THE IMPACT OF ANNUAL FEES ON THE NET RETURNS OF ICELANDIC MUTUAL FUNDS

Már Wolfgang Mixa *

* University of Iceland, Reykjavík, Iceland
Contact detail: University of Iceland, Saemundargata 2, 101 Reykjavík, Iceland

OPEN ACCESS

How to cite this paper: Mixa, M. W. (2025). The impact of annual fees on the net returns of Icelandic mutual funds. *Risk Governance & Control: Financial Markets & Institutions, 15*(3), 127–136.
https://doi.org/10.22495/rgcv15i3p10

ISSN Online: 2077-4303
ISSN Print: 2077-429X

Received: 15.12.2024
Revised: 15.04.2025; 14.07.2025
Accepted: 31.07.2025

JEL Classification: D14, G11, G15, G51
DOI: 10.22495/rgcv15i3p10

Abstract

This article analyzes the annual management fee of Icelandic mutual funds and its impact on returns from 2012 to 2023. It aims to evaluate how these fees have affected investor returns over time and what they reveal about the long-term cost of diversification for investors. It examines the proportion of nominal and real returns a typical investor paid in costs due to mutual fund management fees and how those fees evolved over the period. It scrutinizes the fees charged by bond funds concerning their annual compounded returns and expected nominal and real returns based on the required yields of non-indexed and indexed bonds at the beginning of each year. Although central to net investment performance, this type of analysis is usually overlooked by both investors and policymakers. The study also compares Icelandic mutual fund fees with United States (U.S.) trends over the same period. The percentage of management fees of annual compounded real returns was 61 percent for medium-term bond funds, 71 percent for long-term bond funds, 16 percent for domestic equity funds, and 22 percent for equity funds investing in foreign assets. While Duvall and Rybak (2023) show that U.S. management fees declined by approximately 40 percent during this period, Icelandic fees remained unchanged.

Keywords: Mutual Funds, Expense Ratio, Management Fees, Fund Net Returns, Iceland

Authors' individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

Declaration of conflicting interests: The Author declares that there is no conflict of interest.

1. INTRODUCTION

Risk diversification is a crucial aspect of investments, applicable to both public and professional investors. It is fundamentally simple in practice and revolves around not investing in just a few companies with significant correlations in price fluctuations. To achieve some diversification in investments regarding the number of assets and their composition, most individuals and even large investors, such as pension funds, invest a substantial portion of their holdings in mutual funds. Equity funds are generally defined as either active funds or index funds. Active funds follow an investment strategy where fund managers buy and sell shares according to specific objectives. Index funds aim to have their assets reflect defined indices, such as the U.S. S&P 500 Stock Index or the MSCI World Stock Index. The cost of active funds is considerably higher compared to index funds. Bond funds are differentiated similarly.

Investing in mutual funds involves costs that fund members must cover. One can justify such costs if they lead to lower other expenses or better performance (Dellva & Olson, 1998). These fees form the basis of the income for the management companies that oversee the funds. The cost investors pay to mutual fund management companies is divided into three parts. First, there is a general cost in the form of an initial fee, i.e., when people invest in a fund for the first time. Researching such costs as mutual fund management companies occasionally offer free entry fees is

challenging, and it is unclear to what extent the public takes advantage of these offers. Another cost arises from the management company's buying and selling of securities on behalf of the fund. However, this cost has decreased in recent years as the transaction costs of securities have become very low for both large and even small investors. The third cost item is the focus of this article. It is the annual cost or management fee. Such a fee includes costs for managing the funds, such as employee salaries, marketing expenses, administrative costs, and custody fees.

The initial cost can be considerable. For example, if the entry fee in a fund is 2%, a standard figure in Iceland, it would take an investor approximately one year to recover their initial investment if the real (an approximation used here is nominal returns minus inflation) annual return were 2% (Hargrave, 2022). However, the annual cost (or management fee) consistently reduces the return on investment for those investing in mutual funds even further. Such a fee can be considered a cost for investors but a fee for the management companies of mutual funds, as it does not necessarily reflect their operational costs, but also includes profit margins for the management companies. This fee is indirectly deducted from investors of the underlying asset or the fund's rate and can significantly affect returns.

An example is an annual cost of 1%, which might seem low at first glance. However, upon closer examination, it matters a lot. If, for example, the return on securities is 6% and the cost of managing the fund is 1%, then the nominal return is reduced to 5%, which amounts to nearly a 17% reduction. Looking at the real returns per year, based on the same nominal return when inflation is 4%, the real return for fund members halves from 2% to 1%; thus, the cost becomes half of the real return (Maverick, 2024). Such fee income can be significant. The total fee income of the four management companies of mutual funds examined in this article amounted to 77 billion Icelandic krona (ISK) in 2022, with their operating profit being 28 billion ISK or nearly 40% of the fee income (Íslandssjóðir, 2023; ÍV sjóðir, 2023; Landsbréf, 2023; Stefnir, 2023).

Inflation is especially important in Iceland, where it has historically been high. For example, a 1% annual fee on a fund with a 2% real return implies a 10% share of nominal returns at 8% inflation but 20% at 3% inflation (Hargrave, 2022).

Laws and regulations in Iceland do not specify any maximum caps that fund management companies must adhere to. However, they must show the costs transparently and include costs and main fees as part of the information detailed on key information pages for potential investors (Icelandic Parliament, 2021; Ministry of Finance and Economic Affairs, 2021). Individual investors in Iceland are taxed on capital gains when they sell their holdings in mutual funds (Iceland Revenue and Customs, n.d.), while U.S. investors face a more complex taxing environment (Vanguard, n.d.).

This research aims to analyze the annual costs that Icelandic investors incur for risk diversification through investments in mutual funds, both in percentage terms and as a proportion of the funds' nominal and real returns. The research question is:

RQ: What share of nominal and real returns did Icelandic investors pay in annual mutual fund management fees from 2012 to 2023?

The development of the management fee over the period is examined, as well as what portion of the nominal and real returns have been allocated to management fees. In bond funds, attention is also given to the proportion of this cost that investors could estimate based on the required yield of non-indexed and indexed government bonds at the start of each year. Two bond categories are considered: the non-indexed RIKB 31 and the indexed RIKS 30. The proportion of the management fee is briefly compared with the development of costs of comparable mutual funds in the U.S., where the annual cost is low in a global context (Kennaway et al., 2022). The focus is primarily from 2012 to 2023 because the years before the crash were characterized by significant stock price increases, which, in hindsight, proved unrealistic. During the first few years after the crash, there was no stock market, and the value of bonds was uncertain due to Iceland's low sovereign credit rating.

The article starts with a theoretical overview. Attention is then turned to the main factors affecting the return of mutual funds, primarily the impact of fees on their returns. Next, the methodology for the calculations is described, along with its limitations. Subsequently, the results are summarized. The discussion section analyzes the development over the period, and management fees are briefly compared with historical U.S. figures, showing that Icelandic mutual funds have charged comparatively higher fees in recent years, since they remained stable while steadily decreasing in the U.S.

The structure of this paper is as follows: Section 2 reviews relevant literature, both in Iceland and internationally. Section 3 describes the study's methodology step by step. Section 4 analyzes the results. Section 5 discusses the implications of the results. Section 6 concludes the paper, stating its limitations and suggestions for further studies.

2. LITERATURE REVIEW

The study begins with a review of research on Icelandic mutual funds, then focuses on foreign research and the interaction between mutual fund costs and returns.

2.1. Icelandic mutual funds

Pálsson et al. (2008) published an article just before the 2008 crash that discussed the competitiveness of Icelandic mutual funds with an international investment strategy compared to similar foreign funds. They concluded that the annual management fee for Icelandic funds was similar to that for foreign funds. They used list prices in 2006 to compare the Icelandic and foreign funds. After the crash, Magnússon et al. (2010) conducted research based on 1998–2005 data. It researched whether there was consistency over time in the performance of the management of Icelandic mutual funds, and the conclusion was that one year's performance in managing the funds was a weak indication of future performance. The authors pointed out that Icelandic funds were few, all the funds were young, and the time series was thus short.

Sigurðsson et al. (2010) published an article based on data from 1992–2005. The results of their research were that Icelandic investors chased the best return of previous periods regardless of

strategy, and that cost and risk during these years had no significant effect. International research on the return of mutual funds indicates that such decision-making was not sensible (Cuthbertson et al., 2010; Davis, 2001; Edelen et al., 2013).

2.2. International mutual funds

Research on the return of international equity funds, most of which are conducted in the U.S., has shown over time that cost, or rather a low cost, has the most significant impact on the return of each fund. Edelen et al. (2013) state that the management fee is one of the few reliable methods for predicting the return of mutual funds. Malhotra and McLeod (1997) struck a similar chord about twenty years earlier. They stated that low costs or fees are the best indication of future returns on funds and that it is impossible to distinguish between funds' success due to the knowledge of the fund managers or simply their luck. However, their research showed that the average maturity time of bonds in bond funds was a reliable indicator of their future returns. These results should not be surprising, as the yield requirement of bonds generally increases with their modified duration, compensating for the added fluctuation in bond value as the duration period lengthens. Cuthbertson et al. (2010) research on the return of mutual funds for the years 1995–2010 in the U.S. and the United Kingdom showed that the return of funds for investors was primarily related to the transaction cost of the funds, the initial cost of fund members at purchase (or sale), and the annual management fee. Only about 5% of the funds provided measurable returns above the reference index (considering cost), 20% provided poorer returns, and 75% yielded similar returns. Although mutual funds with historically better returns generally provided better returns in the future, they found, in the same vein as Malhotra and McLeod's results (1997), no indication that it was possible to time investments in mutual funds for equity or bond funds. Davis (2001) points out that the excess return of fund managers one year seemed to indicate excess return the following year, but such excess return quickly faded. Damani and Vaidya's (2021) study of U.S. and international mutual funds found that relative performance was stable across periods and, hence, predictable. However, the market timing abilities of fund managers were unstable across periods and could not be used to predict performance.

Recent research increasingly compares the performance of environmental, social, and governance (ESG) mutual funds to their conventional counterparts. Geczy and Gueardi (2021) argue that ESG criteria may compel managers to forgo profitable investments. Baily and Gnabo (2022) found that high-ESG funds underperform traditional funds, while Steen et al. (2020) reported significantly higher returns for European funds in the top ESG quintiles. In contrast, Papathanasiou and Drosos (2024) observed better performance among low-rated ESG funds, notably stating that low-rated ESG funds have lower expense ratios than high-rated ones. A Morningstar study (Roy & Stankiewicz, 2024) showed that ESG funds underperformed over the past three years but outperformed over five years.

Cremers et al. (2019) confirm these patterns by pointing out that research up to the turn of the century generally showed that fund managers had not provided better returns than the market when taking into account the cost of managing them and few, if any, fund managers regularly deliver higher returns than the ones obtained by simply investing "the market". They refer, for example, to Carhart's (1997). An influential study, which utilized a dataset spanning 32 years (1962–1993), supported this conclusion (Cremers et al., 2019). However, they believe this has changed to some extent and refer, for example, to research by Dyck et al. (2013) showing that active management by fund managers in emerging markets yields better returns, even when efficiency is possibly lower. Cremers et al. (2019) also note that publishing research that conflicts with commonly accepted knowledge or merely confirms it is challenging. A likely explanation is that very few articles have been published regarding the cost and return of mutual funds over the last twenty years. However, Morningstar (Armour, 2023) emphasizes that low fees remain the strongest predictor of mutual fund performance. Funds with lower fees are more likely to be long-lived and provide higher returns than those with higher costs.

Comparing investment styles in other less commonly used international markets yields similar results, providing no clear indication that a particular investment style consistently outperforms the market. Iriyadi et al. (2024) compared the performance of return-chasing investments with the buy-and-hold strategy regarding returns for stock mutual fund investors in Indonesia. Ajadi (2024) reached a similar conclusion regarding Nigerian mutual funds, stating that seeking alpha was futile.

Blake et al. (1993) reach a similar conclusion regarding stock funds when analyzing bond funds, showing that the return of bond funds in the U.S. becomes poorer as their average cost rises. In line with research by Cremers et al. (2019), Clare et al. (2019) believe that some fund managers have provided better returns than comparable bond index benchmarks of their funds in research conducted in the aftermath of the 2008 financial crisis. However, Clare et al. (2019) emphasize that this does not apply to all fund managers. While managers showing poor returns tend to do so further, there are no indications that fund managers who have provided outstanding returns continue to do so. Recent research by Morningstar shows that fees primarily determine the return of bond funds (Ptak, 2023). The funds were categorized according to similar investment strategies and divided into quartiles based on fees. The three-year return of the funds from the year 2011 to and including the year 2022 was measured. Funds with the highest management fees provided the poorest returns in all years and experienced the most significant fluctuations. The Morningstar author believes this relates to fund managers taking greater risks to achieve a return that justifies the high cost.

According to another Morningstar analysis (Armour, 2023), this general view has been a driving force behind more and more people considering it prudent to invest more capital in index funds. The growth of index funds has thus intensified. Looking at cost, the 20% cheapest funds in terms of annual management fee that Morningstar measures have been steadily growing since the turn of the century. The remaining 80% of funds with higher costs had net outflows in eight years from 2012 to 2021 (Armour, 2023). Investors' increased focus on the cost of investing in funds rose significantly after

the publication of Carhart's (1997) influential research. There may be an interplay between the results of his study, which have been widely cited, and increased technology that reduces the cost of management. For example, the proportion of management fees in the U.S. was virtually unchanged from 1993 to 1996 (Gallagher, 2013). From 1996 to 2023, the average annual management fee for actively managed equity funds fell from 1.08% to 0.65%; for index funds, the fee fell from 0.27% to 0.05%. In bond funds, the fee for actively managed funds dropped from 0.84% to 0.4% and from 0.20% to 0.05% for index funds (Duvall & Johnson, 2024). The average percentage of all equity funds in 1996 was 1.04%, but had fallen to 0.44% in 2022. Compared to the fees in 2022, the annual management fees decreased by 0.02% for actively managed funds and 0.01% for index funds in 2021 (Duvall & Rybak, 2023).

One of the reasons the ratio for equity funds as a whole fell faster than for funds under active management is that the proportion of investors placing their savings in index funds is steadily increasing (Duvall & Johnson, 2022). The economics of scale partly explain the ability of index funds to keep their costs lower than those of active funds (Duvall & Rybak, 2023). At the turn of the century, the proportion of investments in mutual funds (excluding money market funds) classified as index funds was 7.5%, but it had reached nearly 28% by the end of 2022 and is steadily increasing. Index funds are, on average, larger than active funds. The average size of index funds at the end of 2022 was 91 billion USD compared to 19 billion for active funds (Duvall & Rybak, 2023).

3. RESEARCH METHODOLOGY

The data for this research pertained to the returns and annual management fees of mutual fund management companies in Iceland. The Central Bank of Iceland, which includes the Financial Supervisory Authority, was contacted to request such data. It turned out that the bank, the Financial Supervisory Authority, had not issued any data on the return of funds. Hence, the data mentioned above, which foreign research shows is crucial regarding the return of funds, is not easily accessible to the public. Therefore, information regarding return and annual costs was obtained from Iceland's four most prominent mutual fund management companies with an operating history of 10 years or longer. The management companies in question are Íslandssjóðir, ÍV sjóðir, Landsbréf, and Stefnir. The data was obtained through the funds' websites, and the management companies provided further information upon request. This selection of funds might introduce a survivorship bias, but the author is unaware of funds having been closed due to poor performance during the sample period.

The funds were divided into two main categories: equity and bond funds. Equity funds were divided into two categories based on region: domestic and foreign equities. Bond funds that invest only in domestic bonds were divided into two categories based on the duration of their bonds: medium-length and long. The average duration of bond funds in the 3–5 years range was defined as medium-length, and funds with an average duration of more than five years were defined as long. The sample was based on funds that invest primarily in government-guaranteed bonds and bonds with low debtor risk. High-yield bond funds were excluded due to their niche nature in Iceland. An alternative method would have been to only look at bond and stock returns, but long-term bonds may differ substantially in returns and volatility, so the categories were split up.

The average return of the funds was calculated. The rate for each fund was recorded at the end of each year. Then, the annual nominal return was calculated. The nominal return, net of management fees, is:

$$R_t = \frac{P_t - P_{(t-1)}}{P_{(t-1)}} \quad (1)$$

where, R_t represents the nominal return for each year, P_t denotes the fund's price at the end of the year, and $P_{(t-1)}$ represents the fund's price at the end of the previous year. This rate is the return that fund members enjoy, taking into account annual management fees and trading costs.

While many methodologies focus on nominal returns, Iceland's historically high inflation makes it crucial to include such an analysis. Statistics Iceland publishes the annual inflation rate for the last 12 months at the beginning of each year (January), which is used to calculate the real return of the funds. Inflation for 2012 was calculated based on the annual percentage change over the previous 12 months. Annual inflation is thus calculated as the percentage change in the consumer price index (CPI) from the beginning of one year to the beginning of the next. In this study, it is thus indirectly assumed that mutual fund investments are made at the beginning of each year.

$$I_t = \frac{Ijan_t - Ijan_{(t-1)}}{Ijan_{(t-1)}} \quad (2)$$

Here, I_t represents annual inflation, $Ijan_t$ represents the inflation index at the start of the year, and $Ijan_{(t-1)}$ represents the inflation index at the start of the previous year. The annual real return with and without regard to the management fee was then found by dividing the nominal return by the CPI after adding one to both numbers and subtracting one from the result. The real return, taking into account the annual fee, defined here as *Rreal*, is thus:

$$Rreal_t = \frac{1 + R_t}{1 + I_t} \quad (3)$$

The average annual return of all funds for 2012–2023 was calculated for nominal and real returns, and the average management fee. Then, the management fee was divided by the average nominal return to obtain the management ratio of the return. The management ratio of the nominal return is thus:

$$Mrationom = \frac{\mu M_{(2012-2023)}}{R_{t_{(2012-2023)}}} \quad (4)$$

Here, M stands for the management fee, *Mrationom* represents the management ratio of the nominal return, μM denotes the average management fee over the period, and *Rreal* is

the real return. The management ratio of the real return is:

$$Mratioreal = \frac{\mu M_{(2012-2023)}}{Rreal_{(2012-2023)}} \quad (5)$$

Mratioreal stands for the management ratio of the real return. Then, the average return of all funds was calculated, taking into account the management fee. As fluctuations in returns make average calculations less reliable, the annual compounded real return was also considered. The *GEOMEAN* command in Excel was used to find the annual compounded real return over the period instead of the average real return, and this number was set under the average management fee of the period. Thus, the management ratio of the annual compounded real return is defined as *MratiorealC*:

$$MratiorealC = \frac{\mu M_{(2012-2023)}}{GEOMEAN_{(2012-2023)}} \quad (6)$$

Because comparing returns (nominal and real) and fees is complex when the return is very low or even negative, it is also possible to consider the investor's expected return based on the prevailing required yield in the market each time. In such cases, it is assumed that the bonds' required yield at any given time reflects the expected return in the future and that reinvestment of interest payments and repayment of bonds are the same or similar to the required yield during their lifespan. In other words, required yields are assumed to remain relatively stable in the future, and the yield curve is flat. Thus, the fee for each year was compared with the required yield of non-indexed government bonds (category RIKB 31) at the beginning of each year to estimate the proportion of the annual fee of the expected nominal return.

The same was done regarding indexed government bonds (category RIKS 30) regarding such a proportion of the expected real return. The management ratio due to the expected return of the investor of non-indexed government bonds based on the RIKB 31 category, defined as *MratioB*, is thus:

$$MratioB = \frac{\mu M_{(2012-2023)}}{\mu RIKB\ 31_{(2012-2023)}} \quad (7)$$

The management ratio due to the expected return of the investor of indexed government bonds based on the RIKS 30 category, defined here as *MratioS*, is thus:

$$MratioS = \frac{\mu M_{(2012-2023)}}{\mu RIKS\ 30_{(2012-2023)}} \quad (8)$$

The average expected yield requirement for both categories was 0.2–0.6% higher for long bond funds than their average return over the period, but 0.0–0.2% higher for medium-length funds from 2012 to 2023. For nearly all funds analyzed across the sample, annual management fees remained constant throughout the 2012–2023 period, with only minor exceptions noted in a few equity funds.

4. RESULTS

In the results for each category, i.e., medium-length and long bond funds and equity funds that invest domestically and abroad, a table is first compiled with a summary of the year's averages. This table also displays the annual compounded (geometric) real return for the period, which represents the annual return of an imaginary investor who began investing at the start of the period, along with the annual proportion of the fee applied to the real return.

For bond funds, the annual management fee, nominal return, real return, yield requirement of RIKB 31 and RIKS 30 at the beginning of each year, and finally, the ratio of the management fee and the expected return of the bond categories based on the assumptions of the return are then analyzed as nominal yield over management fees (NY/MF) and real yield over management fees (RY/MF). The bond results analyze the first eight funds with an average lifetime of 3–5 years, classified as medium-term bonds in Table 1. The average lifetime of the bonds in the eight funds in the sample was just over four years.

Table 1. Medium-term bond funds

Year	*Management fee*	*Nominal return*	*Real return*	*Net nominal return*	*Net real return*	*RIKB 31 yield*	*RIKS 30 yield*	*NY/MF*	*RY/MF*
2023	0.89%	5.14%	-1.22%	4.21%	-2.09%	7,00%	3.06%	12.66%	28.96%
2022	0.89%	-2.16%	-10.97%	-3.02%	-11.75%	4,15%	0.55%	21.39%	161.36%
2021	0.89%	2.81%	-2.73%	1.91%	-3.59%	3,19%	0.58%	27.82%	153.02%
2020	0.89%	6.62%	2.22%	5.68%	1.33%	3,51%	0.98%	25.28%	90.56%
2019	0.89%	9.33%	7.51%	8.37%	6.56%	5,43%	1.44%	16.34%	61.63%
2018	0.89%	4.93%	1.48%	4.00%	0.58%	5,11%	1.90%	17.37%	46.71%
2017	0.89%	7.08%	4.57%	6.14%	3.65%	4,96%	2.55%	17.89%	34.80%
2016	0.89%	6.83%	4.83%	5.89%	3.91%	5,82%	3.15%	15.25%	28.17%
2015	0.89%	7.03%	4.82%	6.08%	3.90%	6,40%	2.80%	13.87%	31.70%
2014	0.89%	5.40%	4.57%	4.48%	3.65%	7,11%	2.83%	12.48%	31.36%
2013	0.89%	4.73%	1.58%	3.81%	0.69%	6,91%	2.56%	12.84%	34.67%
2012	0.89%	6.72%	2.42%	5.79%	1.52%	6,97%	3.18%	12.73%	27.91%
Average	0.89%	5.37%	1.59%	4.44%	0.70%	5,55%	2.13%	16.00%	41.63%
Average management fee		**16.52%**	**55.80%**	—			**Geometric return 1.48%**		***MratiorealC* 60.01%**

Source: Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The average management fee over 2012–2023 was 0.89%, the annual average nominal return was 5.37%, and the real return was 1.59%. By taking into account the nominal return, the ratio was 16% of the nominal return of the funds over the period. That ratio, however, was almost 42% of the real return. However, the annual compounded real return was 1.46%, and the management fee amounted to

nearly 61% of the annual compounded real return of the medium-length funds. The management fee for all eight funds in the sample remained the same over the period. As it remained the same, the management ratios changed in direct proportion to the yield requirement at the beginning of each year.

The yield requirement of both categories decreased slowly and steadily for most of the period up to 2022, when the interest rate level began to rise significantly. The management fee increased from just over a quarter of the expected real return in 2012 to being substantially higher than the expected real return and even more than half higher at the beginning of 2021 and 2022, when the yield requirement of indexed bonds reached its lowest levels during the COVID-19 pandemic. With the rising yield requirement of indexed bonds, the ratio was down to 29% at the beginning of 2023.

Next, bond funds with an average lifetime of 5 years or longer, classified as long bonds, were analyzed, as seen in Table 2. The average lifetime of the bonds in the six funds in the sample was almost six and a half years.

Table 2. Long-term bond funds

Year	*Management fee*	*Nominal return*	*Real return*	*Net nominal return*	*Net real return*	*RIKB 31 yield*	*RIKS 30 yield*	*NY/MF*	*RY/MF*
2023	0.95%	5.14%	-1.46%	4.15%	-2.39%	7.00%	3.06%	13.57%	31.05%
2022	0.95%	-4.22%	-12.85%	-5.12%	-13.67%	4.15%	0.55%	22.89%	172.73%
2021	0.95%	4.89%	-0.77%	3.90%	-1.70%	3.19%	0.58%	29.78%	163.79%
2020	0.95%	6.76%	2.36%	5.76%	1.40%	3.51%	0.98%	27.07%	96.94%
2019	0.95%	8.36%	6.55%	7.34%	5.55%	5.43%	1.44%	17.50%	65.97%
2018	0.95%	6.76%	3.25%	5.75%	2.28%	5.11%	1.90%	18.59%	50.00%
2017	0.95%	9.70%	7.13%	8.67%	6.12%	4.96%	2.55%	19.15%	37.25%
2016	0.95%	5.31%	3.35%	4.32%	2.38%	5.82%	3.15%	16.32%	30.16%
2015	0.95%	8.46%	6.23%	7.44%	5.23%	6.40%	2.80%	14.84%	33.93%
2014	0.95%	2.73%	1.92%	1.76%	0.96%	7.11%	2.83%	13.36%	33.57%
2013	0.95%	2.71%	-0.38%	1.74%	-1.32%	6.91%	2.56%	13.75%	37.11%
2012	0.95%	6.56%	2.26%	5.55%	1.30%	6.97%	3.18%	13.63%	29.87%
Average	0.95%	5.26%	1.47%	4.27%	0.51%	5.55%	2.13%	17.13%	44.57%
Average management fee		18.05%	64.84%	—			***Geometric return*** 1.33%		***MratiorealC*** 71.43%

Source: Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The average management fee from 2012 to 2023 was 0.95%, the annual average nominal return was 5.26%, and the real return was 1.47%. Considering the nominal return, the ratio was 18% of the nominal return of the funds over the period. That ratio, however, was nearly 55% of the real return of the fund. The annual compounded real return was 1.33%, and the management fee amounted to just over 71% of the long-term bond funds' annual compounded real return.

As with the medium-length funds, the management ratio changed in direct proportion to the yield requirement for each year. A similar management fee for long bond funds meant that the cost of the expected real return of the fund was more than 50% each year from 2018.

Next, equity funds were analyzed. Table 3 shows figures for domestic equities over the period.

Table 3. Domestic equity funds

Year	*Management fee*	*Nominal return*	*Real return*	*Net nominal return*	*Net real return*	*The percentage of management fee*	*The percentage of management fee in real terms*
2023	1.37%	-2.79%	-8.89%	-4.10%	-10.12%	-48.94%	-15.35%
2022	1.37%	-12.63%	-20.50%	-13.80%	-21.57%	-10.81%	-6.66%
2021	1.37%	45.54%	37.69%	43.58%	35.83%	3.00%	3.62%
2020	1.37%	23.65%	18.55%	21.98%	16.95%	5.77%	7.36%
2019	1.37%	18.14%	16.16%	16.55%	14.60%	7.53%	8.45%
2018	1.37%	-3.67%	-6.84%	-4.97%	-8.10%	-37.15%	-19.95%
2017	1.37%	-4.79%	-7.02%	-6.07%	-8.27%	-28.53%	-19.45%
2016	1.37%	-5.88%	-7.63%	-7.15%	-8.88%	-23.22%	-17.88%
2015	1.47%	47.53%	44.50%	45.40%	42.41%	3.08%	3.29%
2014	1.47%	8.78%	7.91%	7.20%	6.35%	16.69%	18.52%
2013	1.47%	37.19%	33.06%	35.21%	31.14%	3.94%	4.43%
2012	1.47%	23.94%	18.94%	22.15%	17.22%	6.12%	7.73%
Average	**1.40%**	**14.58%**	**10.49%**	**13.00%**	**8.97%**	**9.59%**	**13.32%**
					Geometric return 8.67%		***MratiorealC*** 16.13%

Source: Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The percentage of management fee shows each year's percentage of the management fee, and the percentage of management fee in real terms shows the same rate in real terms. The average management fee over 2012–2023 was considerably higher than for bond funds at 1.40%. The annual average nominal return was 14.58%, and the real return was 10.49%. Taking into account the nominal return, however, the ratio of management fees paid by fund members was considerably lower than for bond funds, at just under 10% of the nominal return of the funds over the period and just over 13% of the real return. Of the four funds in the sample, one fund with the lowest ratio reduced its fee in 2016. However, the annual compounded real return was considerably lower at 8.67%, and that return's management ratio was just over 16%. Table 4 shows figures for Icelandic mutual funds investing in foreign equities.

Table 4. Equity funds investing in foreign shares

Year	*Management fee*	*Nominal return*	*Real return*	*Net nominal return*	*Net real return*	*The percentage of management fee*	*The percentage of management fee in real terms*
2023	1.46%	19.24%	11.76%	17.53%	10.15%	7.58%	12.40%
2022	1.46%	-16.53%	-24.05%	-17.73%	-25.14%	-8.82%	-6.06%
2021	1.46%	19.94%	13.47%	18.22%	11.84%	7.31%	10.82%
2020	1.46%	27.94%	22.67%	26.10%	20.91%	5.22%	6.43%
2019	1.46%	30.60%	28.42%	28.72%	26.57%	4.77%	5.13%
2018	1.46%	-3.45%	-6.62%	-4.84%	-7.97%	-42.29%	-22.02%
2017	1.46%	15.30%	12.60%	13.64%	10.98%	9.53%	11.58%
2016	1.46%	-5.51%	-7.27%	-6.87%	-8.61%	-26.46%	-20.05%
2015	1.46%	6.35%	4.16%	4.82%	2.67%	22.96%	35.03%
2014	1.46%	12.65%	11.76%	11.04%	10.15%	11.52%	12.40%
2013	1.54%	14.53%	11.09%	12.80%	9.40%	10.61%	13.90%
2012	1.54%	19.34%	14.53%	17.52%	12.79%	7.97%	10.61%
Average	**1.47%**	**11.70%**	**7.71%**	**10.08%**	**6.15%**	**12.58%**	**19.10%**
					Geometric return 6.75%		***MratiorealC*** 21.80%

Source: Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The average management fee over 2012–2023 was similar to that for domestic equities at 1.47%. However, the return of foreign equity fund returns expressed in Icelandic ISK was poorer than domestic equities at 11.7% annually, corresponding to a 7.7% real return for Icelandic fund members. Due to the poorer return over the period, the management ratio was higher than for domestic equities at just over 12% of the nominal return of the funds and just over 19% of the real return.

As the annual compounded real return of Icelandic equity funds investing in foreign markets was about one percent lower than the average real return, the management ratio for the period was almost 22% of the real return. The main results are summarized in Table 5.

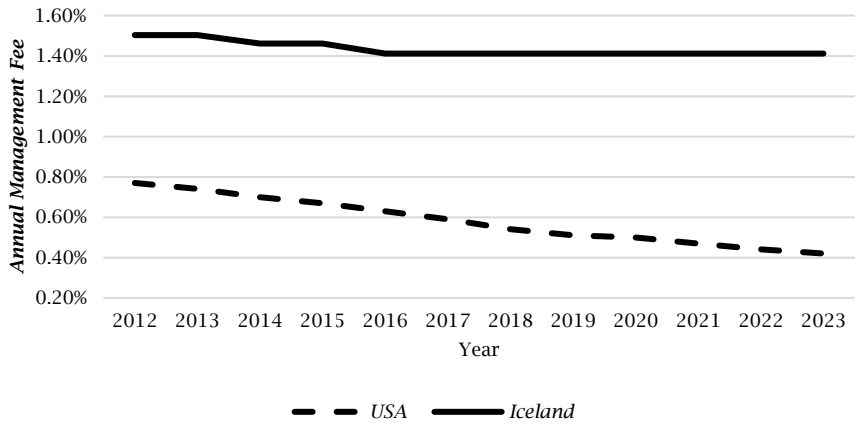
Table 5. Summarization of main results 2012–2023

Fund type	*Fee*	*Nominal return*	*Real return*	*Fee % of geometric real return*
Medium bonds	0.89%	5.4%	1.6%	60.0%
Long bonds	0.95%	5.3%	1.5%	71.4%
Domestic equity	1.40%	14.6%	10.5%	16.1%
Foreign equity	1.47%	11.7%	7.7%	21.8%

Source: Authors' elaboration

Finally, the development of the last 12 years, from 2012 to 2023, regarding the management fee of mutual funds in Iceland and the U.S. was examined. A comparison is made between domestic equity and bond funds' management fees and American mutual funds' management fees. Notably, most American funds are invested primarily domestically, but increased costs are incurred if they are invested in foreign markets. Figure 1 below shows the development of equity funds.

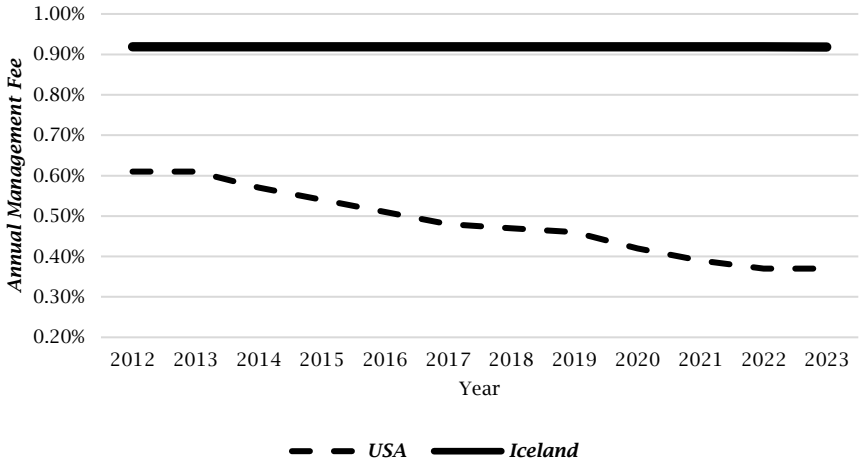
Figure 1. Comparison of annual management fees in Iceland and the United States for equity funds



Source: Duvall and Johnson (2024), Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The annual cost of risk diversification for the Icelandic public was almost double compared of American investors at the beginning of the period. Since then, the fee for Icelandic equity funds has remained virtually unchanged, but in the U.S., the fee in 2023 has come down to about 0.45%. The average annual fee for Icelandic equity funds in 2023 was 1.41%, but in the U.S., it was 0.42%. A similar development has taken place in connection with bond funds. Figure 2 below shows the development of bond funds.

Figure 2. Comparison of annual management fees in Iceland and the United States for bond funds



Source: Duvall and Johnson (2024), Íslandssjóðir (2024), ÍV sjóðir (2024), Landsbréf (2024), Stefnir (2024).

The annual cost of risk diversification for the Icelandic public was 0.92% in 2012 and remained unchanged in 2023. At the beginning of the period, the average fee for American bond funds was 0.61%, but it had decreased to 0.37% by 2023.

5. DISCUSSION

The annual management fee for American mutual funds, looking at the average of funds in active management and index funds, decreased by 39% during 2012–2023 for bond funds and 43% for equity funds (Duvall & Johnson, 2024). This development has been taking place slowly and steadily. This difference highlights Iceland's lack of competitive pressure or regulatory incentive to reduce costs compared to the U.S., where industry trends and investor awareness have driven fees down.

As shown in Tables 1–4, management fees represented a significant share of investor returns over 2012–2023. The effects of the cost compared to the return of the funds are mainly reflected in bond funds, where the yield requirement of bonds decreased significantly internationally from the turn of the century up to 2012, which meant that the future return of bonds was already low. These figures underscore how lower returns (as in bond funds) amplify the impact of seemingly modest annual fees.

Icelandic bond investors may take some reassurance that the real return in their funds was better over the period than in American funds, taking into account the cost despite the lower annual management fee of American mutual funds. According to figures in the Damodaran (n.d.) database, the annual compounded real return of American 10-year bonds from 2012 to 2023 was negative by about 1.9%.

Although the cost of equity funds is higher than bond funds, the high return on equities over the period has meant that Icelandic investors can be satisfied. The annual management fee was less than 20% of the real return, whether considering foreign or domestic equities, and just over 20% if considering the annual compounded real return on foreign investments. Again, examining the Damodaran (n.d.) database, the annual compounded real return of the S&P Stock Index over the 2012–2023 period was 10.9%, comparable to what Icelandic investors achieved in their equity market. However, the average management fee in the U.S. was 0.58% (Kennaway et al., 2022) over most of the period, but it was more than twice that high, or 1.40%, in Iceland. There is thus an annual difference of 0.8% in net return before tax due to higher management costs in Iceland compared to the U.S.

Some differences are expected due to scale. U.S. mutual funds benefit from larger fund sizes and more significant economies of scale. However, Iceland's lack of fee compression suggests limited competition or investor pressure to reduce costs. While past research (Dyck et al., 2013) has shown that active management may deliver value in less efficient markets, the findings here align more closely with older studies like Carhart (1997) and Blake et al. (1993) as well as in newer research such as by Edelen et al. (2013) and the view of a Morningstar analyst (Armour, 2023), which show the costs remain a key determinant of long-term returns.

This comparison is made with the U.S., where a wealth of information regarding the cost of funds is available. Morningstar's comparative analysis of fund fees in 26 countries, conducted every two years, shows that American funds generally have the lowest fees (Kennaway et al., 2022). The fees charged by Icelandic equity funds are comparable to domestic mutual funds in countries around the sample's median. According to the Morningstar summary, mutual fund fees are generally declining in the countries included in the sample (Kennaway et al., 2022), which was also noted in the 2019 edition of this report (Morningstar, 2019).

6. CONCLUSION

This paper shows that costs matter a great deal for investors. While Icelandic investors paid around 1/5 of their real returns from stocks in costs for stock diversification from 2012 to 2023, the cost was around 60% and 70% for their bond mutual holdings. The implications are that Icelandic investors are paying a hefty fee for their diversification, and those fees are rising compared to U.S. mutual fund markets. Since the analysis in this research is novel, one can assume that many investors are unaware of this high percentage of costs relative to real returns. Hence, no policy or reform discussions have taken

place, nor is, as previously noted, comparison information readily available for Icelandic investors.

The main limitation of this research is that the sample period is short. This particularly affects the study of bond mutual funds since the real returns of bonds generally reached a historic low during the period, indicating low future real returns.

A study of what Icelanders perceive as a reasonable percentage of real returns might indicate whether local investors deem such diversification costs justified. A more detailed analysis of costs concerning fund performance would clarify the benefits that Icelandic investors gain from investing in equity funds. Additionally, it would be worthwhile to examine the performance of Icelandic mutual funds, considering the volatility of their returns compared to the performance of individual securities. As Cremers et al. (2019) point out, few studies on mutual funds have been published recently, as most assume that cost is the primary factor. However, the research by Dyck et al. (2013) suggests that such studies are necessary in emerging markets like Iceland so Icelandic investors can better assess whether higher costs justify active management in such a small market.

The broader implication is, nevertheless, that even if Icelandic funds perform well in absolute terms, investors still pay a relatively high price for diversification. As long as these fees remain stable while global benchmarks fall, Icelandic investors may find it increasingly difficult to match international performance after costs.

REFERENCES

Ajadi, A. (2024). Can equity mutual funds outperform the benchmark and simple passive portfolios? *Business Performance Review, 2*(1), 8–15. https://doi.org/10.22495/bprv2i1p1

Armour, B. (2023, August 8). *Investors piled into the cheapest funds in 2022.* Morningstar. https://www.morningstar.com/funds/fund-fees-continued-decline-is-win-investors

Baily, C., & Gnabo, J.-Y. (2022). *How different are ESG funds? A comparative analysis of holdings and performance.* https://doi.org/10.2139/ssrn.4048577

Blake, C. R., Elton, E. J., & Gruber, M. J. (1993). The performance of bond mutual funds. *The Journal of Business, 66*(3), 371–403. https://doi.org/10.1086/296609

Carhart, M. M. (1997). On persistence in mutual fund performance. *The Journal of Finance, 52*(1), 57–82. https://doi.org/10.1111/j.1540-6261.1997.tb03808.x

Clare, A., O'Sullivan, N., Sherman, M., & Zhu, S. (2019). The performance of US bond mutual funds. *International Review of Financial Analysis, 61*, 1–8. https://doi.org/10.1016/j.irfa.2018.12.001

Cremers, K. J. M., Fulkerson, J. A., & Riley, T. B. (2019). Challenging the conventional wisdom on active management: A review of the past 20 years of academic literature on actively managed mutual funds. *Financial Analysts Journal, 75*(4), 8–35. https://doi.org/10.1080/0015198X.2019.1628555

Cuthbertson, K., Nitzsche, D., & O'Sullivan, N. (2010). Mutual fund performance: Measurement and evidence. *Financial Markets, Institutions & Instruments, 19*(2), 95–187. https://doi.org/10.1111/j.1468-0416.2010.00156.x

Damani, A., & Vaidya, N. (2021). Predicting the relative performance of actively managed equity mutual funds using diverse performance evaluation techniques. *Corporate Ownership and Control, 19*(1), 69–83. https://doi.org/10.22495/cocv19i1art6

Damodaran, A. (n.d.) *Historical returns on stocks, bonds and bills: 1928–2024.* NYU Stern School of Business. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

Davis, J. L. (2001). Mutual fund performance and manager style. *Financial Analysts Journal, 57*(1), 19–27. https://doi.org/10.2469/faj.v57.n1.2416

Dellva, W. L., & Olson, G. T. (1998). The relationship between mutual fund fees and expenses and their effects on performance. *Financial Review, 33*(1), 85–104. https://doi.org/10.1111/j.1540-6288.1998.tb01609.x

Duvall, J., & Johnson, A. (2022). Trends in the expenses and fees of funds, 2021. *ICI Research Perspective, 28*(2). https://www.ici.org/system/files/2022-03/per28-02_2.pdf

Duvall, J., & Johnson, A. (2024). Trends in the expenses and fees of funds, 2023. *ICI Research Perspective, 30*(2). https://www.ici.org/system/files/2024-03/per30-02.pdf

Duvall, J., & Rybak, C. (2023). Trends in the expenses and fees of funds, 2022. *ICI Research Perspective, 29*(3). https://www.ici.org/system/files/2023-03/per29-03.pdf

Dyck, A., Lins, K. V., & Pomorski, L. (2013). Does active management pay? New international evidence. *The Review of Asset Pricing Studies, 3*(2), 200–228. https://doi.org/10.1093/rapstu/rat005

Edelen, R., Evans, R., & Kadlec, G. (2013). Shedding light on "invisible" costs: Trading costs and mutual fund performance. *Financial Analysts Journal, 69*(1), 33–44. https://doi.org/10.2469/faj.v69.n1.6

Gallagher, E. (2013). *ICI Research Perspective: Trends in the expenses and fees of mutual funds, 2012.* https://doi.org/10.2139/ssrn.2251479

Geczy, C., & Guerard, J. (2021). *ESG and expected returns on equities: The case of environmental ratings* (Wharton Pension Research Council Working Paper No. 2021-15). https://doi.org/10.2139/ssrn.3903480

Hargrave, M. (2022, June 5). Real rate of return: definition, how it's used, and example. *Investopedia.* https://www.investopedia.com/terms/r/realrateofreturn.asp

Iceland Revenue and Customs. (n.d.). *Vaxtatekjur* [Interest income]. https://www.skatturinn.is/einstaklingar/fjarmagnstekjur/vaxtatekjur/

Icelandic Parliament. (2021). *116/2021: Lög um verðbréfasjóði* [Laws on mutual funds]. https://www.althingi.is/lagas/nuna/2021116.html

Iriyadi, Meiryani, Syamil, A., Naldo, R. R., Daud, Z. M., Gui, A., Purnomo, A., & Persada, S. F. (2024). The analysis of chasing returns strategy in equity funds. *Corporate and Business Strategy Review, 5*(1), 66–76. https://doi.org/10.22495/cbsrv5i1art7

Íslandssjóðir. (2023). Afkoma Íslandssjóða hf. árið 2022 [Iceland funds performance in 2022]. https://www.islandssjodir.is/um-islandssjodi/frettir/nanar-um-frett/2023/03/08/Afkoma-Islandssjodahf.-arid-2022/

Íslandssjóðir. (2024). *Ársreikningur 2024* [Annual accounts 2024]. https://cdn.islandsbanki.is/image/upload/islandssjodir/Documents/Arsuppgjor-IS-31-12-2024-arsreikningur-Islandssjo%CC%81%C3%B0a_hf.pdf

ÍV sjóðir. (2023). Ársreikningur 2022 [Financial statements 2022]. https://www.ivsjodir.is/static/files/Arsreikningar/ivsjodir-hf.-arsreikningur-med-sjodunum-2022.pdf

ÍV sjóðir. (2024). *Ársreikningur 2023* [Financial statements 2023]. https://www.ivsjodir.is/static/files/Arsreikningar/2024/iv-sjodir-hf.-arsreikningur-2023-med-sjodunum.pdf

Kennaway, G., Pettit, A., Mottola, M., Wolfstetter, N., Chan, W., Johnson, B., Dutt, M., Choy, J., & Zarate, J. G. (2022). *Global investor experience study: Fees and expenses.* https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt60e320775385837a/62431900eed9f60f2de8ad55/GIE_2022.pdf

Landsbréf. (2023). *Árseikningur 2022* [Financial statement 2022]. https://www.landsbref.is/uploads/Files/Arsreikningaroguppgjor/landsbref-arsreikningur-2022.pdf

Landsbréf. (2024). *Árseikningur 2023* [Financial statement 2023]. https://www.landsbref.is/uploads/Files/Arsreikningaroguppgjor/landsbref-arsreikningur-2023.pdf

Magnússon, G., Benediktsson, H. C., & Sigurðsson, K. (2010). Er samkvæmni í árangri verðbréfasjóða? [Is there consistency in mutual fund performance?] *Tímarit um Viðskipti og Efnahagsmál, 7*(1). https://doi.org/10.24122/tve.a.2010.7.1.6

Malhotra, D. K., & McLeod, R. W. (1997). An empirical analysis of mutual fund expenses. *The Journal of Financial Research, 20*(2), 175–190. https://doi.org/10.1111/j.1475-6803.1997.tb00243.x

Maverick, J. B. (2024, April 19). Real rate of return: definition, how it's used, and example. *Investopedia.* https://www.investopedia.com/ask/answers/032715/why-mutual-funds-expense-ratio-important-investors.asp

Ministry of Finance and Economic Affairs. (2021). *970/2021 — Reglugerð um fjárfestingarheimildir verðbréfasjóða og upplýsingagjöf* [970/2021 — Regulation on investment authorizations for mutual funds and disclosure of information]. https://island.is/reglugerdir/nr/0970-2021

Morningstar. (2019, September 17). *Morningstar's sixth global investor experience study finds investors are paying less to own funds worldwide but disparity among markets persists* [Press release]. https://newsroom.morningstar.com/newsroom/news-archive/press-release-details/2019/Morningstars-Sixth-Global-Investor-Experience-Study-Finds-Investors-are-Paying-Less-to-Own-Funds-Worldwide-But-Disparity-Among-Markets-Persists/default.aspx

Pálsson, G., Sigurðsson, K., & Gíslason, S. G. (2008). Eru íslenskir verðbréfasjóðir með alþjóðlega fjárfestingarstefnu samkeppnishæfir við sambærilega erlenda sjóði? [Are Icelandic mutual funds with an international investment strategy competitive with comparable foreign funds?]. *Tímarit um Viðskipti og Efnahagsmál, 6*(1). https://doi.org/10.24122/tve.a.2008.6.1.1

Papathanasiou, S., & Koutsokostas, D. (2024). Sustainability ratings and fund performance: New evidence from European ESG equity mutual funds. *Finance Research Letters, 62*, Article 105095. https://doi.org/10.1016/j.frl.2024.105095

Ptak, J. (2023, May 15). *Why pay up for bond funds?* Morningstar. https://www.morningstar.com/funds/pay-up-bond-funds-yeah-no

Roy, M., & Stankiewicz, A. (2024, February 5). *ESG fund returns recover, but still trail conventional peers by a small margin.* Morningstar. https://www.morningstar.com/sustainable-investing/esg-fund-returns-recover-2023-most-sustainable-funds-trail-conventional-peers-by-small-margin

Sigurðsson, K., Fuxén, S. M., & Vésteinsdóttir, V. (2010). Hvert er aðalmálið við val á verðbréfasjóði? [What is the main issue when choosing a mutual fund?]. *Tímarit um Viðskipti og Efnahagsmál, 7*(1). https://doi.org/10.24122/tve.a.2010.7.1.5

Steen, M., Moussawi, J. T., & Gjolberg, O. (2020). Is there a relationship between Morningstar's ESG ratings and mutual fund performance? *Journal of Sustainable Finance & Investment, 10*(4), 349–370. https://doi.org/10.1080/20430795.2019.1700065

Stefnir. (2023). *Ársreikningur 2022* [Financial statements 2022]. https://www.stefnir.is/library/Skrar/Umstefni/Skyrslur/arsreikningar/%C3%81rsreikningur%20Stefnis%2031.12.2022%20-%20A-B%20hluti.pdf

Stefnir. (2024). *Árseikningur 2023* [Financial statements 2023]. https://www.stefnir.is/library/Skrar/Umstefni/Skyrslur/arsreikningar/%c3%81rsreikningur%20Stefnis%20hf.%2031.12.2023%20-%20A%20og%20B%20hluti.pdf

Vanguard. (n.d.). *Capital gains tax: What you need to know?* https://investor.vanguard.com/investor-resources-education/taxes/realized-capital-gains