investors. In the UK the range of ESG and sustainable funds for retail and high net worth (HNW) investors is still relatively small but growing fast. This paper studies both the supply side and risk-adjusted performance of ESG funds for UK retail investors.

Based on secondary data from the Financial Express (FE) Analytics database the authors find that funds in the equity, bond and multi-asset sector are investable, from qualitative as well as quantitative perspectives, but property, alternative and other asset classes are still underdeveloped. Choosing ESG objectives has provided better risk-adjusted returns over the long-term for the retail investor, but with a tilt towards the quality growth factor as ESG favours these sectors over typical old economy value. These findings are robust with top quartile rankings and the consistently higher Sharpe ratios over a 3-year period for the equity sectors. Due to the scarcity of bond funds and other diversifiers, portfolio construction is constrained. The authors predict that over time, availability of ESG funds in alternative asset classes will grow in line with demand.

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1. Introduction

ESG and Sustainability have become popular terms in the investment world, and in particular in the UK for retail investors. Diab and Martin Adams1 find that global sustainable invested assets can reach $37 trillion by year-end 2021 and $53 trillion by 2025, with a 15% annualized growth rate since 2012, with Europe being the largest market in investable ESG assets, and USA the fastest growing market. According to Boston Consulting Group ESG will continue to attract big inflows2. Younger investors such as millennials and Generation Z showing interest in social, green and climate change issues increasingly request sustainable investment solutions3.

The development in ESG / sustainable funds can be compared to the stellar growth of alternative investment vehicles (hedge funds and absolute return funds) at the beginning of the 21st century. From 2000-2008 the hedge fund industry grew significantly, only to disappoint in terms of performance in the Global Financial Crisis4. Several papers were written on the proliferation of hedge funds and potential for performance disappointment5.

Sustainable funds are investment products (pooled investments) selecting investments according to ESG criteria: Environmental, Social and Governmental. While the term ESG is relatively recent, the concept has been evolving since the early 1980s, formerly known as Social and Responsible Investing, ethical, green funds or religious investing (Sharia). Investors can choose passive investment solutions (trackers and Exchange traded funds (ETF)) or actively managed funds. The two main investment selection styles are negative exclusion-based and positive impact investing. There is a vast range of ESG indices covering the universe according to various exclusionary screening methodologies6. This leads to confusion and discussion over which indices to use. Active fund managers use criteria including exclusionary and impact investing when building portfolios.

UK retail investors who traditionally invest into regulated onshore unit trust (open-ended investment funds or mutual funds) or offshore funds, have access to a growing number of pooled investment vehicles offered in the UK as well as ETFs. This paper focuses on actively managed funds.

Figure 1: ESG Fund Launches 1982-2020 (Financial Express, 2021)

The number of sustainable funds available to UK retail investors has increased since 2010. In the past 5 years the trend has been accelerated due to a focus on all three ESG components.

This research design allows us to propose the following research question and related hypotheses:

HO1: due to the scarcity of ESG funds it is not possible to construct robust and diversified balanced portfolios of funds.

HA1: there are enough investable funds available to construct robust portfolios.

HO2: ESG funds do not outperform their conventional equivalent.

HA2: ESG funds outperform their conventional equivalents.

This subject has not been covered by the financial and environmental academic community. The researchers’ motivations for covering this topic are the lack of current and specific academic coverage on the topic and the professional interest in sustainable investments and its relevant risk-adjusted returns.

1. Literature Review

The literature on ESG and sustainability has been mushrooming over the past 5 years. The asset management industry has been producing ESG surveys, analysis, white papers, market reports and specific research to educate investors, market their offerings and prove the concept, mainly from a performance perspective. Industry bodies and international organizations focus more on values and principles. On the academic side, studies range from value (econometric) and values (ethics and moral aspects) to structural aspects.

The leading investment house for UK retail funds, e.g., Aberdeen Standard7, BlackRock8, Invesco9, JP Morgan AM10, and Jupiter11, as well as smaller houses specialising in sustainability, e.g., Edentree12 have dedicated websites and produce communications for intermediaries and investors. These resources are part educational and part promotional.

A survey of retail investors concluded that French and German retail investing into sustainability is important to them, with a key interest in environmental impact and less priority on outperformance13. The Organisation for Economic Co-operation and Development (OECD) has been at the forefront of thought leadership with their catalogue of ESG principles. A recent report gives a systematic overview of practices and drivers of ESG investing14.

In a recent study, individual ESG preferences revealed by retail mutual fund flows in the face of an economic crisis (e.g., Covid-19) showed fragile demand for ESG15. In a White Paper Cerulli Associates explore retail investors interest and demand for ESG and identify four driving forces, namely climate change and Covid-19 (as external factors) and wealth management and technology (secular trends in the industry)16. Several studies discuss the performance attributes of ESG funds: many argue that ESG funds outperform non ESG and produce positive alpha17, while others disagree18.

The CFA Institute investigates the background and distinguishes six methods for ESG classifications19. The Investment Association in the UK identifies as the main drivers for ESG inflows climate change in 2019 and social impacts of business activities due to the pandemic (Covid-19) in 202020.

The UK Government wants an increase in the availability of sustainable investment product for the public21.

There is no research on the supply side of retail funds in ESG for UK investors. We intend to fill this gap with this paper.

1. Data

The industry body, the UK Investment Association looks after £7 trillion in assets (institutional and retail), over 4,800 funds and divides the industry into over 50 sectors. The sectors are a combination of asset-based (equities, bonds), geography-focused and investment style targeted22. The Financial Express Analytics Database (FE) provides data on 4,833 onshore and offshore funds in 52 sectors (for UK retail investors with quantitative (performance) and qualitive data23. Advisors, managers, investors and other stakeholders (researchers, regulators et al) use the FE database – one of several - for analysis and investments.

Monthly performance data based on closing prices in pound sterling, US dollars or Euro, for a common period of three years to July 2021 are used for all ESG and non-ESG funds. Funds with a shorter track record are excluded.

1. Research Method

The research design is based on the authors’ experience as academic researchers and professional analysts. The qualitative and quantitative data are used in the calculations of descriptive analytics, quartiles, Sharpe ratios and asset under management, style and other analyses. Sharpe ratios are calculated using a risk-free rate of zero due to interest rates having been at the zero bound for an extended period of time now. As the funds in FE have different inception dates and assets-under-management, funds with a minimum track record of three years and assets of at least £20 million are filtered and used for this analysis. Most ESG funds have assets under management north of £ 100 m, with several in the multi-billion bracket.

While ethical consideration should always be a focus in any research activity, due to the secondary data project there are such concerns applicable.

1. Findings

As of data from 2021 from the Financial Express Analytics Database, there are 231 sustainable funds across 32 sectors in FE. Sustainable assets currently stand at £ 190 billion representing 5.5% of assets of the UK retail fund market of £ 3.482 trillion. The equity sector is the largest with Global, Specialist, Emerging Markets and UK, follow by multi-assets (IA Mixed Investment 40-85% Shares) and Sterling bonds. Absolute assets and property in ESG are small, but in some sectors the relative number (percentage of ESG vs total assets) appears to be larger, e.g., 40% ESG funds in money markets. This can be explained by the asset class (money markets more likely to qualify as ESG) and the small number of total money market funds in the retail market. Contrary to institutional investors, such as banks, insurance and pension funds, retail investors prefer equity and other active funds over cash funds which yield zero to very low interest rates and are hence a performance drag.

Table 1: ESG Sectors and AUM sorted by size as of July 2021



Table 2: All assets sorted by asset classes (as of July 2021)



The table shows that most ESG funds are in the equity sector followed by bonds and multi asset funds. Data as of June 2021. For balanced investors who need an equity to bonds ratio of 50/50 or 60/40 this poses problems for diversification and volatility reduction options.

Table 3: Asset Class & Fund Availability (as of Juuly 2021)



Table 3 gives a detailed view of the supply side as per the assets and number of funds in ESG and total assets and shows the scarcity of funds.

Table 4: Asset Classes and Funds as of July 2021



Table 4 shows the number of funds and sectors in ESG and total universe.

Table 5: Largest ESG sectors (assets of > £ 5 b) (as of July 2021)



The table highlights the dominance of five equity sectors (Global, Unclassified, Specialist, EM and UK All Companies). Multi-asset funds and bonds are available but relatively small in comparison. Notably the assets in UK funds are small compared to the total market, due to the market composition (e.g., FTSE 100 consisting of many banks, miners, energy which do not meet ESG criteria). There is also a lack of North American Funds as US investors are lagging behind Europe in terms of ESG adoption.

Out of 231 ESG funds only 120 have a track record of at least three years. In addition, many funds are quite small. This limits the choice of funds further.

**Descriptive Statistics of 8 major sectors in ESG vs entire sectors:**

The four momenta of a normal distribution are calculated as well as the test for normality (the Jarque-Bera Test), Sharpe ratios and a t-test for the Sharpe ratios. Normality can be rejected in most cases at the 99% level. Sharpe ratios are significant at the 99% confidence interval.

Tables 6: Descriptive Statistics of ESG and Non-ESG (for a 3-year period to July 2021)



The Sharpe ratios for ESG funds are better than for non-ESG funds across all sectors, except for the IA Emerging Markets Sector which has a small number of funds with the required 3-year track record. Because there are very few ESG funds with a 5-year history available to UK retail investors we did not include them in our analysis. Over a 1-year period ESG funds tended to outperform, despite the rotation into value sectors which are typically not held by ESG managers, such as oil & gas.

**Quartiles**

The analysis of performance quartiles is used to show how ESG funds were performing versus the entire sector. While 3-year numbers are in general more reliable due to the larger number of data points (36 monthly observations), the 1-year number (12 monthly data points) are relevant for our analysis as there was an equity markets sector and style rotation from quality growth to value stocks in the middle of this 1-year period. Quality growth stocks performed well from May – November 2020 while value stocks took off with the news of approved vaccines in November 2020.

Table 7: Quartiles of ESG Sector Funds over 1 year to the end of July 2021

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Quartiles 1 year |  |  |  |  |
| IA Global |  |  |  | IA Global Emerging Markets | | |  |
| Total 471; 61 ESG; 61 ESG with 1 year | | | | Total 152; 8 ESG; 8 ESG with 1 year | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 18 | 29.5% |  | 1 | 3 | 37.5% |  |
| 2 | 14 | 23.0% |  | 2 | 1 | 12.5% |  |
| 3 | 17 | 27.9% |  | 3 | 2 | 25.0% |  |
| 4 | 12 | 19.7% |  | 4 | 2 | 25.0% |  |
| TOTAL: | 61 | 100.0% |  | TOTAL: | 8 | 100.0% |  |
|  |  |  |  |  |  |  |  |
| IA UK All Companies | | |  | IA Sterling Corporate Bond | | |  |
| Total 253; 18 ESG; 17 ESG with 1 year | | | | Total 103; 10 ESG; 10 ESG with 1 year | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 7 | 41.2% |  | 1 | 2 | 20.0% |  |
| 2 | 4 | 23.5% |  | 2 | 1 | 10.0% |  |
| 3 | 0 | 0.0% |  | 3 | 3 | 30.0% |  |
| 4 | 6 | 35.3% |  | 4 | 4 | 40.0% |  |
| TOTAL: | 17 | 100.0% |  | TOTAL: | 10 | 100.0% |  |
|  |  |  |  |  |  |  |  |
| IA Mixed Investment 40-85% Shares | | | | IA Mixed Investment 20-60% Shares | | | |
| Total 203; 8 ESG; 8 ESG with 1 year | | | | Total 183; 8 ESG; 8 ESG with 1 year | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 6 | 75.0% |  | 1 | 6 | 75.0% |  |
| 2 | 2 | 25.0% |  | 2 | 0 | 0.0% |  |
| 3 | 0 | 0.0% |  | 3 | 1 | 12.5% |  |
| 4 | 0 | 0.0% |  | 4 | 1 | 12.5% |  |
| TOTAL: | 8 | 100.0% |  | TOTAL: | 8 | 100.0% |  |

Table 8: Quartiles of ESG Sector Funds over 3 years

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Quartiles 3 years |  |  |  |  |
| IA Global |  |  |  | IA Global Emerging Markets | | |  |
| Total 471; 61 ESG; 45 ESG with 3 years | | | | Total 152; 8 ESG; 3 ESG with 3 years | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 21 | 46.7% |  | 1 | 1 | 12.5% |  |
| 2 | 15 | 33.3% |  | 2 | 1 | 12.5% |  |
| 3 | 5 | 11.1% |  | 3 | 1 | 12.5% |  |
| 4 | 4 | 8.9% |  | 4 | 0 | 0.0% |  |
| TOTAL: | 45 | 100.0% |  | TOTAL: | 3 | 100.0% |  |
|  |  |  |  |  |  |  |  |
| IA UK All Companies | | |  | IA Sterling Corporate Bond | | |  |
| Total 253; 18 ESG; 16 ESG with 3 years | | | | Total 103; 10 ESG; 10 ESG with 3 years | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 7 | 43.8% |  | 1 | 1 | 10.0% |  |
| 2 | 5 | 31.3% |  | 2 | 5 | 50.0% |  |
| 3 | 2 | 12.5% |  | 3 | 1 | 10.0% |  |
| 4 | 2 | 12.5% |  | 4 | 3 | 30.0% |  |
| TOTAL: | 16 | 100.0% |  | TOTAL: | 10 | 100.0% |  |
|  |  |  |  |  |  |  |  |
| IA Mixed Investment 40-85% Shares | | | | IA Mixed Investment 20-60% Shares | | | |
| Total 203; 8 ESG; 8 ESG with 3 years | | | | Total 183; 8 ESG; 6 ESG with 3 years | | | |
| Quartiles | Count |  |  | Quartiles | Count |  |  |
| 1 | 6 | 75.0% |  | 1 | 4 | 66.7% |  |
| 2 | 1 | 12.5% |  | 2 | 2 | 33.3% |  |
| 3 | 1 | 12.5% |  | 3 | 0 | 0.0% |  |
| 4 | 0 | 0.0% |  | 4 | 0 | 0.0% |  |
| TOTAL: | 8 | 100.0% |  | TOTAL: | 6 | 100.0% |  |

The majority of ESG equity funds (IA Global, IA Global Emerging markets, IA UK All Companies) are in the 1st and 2nd Quartiles for both 1 year and three years data. Bond funds in the Sterling Corporate sector are small in absolute number and total assets. These bond funds with less than a three-year track record are mainly in the 3rd and 4th quartile, while those with a three-year track record are also not significantly outperforming. Very interesting to see that a majority of the multi asset funds (mixed 20-60% and 40-85%) are in the 1st Quartile over both one-year and three-year periods. The authors did not find justification for including the IA Specialist sector in this analysis as no quartiles are calculated due to the wide definition of funds in the sector. In conclusion: while equity and multi-asset funds are performing well against their non-ESG peers, bond funds are finding it more difficult to outperform.

As seen above, regardless of the ESG investment style, funds in these sectors consistently exhibit higher Sharpe ratios. This reinforces to reject hypothesis HO2 that ESG funds do not outperform their conventional equivalents.

1. Final Remarks

The results lead to a rejection of the hypotheses that ESG funds are underperforming. While the number of investable funds is low relative to the whole of market, the Sharpe ratios and quartile analyses underline the strong outperformance of ESG equity and multi-asset funds. It is important to note the space is still very much in its infancy, with few ESG funds having a track record past five years. As a result, the analysis was conducted over a three-year period. The period from June 2018 until November 2020 was a particularly favourable time for growth sectors such as IT and healthcare, which tend to feature heavily in ESG portfolios, versus value sectors such as oil & gas and mining, which are almost always excluded from them. This timeframe also coincided with a general move into ESG investing from institutions, wealth managers and retail clients alike, and as such stocks which were considered to be ESG leaders saw material share price momentum. However, since the November 2020 vaccine announcements, there has been a rotation into value-dominated sectors and away from quality growth. Despite that, the ESG equity and multi-asset funds included in our analysis mostly sit in the first and second quartiles over a one year period. The authors did not find enough evidence to reject the first hypothesis regarding the scarcity of available funds to construct a robust, balanced portfolio. The issue of a small number of bonds and their weaker performance makes it more difficult to construct balanced, more defensive or cautious portfolios. However, many young investors are long-term investors and often more open to volatility (as a measure of risk) and have larger allocations into equities than the 60/40 traditional balanced portfolio asset allocation. We conclude that as the ESG fund universe will continue to grow and produce more investable funds in all sectors, the construction of diversified portfolios will become easier. Future research will focus on ESG investment considerations in the context of portfolio construction as well as institutional and family office investors who have different risk profiles and appetites.

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