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Exit vs. Voice

A comparison of the performance by active ownership and divestment strategies as a first response by Swedish funds

By

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Abstract

This thesis examines the relationship between fund performance and the choice of strategy when an invested asset is reclassified to a fund's exclusion's list. The two choices of strategy are divesting the asset or using active ownership methodology by communicating with the asset. To examine the performance of the funds, Jensen's alpha, Sharpe ratio, Information ratio and Treynor ratio is calculated. A total of 31 active Swedish global equity funds is in the analysis with 17 of them using the active ownership strategy and 14 using the divestment strategy. The study resulted in conclusive results that a Divestment First strategy performs better than an Active Ownership First strategy. There could be multiple reasons to why this happens, with the most important being the costs of time and capital by investors when trying to influence its assets to become better. A recommendation for all funds to change to a Divestment First strategy is not suggested, since research shows that divestment leads to no or negative progress on a company level.

Keywords: Sustainability, Active ownership, Divestment, Risk-adjusted performance, Funds

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1. Introduction

The discussion of what is the best strategy for investors towards positive change has been discussed at length. In an interview with the Financial Times Bill Gates said that “divestment, to date, probably has reduced about zero tonnes of emissions” (2019). The choice of instead being an active owner can prove to be a long, costly and not even successful road towards positive change. But what strategy performs better in real financial terms? This is what will be examined in this study.

1.1 Background

1.1.1 Sustainability in funds

Funds have worked with sustainability for many years, but the most significant changes have been over the last 15 years. The Principles for Responsible Investment, also known as PRI, was first initiated in 2005 by the United Nations (PRI, n.d.). PRI’s goal was, and is, to encourage responsible investments that will benefit society and the environment. A couple of the responsibilities of an Investment Manager signatory is (PRI, 2019):

- “To incorporate Environmental, Social and Corporate Governance (ESG) issues into investment analysis and decision-making processes.
- To be an active owner and to incorporate ESG issues into our ownership policies and practices”.

PRI has since its inception reached over 5 000 signatories, 4 000 of them being Investment Managers, and it is now a norm for fund managers to be a signatory in Sweden (PRI, 2023).

The single most significant progression, however, into how fund managers in Europe work with and report on sustainability came through the EU’s Sustainable Finance Action Plan, SFAP, in 2018. The SFAP had three main goals (European Commission, 2018):

- “Reorienting capital flows towards a more sustainable economy,
- Mainstreaming sustainability into risk management,
- Fostering transparency and long-termism.”

And it is the third point, which had as one of its interim goals to strengthen the sustainability disclosures, that affected funds the most through the Sustainable Finance Disclosures Regulation, SFDR, that came into effect in 2021 and was later updated in 2023 (European Commission, 2022). The SFDR have regulated how fund managers present sustainability information and what needs to be presented. This information includes, among others, whether the fund has a sustainable investment objective, exposure to fossil fuel companies and how much waste is generated by the investments. It also includes a requirement on the classification of a fund, whether the fund is an article 6, 8 or 9 fund. An article 6 fund entails that the fund is without a sustainability scope. Article 8 means that the fund promotes environmental or social characteristics, this is the type most Swedish funds are identified by. If the fund has sustainable investments as its objective, then it is an article 9 fund.

To be an article 8 or 9 fund, the fund managers need to work extensively with sustainability. Most funds in Sweden have approached this by categorising their sustainability work into three methods: Solutions, Active ownership and Exclusions.

- Solutions are investments into already sustainable companies.
- Exercising active ownership is the process of driving the sustainability agenda in invested companies.
- The aim of exclusions is to avoid investments into companies that underperform in sustainability.

This study will focus on the active ownership and exclusions methods since these are the methods where fund managers can, possibly, make a difference.

1.1.2 Active ownership

An active owner can be described by the action of using an ownership position in a company to actively influence the policies and practices of the company (Sjöström, 2008). There are many ways to implement active ownership for an actively managed fund, but the main ways funds work with it in Sweden are (Handelsbanken, n.d.) (Swedbank Robur, 2022) (SEB, n.d.) (Storebrand, n.d.):

- Voting at annual shareholder meetings, which is the foremost way that investors try to influence the invested company. Here investors can push for agendas, such as, transparency, remunerations, sustainability work and diversity in the boards.
- Collaborating with other investors to steer the dialogues are built on the same premise as the first point. The difference here is that through collaboration, investors are able to make their voices louder and also have a much more effective active ownership.
- Direct dialogues with the companies are the way investors can quickly make their voices heard and try to influence the leadership of invested companies. This does not affect the companies the most, but this way investors are able to get quick answers on the future of the companies.

1.1.3 Exclusions and divestments

The exclusion and divestment of companies and sectors have a long history in investment management. One of the most famous active exclusions and divestments in history came during the 1970's and 1980's, when many countries in the developed world came together to make a stand against apartheid by pulling investments from South Africa (Arnold & Hammond, 1994). In the modern day, exclusions and divestments have become intertwined with sustainability matters. It is difficult today to find funds that do not have an exclusion's list. Fund companies, and individual funds, all have different lists of what they exclude, but these are the most common sectors and other criteria that are excluded (Handelsbanken, n.d.) (Swedbank Robur, 2022) (SEB, n.d.) (Storebrand, n.d.):

- Fossil fuel producers,
- Tobacco companies,
- Nuclear weapons manufacturers,
- Pornography companies,
- Human rights violators,
- Corrupt companies,
- Violators of other norms and conventions by the United Nations, ILO and OECD.

Research has shown that divesting from companies by excluding sectors can influence the share prices of the companies, it can also have indirect outcomes such as stigma (Sjöström, 2020).

1.1.4 “Exit” and “Voice”

In Albert O. Hirschman’s seminal essay *Exit, Voice and, Loyalty* from 1970, Hirschman theorizes the strategies of exit and voice as responses following an organisational failure. Exit, in the context of a consumer products company, is represented by customers choosing to stop buying the company’s products. Voice, in the same context, is represented by an expression of dissatisfaction from the customers towards the company through communication.

Exit and voice has been used in the context of investors by multiple researchers in the past (Gorman, 2017). Where exit is divestment and voice is engagement with the company, which fits perfectly into our purpose.

1.2 Purpose

The purpose of this study is to investigate the scenario of when a company invested by a fund becomes a part of the fund company’s exclusion’s list, and to try and answer the question:

Do Swedish global equity funds perform better if their first response is to exit the investment or voice their opinion with the invested company?

This will be done by examining the largest global equity funds in Sweden, to see what they have as their policy in this scenario. Then, gather performance data over the last five years for these funds and calculate performance measures as Jensen’s alpha, Sharpe ratio, Information ratio and Treynor ratio, to get a view of possible performance differences between the two plans of action.

1.3 Previous studies

There have been several studies conducted into the effects of divestment and engagement by investors. In this part, some of the most relevant research for this study will be compiled and summarised.

At the end of 2022 an article was published by Broccardo, Hart and Zingales, studying the relative effectiveness of voice (engagement) and exit (divestment) strategies for investors with different amounts of care for social impact when presented with identical companies generating externalities. They found that if most of the investors were “even slightly socially responsible”, then voice would achieve a “socially desirable outcome”. Exit may not, however, due to three reasons:

1. There will have to be a set of very socially responsible investors who have the will to pay for a majority of the clean-up cost. If not, then the sole equilibrium will be at zero “clean firms” and zero exit.
2. If there are highly socially responsible investors, then the impact will be limited to how significantly socially responsible all the investors are.
3. Due to the individual incentives for investors to join an exit strategy is not always aligned, an exit could lead to a less desired result than what would have been achieved in the case of all investors acting selfishly.

Goullier and Pouget (2022), examines first in their paper the pricing of assets when some of the investors are socially responsible. They find that in order for corporate social responsibility to be favoured by the shareholders, there will have to be a large enough proportion of responsible investors together with low enough risk-aversion from the investors and a low level of risk.

Following this, the writers examine the interaction between engagement and exclusion strategies. They would make the following four insights:

1. The use of exclusion and norm-based screening strategies damages “the adoption of more responsible practices in the targeted firms or sectors”.
2. Responsible strategies on the corporate level are more plausible to be adopted by the firm when returns are less correlated among themselves in the company.
3. The super-majority requirement, when embedded in the statutes, makes it more likely for responsible strategies to come into effect.
4. A larger activist socially responsible investor can enjoy higher performance than a non-responsible and improve the social responsibly in the company.

In Alex Gorman's Note *Exit vs Voice* (2017), he examines the costs of exit (divestment) and voice (engagement) for investors. There are several costs of divestment according to Gorman, firstly the transaction cost, which could be between 1% and 6% of the invested value, and the direct tax implications. Secondly, the loss of flexibility of the timing of the sell, which can result in lower returns and increased risk. It also takes away the opportunity of timing the sell, but timing the market is seen as a "fool's errand" by experienced investors, which would make the possible financial loss here illusory. Lastly, the elimination of certain companies and sectors from the available investments could lead to non-sufficient diversification, which would lead to increased risk according to modern portfolio theory. Divestment could however also be beneficial. It might be considered at a first glance that a divestment of an asset would directly decrease returns since this was seen as a lucrative investment, but by looking at real world examples, e.g., the divestment from the fossil fuel sector, then you get a story of higher returns instead. A potential reason for this could be that a socially responsible behaviour from the management of the company is a proxy for good management, which can lead to better performances from the company.

Alex Gorman (2017) continues in his Note with discussing the two primary costs of engagement. The first cost of engagement is the additional risk created by the objectionable behaviour of the company. There is a risk of reputational harm, more regulation and even possible litigation towards the company. The second cost of engagement is the time and effort needed by the investor to conduct the campaign for changing the company. This could be time spent with the management of the company, attending annual meetings, speaking with other investors or formulating a shareholder resolution. These costs are more definite than the uncertain costs of divestment. He does, however, also mention that as a tactic for changing a company's corporate behaviour, engagement is the superior method.

2. Theory

2.1. The efficient market hypothesis

Efficient capital markets are in effect according to Fama (1970), when all existing information regarding the market is already priced into asset prices. This would mean that it should be impossible to outperform the market's return, since there should be no mispricing or anomalies when the market is efficient.

There are three ways to categorize market efficiency as stated by Fama (1970): weak, semi-strong and strong efficiency. In the case of weak efficiency, asset prices reflect all historical information. For semi-strong efficiency, asset prices reflect all public information on the market. And lastly, strong efficiency occurs when asset prices reflect all the information available in the market, including insider information. This should mean, according to Fama (1970), that it is not possible to generate excess returns due to their being no information asymmetry of any kind.

2.2 Modern portfolio theory

An efficient market portfolio is created through diversification, according to the study by Markowitz (1952). In his study, Markowitz explains how idiosyncratic risk, otherwise known as the firm-specific risk which is uncorrelated with the market risk, in a portfolio can through investments into multiple asset classes with low covariances be minimised. Investors could therefore, theoretically, create portfolios which maximises returns at a certain given market risk level.

In modern portfolio theory it is assumed that investors act risk averse (Fama & French, 2004). This leads investors to search for and choose assets that have the highest expected returns while also having the least amount of risk. Should any assets have the same amount of risk and expected return, then investor should, theoretically, be indifferent in their choice of asset. If an investor would want to increase its expected return, then, in theory, the investor would have to look for assets with an inline higher risk.

2.3 CAPM, Capital Asset Pricing Model

The CAPM, Capital Asset Pricing Model, is a model in financial economics based on the modern portfolio theory by Markowitz (1952) and the studies made by, among others, Treynor (1961) and Sharpe (1964). The model describes the relationship between an asset's expected return and the asset's market risk relative to a market portfolio. Since the CAPM is based on the efficient market hypothesis, an investor would have to increase its risk to have an opportunity for higher expected returns. The expected return of an asset is calculated through the following equation:

$$E[R_i] = r_f + \beta_i(E[R_m] - r_f) + \varepsilon_i$$

$E[R_i]$ = Expected return of the asset

r_f = Risk-free rate

β_i = Beta of the asset

$E[R_m]$ = Expected return of the market

ε_i = Error term

The beta of the asset is, in this instance, the risk of the asset relative to the market. This can be calculated as follows (Jensen, 1968):

$$\beta_i = \frac{Cov(R_i, R_m)}{Var(R_m)}$$

2.4 Jensen's alpha

Jensen's alpha is an interpretation of the expected value of error term ε_i in the CAPM done by Jensen (1968). The interpretation is based on the premise that the expected value of the error term, the difference between the expected and actual returns of a portfolio, shows whether a portfolio is generating a lower or higher expected return. Alpha becomes a performance measure, where if alpha is positive, the portfolio is performing better than expected and if alpha is negative, it underperforms. The performance measure is one of the most used in portfolio analysis. Jensen's alpha can be calculated using the following equation:

$$\alpha_i = R_i - [r_f + \beta_i(E[R_m] - r_f)] + \varepsilon_i$$

α_i = Jensen's alpha

R_i = Return of the portfolio

r_f = Risk-free rate

β_i = Beta of the portfolio

$E[R_m]$ = Expected return of the market

ε_i = Error term

2.5 Sharpe ratio

The Sharpe ratio is a measure of risk-adjusted returns of a portfolio (Sharpe, 1966). It measures the risk premium per asset, with a higher Sharpe ratio representing a better risk-adjusted return from the portfolio. The Sharpe ratio is one of the most used performance measures for portfolios and is almost always displayed in fund material. To calculate the Sharpe ratio the following equation is used:

$$S = \frac{\bar{R}_i - \bar{r}_f}{\sigma_i}$$

S = Sharpe ratio

\bar{R}_i = Average return of the portfolio

\bar{r}_f = Average risk-free rate

σ_i = Standard deviation of the portfolio returns, also known as the total risk of the portfolio

2.6 Information ratio

The Information ratio is another performance measure for portfolios, similar to the Sharpe ratio (Goodwin, 1998). It also measures the risk-adjusted returns of a portfolio, but instead of comparing it with the risk-free rate it is compared to the performance of the market. The result of the calculation is a value representing the over- or underperformance of the portfolio, with a

higher value representing a higher overperformance. The Information ratio is calculated using this equation:

$$IR = \frac{\bar{R}_i - \bar{R}_m}{\sigma_i}$$

IR = Information ratio

\bar{R}_i = Average return of the portfolio

\bar{R}_m = Average return of the market

σ_i = Standard deviation of the portfolio returns, also known as the total risk of the portfolio

2.7 Treynor ratio

The Treynor ratio calculates the return relating to the systematic risk beta (Bodie, Kane, Marcus, 2018). It is another alternative to the commonly used Sharpe ratio, which instead of the standard deviation uses the beta in the calculation. Similar to the Sharpe and Information ratio, a higher Treynor ratio is preferable and represents overperformance. To calculate the Treynor ratio, the following equation is used:

$$T = \frac{\bar{R}_i - \bar{r}_f}{\beta_i}$$

T = Treynor ratio

\bar{R}_i = Average return of the portfolio

\bar{r}_f = Average risk-free rate

β_i = Beta of the portfolio

3. Method

3.1 Data selection and collection

3.1.1 Fund type

Swedish active global large cap equity funds are the funds assessed in this study. This is mainly down to the case that these are the funds where portfolio managers have a real opportunity to apply active ownership. There can therefore be an analysis of funds that choose whether or not to use it in our scenario.

For the collection of fund performance data, Morningstar's fund screener was used. The following criteria was applied:

- Country of registration: Sweden
- Management Style: Active
- Asset Class: Equity
- Global Category: Global Equity Large Cap
- Assets Under Management: > 1 billion SEK

The fund performance data stretches from May 12, 2018 to May 11, 2023, a five year period. This period was chosen since the most progress within sustainability active ownership has been done over this period, as discussed in the background with the EU's SFAP and SFDR.

The total amount of funds first acquired from Morningstar were 99, these funds were then assessed whether or not they were in this study's scope. This meant that fund-of-funds, duplicates, non-active funds, only-Sweden focused funds and funds younger than 5 years, were removed from the list of funds. The information to do this assessment was acquired from the fund companies own material on the funds. Total number of funds left after these adjustments was 31. Daily returns of these funds were then downloaded from Morningstar for the calculations.

It would have been more beneficial with a larger number of funds in this study, since it would have resulted in more definitive data. There is unfortunately a finite number of active global equity funds based in Sweden that have been active for over five years. Since also size is seen by

several researchers as an important factor for success in responsible investing, the scope is narrowed even further with the minimum 1 billion assets under management limit.

3.1.2 Market data

Since the funds assessed in this study have a global equity focus, the choice of market portfolio will be a global equity index. The choice of index can have a major impact on the calculated performance measures, there will therefore be additional calculations done with multiple indices to see the difference in performance. Some of the funds have also limitations relating to how much they can invest in for example Swedish, global and growth markets, which can make the choice of market portfolio even more integral.

The main index will be the MSCI All Country World Index (ACWI), an index representing large- and mid-cap equities from 24 emerging and 23 developed market (MSCI, n.d.). This index is the benchmark used by the most amount of funds in this study. The first additional index used will be the MSCI World Index, an index that represents large- and mid-cap equities from 23 developed markets (MSCI, n.d.). This index is the second most used index as a benchmark by the funds used in the study.

Some of the assessed funds have aside their global equity focus, a certain amount of the fund that needs to be invested in Swedish stocks. A Swedish index will therefore be used to assess the difference between using one of the global indices and a solely Sweden focused index. The chosen index is the OMXS30 GI, which is an index consisting of the 30 stocks on the NASDAQ OMX Stockholm that are most actively traded (Nasdaq, n.d.). This is also an index used by funds in the study for benchmark purposes.

Daily returns for the MSCI ACWI and World Index are downloaded using Morningstar and the OMXS30 GI data is acquired using Nasdaq's own website. The data stretches from May 12, 2018 to May 11, 2023, a five year period.

3.1.3 Risk-free rate

To calculate the performance measures mentioned earlier, a measure for the risk-free rate will be needed. The chosen measure is the OMRX Treasury Bill Index, which reflects the performance of Swedish treasury bills. This index is seen as an, in principle, risk-free investment.

The performance data for the OMRX Treasury Bill index is downloaded using Nasdaq's own website. The data stretches from May 12, 2018 to May 11, 2023, a five year period.

3.2 Sorting funds: Active Ownership First (AOF) or Divestment First

Going back to the Purpose of the study:

The purpose of this study is to investigate the scenario of when a company invested by a fund becomes a part of the fund company's exclusion's list, and to try and answer the question:

Do Swedish global equity funds perform better if their first response is to exit the investment or voice their opinion with the invested company?

There is a need for sorting the gathered funds, between those that divest or voice their opinions as a first response. To do this, a definition is set for what a Divestment First and Active Ownership First fund is.

A fund is defined as Active Ownership First (AOF) if it is clearly stated in the direct or connected fund material, that the fund as a first response following the reclassification, or an action which will lead to reclassification, of an asset to be on the exclusion's list, is to communicate with the company. A Divestment First Fund is defined as a non-AOF fund.

An example of an Active Ownership First (AOF) fund is AMF Aktiefond Världen, which in its connected fund material says (AMF, 2023):

“If an asset is found to be in breach of the fundamental principles of sustainable business, for example because of a controversy, we first contact the company to find out what their action plan is to remedy the situation.”

An example of a Divestment First fund is Didner & Gerge Global, which in its connected fund material says (Didner & Gerge, 2023):

“In addition to the above, Globalfonden, which is a Nordic Swan Eco-labelled fund, undertakes, in the event of a confirmed violation, to sell the relevant asset as soon as possible with regards to the interests of the fund owners, but no later than within three months of the confirmation of a violation.”

3.3 Calculations

The calculations that will be done are based on the CAPM regression, Jensen’s alpha, Sharpe ratio, Information ratio and Treynor ratio discussed in the Theory. Most calculations are done on a fund-by-fund level, but the aggregated fund performance is also calculated for the AOF and Divestment First funds. The aggregated fund performance is calculated using the daily returns from each fund together with the creation of an equally weighted portfolio from May 12, 2018 until May 11, 2023.

The R^2 is calculated as a part of the CAPM regression and as it will be discussed in the Results, it is further explained below.

3.3.1 R^2 -values

R^2 , also known as the coefficient of determination, represents, in this study, how much of the variation of a fund can be determined using the market portfolio (Körner & Wahlgren, 2015). A value of 1 represents alignment between the fund and market portfolio, a value of 0 means that the fund and the market portfolio are fully independent. The R^2 -value will be useful in this study since it will give a value to the fit of the market portfolios used in the calculations.

4. Results

Following the separation of Divestment First and AOF funds, the total Divestment First funds were 14 and the total AOF funds were 17. All funds were either article 8 or 9 funds meaning that they all have a sustainability scope in their investments.

4.1 Regression results

4.1.1 R^2 -values

4.1.1.1 *Divestment First*

The executed regressions have shown generally low R^2 -values, as seen in Figure 1, which shows that the chosen market portfolios are not ideal for explaining the returns of the funds. This is not surprising due to a number of the funds in the study have investment limitations and therefore the MSCI and OMXS30 indices are in themselves not ideal for these funds.

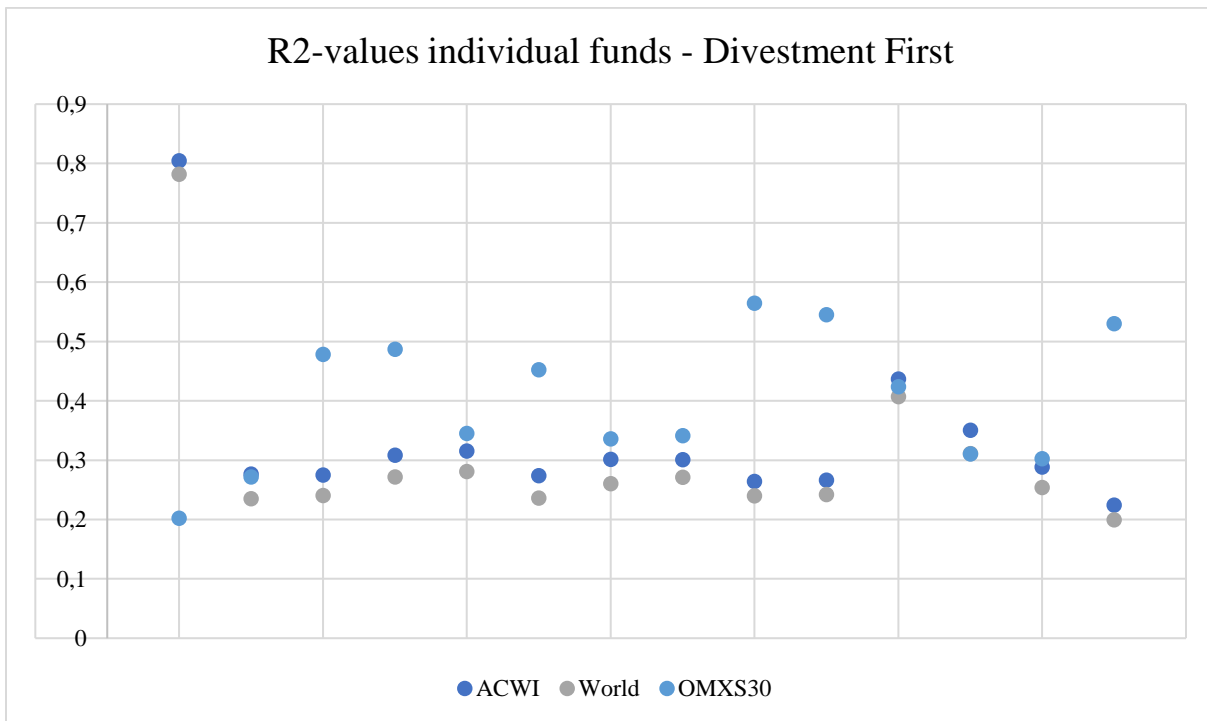


Figure 1: Shows the R^2 -values following the regression of the Divestment First individual funds
Sources: Morningstar & Nasdaq

The R^2 -values for the aggregated Divestment First funds have interesting results, as seen in Table 1, showing that OMXS30 has the best fit. Many of the funds have a limit for Swedish investments, but this is still surprising since the funds assessed have a global focus.

Aggregated Divestment First funds			
	ACWI	World	OMXS30
R2	0,388	0,348	0,470

Table 1: Shows the R^2 -values following the regression of the aggregated Divestment First funds
Sources: Morningstar & Nasdaq

4.1.1.2 Active Ownership First (AOF)

In Figure 2 the executed regressions have shown a wide variety of R^2 -values, which shows that no single one of the chosen models are ideal. As discussed for the Divestment First funds, these are not surprising results due to the limitations set by several of the funds in the study.

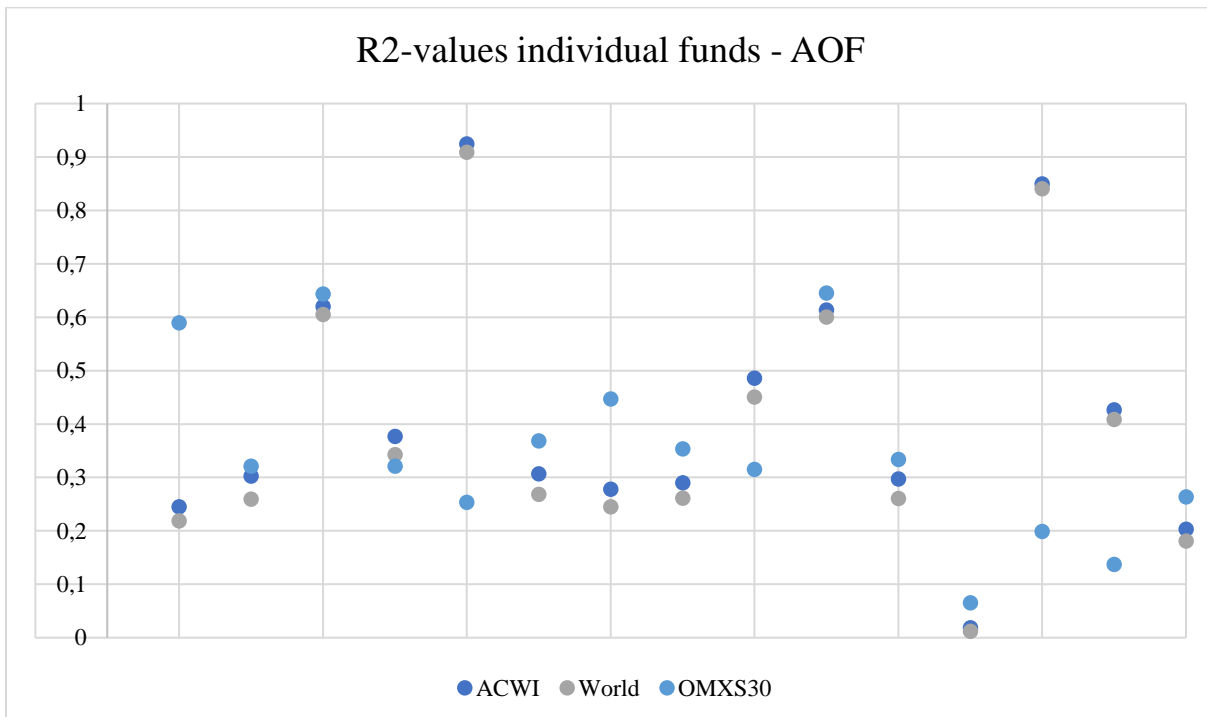


Figure 2: Shows the R^2 -values following the regression of the Active Ownership First individual funds
Sources: Morningstar & Nasdaq

The R^2 -values for the aggregated AOF funds in Table 2 have different results to the Divestment First funds. ACWI has the best fit, with the World index and OMXS30 being quite similar. This could be due to the AOF funds being much more global in their investments. These values will be great to return to when evaluating the results of the performance measures that are determined with the assistance of the indices.

Aggregated AOF funds			
	ACWI	World	OMXS30
R2	0,511	0,471	0,460

*Table 2: Shows the R^2 -values and the adjusted R^2 -values following the regression of the aggregated Active Ownership First individual funds
Sources: Morningstar & Nasdaq*

4.1.2 Alpha-values

4.1.2.1 Divestment First

The alpha-values, using a five per cent significance level, are all around the same value for the Divestment First funds, independent of the index used. The only fund where there is a larger difference is also the fund that had the largest difference in R^2 -values. All funds, independent of the index, have a positive alpha-value, showing that the funds are all overperforming.

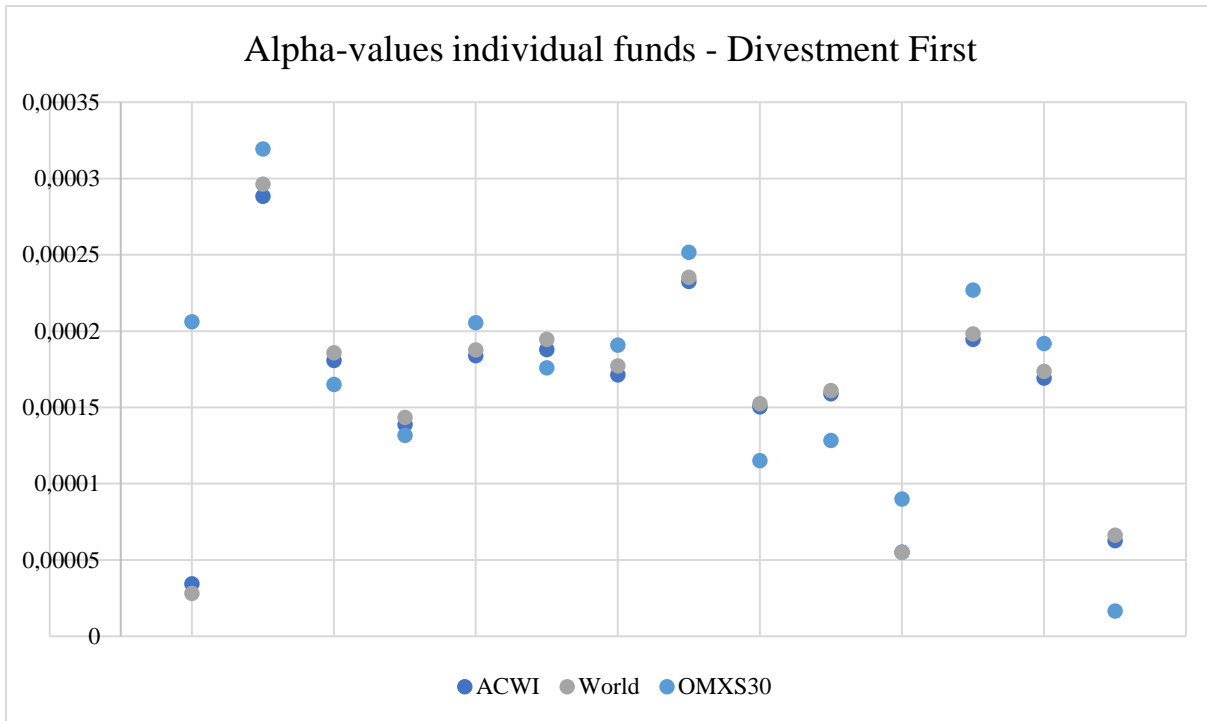


Figure 3: Shows the alpha-values following the regression of the Divestment First individual funds
Sources: Morningstar & Nasdaq

The aggregated Divestment First funds have positive alpha-values, no matter the index. OMXS30 is the index the aggregated fund has overperformed the most, this is probably due to the Swedish OMXS30 not performing as well as the globally focused MSCI indices.

Aggregated Divestment First funds			
	ACWI	World	OMXS30
Alpha	0,000158	0,000161	0,000173

Table 2: Shows the alpha-values following the regression of the aggregated Divestment First individual funds
Sources: Morningstar & Nasdaq

4.1.2.2 Active Ownership First (AOF)

Using a five per cent significance level, the alpha-values are all around the same value for the AOF funds, independent of the index used. The funds that have a larger difference is also the funds that had the largest difference in R^2 -values. All funds, independent of the index, have a positive alpha-value, except for two. These funds are the two funds with a larger change between their R^2 -values, with the ones with a high R^2 -value also having a low or negative alpha-values.

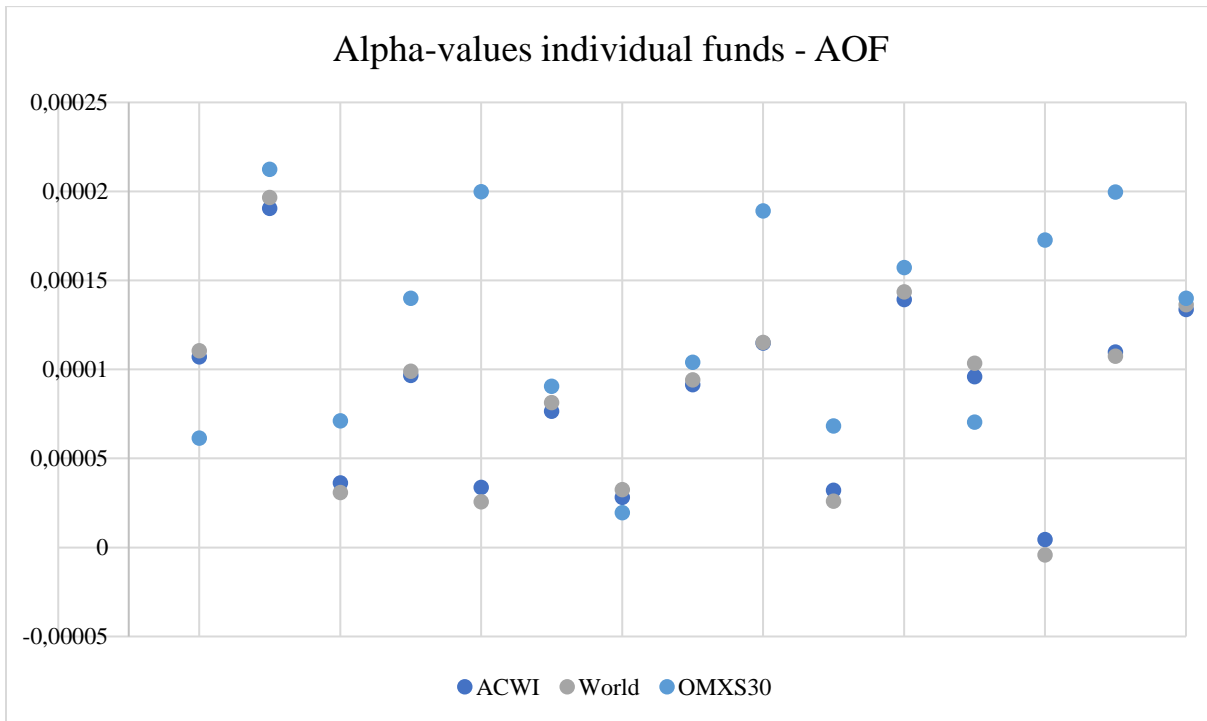


Figure 4: Shows the alpha-values following the regression of the Active Ownership First individual funds
Sources: Morningstar & Nasdaq

The aggregated AOF funds have positive alpha-values, independent of the index. Similar to the aggregated Divestment First funds, OMXS30 is the index the AOF aggregated fund has performed better than the most. It can also be seen that the alpha-values are not as high as the aggregated Divestment First fund and that the difference between the MSCI indices and the OMXS30 is larger for the aggregated AOF funds.

Aggregated AOF funds			
	ACWI	World	OMXS30
Alpha	0,000091	0,000092	0,000129

Table 3: Shows the alpha-values following the regression of the aggregated Active Ownership First individual funds
Sources: Morningstar & Nasdaq

4.1.2.3 ACWI comparison

With a focus on the MSCI ACWI, the main index used as a benchmark by the funds, it can be seen in Figure 5 that on average the Divestment First funds are performing better than the AOF

funds using alpha-values. It can also be identified that the Divestment First funds have a larger difference between the best and worst performing.

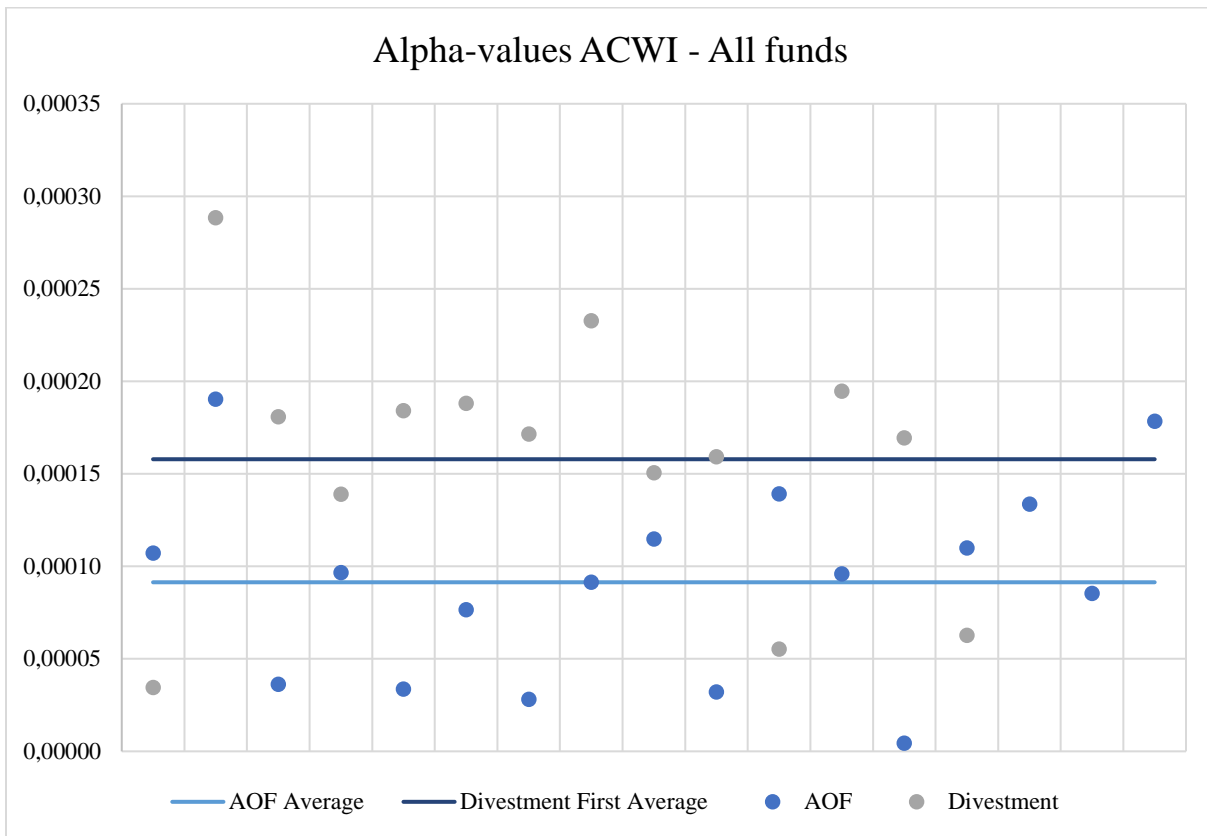


Figure 5: Shows the alpha-values, using the ACWI as the market portfolio, following the regression of the Active Ownership First and the Divestment First individual funds. An average of the different funds is shown as a line as well. Sources: Morningstar & Nasdaq

4.1.2.4 Regression results connected to the alpha-values calculations

Following the regression of the aggregated funds for the purpose of calculating Jensen’s alpha with a five per cent significance level, the statistic values in Table 4 and 5 were calculated. Since the P-values are all lower than the significance level of 0,05, the null hypothesis is rejected and it can be concluded that the linear regression model is significant.

Aggregated Divestment First funds			
	ACWI	World	OMXS30
P-value	1,76E-196	1,94E-171	3,77E-253
Beta	0,560	0,500	0,509

Table 4: Shows the beta and P-values following the linear regression of the aggregated Divestment First individual funds Sources: Morningstar & Nasdaq

Aggregated AOF funds			
	ACWI	World	OMXS30
P-value	2,44E-285	5,46E-254	2,83E-246
Beta	0,577	0,522	0,452

Table 5: Shows the beta and P-values following the linear regression of the aggregated Active Ownership First individual funds
Sources: Morningstar & Nasdaq

4.2 Sharpe ratio results

4.2.1 Divestment First

Looking at the tails of the box-plot in Figure 6, the maximum and minimum values of the average annual return over the last five years for the individual Divestment First funds can be identified at 16,6% and 6,8%. The middle 50% is between 10,4% and 12,3% and the median lies at 11,3%

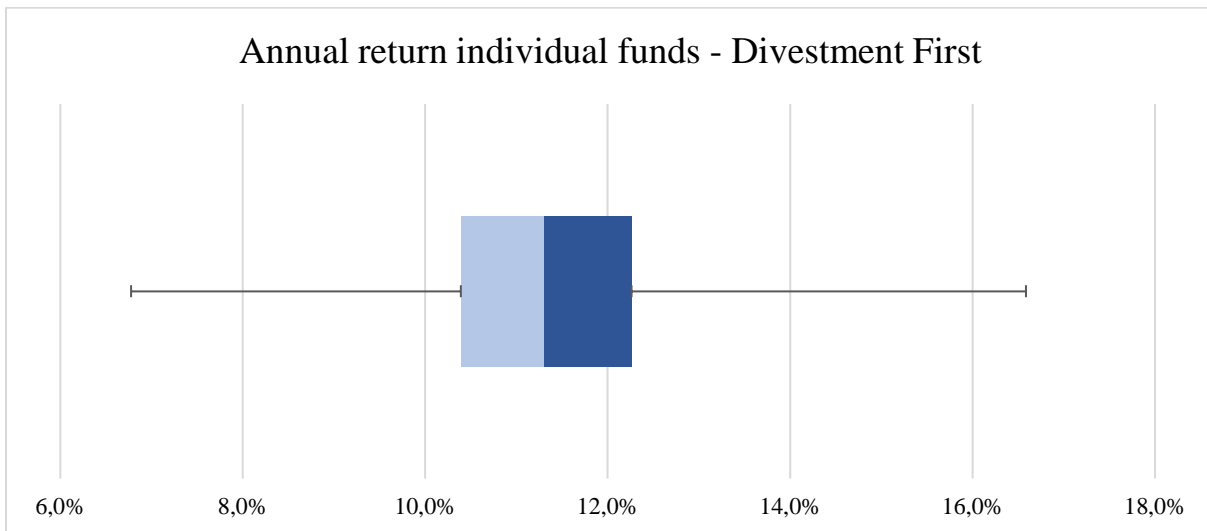


Figure 6: Shows a box-plot of the average annual returns for the Divestment First individual funds
Sources: Morningstar & Nasdaq

Figure 7 shows the average annual standard deviation, defined as the total risk of the fund, over the last five years for the individual Divestment First fund. The risk is between 10,9% and 15,1% with the middle 50% being between 12,7% and 14,2%.

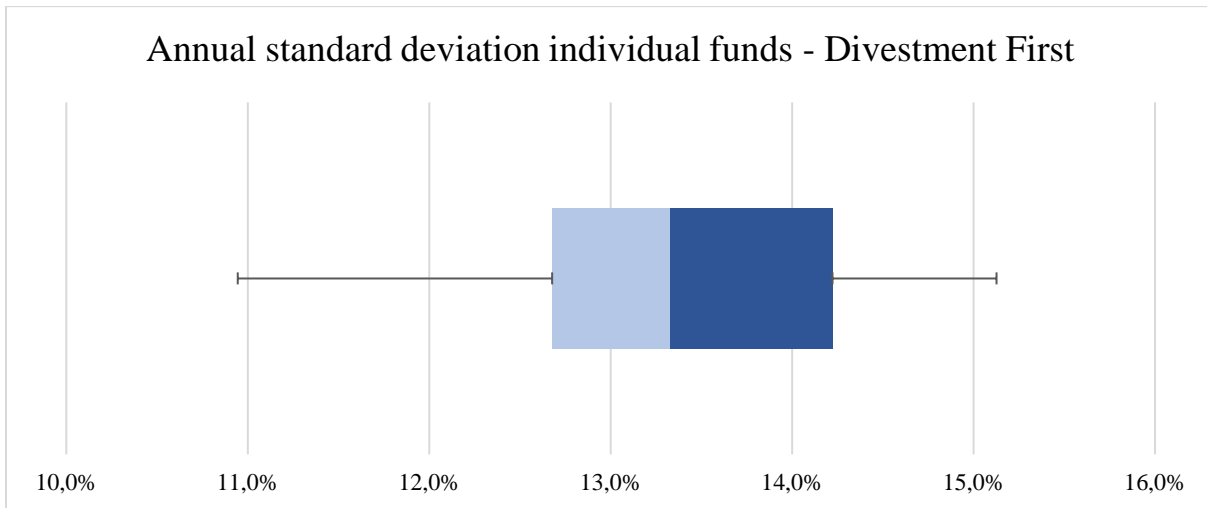


Figure 7: Shows a box-plot of the average annual standard deviation for the Divestment First individual funds
Sources: Morningstar & Nasdaq

The Sharpe ratio over the last five years for the Divestment First individual funds are displayed in Figure 8. The ratio is at its highest at 1,13 and its lowest at 0,45, with the middle 50% being between 0,78 and 0,98.

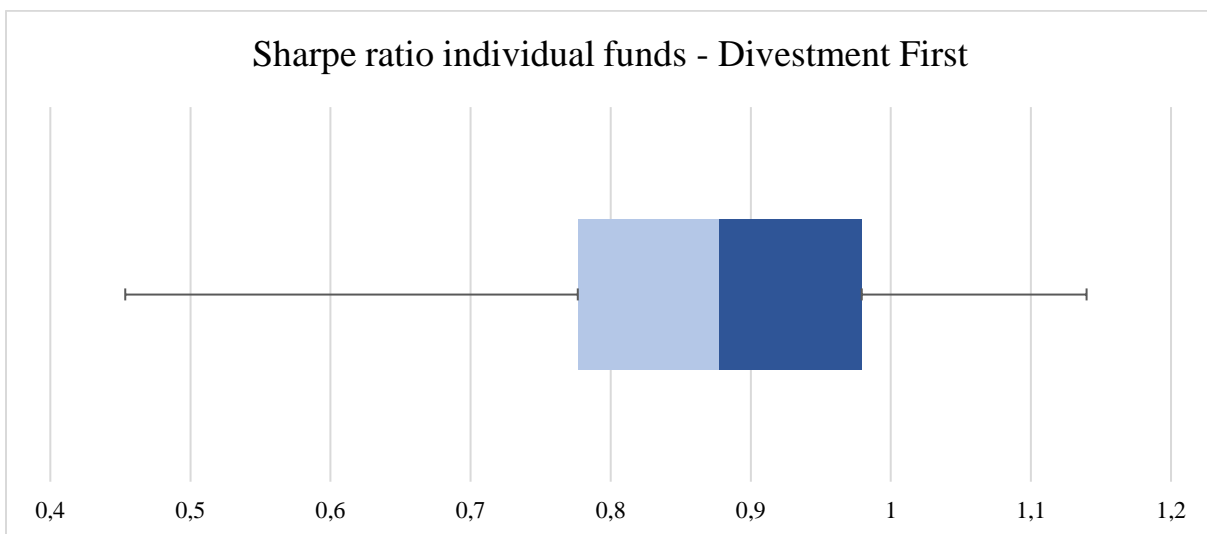


Figure 8: Shows a box-plot of the Sharpe ratio over the last five years for the Divestment First individual funds
Sources: Morningstar & Nasdaq

4.2.2 Active Ownership First (AOF)

Figure 9 shows the average annual returns over the last five years for the individual AOF funds. The returns are, by using the tails in the box-plot, between 3,6% and 12,1% with the middle 50% being between 8% and 10,6%. It is clear that the Divestment First funds performs better overall than the AOF funds.

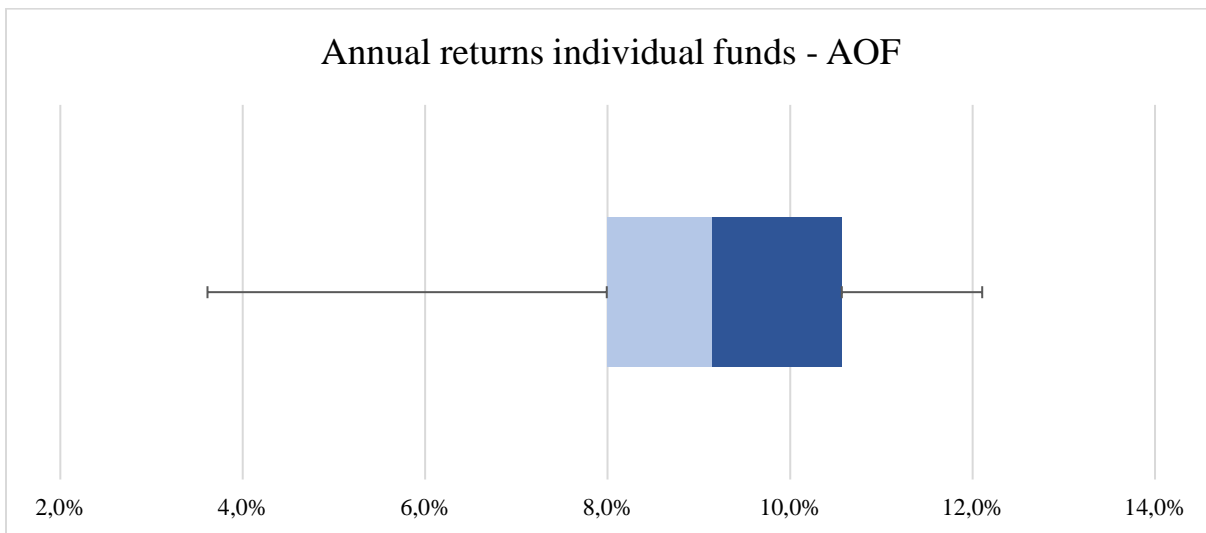


Figure 9: Shows a box-plot of the average annual returns for the Active Ownership First individual funds
Sources: Morningstar & Nasdaq

In Figure 10 it can be identified that the average annual standard deviation over the last five years for the individual AOF funds are between 11,3% and 14,6% with the middle 50% being between 12,2% and 13,5%. It can be noted that the Divestment First funds have a higher risk in all categories than the AOF funds.

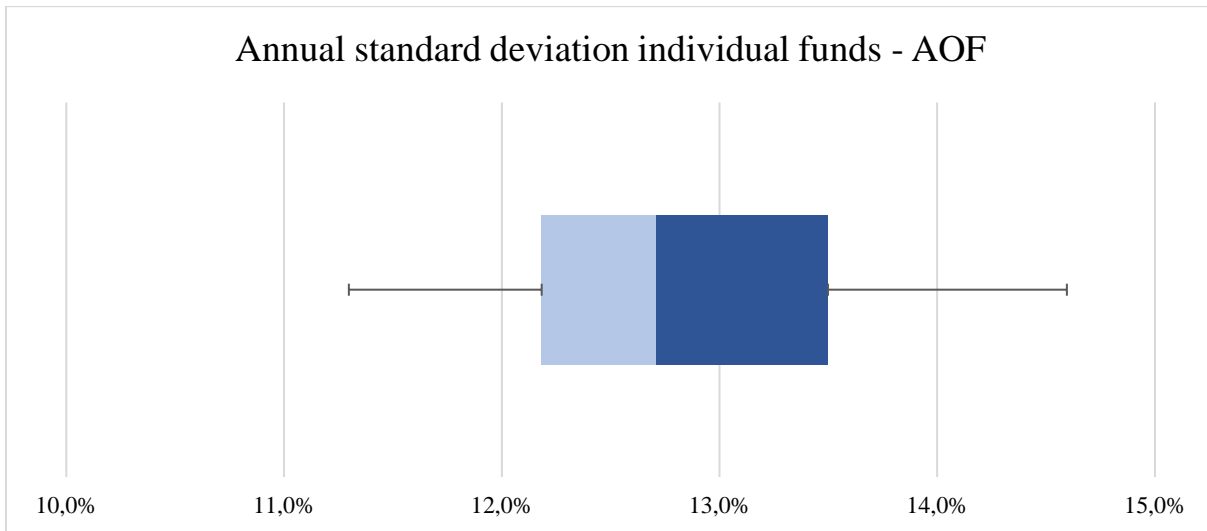


Figure 10: Shows a box-plot of the average annual standard deviation for the Active Ownership First individual funds
Sources: Morningstar & Nasdaq

The Sharpe ratio over the last five years for the individual AOF funds are displayed in Figure 11. At its highest, the ratio is at 1,00 and its lowest at 0,25, with the middle 50% being between 0,63 and 0,83. The Sharpe ratio for Divestment First funds are in general higher than the AOF funds, seen in Figure 8.

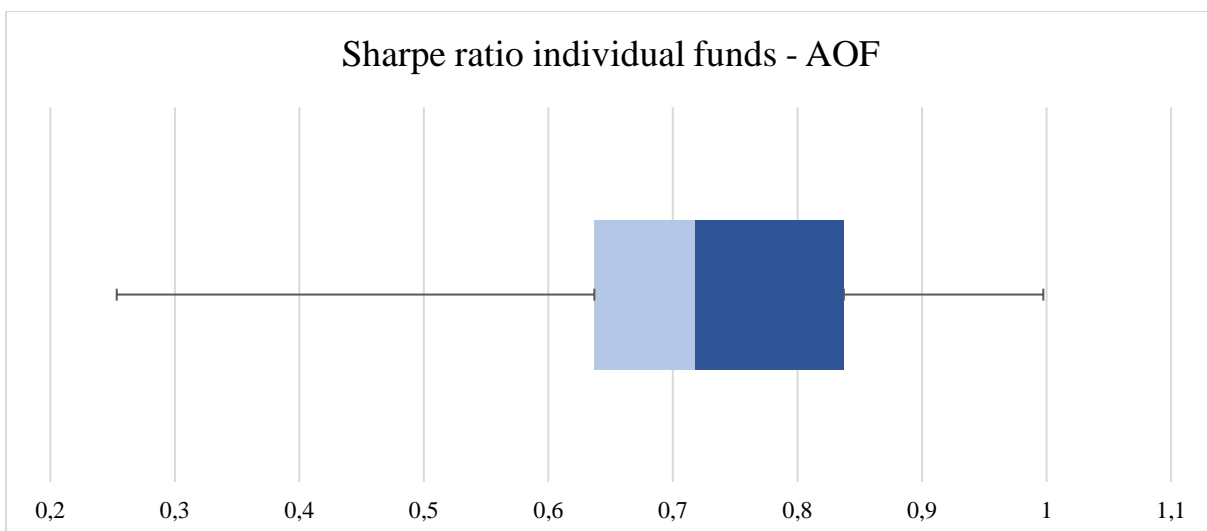


Figure 11: Shows a box-plot of the Sharpe ratio over the last five years for the Active Ownership First individual funds
Sources: Morningstar & Nasdaq

4.2.3 Aggregated funds

The aggregated fund of Divestment First funds has higher values in all categories than the AOF funds. Showing better performance while also taking on a higher risk and having a better risk-adjusted return.

Aggregated Divestment first funds	
Annual return	11,59%
Annual standard deviation	12,19%
Sharpe	0,958

*Table 6: Shows the average annual returns, average standard deviation and Sharpe ratio over the last five years for the Divestment First individual funds
Sources: Morningstar & Nasdaq*

Aggregated AOF funds	
Annual return	9,35%
Annual standard deviation	10,94%
Sharpe	0,863

*Table 7: Shows the average annual returns, average standard deviation and Sharpe ratio over the last five years for the Active Ownership First individual funds
Sources: Morningstar & Nasdaq*

4.3 Treynor and Information ratio results

4.3.1 Divestment First

For the individual Information ratio results of the Divestment First funds there are varying results between the funds. Most of them have positive values, but there are some funds with only negative values. The OMXS30 data having the highest values due to it being the worst performing index of the three over the chosen time-period.

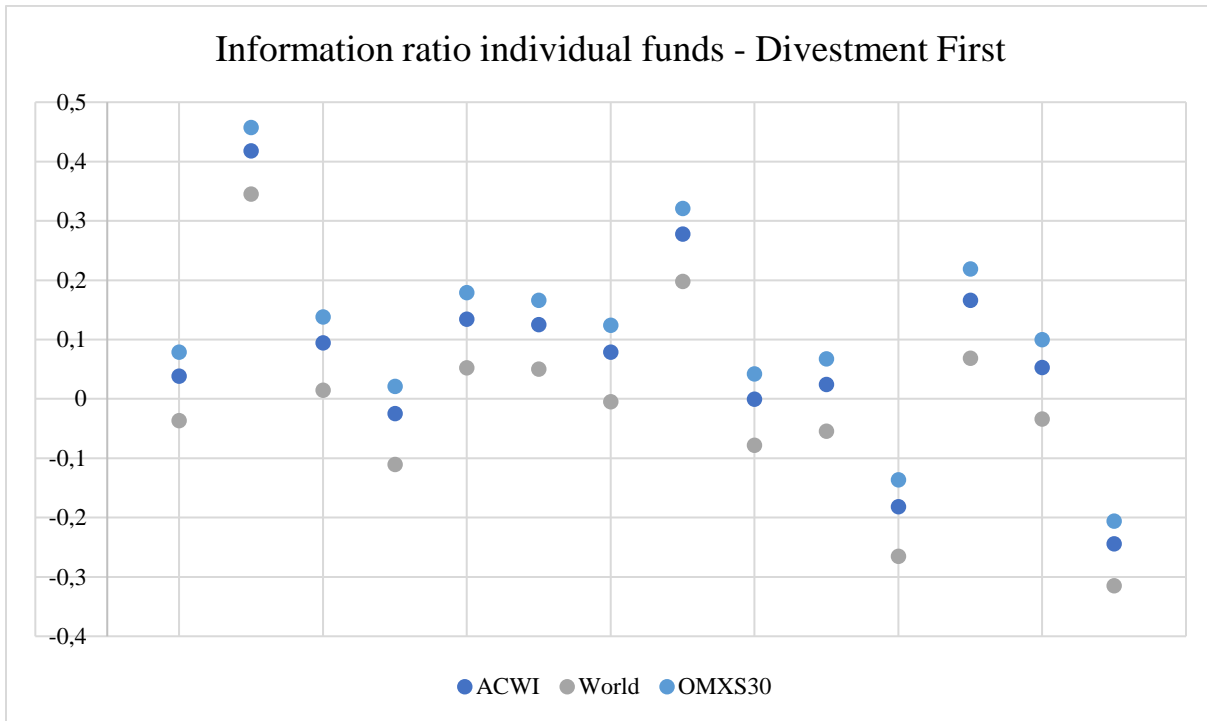


Figure 12: Shows the Information ratio results for Divestment First individual funds in comparison with the three market indices
Sources: Morningstar & Nasdaq

In Figure 13, the Treynor ratio results for the individual funds can be observed. The results for each fund varies drastically between the indices for some of the funds, but in general the results are quite similar and are around 0,20 to 0,25. The funds with more drastic difference are also the funds with larger differences in alpha-values since these have the biggest difference in R^2 -values.

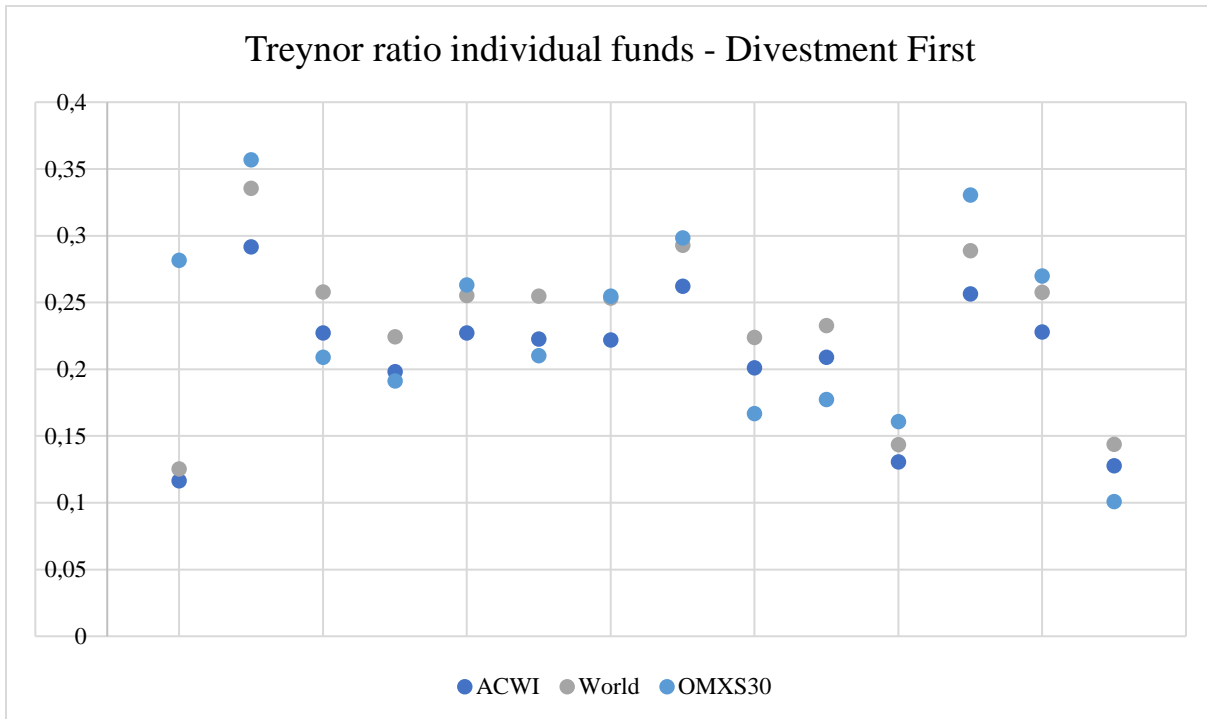


Figure 13: Shows the Treynor ratio results for Divestment First individual funds in comparison with the three market portfolios
Sources: Morningstar & Nasdaq

The aggregated results for the Divestment First funds are relatively similar to the Treynor ratio, which is not surprising due to the quite similar results for all the funds independent of the market portfolio used. For Information ratio there is a larger difference between the indices, which is primarily due to the difference in performance by the indices. There are also only positive Information ratio values for the aggregated portfolios, indicating the overall overperformance of the Divestment First funds.

Aggregated Divestment First funds			
	ACWI	World	OMXS30
Treynor ratio	0,207	0,232	0,228
Information ratio	0,092	0,005	0,140

Table 8: Shows the Treynor and Information ratio over the last five years for the aggregated Divestment First funds
Sources: Morningstar & Nasdaq

4.3.2 Active Ownership First (AOF)

The individual Information ratio results of the AOF funds have similar variation in its results than the Divestment First funds. However, most of them have negative values, in contrast to the Divestment First funds. The World index data have the lowest values due to it being the best performing index of the three over the time-period.

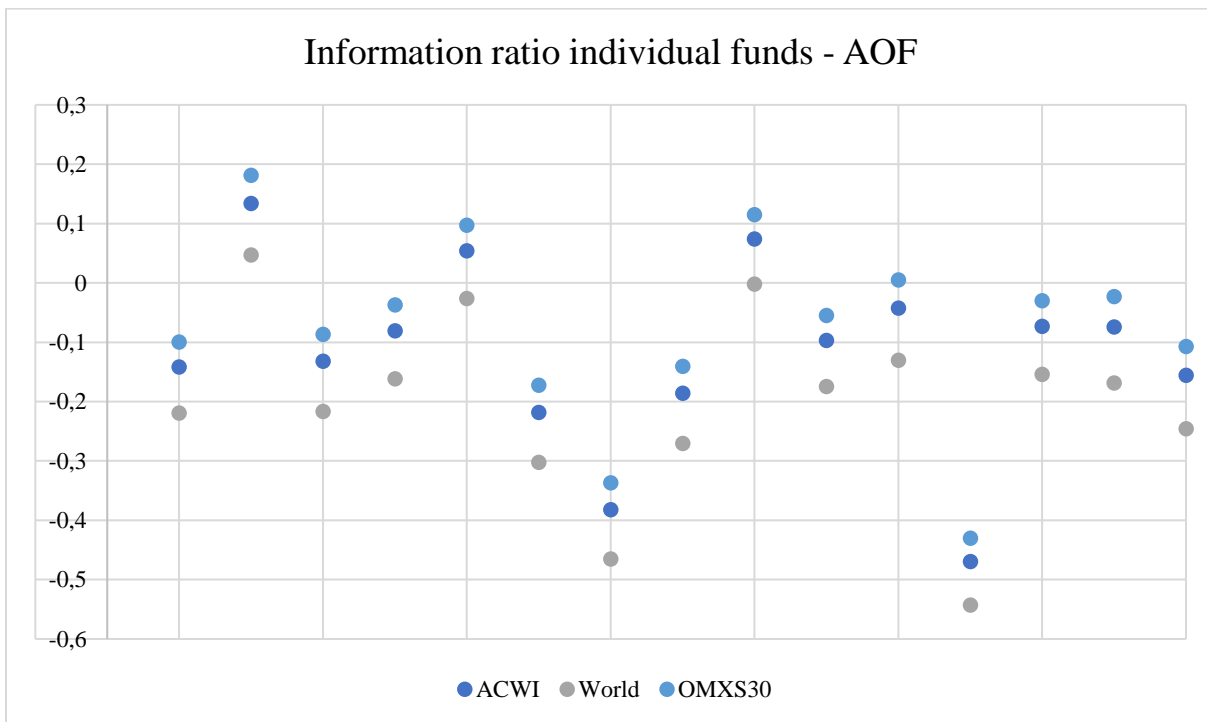


Figure 14: Shows the Information ratio results of the AOF individual funds in comparison with the three market indices
Sources: Morningstar & Nasdaq

Figure 14 shows the Treynor ratio results for the AOF individual funds, which similarly to the Divestment First funds have a large difference in certain funds but in general are quite comparable and around the value of 0,15 and 0,20. Which is distinctively lower than the Divestment First funds.

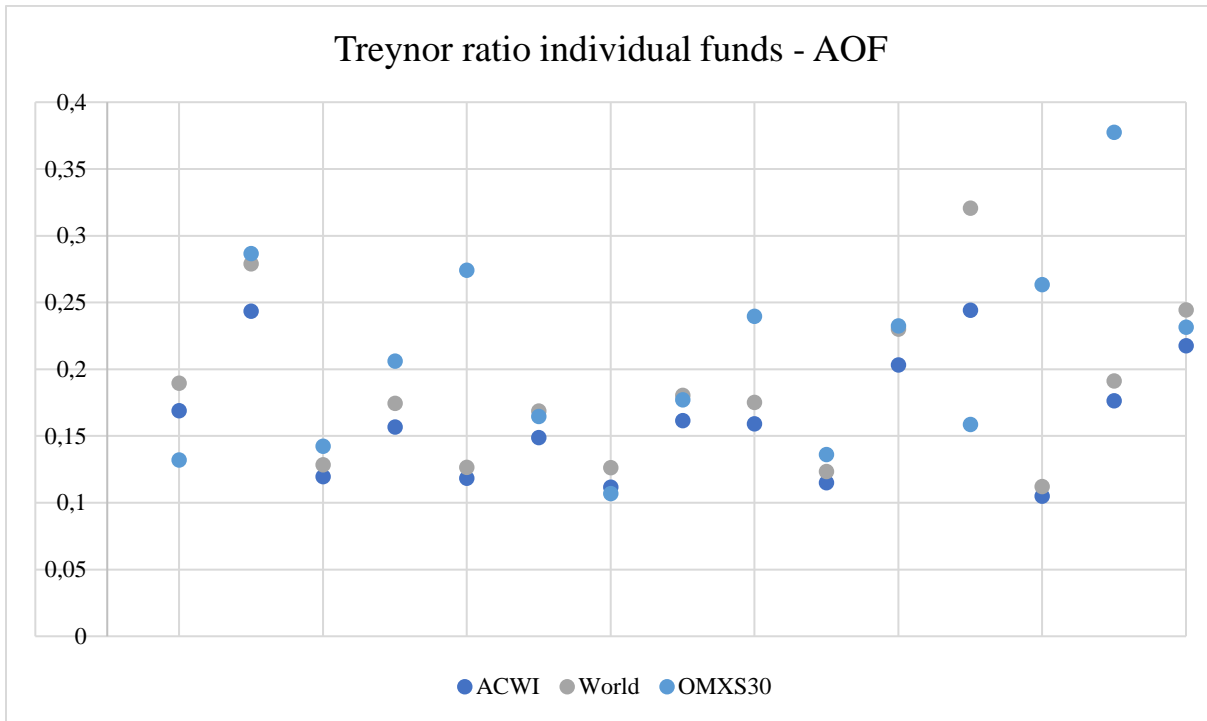


Figure 15: Shows the Treynor ratio results for AOF individual funds in comparison with the three market portfolios
Sources: Morningstar & Nasdaq

The results for the aggregated AOF funds are similar to the results for the Divestment First funds, in the way they are distributed. The size of the ratios are however smaller, with the Treynor ratio being around 0,04 smaller and the Information ratio being negative for all market portfolios.

Aggregated AOF funds			
	ACWI	World	OMXS30
Treynor ratio	0,162	0,179	0,207
Information ratio	-0,102	-0,199	-0,049

Table 9: Shows the Treynor and Information ratio over the last five years for the aggregated AOF funds
Sources: Morningstar & Nasdaq

5. Analysis and Conclusion

The conclusive result of all the performance measures shown in the Results, is that the Divestment First funds perform distinctively better than the Active Ownership First funds. In Table 10 a compilation of all the performance measures is presented, with the ACWI index used for the measurements that are dependent on a market portfolio. The alpha results are 73% higher, the annual return is 24% higher, the Sharpe ratio is 11% higher and the Treynor ratio is 28% higher for the Divestment First funds. Finally, the Information ratio shows that the Divestment First funds are overperforming the market while the AOF funds are underperforming.

Performance measures	Aggregated Divestment first funds	Aggregated AOF funds
ACWI Jensen's alpha	0,000158	0,000091
Annual return	11,59%	9,35%
Annual standard deviation	12,19%	10,94%
Sharpe ratio	0,958	0,863
ACWI Treynor ratio	0,207	0,162
ACWI Information ratio	0,092	-0,102

*Table 10: Shows a collection of the performance measures presented in the Results
Sources: Morningstar & Nasdaq*

Even though the results are conclusive, there might be other reasons for the difference in performance outside of the way they respond when an asset will be or is reclassified. Two primary reasons are mentioned here, as follows. Firstly, it could be due to the limit of funds assessed in the study. A study of more funds might result in closer or different results. But since there are, as seen in Figure 5, only two AOF funds that outperform the average of the Divestment First funds, this seems unlikely. Secondly, there might be more funds with investment limitations or guidelines that are AOF funds than Divestment First funds, leading to possible underperformance out of force. By assessing the funds in the study, both types of funds have several funds that have limitations. How strictly these limitations are implemented could perhaps make a difference, but it would be difficult to gather and assess this information in a fair way.

Let's assume that these other reasons are not responsible for the difference in performance, and instead, the reason is the fund's response when an asset is or will be reclassified. As discussed by Alex Gorman in his Note (2017), which was presented in the Previous studies, there could be

several reasons for why engagement could lead to negative results. The two main reasons were the time and cost of engaging with a company together with the possible additional risk. These could both be viable reasons for the lesser performance of the AOF funds. The time and capital spent by the fund to try and make a difference in a company could, if not very successful in their endeavour, lead to a worse return than if the fund were to invest elsewhere. The additional risk can absolutely be a reason for the Divestment First funds performing better. By trying to make a difference in a company after something negative has occurred, leading to the reclassification, the company is already affected by the negative publicity regarding what has happened. In the possible scenario of litigation towards the company, there could be an even worse performance. Connected to this, there is a possible lag between the Divestment First funds and the AOF funds. The lag would occur between the immediate divestment, by the Divestment First Funds, and the possible divestment following a discussion with the company by the AOF funds. If the company's stock price is affected in a substantial way by what happened leading up to the reclassification, the AOF funds that waited to sell until after communicating with the company, would have a theoretically larger loss than the Divestment First funds. Outside of the negative results following engagement, there could be positive results due to divestment (Gorman, 2017). As seen in real world examples, e.g., the fossil fuel sector divestment, there is a history of better results by divesting, due to possibly better management by the non-reclassified companies in our case. Therefore, investing solely in companies that are already performing well in sustainability, the solution investments discussed in the Background, and the companies with the management open for change, would be the best performing strategy.

From these results it would be easy to recommend fund managers for AOF funds to change to a Divestment First methodology, but then there would be less positive change. As mentioned in the introduction of this study and in the previous studies by Goullier and Pouget (2022) and Broccardo, Hart and Zingales (2022), a Divestment First strategy could lead to no progress and even negative results. By divesting from companies that are performing worse in sustainability, there would be less adoption of responsible practices by these companies. Instead of recommending a switch to the Divestment First methodology, there should be a push for the AOF methodology. This due to the conclusive results in the Previous studies, that if more investors are

enthusiastic about changing companies for the better, then there will be more positive change and perhaps also better results.

5.1 Suggestions for Future Research

A first suggestion for future research would be to look closer at the difference in performance between the two types of funds. The purpose of this study was to look at which strategy performed better, not specifically how much better. This would be an interesting value to determine and examine since it would give a cost for funds choosing to be AOF. As a second suggestion, connected to the first suggestion, it would be interesting to compare the results of this study with the sustainability impact made by each type of fund. With the belief that AOF funds will impact companies more, it would be possible to get a value for the extra impact made per loss in performance in comparison to Divestment First Funds. This would be an interesting value for not only investors but also regulators looking at the impact made by funds, which could possibly lead to subsidies for AOF funds. There would be difficulties with determining which data to be considered in the sustainability impact, whether it would be carbon emissions, board diversity or others, but since this is an area that is continuously growing and evolving, a possible absolute impact data point could be determined in the near future.

Thirdly, it would be interesting to make the same study in 5 years. It is difficult to know whether the value of being an AOF fund has had time to be fully realised, since changing a company could take a long time. It would therefore be interesting to see if the values calculated today will be any different in another 5 years. As a final suggestion, a similar study made on funds from other countries would be interesting. The difference in law-making surrounding sustainable funds is very different between countries so a comparison of AOF in for example EU, UK and the US could lead to exciting results. Results from funds in the EU should be reasonably close to the values in this study, since they are all under the same regulation from the EU.

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characteristics and sustainable investment objectives in pre-contractual documents, on websites and in periodic reports. Available online: [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32022R1288R\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32022R1288R(01)) [Accessed 15 May 2023]

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7. Appendix

Funds assessed in this study:

AMF Aktiefond Global

AMF Aktiefond Världen

AP7 Aktiefond

Didner & Gerge Global

Folksam LO Världen

Handelsbanken Global Selektiv

Handelsbanken Global Tema A10

Indecap Guide 2

KPA Etisk Aktiefond

Lancelot Camelot

Länsförsäkringar Global Vision

Läraryrskommittén Offensiv

Navigera Aktie 2

Nordea Institutionella Aktiefonden Stabil

Nordea Institutionella Aktiefonden Världen

SEB Aktiesparfond

SEB Dynamisk Aktiefond

SEB Global Aktiefond

SEB Stiftelsefond Utland

Skandia Världen

Storebrand Global Low Volatility

Storebrand Global Solutions

Swedbank Humanfond

Swedbank Robur Aktiefond Pension

Swedbank Robur Allemansfond Komplet

Swedbank Robur Global High Dividend

Swedbank Robur Globalfond

Swedbank Robur Kapitalinvest

Swedbank Robur Talenten Aktiefond MEGA

Swedbank Robur Transition Global

Öhman Global