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Abstract

This thesis analyses the impact of past performance on Norwegian retail investors capital allocation choices in actively managed equity mutual funds. The timeframe January 2001 to June 2022 is considered. Performance is measured as a fund's relative rank against other funds on raw returns, and on the performance metrics Sharpe Ratio and Jensen's alpha from the Fama-French three-factor model. The analysis is performed using a piecewise linear regression model based on the work of Sirri and Tufano (1998), which allows for a non-linear relationship between past performance and fund flows.

The initial analysis focuses on net flows, but these are subsequently disaggregated into its parts of inflow and outflow to evaluate the impact of each. The flow-performance relationship is further evaluated by separately evaluating mutual funds that invest in Norwegian equities, and those with global investment mandates. The January 2001 to June 2022 timeframe is also split into three periods to evaluate if the flow-performance relationships are consistent through time. Lastly, a performance evaluation of the in-sample funds is performed for a more thorough understanding of what exactly investors are reacting to when they allocate capital.

The fund analysis finds that, in aggregate, Norwegian funds that invest globally underperform their benchmarks. Mutual funds investing in Norway perform better than their indexes when considering both raw returns and Sharpe Ratio, but fail to do so in the Fama-French three-factor model.

The analysis of net flows finds that Norwegian retail investors allocate significantly more capital to the best performing mutual funds. This is true for funds focused on Norwegian equities, as well as for those focused globally. It has also been valid from January 2001 to February 2020, but has failed to materialize since COVID-19 started. The results show that performance chasing occurs throughout the performance range for mutual fund purchases, where funds are estimated to receive more inflow than the peers they outperform. The outflow results are less clear, and vary by performance metric. The most consistent result is that investors flee the absolute worst performing funds.

Preface

This thesis is the finishing touch of a long race to graduate with a master's degree. I would like to thank Ine, my long-term partner, for always supporting me. Also my supervisor Roy Endré Dahl for pointing me in the right direction when initiating the thesis.

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1. Introduction

1.1 Scope and background

Investing in equity mutual funds has become increasingly popular in Norway. The estimated population percentage who owns equity mutual funds has seen a significant rise, climbing from 28% in 2004 to 48% in 2022. Particularly the proportion of young people, aged below 30, invest more frequently. Their participation rate increased from 22% to 52% in the past decade (Høidahl, 2022).

As mutual fund investing becomes more commonplace, significant cash flows move through the fund industry as investors purchase and sell funds. However, there is limited knowledge regarding the factors that drive Norwegian retail investor's decision-making processes when it comes to allocating these flows.

Research on capital investment flows has been heavily focused on U.S. investors and past returns on U.S. assets. The seminal work of Ippolito (1992), Chevalier and Ellison (1997), Sirri and Tufano (1998), and the more recent results from Huang et al. (2007) and Christoffersen and Xu (2017), all demonstrate that capital net flows to mutual funds have a convex relationship to recent relative performance. This implies that capital flows into mutual funds grow exponentially if they improve their performance relative to other funds.

It would be a mistake however to assume that a similar relationship exists everywhere. Ferreira et al. (2012) studied the net flow to performance relationship across 28 countries and found that the relationships vary significantly by country.

Cashman et al. (2014) evaluated U.S. domiciled equity mutual funds investing in U.S., International (from a U.S. perspective), and hybrid funds, from 1997 to 2003. They found that the flow to performance relationships differ across fund types, particularly that hybrid funds are less sensitive to past performance.

The research available on the relationships that impact fund flows in Norway, such as that from Rieker (2015), Børsheim and Eilertsen (2016), Jahr and Kristiansen (2017) and Røed and Høiden (2022) do not specifically consider retail investors (but some do filter out funds that are only for institutional clients), and generally only consider funds that invest in Norwegian equities. They all however show that net flows to mutual funds are positively related to a fund's past performance.

Barber, Huang and Odean (2016) analyze capital flows in U.S. mutual funds. They evaluate whether investors are influenced by market risk (beta), and other common factors such as value, size and momentum. They find that less sophisticated investors are predominantly concerned with market risk, and consider the returns from other sources to be outperformance (alpha).

According to surveys conducted with Norwegian private investors, costs, risk, and historical returns are reported as the most important fund attributes influencing their decision making (Høidahl, 2022). While data for past fund costs is not readily available, historical returns and risk measurements can be calculated or estimated. Therefore, my research will focus on establishing and quantifying the relationships between retail investor flows and past performance, both unadjusted and adjusted for risk. Risk adjusted returns will be measured by Sharpe Ratio, and Jensen's Alpha from the Fama-French three-factor model.

My thesis will focus on three primary research topics:

1. An initial analysis of the in-sample mutual fund performances using raw returns, Sharpe Ratio and Jensen's alpha from the Fama-French three-factor model
2. Do net capital flows by Norwegian investors suggest that they chase performance?
3. If net flows do chase performance: is it primarily due to increased inflows, decreased outflows, or both?

The initial fund analysis will focus on the time-period from January 2001 to June 2022. Returns during the 2007-2009 financial crisis, 2014-2016 oil crisis, and COVID-19 pandemic will be specifically evaluated. Also, three year rolling performance results will be presented. These represent the historical returns that capital flows will be evaluated against in questions 2 and 3. The fund-universe will consist of funds investing in Norwegian equities and those investing globally.

To assess the relationship between performance and fund flows, a piecewise linear regression model based on the work of Sirri and Tufano (1998) will be used. The piecewise regression allows for a convex relationship to form between fund flows and past performance. The model considers fund characteristics such as past performance, risk, assets under management, age, and more, to examine investor flows. Monthly data is used to enhance the number of observations. The time-period considered is January 2004 to June 2022, where January 2004 is the first month to have 36 months of fund returns to evaluate flows against.

1.2 Organization of thesis

Chapter 1: Introduction

The first chapter gives an overview of the background, motivation, and scope of the thesis.

Chapter 2: Data

The second chapter provides information on the process of data gathering and filtering, flow definitions, and summary statistics for the number of funds each year, average assets under management, and average monthly net flows, inflows and outflows.

Chapter 3: Methodology

Chapter three details the thesis methodology. Particularly related to the base regression model inspired by Sirri and Tufano (1998). Problems related to data processing, heteroscedasticity, autocorrelation, multicollinearity, and regression assumptions are discussed.

Chapter 4: Fund Analysis

Fund analysis occurs in chapter four. Funds are evaluated by their past raw returns, active returns, Sharpe Ratio, and Jensen's Alpha in the Fama-French three-factor model. Performances are evaluated in linear time, and over 36-month rolling periods. Additional considerations are made for times of crisis, namely the 2007-2009 global financial crisis, oil crisis in the 2010s, and the COVID-19 pandemic.

Chapter 5: Empirical Results: Influences on Investor Flows

Chapter five provides an initial analysis of average monthly flow percentages vs past performance percentiles/ranks. The empirical results from the regression analysis are also presented. Net flow, inflow, and outflow percentages are regressed on metrics set out in the methodology. Most notably the 36-month past performance of raw returns, Sharpe Ratio and Jensen's Alpha.

Chapter 6: Discussion

The sixth chapter discusses the findings, and puts them in context to previous research.

Chapter 7: Conclusions

Chapter 7 provides concluding remarks on what has been found and established.

2. Data

2.1 Data collection

The investor capital allocation and fund flows data for the thesis was gathered from the Norwegian Fund and Asset Management Association (VFF). They are an organization that collects fund data for most of the funds registered to be sold in Norway. VFF partitions their statistics of the overall market into Norwegian retail investors, pension investors allowed to select their own funds, Norwegian institutions, and foreign investors.

VFF provides a comprehensive range of statistics, and for the purpose of this thesis, relevant data includes monthly information on the number of customers, asset under management, inflow, outflow, and the portion of inflow resulting from reinvested dividends, for each individual fund. The raw data obtained from VFF consisted of 222 monthly reports capturing fund flows (inflow, outflow, and reinvested dividends), as well as 222 reports containing data on the number of customers and assets under management for each fund. The preliminary raw data included all funds in VFF's catalogue, covering the period January 2004 – June 2022.

Prior to 2013, the category for pension investors did not exist and was organized within the Norwegian private investors category. From 2013 and onward they were separated into two distinct partitions. To study data across the 2013-boundary, the assets and flows for retail investors and pension investors were re-combined into one series after 2013. The aggregated series then aligns with the methodology of the pre-2013 Norwegian retail investors category.

2.2 Data Filtering

There were six delimitations applied to select eligible funds from the data.

Firstly, a fund must be classified by VFF as either a Norwegian or global equity fund. A Norwegian fund is defined by VFF as a fund that invests at least 80% of its assets in the Norwegian market. Global funds are those that invest at least 80% of their assets in the global equity markets, and at minimum covering the regions Europe, USA, and Japan (VFF, 2022).

Secondly, a requirement that a fund has had at least 100 private clients at some point in time. This criterion excludes funds that are not open to most investors due to constraints such as high minimum buy-inns or other client limitations.

Thirdly, a fund must have a historical record of at least 3 years. This duration allows for the evaluation of fund flows against 36-month performance metrics.

Fourthly, selected funds must invest actively rather than passively. Relative fund performance rankings are a focus of the study. Index funds will consistently gravitate towards the middle of the rankings and therefore not be ideal candidates for inclusion. Factor funds that seek to target certain stock characteristics such as value, momentum, size, etc., are permissible if the implementation of the strategy is not entirely rules based. In essence, funds that allow factor loadings to drift and be non-constant.

Fifthly, global funds must either have MSCI All country World Index (ACWI) or MSCI World as their official benchmark. VFF's global funds category includes funds with extremely varied investment objectives. By only including funds that benchmark themselves against the same broad indexes, hopefully a group of funds that are comparable can be selected. Most broad global funds in Norway follow one of these two indexes which is the reason they were chosen. Norwegian funds typically follow Oslo Børs Mutual Fund Index (OSEFX), but any Norwegian index is permissible. The market is small and any fund investing in public equities is deemed to be comparable to another.

Lastly, a fund cannot be a pooled investment fund that invests passively in other funds.

All selected funds can be found listed in the Fama-French three-factor analysis in appendix A.

2.3 Fund Returns

Fund returns dating back to January 2001 were obtained from Thomson Reuters' Refinitiv Eikon with Datastream add-on. Excel-sheets containing monthly rolling returns were downloaded for funds still alive today. Datastream does not provide these returns for delisted and merged funds. They do however have downloadable data for historical monthly Net Asset Values (NAV):

$$\text{Net Asset Value} = \frac{\text{Total value of Assets} - \text{Total value of Liabilities}}{\text{Total Outstanding Shares}}$$

Monthly fund returns can then be calculated from the monthly change in NAV:

$$\text{Fund Return}_t(\%) = \frac{100 * (\text{Net Asset Value}_t - \text{Net Asset Value}_{t-1})}{\text{Net Asset Value}_{t-1}}$$

I was unable to locate reliable fund returns for two Nordea funds registered in Finland. “Global Dividend A (NOK) growth” with ISIN FI4000064084 and “Global Passive A (NOK) growth” with ISIN FI4000046693. These are therefore excluded from my analysis.

2.4 Benchmarks

There are three benchmarks frequently used to evaluate Norwegian mutual funds. These are the OSE Benchmark Index (OSEBX), Oslo Stock Exchange All Share Index (OSEAX), and the OSE Mutual Fund Index (OSEFX). OSEAX contains all equities listed on Oslo Børs. OSEBX is similar but has liquidity constraints. OSEFX also has liquidity constraints, but considers rules and regulations placed on mutual funds. The most important of which is the maximum allocation of 10% to any individual stock. Using benchmarks that allocate in a manner that funds are not allowed to, is suboptimal. Therefore, OSEFX is chosen as the benchmark for Norwegian funds.

For global funds, the choice of benchmarks was made prior to selecting the mutual funds (as detailed in section 2.2). The MSCI World (developed markets) and MSCI ACWI (developed + emerging markets) indexes were selected because most diversified global funds in Norway follow one of these two benchmarks. Net return indexes were used, meaning dividends are adjusted for foreign withholding taxes.

The historical monthly returns for Oslo Børs Mutual Fund Index (OSEFX) were available and downloaded from Thomson Reuters’ Refinitiv Eikon with Datastream add-on for the period January 2004 to June 2022. For the period January 2001 to January 2004, they were calculated from monthly index values from the Euronext webpage (Euronext,2023). Returns for MSCI World and MSCI ACWI were also calculated from monthly index levels, downloadable on the MSCI performance webpage (MSCI, 2023):

$$\text{Benchmark Return}_t(\%) = \frac{100 * (\text{Benchmark level}_t - \text{Benchmark level}_{t-1})}{\text{Benchmark level}_{t-1}}$$

2.5 Survivorship Bias

The baseline assumption is that all funds registered to be sold in Norway are listed in VFF’s database. Previous studies have also concluded that the dataset is free from survivorship bias (Børsheim and Eilertsen, 2016). However, Brown et al. (1992) argue that excluding funds with short lived lives results in a higher probability of making false inferences on fund performance analysis.

Nonetheless, the subsample selected is likely not suffering from survivorship bias of any impact for the specific objectives of this study. 3-year historical performance metrics will be used to evaluate

the relationship between fund flows and performance. A fund shorter lived than 3 years obviously has no impact on an analysis such as this.

2.6 Flow Percent Definitions

Inflow is defined as the nominal flow into fund “i” in month “t” minus the portion originating from automatically reinvested dividends. Most equity mutual funds in Norway are accumulating, meaning that funds reinvest the dividends they receive instead of distributing them to the fund owners. Even so, some funds in the data sample have passed on dividends to their shareholders. As these are not an active decision by the investor, they are not considered relevant inflows. Inflow percent can then be defined as:

$$\text{Inflow Percent}_{i,t} = \frac{100 * (\text{nominal inflow}_{i,t} - \text{automatically reinvested dividends}_{i,t})}{\text{assets under management}_{i,t-1}} \quad (1)$$

Similarly, outflow percent is then:

$$\text{Outflow Percent}_{i,t} = \frac{100 * \text{nominal outflow}_{i,t}}{\text{assets under management}_{i,t-1}} \quad (2)$$

Net flow percent is the difference between inflow and outflow defined above:

$$\begin{aligned} \text{Net flow Percent}_{i,t} &= \text{Inflow Percent}_{i,t} - \text{Outflow Percent}_{i,t} \quad (3) \\ &= \frac{100 * (\text{nominal inflow}_{i,t} - \text{automatically reinvested dividends}_{i,t} - \text{nominal outflow}_{i,t})}{\text{assets under management}_{i,t-1}} \end{aligned}$$

2.7 Summary Statistics

Table 1 presents the summary statistics of the collected data. The first two columns represent the number of funds in each investment category (Norwegian and global), while the third column is for all funds in aggregate (AGG), for the start of each year. For each investment category, the grouped Assets Under Management (AUM) are reported for the start of the year. The monthly average percent of net flow, inflow, and outflow for each year is also reported.

Table 1: Summary fund statistics. Number of funds. Assets under management. Average monthly net flow, inflow and outflow percent.

Year	# Funds (start of year)			AUM (MNOK, start of year)			Monthly average Net flow %			Monthly average Inflow %			Monthly average Outflow %		
	NOR	Global	AGG	NOR	Global	AGG	NOR	Global	AGG	NOR	Global	AGG	NOR	Global	AGG
2004	37	15	52	16235	8560	24795	-1.05%	-0.63%	-0.93%	2.24%	1.62%	2.06%	3.29%	2.25%	2.99%
2005	37	17	54	18190	9152	27341	-1.01%	-0.50%	-0.86%	3.34%	2.00%	2.93%	4.35%	2.49%	3.79%
2006	37	17	54	22054	12863	34917	-0.52%	-0.20%	-0.43%	2.62%	2.33%	2.54%	3.14%	2.52%	2.97%
2007	38	20	58	25738	16512	42249	-0.70%	-1.16%	-0.84%	1.69%	1.97%	1.77%	2.39%	3.13%	2.60%
2008	38	21	59	19847	12646	32492	0.55%	-0.45%	0.24%	2.65%	1.84%	2.40%	2.10%	2.28%	2.16%
2009	38	21	59	11983	8546	20529	1.86%	1.09%	1.61%	3.43%	2.26%	3.14%	1.56%	1.47%	1.53%
2010	38	21	59	23582	12257	35839	-0.39%	-0.44%	-0.41%	1.87%	1.68%	1.81%	2.27%	2.12%	2.22%
2011	39	21	60	26374	13961	40335	-0.42%	-0.65%	-0.50%	1.48%	1.54%	1.50%	1.90%	2.19%	2.00%
2012	41	21	62	21323	12375	33698	-0.28%	-0.10%	-0.22%	1.32%	1.71%	1.46%	1.60%	1.81%	1.67%
2013	40	23	63	22368	13341	35709	-0.51%	0.39%	-0.20%	1.13%	2.10%	1.47%	1.65%	1.71%	1.67%
2014	37	20	57	24194	18944	43138	-0.47%	0.05%	-0.29%	1.41%	1.92%	1.58%	1.88%	1.87%	1.88%
2015	33	19	52	24297	22542	46839	-0.06%	1.29%	0.41%	1.78%	2.75%	2.12%	1.84%	1.46%	1.71%
2016	33	20	53	22475	24708	47183	1.95%	-0.41%	1.14%	3.55%	1.34%	2.79%	1.60%	1.75%	1.65%
2017	32	20	52	30864	26790	57654	0.11%	0.28%	0.17%	2.40%	1.56%	2.11%	2.29%	1.28%	1.94%
2018	33	20	53	34638	32777	67415	0.09%	-0.48%	-0.11%	1.99%	1.46%	1.81%	1.90%	1.95%	1.92%
2019	33	20	53	33610	33461	67071	-0.21%	0.51%	0.06%	1.62%	2.31%	1.88%	1.83%	1.80%	1.82%
2020	31	19	50	26680	37869	64550	-0.18%	1.90%	0.62%	2.58%	4.22%	3.21%	2.76%	2.32%	2.59%
2021	31	19	50	25368	35187	60555	0.10%	0.47%	0.24%	2.53%	3.49%	2.89%	2.43%	3.02%	2.65%
2022*	31	19	50	27608	42553	70160	-0.49%	0.01%	-0.30%	1.74%	2.08%	1.87%	2.23%	2.07%	2.17%
Full sample (standard deviation)							-0.06% (4.10%)	0.08% (5.17%)	-0.01% (4.49%)	2.18% (3.79%)	2.14% (4.82%)	2.16% (4.17%)	2.24% (2.67%)	2.06% (2.81%)	2.18% (2.72%)

3. Regression methodology

3.1 Data processing

3.1.1 Reclassification problem

The reclassification of clients from institutional to private/pension investors and vice versa introduces inaccuracies in the monthly data. VFF uses Year to Date (YTD) reports from fund companies to calculate monthly data. For example, fund flows in month “t” are calculated as:

$$Flow\ month\ t = Flow\ YTD_t - Flow\ YTD_{t-1}$$

When clients are reclassified in month “t”, assets and flows that were incorrectly included or excluded previously are report and accounted for in the YTD_t report. The subtraction of the uncorrected data (YTD_{t-1}) from the corrected data (YTD_t) then produces an erroneous monthly datapoint.

This reclassification process often occurs because third-party sellers of funds are classified as a single institutional client in the dataset. However, if the reporting is subsequently refined to specify the individual clients associated with these third-party sellers, many clients are moved from one category to another (Henriksen, 2023).

There are no readily available resources to identify months with reclassification events. Therefore, Equation 4 is introduced. In months where reclassifications occur, there will be a change in Assets Under Management (AUM) that cannot be explained by net inflows or fund returns. If the actual AUM in month “t” differs significantly from the expected value, reclassification events are considered likely.

$$Expected\ AUM_t = actual\ AUM_{t-1} * (1 + fund\ return_t) + net\ inflow \quad (4)$$

Equation 4 is imperfect, because intra-month returns on new net flows are not considered. This can particularly be of impact for funds with relatively high flows relative to AUM, as well as for months with high return volatility. This advocates for being conservative in assuming reclassification events having occurred. Therefore, wide bands are used when removing datapoints. Any datapoint where the ratio of expected to actual AUM is outside the following range is removed:

$$0.8 \leq \frac{Expected\ AUM_t}{Actual\ AUM_t} \leq 1.2$$

Correctly reported fund mergers also result in differences between expected and actual month “t” AUM. This isn’t seen as a problem, as months with mergers have their own problem. The flow percentages are calculated as the nominal flow in the current month divided by the prior month’s AUM. When funds are merged and become one bigger fund, the expectation is for nominal flows to increase. Dividing the now larger nominal flow by the prior month’s pre-merged asset level, would produce a biased datapoint.

3.1.2 Human errors, mergers, and liquidations

The VFF dataset containing Assets Under Management (AUM) and flow data is built upon the manual entry of statistics from fund managers instead of through indirect calculations. This introduces the possibility of human error in the reporting and handling of data. Of greatest impact is the treatment of flows due to mergers and liquidations. These are not supposed to count as fund flows, yet previous work has concluded that it often occurs nonetheless (Børsheim and Eilertsen, 2016).

Unfortunately, such errors are often hard to identify. There’s no clear signal that separates normal flows, those incorrectly reported, and those that are due to mergers and liquidations. The primary problem with incorrectly reported data for my analysis, is that linear regressions are notoriously sensitive to outliers. With the prospect that incorrectly reported flows (especially through mergers and liquidations) produce irregularly large flows, I opt to trim the dataset from the datapoints with the largest 0.5% inflow and outflow percentages

3.1.3 Fund returns

The monthly fund returns reported by Datastream have potential flaws in the first and last month of a fund’s life. Funds are given a monthly return even if they have not existed the entire month. For example, a fund launched in the middle of June will be given a monthly return for June. This obviously poses a problem, and therefore I remove the first and last month of each return series for funds newly formed, merged or delisted.

3.2 Relative Performance Regression Model

Following the work of Sirri and Tufano (1998) I use a piecewise regression which allows for a nonlinear performance-flow relationship. First a fund’s absolute performance is converted to a relative fractional performance rank ($Rank_{i,t}$), which represents the return percentile of a fund compared to the returns of other equity funds in the same category. Three performance variables are defined for various levels of performance:

$$LowPerf_{i,t} = Min (Rank_{i,t}, 0.2)$$

$$MidPerf_{i,t} = Min (Rank_{i,t} - LowPerf_{i,t}, 0.6)$$

$$HighPerf_{i,t} = Min (Rank_{i,t} - MidPerf_{i,t} - LowPerf_{i,t}, 0.2)$$

$LowPerf_{i,t}$ represents the bottom performance quintile. $MidPerf_{i,t}$ correspond to the three middle quintiles, and $HighPerf_{i,t}$ is the top performing quintile. For example, if fund “i” at time “t” is in the 40th percentile ($Rank_{i,t} = 0.4$), it would have the following values:

$$LowPerf_{i,t} = 0.2 \quad MidPerf_{i,t} = 0.2 \quad HighPerf_{i,t} = 0$$

A fund in the 85th percentile would have a fractional rank of 0.85 and:

$$LowPerf_{i,t} = 0.2 \quad MidPerf_{i,t} = 0.6 \quad HighPerf_{i,t} = 0.05$$

The baseline regression model that relates historical relative performance and other characteristics to fund flows is then introduced:

$$\begin{aligned} Flow\ Percent_{i,t} = & \beta_0 + \beta_1 \times LowPerf_{i,t} + \beta_2 \times MidPerf_{i,t} + \beta_3 \times HighPerf_{i,t} + \\ & \beta_4 \times Flow\ To\ Category_t + \beta_5 \times Log (Assets_{i,t-1}) + \gamma_1 \times \\ & IntermediateAge_t + \gamma_2 \times EstablishedAge_t + \sum_k \delta_k Month\ k_t + \epsilon_{i,t} \end{aligned} \quad (5)$$

The coefficients β_1 , β_2 and β_3 represent the slope of a fund’s performance-growth relationship over their range of sensitivity (Sirri and Tufano, 1998). I use past 36-month raw returns, Sharpe Ratio and Jensen’s alpha from the Fama-French three-factor model.

$Flow\ To\ Category_t$ is the average, in-sample, net flow to funds with the same objective (global or Norwegian investing). This to control for sectoral flows, as I am interested in fund-level flows.

$Log (Assets_{i,t-1})$ is the natural logarithm of fund i’s previous month Assets Under Management. This to account for flows of equal nominal value having a greater percentage impact on small funds.

$IntermediateAge_t$ is a dummy variable taking the value 1 if a fund is between 6 and 10 years old.

$EstablishedAge_t$ is a dummy variable taking the value 1 if a fund is over 10 years old. This implies that funds 5 years or younger constitute the base group, not included in the equation to avoid perfect multicollinearity (regression dummy-trap). Age dummies are included to account the possibility of varied flow percentages as funds mature.

In contrast to the model proposed by Sirri and Tufano (1998), I have followed Børsheim and Eilertsen (2016) and included $Month_t$ as a dummy variable to control for potential seasonality in the data. March represents the base group, used to control for perfect multicollinearity. Sirri and Tufano (1998), work with annual data and therefore have no need for a seasonality adjustment.

I also group funds into established (10+ years old) and intermediate (6 to 10 years old) instead of allowing each year to have its own dummy. Grouping years is assumed to provide more statistically significant results, and therefore facilitate analysis of the age-flow relationship.

3.3 Regression assumptions

When performing a regression analysis on panel data, meaning data containing both cross-sectional and time-data, it is common to encounter regression-results that violate basic regression assumptions. This then leads to incorrect or inefficient conclusions being drawn. A linear regression assumes:

1. A linear relationship between the independent variables and the dependent variable.
2. Residuals are normally distributed
3. No autocorrelation between residuals
4. Homoscedasticity
5. No multicollinearity

The piecewise regression described in section 3.2 is a response to the potential for a non-linear relationship between performance and flows. The requirement for residuals being normally distributed is largely ignored for the purposes in my research. According to Gelman and Hill (2006) this is the least important requirement and is almost not important at all if the purpose of the regression is to estimate a regression line (which contrasts to trying to predict individual data-points).

The most crucial challenges for my purposes are heteroscedasticity, autocorrelation, and multicollinearity. Homoscedasticity is when the variance of the residual does not change much as the independent variables change. If the variance exhibits a pattern which is not close to constant, we have heteroscedasticity (Hayes, 2019).

Autocorrelation occurs when the error terms are correlated with each other. This is a common occurrence with time-series data (Huitema and Laraway, 2006) and for cross-sectional data (Brooks, 2008), of which we have both.

Multicollinearity occurs when the independent variables in a regression are correlated to one another. This produces results that make it hard to distinguish which variable is influencing the dependent variable.

Previous work has varied in methods for dealing with these issues. Sirri and Tufano (1998) followed the approach by Fama and Macbeth (1973). They performed regressions for each cross-section of data (each year) and then averaged these temporary coefficients to find a single final coefficient value. Standard errors were then computed on the series of annual coefficients (as opposed to on the original data). Most research coming after Sirri and Tufano (1998) appear to follow a similar approach, but with slightly more conservative standard errors (Newey-West standard errors). Gow, Ormazabel and Taylor (2009) however show that these methods produce significantly downwardly biased standard errors if any cross-sectional or time-series autocorrelation is present. They demonstrate that only running regressions with two-way cluster robust standard errors produce standard errors valid to make any inferences if autocorrelation in both dimensions is present. Petersen (2009) similarly reaches the conclusion that when there's both a firm and time effect (cross sectional and time-series). Arbaa, Varon and Benzion (2017), studying Israeli equity fund flows, compared several approaches and found correlation in both dimensions to be present. As I see no reason for Norwegian results to be different, I therefore take the conservative approach and use two-way cluster robust standard errors, clustering on both time and firm.

The Newey–West estimator that is commonly used, produces heteroskedasticity corrected standard errors. To obtain two-way clustered robust, along with heteroskedasticity corrected standard errors, I use the statistical computing software R and the `vcovPL()` function. I specify the two-way cluster as follows, where $Y \sim X$ represents the regression equation.



```
1 library(sandwich)
2 library(lmtest)
3 library(tidyverse)
4 library(readxl)
5 library(car)
6
7 SharpeData <- read_excel("C:/project/data.xlsx", sheet = "Sharpe")
8 SharpeRegression <- lm(Y ~ X, data=SharpeData)
9 coeftest((SharpeRegression), vcov=vcovPL, cluster= ~firm+time, lag="NW1987")
10 summary(SharpeRegression)
11
```

Figure 1 Example of regression procedure in the programming language R

“coefstest()” provides the coefficients with robust standard errors while “summary()” includes the coefficient of determination, R^2 . “NW1987” represents the standard lag length for Newey-West calculations.

Multicollinearity is tested for after a regression analysis is performed. Formally, I will conduct Variation Inflation Factor (VIF) tests. This quantifies a level of multicollinearity among the independent variables. Each variable is given a score which signifies how much the variance of an independent variable is inflated due to interactions with other independent variables (Investopedia, 2023).

The test is performed by converting an independent variable into the dependent variable, followed by regressing the other independent variables against the newly formed dependent variable. Using the obtained R^2 from the regression and the following formula, a VIF-score is obtained:

$$VIF = \frac{1}{1 - R_i^2} \quad (6)$$

James, Witten, Hastie and Tibshirani (2021) considers VIF-levels above 5 to 10 to be problematic

4. Fund performance analysis

Chapter 4 introduces the performance metrics that will be utilized to establish the relationship between past performance and fund flows in the regression models. These metrics include raw returns, Sharpe Ratio and Jensen's Alpha. Raw returns are end-result focused and do not consider risk. On the other hand, Sharpe Ratio and Jensen's alpha incorporate risk, although they differ in their methodologies. Sharpe Ratio directly takes the risk-free rate and volatility into account, while Jensen's alpha adjusts the performance to various equity-based risk factors.

The funds are analyzed both individually and collectively, thereby giving an overview of the actual performance that investors react to when purchasing and selling funds. The funds are analyzed over different time periods. January 2001 to June 2022 equates to the entire time this study will consider. Further decomposed to times without crises and three times of crisis: The Great Recession, the oil crisis, and the COVID-19 pandemic. Deciding exact start and end dates for these crises is no exact science because different markets and countries experienced them differently. The Great recession is defined as the time between December 2007 and June 2009. The oil crisis equates to the time during the sharp fall and eventual bottoming of the Brent crude oil price between July 2014 and January 2016. As of this writing the COVID-19 pandemic is still ongoing, however in an attempt to isolate the most severe period, I define it as a crisis between the onset in February 2020 and the approval of the first vaccines in December 2020.

4.1 Raw Returns

The most rudimentary form of analyzing fund performance is to study returns without considering risk. Raw returns are returns that have not been adjusted or processed in any way. Active returns are the difference between the raw returns of a portfolio and the raw returns of a reference benchmark. The reference benchmarks used are Oslo Exchange Mutual Fund Index (OSEFX) for the Norwegian mutual funds, MSCI All Country World Index (ACWI) for global funds that include emerging markets and MSCI world for developed only global funds.

Table 2 presents the annualized raw and active returns for Norwegian, global and all funds combined. Return calculations are based on portfolios where fund returns are equally weighted every month.

Table 2 Annualized raw and active returns for equally weighted portfolios of global and Norwegian funds

	Nominal returns			Active Returns		
	Combined	Global	Norwegian	Combined	Global	Norwegian
Whole period (Jan 2001 – Jun 2022)	8.06%	4.76%	9.15%	0.05%	-1.18%	0.65%
Non-crisis years	11.56%	6.33%	13.77%	-0.45%	-0.92%	-0.26%
The Great Recession (Dec 2007 – Jun 2009)	-23.71%	-21.22%	-25.99%	2.63%	-2.74%	5.57%
Oil crisis (Jul 2014 – Jan 2016)	3.99%	14.69%	-1.83%	0.41%	-3.20%	2.32%
COVID-19 (Feb 2020 – Dec 2020)	14.91%	10.43%	16.54%	4.58%	0.05%	7.11%

Looking at the results for the whole period (Jan 2001 – Jun 2022), they show that the raw returns for Norwegian funds exceeded the global funds by almost twice the annual return (9.15% vs 4.76%). The combined portfolio returned 8.06% and is therefore closer to the Norwegian fund results. This is due to the greater number of Norwegian funds in the study. Another contributing factor is the lucky timing of mergers and creation of new funds.

Unsurprisingly, the returns for all three portfolios have been greater in times without a crisis. The exceptions are the Covid-19 crisis, where a sharp decline in equity returns was experienced all over the globe in February and March, followed by a sharp rebound in the months thereafter. Also, the oil crisis, where the oil-heavy Norwegian funds experienced a decline whereas the global funds did not.

The active returns show that the Norwegian funds have an outperformance of 0.65% relative to the reference benchmark when looking at the entire period. In contrast, the global funds show a negative active return of -1.18% compared to their benchmarks. These results align with the findings of the Norwegian “Forbrukerrådet” (2018), who found that global funds from 1998 through 2017 underperformed by -0.89% against their benchmark, while Norwegian funds outperformed by 0.86%. Interestingly, the outperformance of the Norwegian funds can be explained entirely by their outperformance in times of crisis. During the non-crisis years, the funds show an active return of -0.26%. This suggests that the overall outperformance happens due to short bursts. A similar positive pattern cannot be seen in the global funds. The difference in returns between the crises and non-crisis periods is small (-1.18% vs -0.92%). However, global funds significantly underperform in The Great Recession and during the oil crash.

To further analyze fund-performance, the distribution of returns is of interest. Particularly if there are differences between the best and worst performing funds, and whether the differences vary

with time. The regression analysis will focus on how investors react to 36-month rolling historical performance metrics. Month “t” active and raw returns are calculated as follows:

$$\text{Average 36 month historical raw return}_t = \frac{\sum_{i=t-37}^{t-1} \text{Return}_i}{36} \quad (7)$$

$$\text{Average 36 month historical active return}_t = \frac{\sum_{i=t-37}^{t-1} \text{Return}_i - \sum_{i=t-37}^{t-1} \text{ReturnIndex}_i}{36} \quad (8)$$

Figure 2 presents 36-month rolling average returns of Norwegian and global funds. Each month, funds were sorted into three performance groups based on past 36-month returns: top 20%, middle 60% and bottom 20%. The return of each performance group was calculated as the simple average return of all funds within that group. The allocation percentages of 20%, 60% and 20% were chosen to mirror those used in the piecewise linear regression described in section 3.2.

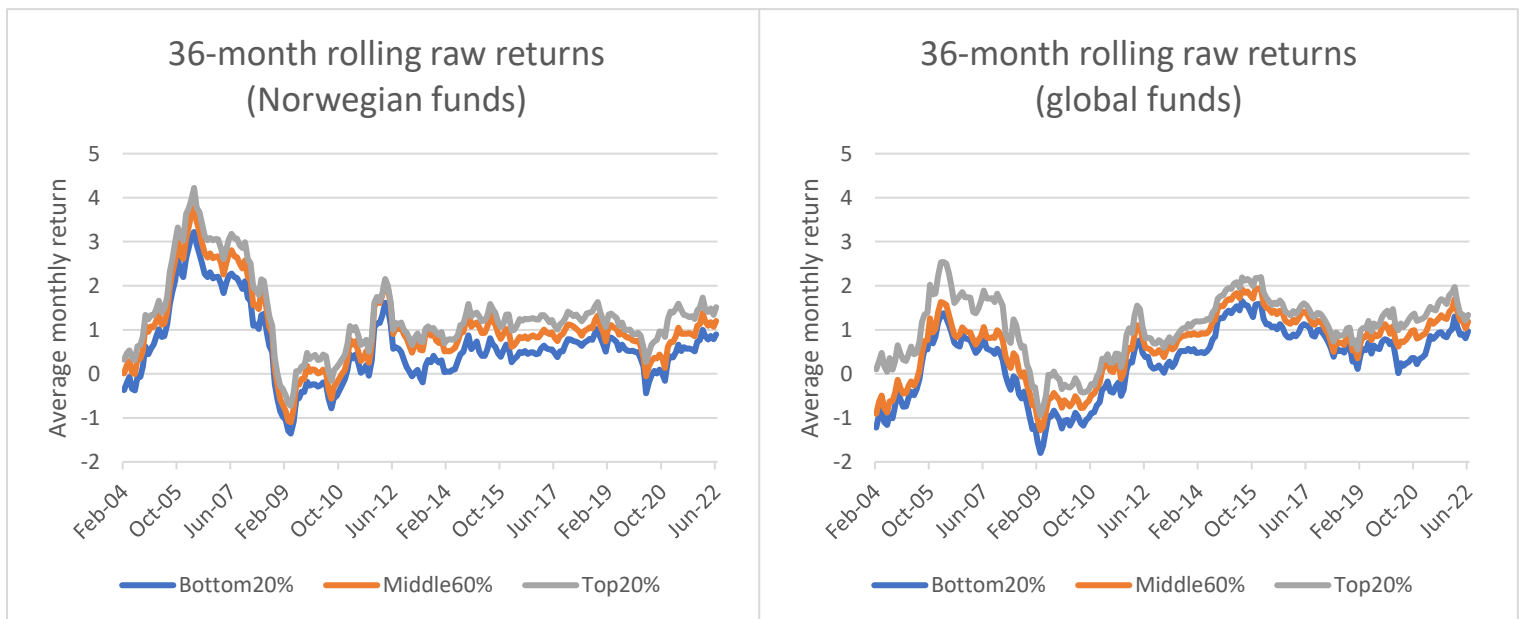


Figure 2 Rolling 36-month raw returns for Norwegian and global funds

The results show that both Norwegian and global funds had high and positive average monthly returns leading up to The Great Recession starting in late 2007, followed by negative returns during and after the recession. Global funds underperformed Norwegian funds both prior to and during the recession. Except for a brief dip in February and March of 2020, the 36-month performances have been positive for both global and Norwegian funds since the recovery of The Great Recession.

It is challenging to differentiate between the performance groups in Figure 2, as the differences in average returns between the groups are relatively small in comparison to the overall return volatility across time.

Active returns are a better measure to distinguish fund performances across time. Figure 3 shows the 36-month rolling average active returns of Norwegian and global funds. As for raw returns, I sort the funds into three performance groups: top 20%, middle 60% and bottom 20%. The return of each performance group was calculated as the simple average return of all funds within that group

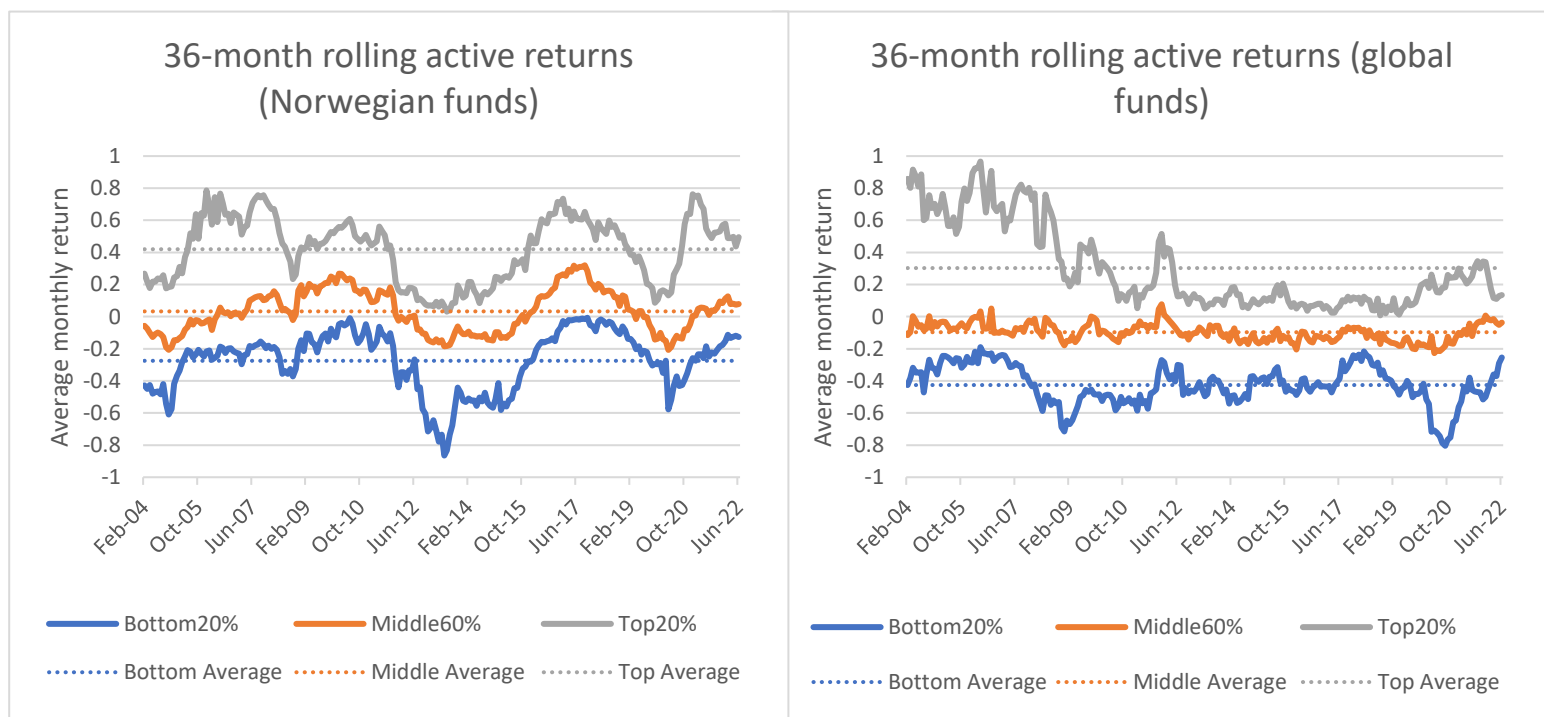


Figure 3 Rolling 36-month active returns for Norwegian and global funds

Comparing the outcomes in Figure 3, reinforces the findings in table 2. Active managers in Norway perform better when investing in Norwegian equities compared to when they invest globally. The average 36-month monthly active return for the bottom 20% of funds has been -0.27% for Norwegian funds and -0.43% for global funds. Similarly, for middle performing funds the difference is 0.03% vs -0.10%, and for the best performing funds it is 0.42% vs 0.30%.

The average performance for top-ranking global funds is heavily boosted by the years preceding the financial crisis. A single fund, Skagen Global, is primarily responsible for the outperformance. Looking at the past 10 years (July 2012 – June 2022), the top 20% of global funds have only had an average monthly active return of 0.13%, compared to 0.38% for Norwegian funds. The rolling returns for

middle-performing global funds show a remarkable consistency of performing just slightly below 0% active return. Although considerable further analysis would be needed to conclude, its symptoms are comparable to “closet indexing”, where fund managers purposefully track the index closely by having similar holdings to the index. This assures not losing much vs the index, but also hinders any significant outperformance.

A noticeable occurrence for the Norwegian results is that the active performance of the bottom, middle and top-ranking funds convincingly correlate with each other. The correlation coefficient for the monthly updated 3-year rolling series of active returns for bottom and middle-performing funds is 0.88. Similarly, it is 0.72 for middle and top-performers, and 0.78 for bottom and top-performers. This compares to 0.49, 0.58 and 0.37 for global funds.

The high correlation signifies that the funds share commonalities in the way they invest and differ from the index. The correlations are further evaluated after adjusting for several risk factors (market beta, size of firms, and high vs low book-to-market stocks) in section 4.3.

4.2 Sharpe Ratio

The Sharpe Ratio was introduced by William Sharpe (Sharpe, 1966), under the name “reward-to-variability ratio”. It measures the performance of an asset relative to the risk-free rate, after adjusting for risk. Originally it was intended to be used Ex Ante, meaning as a tool to evaluate and compare investments based on future expectations. Sharpe (1994) later made modifications so that it can also be used Ex Post to evaluate past performance.

The ex-post Sharpe Ratio is defined as the average excess return of an investment above the risk-free rate, divided by the standard deviation of the excess returns.

Average excess return can be calculated as follows, where $R_{i,t}$ is the return of investment “i” at time “t”, and $R_{f,t}$ is the risk-free rate:

$$\bar{E} = \frac{1}{T} \sum_{t=1}^T (R_{i,t} - R_{f,t})$$

The sample standard deviation can then be determined:

$$\sigma_E = \sqrt{\frac{\sum_{t=1}^T (E_t - \bar{E})^2}{T - 1}}$$

Which gives us the Sharpe Ratio:

$$\text{Sharpe Ratio } (SR) = \frac{\bar{E}}{\sigma_E} \quad (9)$$

Higher Sharpe Ratios imply greater excess returns for each additional unit of risk. The benefit of the Sharpe Ratio, and similar relative risk metrics, is that they're relatively simple to calculate and use. Sharpe (1994) notes that a drawback is that it does not incorporate correlations and provides no information as to how an investment interacts with other assets in a portfolio. Considering this, the Sharpe Ratio works more like a ranking criterion, where comparable investments can be evaluated against each other for risk adjusted performance.

McLeod and Vuuren (2004) further discuss the drawbacks of the ratio, namely noting the problem with using the Sharpe Ratio when it becomes negative. The denominator σ_E is always positive. \bar{E} can be positive or negative, depending on the asset's performance and the risk-free rate. When \bar{E} turns negative, increasing volatility non-intuitively increases the Sharpe Ratio. For example, if \bar{E} is -10% over some time t, and the standard deviation σ_E is 5%, the Sharpe Ratio is -2.0. If σ_E was higher, 10% for example, the Sharpe Ratio would increase to -1.0. Although typically not adjusted for, it is something that one should be aware of.

The monthly Sharpe Ratio is usually annualized by multiplying the monthly value by the square root of 12:

$$SR_{annual} = \sqrt{12} * SR_{monthly}$$

Table 3 presents the annualized Sharpe ratio for varying time periods. The results for the entire period, and for non-crisis years, show similarity to the raw returns analysis. Norwegian funds have had better performance than global funds. The oil crisis shows a negative Sharpe for Norwegian funds. This is as expected, considering the oil-heavy Norwegian market. The Great Recession also produced negative Sharpe Ratios as the market crashed. Global funds during the covid-crisis had lower raw returns, but a higher Sharpe ratio, than Norwegian funds. This is because of lower volatility, and a shallower crash for global funds.

Table 3 Sharpe Ratios across time for a portfolio of equally weighted Norwegian funds (NOR), global funds , the former two together (combined), along with the benchmarks MSCI ACWI, MSCI World and OSEFX.

Annualized Sharpe Ratios						
	Combined	Global	NOR	MSCI ACWI	MSCI World	OSEFX
Whole period (Jan 2001 – Jun 2022)	0.389	0.218	0.409	0.303	0.304	0.365
Non-crisis years	0.630	0.337	0.682	0.417	0.411	0.695
The Great Recession (Dec 2007 – Jun 2009)	-0.851	-1.219	-0.700	-1.193	-1.258	-0.755
Oil crisis (Jul 2014 – Jan 2016)	0.302	0.978	-0.261	1.068	1.143	-0.409
COVID-19 (Feb 2020 – Dec 2020)	0.646	0.711	0.602	0.729	0.653	0.450

Figure 4 shows 36-month rolling annualized Sharpe Ratios for Norwegian and global funds. I sort the funds into three performance groups: top 20%, middle 60% and bottom 20%. The performance of each group was calculated as the simple average Sharpe Ratio of all funds within that group. The results indicate that the Sharpe Ratios for global funds have exhibited greater variability over time compared to Norwegian funds. They produced lower lows during the financial crisis, but also higher highs in 2014-2016.

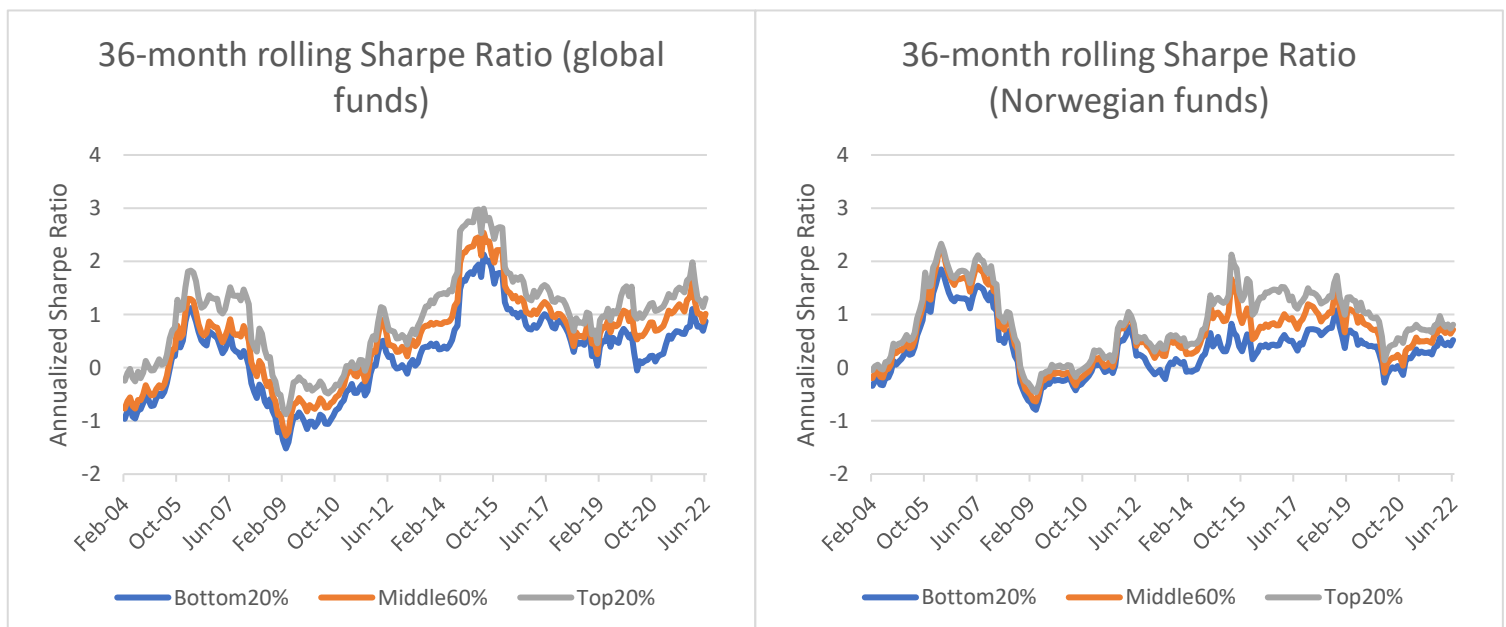


Figure 4 Rolling 36-month Sharpe Ratios for Norwegian and global funds

Figure 5 illustrates the difference between the annualized rolling 36-month Sharpe Ratios of the performance fund groups and that of the common benchmarks Oslo Børs Mutual Fund Index (OSEFX), and the MSCI World Index (not shown, but MSCI ACWI yields nearly identical results).

A value of zero would indicate the same performance as the index, while values above signify risk adjusted outperformance, and values below risk adjusted underperformance. The results show that the large and positive active returns of top-performing Norwegian funds before and during the Great Financial Crisis, almost goes away when measured using Sharpe Ratio. The 2015-2018 outperformance on the other hand is still apparent.

The global funds figure is similar to its active returns counterpart (see Figure 3), with the exception of the drawdown in Sharpe Ratios for the middle and bottom-performing funds in 2013-2014. This indicates that the low (relative) Sharpe Ratios during this time is due to high volatility relative to the index.

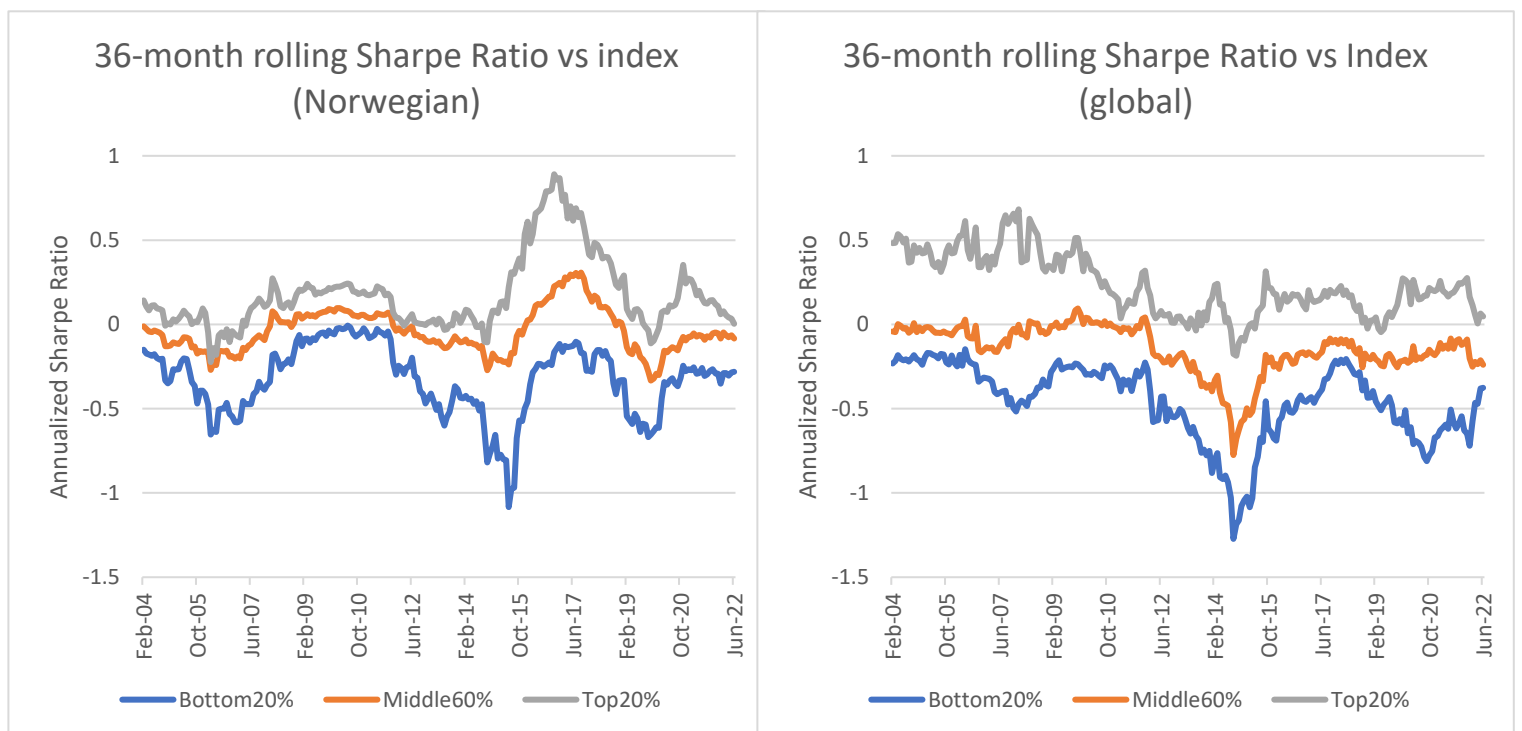


Figure 5 Rolling 36-month Sharpe Ratio difference between fund performance categories

4.3 Jensen's Alpha and the Fama-French three-factor model

4.3.1 Background

Jensen's Alpha was first introduced by Michael Jensen (1968). It builds upon the Capital asset pricing model (CAPM) by Treynor (1961,1962), Sharpe (1964), Lintner (1965) and Mossin (1966). CAPM relates an investment's non-diversifiable risk to its expected return:

$$E(R_{i,t}) = R_{f,t} + \beta_i [E(R_{m,t}) - R_{f,t}]$$

Rewritten it becomes:

$$E(R_{i,t}) - R_{f,t} = \beta_i [E(R_{m,t}) - R_{f,t}]$$

Where $E(R_{i,t}) - R_{f,t}$ is asset i 's expected excess return over the risk-free rate through time t , and $E(R_{m,t}) - R_{f,t}$ is the market's expected excess return over the same period. β_i , often called asset i 's beta, measures the sensitivity between them. More formally using the expression:

$$\beta_i = \frac{\text{Covariance}(R_{i,t}, R_{m,t})}{\text{Variance}(R_{m,t})}$$

Jensen (1968) modified the CAPM equation to look at realized returns. Alpha (α_i) was added to explain the difference between the accomplished performance ($R_{i,t} - R_{f,t}$) and the returns predicted by market exposure ($\beta_i [R_{m,t} - R_{f,t}]$). A positive alpha-value would indicate risk-adjusted outperformance, or investor skill.

$$R_{i,t} - R_{f,t} = \beta_i [R_{m,t} - R_{f,t}] + \alpha_i$$

Fama and French (1992) popularized adding more factors to the calculations. Including exposure to the excess returns of small cap companies over large cap companies (SMB, or Small Minus Big) and for the excess returns of high book-to-market equities over low book-to-market equities (HML, or High Minus Low):

$$R_{i,t} - R_{f,t} = \beta_{i1} [R_{m,t} - R_{f,t}] + \beta_{i2} SMB + \beta_{i3} HML + \alpha_i \quad (10)$$

Equation 10 is often termed the Fama-French three-factor model due to its 3 betas. The term α_i will serve as one of the performance metrics in the regression analysis that aims to examine the connections between investor flows and the historical performance of mutual funds.

Since the introduction of the Fama and French 3-factor model, Carhart (1997) proposed the 4-factor model, which is the same as Fama and French's 3-factor model, but it adds a momentum factor (excess return of stocks with high historical returns). Fama and French (2015) later altered their own

3-factor model by removing “HML” and replacing it with betas for profitability (RMW, Robust Minus Weak) and investment (CMA, Conservative Minus Aggressive). Profitability measures the excess returns of stocks with high operating profitability, while investment measures the excess returns of companies with conservative investment policies compared to aggressive ones. Adding momentum to the Fama-French 5-factor model to create a 6-factor model is also possible (Fama and French, 2018).

4.3.2 Implementation and analysis

Obtaining reliable data for more complex models can be a challenge. In the case of Norwegian factor-statistics, Bernt Arne Ødegaard’s personal webpage (Ødegaard, 2023) can provide access to Fama-French 3-factor and Carhart’s 4-factor model data.

For global equity factor statistics, Kenneth French’s data library is the leading source (French, 2023). However, it does not lend itself to direct implementation for Norwegian mutual funds that invest globally. The data is in US dollars instead of Norwegian Kroner, returns are not adjusted for foreign dividend withholding taxes, and there are no data that combines global developed markets and global emerging markets.

Due to availability of data, Fama-French’s 3-factor model (equation 10) and the associated alpha (α_i) was chosen to further analyse the funds and portfolios.

To solve for the currency issue for global funds, Refinitiv Workspace with Datastream allows for currency conversions of fund returns from Norwegian kroner to US dollars. All calculations can then be performed in US dollars. Alpha (α_i) is unit-less, meaning the end-result does not depend on choice of currency, as long as it remains constant throughout the analysis.

I first tried to fix the lack of cojoined emerging markets and developed markets factor-statistics by merging separate developed markets and emerging markets statistics together. The monthly weightings of emerging markets in the MSCI All Country World Index (ACWI) were downloaded from MSCI’s webpage. I unified the separate data series based on the percentage of emerging and developed markets for any given month. For example, if HML for developed markets was 3%, emerging markets 0%, and the MSCI ACWI consisted of 90% developed and 10% emerging markets, the final HML for the joined data series would be $3\%*0.9 + 0\%*0.1 = 2.7\%$. This produced satisfactory results, with most regression results for funds following MSCI ACWI having a coefficient of determination above 0.90. However, this methodology is not ideal, and if other options exist, they should be pursued.

Therefore, an alternative approach was chosen for funds following MSCI ACWI. French's statistics for the Fama-French three-factor model includes four pieces of information: Market returns, the risk-free rate, and returns for HML and SMB. Starting with the developed-only 3-factor dataset from French's website, I replaced French's market returns with the returns of the MSCI ACWI Index. This ensures that the arguably most important factor, market beta, has a proper methodology. The replacement also allows for using the net-index version of MSCI ACWI that is adjusted for foreign dividend withholding taxes. The risk-free rate is fixed and does not depend on the emerging-developed split, while HML and SMB were kept as developed-only. This is not ideal, but emerging markets are a relatively small part of the global market, and in the face of no available aggregated global emerging and developed markets factor data, it produced the best results.

To stay consistent, an equivalent strategy was used for global funds following MSCI World (developed markets only). French's market returns were replaced with MSCI World returns.

Using Ordinary Least Squares (OLS) regressions, fund returns were regressed against the chosen factor statistics. The regression results for each fund can be found in appendix A. Furthermore, tables 4 to 6 present the regression results for portfolios constructed by equally weighting monthly returns within a fund-category (Norwegian funds, global funds following MSCI World, and global funds following MSCI ACWI). To assess for heteroscedasticity, Breusch-Pagan tests were conducted. Breusch-Godfrey tests with up to 12-months lag were performed to test for autocorrelation. Two tailed p-values for the heteroscedasticity and autocorrelation tests, along with p-values for the calculated alphas (α_i), are also provided in the tables.

The equally weighted Norwegian portfolio demonstrates no active outperformance when fund returns are adjusted for the Fama-French 3-factor model. An annual alpha of -0.552 is achieved for the entire time-period (January 2001 to June 2022). It has a p-value of 0.45, which is not statistically different than zero. The annual alpha values for the Great recession, oil crisis and the covid crisis, are all better than what is achieved in non-crisis years (-0.052, 1.327 and 3.472 vs -1.104). However, none of the alphas are statistically significant (p-values of 0.985, 0.589 and 0.705 vs 0.133).

The Oslo Børs Mutual Fund Index (OSEFX) has no exposure to SMB (Small Minus Big) and HML (High Minus Low), and a market-beta of 1.000. The equally weighted Norwegian portfolio has had an aggregate low exposure to HML, with a beta of -0.003, a slight exposure to SMB (0.084), and a lower exposure to market-beta (0.957). As was discussed in section 4.1, it appears that the funds share commonalities in how they differ from the index. The positive SMB-loading and lower than 1.000 exposure to market-beta further highlights this. Looking at the Norwegian funds individually in

appendix A, 37 out of the 44 funds have had a positive SMB-loading, and only 7 out of 44 funds have a market-beta above 1.000.

The Breusch-Godfrey test conducted on the equally weighted Norwegian portfolio for the entire time period yields a p-value of 0.805, indicating no evidence of autocorrelation in the results. The Breusch-Pagan p-value on the other hand stands at 0.000, meaning heteroscedasticity is present. Looking at the funds individually, 18 funds have statistically significant heteroscedasticity, while 4 funds demonstrate autocorrelation (significance level 0.05). The findings do not impact the outcome of the calculated beta and alpha coefficients, but their statistical significance could be lower if heteroscedasticity-robust standard errors were used.

Like the Norwegian funds, the equally weighted global funds show negative alpha-values when looking at the entire time-period. The funds using MSCI ACWI as their benchmark index, show an alpha-value of -0.730, while those comparing themselves to the developed only MSCI World index, have had an alpha of -1.619. The ACWI-result is not-significant (p-value of 0.450), while the World-fund results are statistically significant (p-value of 0.001). During times of crisis, the alpha values for both sets of funds tend to be worse compared to non-crisis periods, with the exception of the ACWI-based funds during the COVID-19 crisis. However, the only statistically significant result is the ACWI-funds' annual alpha of -6.148 during the oil crisis (p-value of 0.022).

In contrast to the Norwegian funds, the equally weighted global portfolios show market-betas above 1.000. 1.115 for funds benchmarked to MSCI ACWI and 1.043 for funds benchmarked to MSCI World. They are also notably exposed to small companies, with SMB values of 0.252 and 0.135 respectively. HML-beta exposures are 0.067 and -0.022. Looking at the funds individually, 28 out of 29 funds have a positive SMB-loading, and 20 out of 29 have market-betas above 1.000.

Statistically significant autocorrelation is not found in either equally weighted global portfolio, but heteroscedasticity can be found for the funds following MSCI ACWI (p-value of 0.000). When examined individually, 8 global funds have had statistically significant heteroscedasticity, while 3 have had autocorrelation (significance level 0.05).

Table 4 Regression results for an equally weighted portfolio of Norwegian funds. * 12 months not available, 3-month lag is therefore used.

Norwegian Funds									
	Date range	$\beta_{i,MKT}$	$\beta_{i,SMB}$	$\beta_{i,HML}$	Annual alpha (α_i)	alpha (α_i) p-value	R ²	Breusch-Pagan test p-value	Breusch-Godfrey test p-value
Whole period	Jan 2001 – Jun 2022	0.957	0.084	-0.003	-0.552	0.450	0.975	0.000	0.805
Non-crisis	Varied	0.979	0.076	-0.016	-1.104	0.133	0.973	0.353	0.346
The Great Recession	Dec 2007 – Jun 2009	0.899	0.118	0.041	-0.052	0.985	0.994	0.102	0.151
Oil Crisis	Jul 2014 – Jan 2016	0.783	-0.029	-0.029	1.327	0.589	0.948	0.051	0.104
COVID-19	Feb 2020 – Dec 2020	1.105	0.083	0.047	3.472	0.705	0.988	0.533	0.363*

Table 5 Regression results for an equally weighted portfolio of global funds using MSCI ACWI Index as a benchmark. * 12 months not available, therefore 3-month lag is used.

Global funds using MSCI ACWI as a benchmark									
	Date range	$\beta_{i,MKT}$	$\beta_{i,SMB}$	$\beta_{i,HML}$	Annual alpha (α_i)	alpha (α_i) p-value	R ²	Breusch-Pagan test p-value	Breusch-Godfrey test p-value
Whole period	Jan 2001 – Jun 2022	1.115	0.252	0.067	-0.730	0.304	0.968	0.000	0.230
Non-crisis	Varied	1.113	0.253	0.097	-0.225	0.774	0.958	0.213	0.970
The Great Recession	Dec 2007 – Jun 2009	1.188	0.070	-0.466	-1.549	0.593	0.992	0.820	0.691
Oil Crisis	Jul 2014 – Jan 2016	1.085	0.242	0.119	-6.148	0.022	0.968	0.722	0.413
COVID-19	Feb 2020 – Dec 2020	1.106	0.005	1.106	0.440	0.910	0.995	0.475	0.609*

Table 6 Regression results for an equally weighted portfolio of global funds using MSCI World Index as a benchmark. * 12 months not available, therefore 3-month lag is used.

Global funds using MSCI World as benchmark									
	Date range	$\beta_{i,MKT}$	$\beta_{i,SMB}$	$\beta_{i,HML}$	Annual alpha (α_i)	alpha (α_i) p-value	R ²	Breusch-Pagan test p-value	Breusch-Godfrey test p-value
Whole period	Jan 2001 – Jun 2022	1.043	0.135	-0.022	-1.619	0.001	0.982	0.090	0.162
Non-crisis	Varied	1.038	0.115	-0.005	-0.299	0.580	0.976	0.259	0.187
The Great Recession	Dec 2007 – Jun 2009	1.053	0.155	-0.179	-1.103	0.633	0.993	0.152	0.741
Oil Crisis	Jul 2014 – Jan 2016	0.994	0.069	-0.134	-1.512	0.238	0.990	0.158	0.272
COVID-19	Feb 2020 – Dec 2020	1.038	0.090	-0.082	-4.422	0.075	0.998	0.563	0.073*

Figure 6 present annualized 36-month rolling Fama-French three-factor alpha values for Norwegian and global funds. Each month, funds were sorted into three performance groups based on past 36-month alphas: top 20%, middle 60% and bottom 20%. The performance of each group was calculated as the simple average alpha value of all funds within that group.

The global fund performances have been disappointing. Even the best-performing 20% produce nearly no alpha over considerable periods of time. The average annualized alpha for the top-performing global funds is 2.51%, while it is 3.91% for Norwegian funds. Middle-performing global funds also show consistency in poor alpha, and averages -1.66%. Middle performing Norwegian funds average -0.22%. Bottom-performing funds average -5.63% for global and -5.78% for Norwegian funds.

Interestingly, even though most Norwegian funds do better than global funds, the worst performing funds from each category share similar levels of underperformance. Also, the magnitude of underperformance of the worst 20%, for both global and Norwegian funds, is greater than the magnitude of outperformance of the best 20%. This aligns with previous work by Sørensen (2009), Gallefoss et al. (2015), and Børsheim and Eilertsen (2016), who show that the evidence for the lack of skill among the worst performing managers is more significant than for the skill of the best performers.

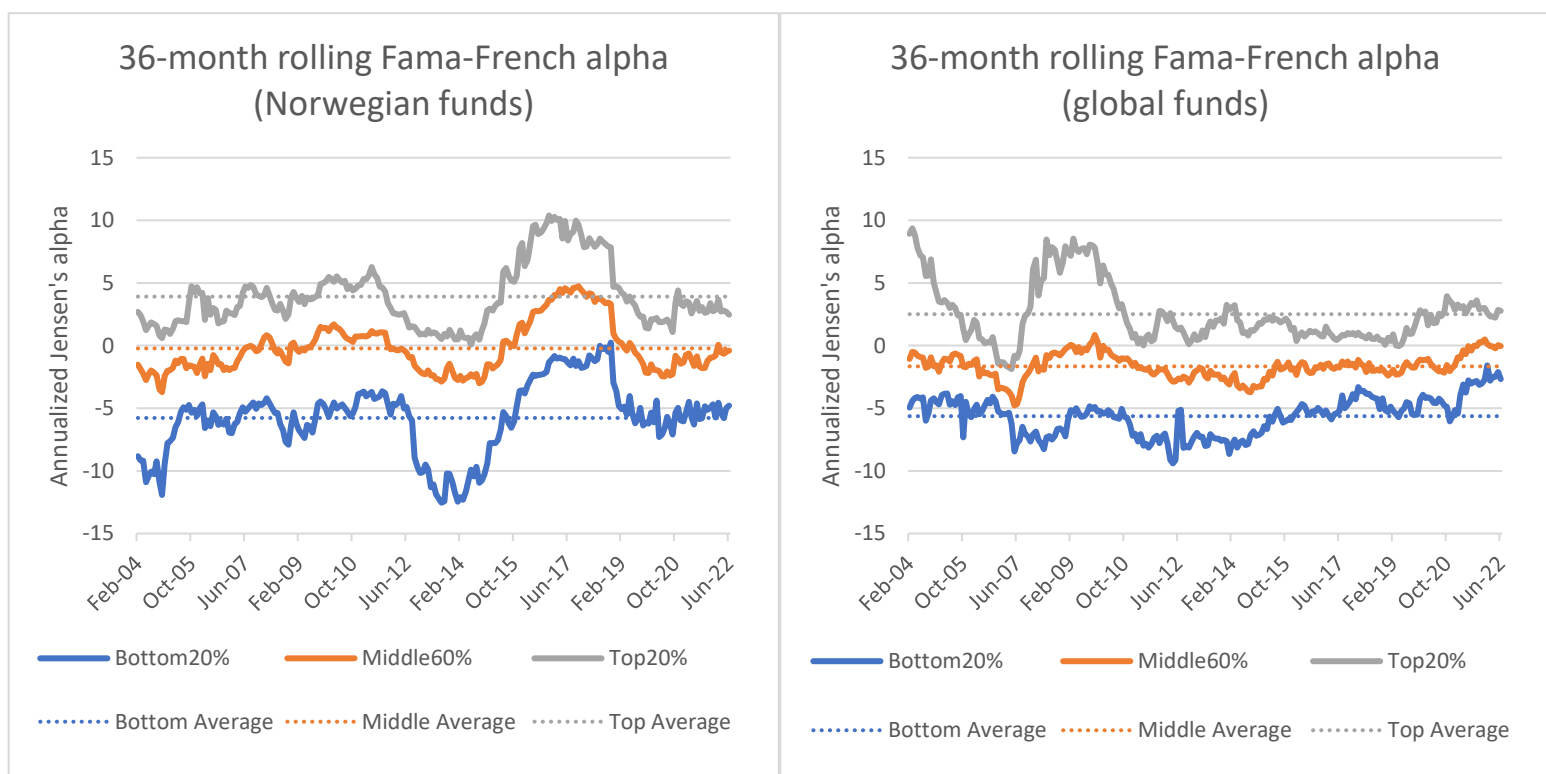


Figure 6 Rolling 36-month Fama-French alpha values for Norwegian and global funds

The raw-returns section demonstrated correlations between the performance categories, especially for the Norwegian funds. Figure 6 exhibits a similar pattern. The correlation coefficient for the rolling series of alphas for the bottom and middle-performing funds is 0.86. Similarly, it is 0.94 for middle and top-performers, and 0.84 for bottom and top-performers. This compares to 0.56, 0.65 and 0.08 for global funds. The results demonstrate similarities in the way active funds differ from the indexes they compare themselves to, even when adjusted for Fama-French three-factor exposures.

5. Empirical Results

The empirical results section starts with an initial analysis looking at the historical average net flows against past performance rankings (raw returns, Sharpe Ratio and Jensen’s Alpha).

Thereafter regression results that estimate the relationship between past 36-month performance rankings and net flow percentages are presented. Subsequently, the portfolios and regressions are broken down to find and isolate what is driving the results. First splitting the net inflow regressions into separate regressions for inflow and outflow. Then evaluations for different periods of time are made to assess if the findings are consistent. Lastly, the funds are separated by investment universe: Norwegian and global funds.

5.1 Initial Analysis

To begin the analysis, all funds are sorted every month based on their performance over the past 36 months relative to other funds in their respective categories (Norwegian and global funds). Bin 1 represents the lowest 10% performers, followed by bin 2 representing the subsequent 10%, and so on, until bin 10 represents the best 10% performing funds.

Figures 7, 8, and 9 illustrate the average monthly net inflow percentages observed for each bin. The findings demonstrate that superior performances tend to be associated with higher monthly net inflow percentages. These figures also shed light on the competitive nature of the fund industry. The majority of funds, except for the top-performers, tend to experience negative or low net inflows.

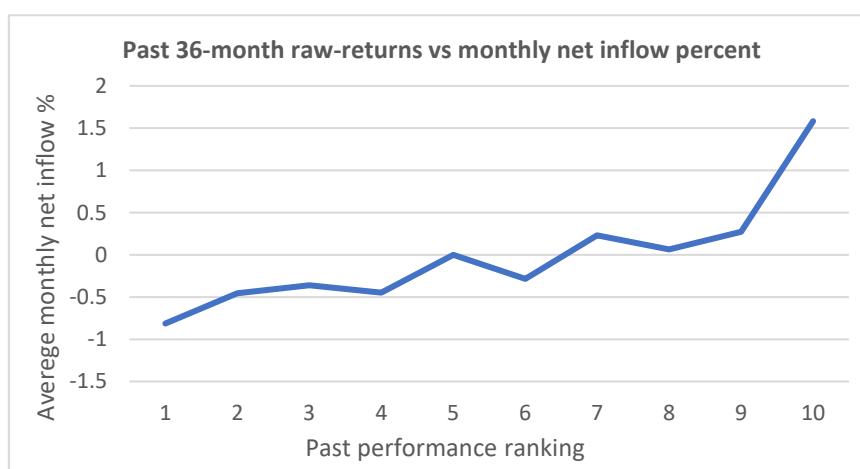


Figure 7 Past 36-month raw-returns vs average monthly net inflow percent

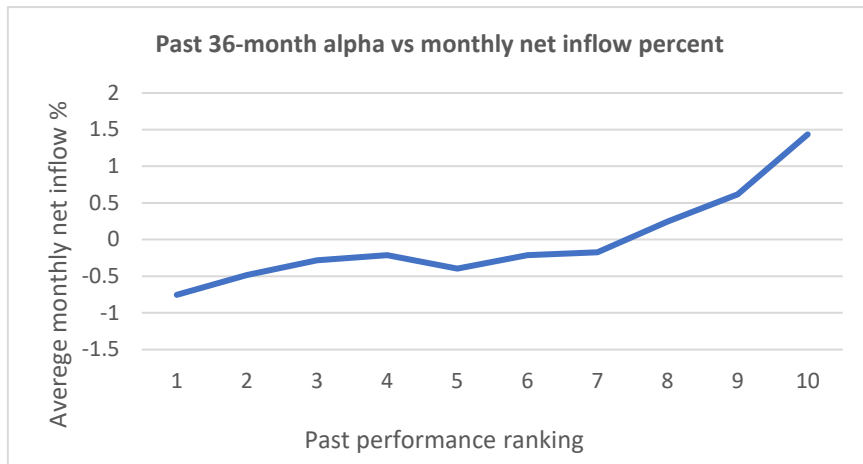


Figure 8 Past 36-month Fama-French 3-factor alpha vs average monthly net inflow percent

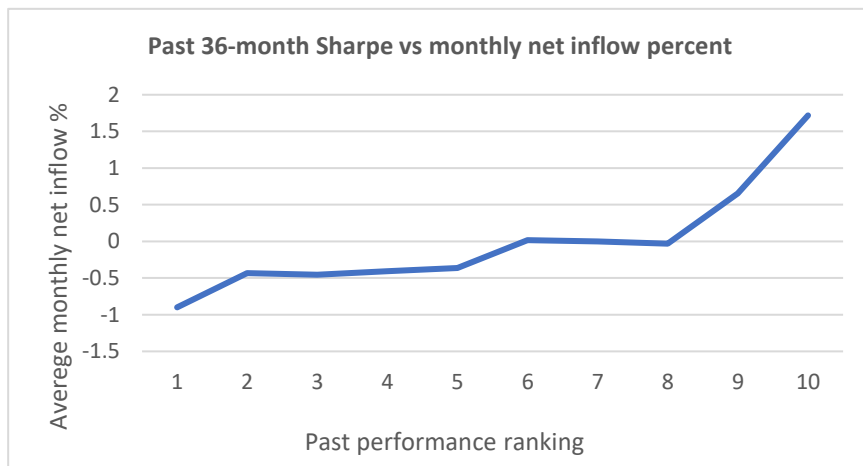


Figure 9 Past 36-month Sharpe Ratio vs average monthly net inflow percent

5.2 Net Inflow Regressions of Aggregate Portfolio

Table 7 presents the results from regressing the dependent variable $Net\ Flow\ Percent_{i,t}$ on the relative past performance rankings $LowPerf_{i,t}$, $MidPerf_{i,t}$ and $HighPerf_{i,t}$, along with other independent variables outlined in equation 5. Performance metrics considered are raw returns, Sharpe Ratio, and Jensen's Alpha. Active returns (fund's raw return minus raw return of index) are also indirectly considered in the raw return regressions, because ranking funds leaves the index performance redundant.

Similar outcomes can be seen across performance metrics. The estimated coefficients/slopes for all metrics are positive, implying continuously higher net inflows as a fund's relative performance rank increases. The coefficients vary in magnitude, with the *HighPerf* -coefficients being biggest (7.48, 8.26 and 7.67) and most statistically significant (p values of 0.000). A value of 8.26 indicates that a

fund moving from the 85th percentile to the 95th percentile would enjoy an estimated 8.26 * (0.95 – 0.85) = 0.826 percentage points increase in net inflow. Comparing this to the average net inflow percentage of -0.01% for all funds, as presented in table 1, underscores the importance of relative performance on investor flows.

Table 7: Regressing Net inflow percent on performance ranks. All funds

The table reports the regression output for regressing the dependent variable *Net Flow Percent_{i,t}* on the independent variables established by equation 5. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are the net percentage flow to a fund's investment category (Norwegian or global funds) and log (assets). IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

	<u>Raw Returns</u> Net Flow Percent _{i,t}	<u>Sharpe Ratio</u> Net Flow Percent _{i,t}	<u>Jensen's Alpha</u> Net Flow Percent _{i,t}
LowPerf	3.12 (0.001)	3.21 (0.001)	2.45 (0.011)
MidPerf	0.61 (0.054)	0.75 (0.018)	0.62 (0.049)
HighPerf	7.48 (0.000)	8.26 (0.000)	7.67 (0.000)
Flow to Category	0.34 (0.007)	0.34 (0.007)	0.34 (0.007)
Ln assets	-0.10 (0.000)	-0.11 (0.000)	-0.09 (0.000)
IntermediateAge	-2.11 (0.000)	-1.97 (0.000)	-2.11 (0.000)
EstablishedAge	-2.02 (0.000)	-1.91 (0.000)	-2.02 (0.000)
Intercept	2.06 (0.001)	1.89 (0.003)	2.03 (0.002)
Month dummies	Yes	Yes	Yes
Adjusted R ²	6.1%	6.5%	6.1%
Observations	10 870	10 870	10 870

For the poorly performing funds (*LowPerf*), there is great incentive to move away from being ranked the absolute worst. With estimated slopes of 3.12, 3.21, 2.45, moving ten percentiles upward within the *LowPerf* range, would increase the estimated monthly net inflow by 0.312, 0.321 and 0.245 percentage points. The coefficients are all statistically significant with p values of 0.001, 0.001 and 0.011. The middle-performing funds have the lowest slopes (0.61, 0.75 and 0.62). They are also less statistically significant than the other categories, with p-values of 0.054, 0.018 and 0.049.

The dummies for a fund's age show that established funds (those 10+ years old) and the intermediate funds (6 to 10 years old) have similar values ranging from -1.91 to -2.11. They indicate significantly less net inflow to these funds than for the base group (funds 5 years and younger).

Likewise, funds with more assets experience lower net percentages of inflow than funds with lower levels of assets. The coefficients for $\ln(\text{assets})$ range from -0.09 to -0.11, indicating lower net inflows as fund's grow larger.

The adjusted R-squared values are low, meaning that the model is not particularly efficient at predicting any given fund's percentage net flow for a specific month. It means that there is a lot of unexplained variance in the model, but this is to be expected for monthly data.

Figure 10 provides a visual representation of the estimated performance to net flow relationship for past 36-month Sharpe Ratios. YoungAge refers to when both dummies for IntermediateAge and EstablishedAge are set to zero.

The figure demonstrates the challenge of growing as a non-young fund. Even the worst performing young funds have estimated net inflow percentages exceeding all but the very top-performing older funds. Also, only the top ~14% of intermediate and established funds are estimated to experience any positive net inflows.

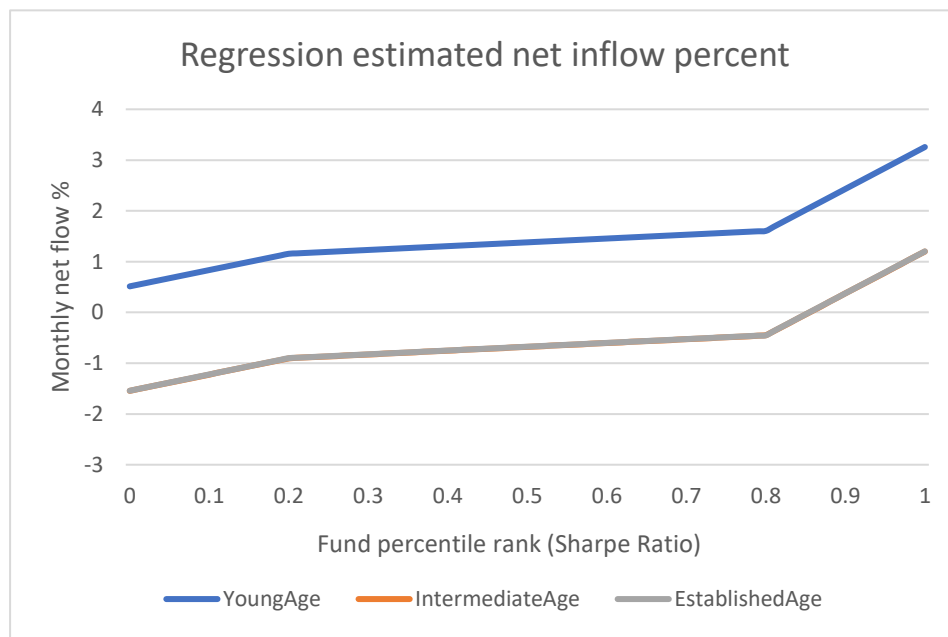


Figure 10 Regression estimated net inflow percentages versus 36-month percentile Sharpe Ratio rank. Figure assumes that inflow to category is 0%, and that it is the base month, March. Assets under management are the average assets under management for each age category throughout time: 27, 61 and 102 million NOK, for young, intermediate, and established funds.

5.3 Inflow versus Outflow

5.3.1 Disaggregating Net Flows

Most research on the relationship between investor flows and past performance primarily focuses on net inflows. This is likely due to the fact that most research relies on datasets that provide information on TNA (Total Net Assets) and NAV (Net Asset Values). These enable indirect analysis of the net flow to performance relationship for fund “i” at time “t”:

$$\text{Fund Return } (R_{i,t}) = \frac{(NAV_t - NAV_{t-1})}{NAV_{t-1}}$$

$$\text{Net Flow}_{i,t} = \frac{TNA_{i,t} - TNA_{i,t-1} * (1 + R_{i,t})}{TNA_{i,t-1}}$$

This conventional approach does not allow for an analysis of whether the relationship between past performance and net inflow stems from either inflow, outflow, or both. However, by utilizing the dataset from VFF, which contains actual inflow and outflow values instead of relying on indirect calculations, it becomes possible to perform an analysis of this nature. Employing a piecewise linear regression model, as in equation 5, with the dependent variable *NetFlow Percent*_{i,t}, is essentially equal to performing two separate regressions for *Inflow Percent*_{i,t}, and *Outflow Percent*_{i,t}, and subsequently subtracting the coefficient estimates for outflow from those of inflow:

$$\begin{aligned} \text{NetFlow Percent}_{i,t} = & (\beta_{0,inflow} - \beta_{0,outflow}) + (\beta_{1,inflow} - \beta_{1,outflow}) \times \text{LowPerf}_{i,t} + \\ & (\beta_{2,inflow} - \beta_{2,outflow}) \times \text{MidPerf}_{i,t} + (\beta_{3,inflow} - \beta_{3,outflow}) \times \\ & \text{HighPerf}_{i,t} + (\beta_{4,inflow} - \beta_{4,outflow}) \times \text{Flow To Category}_t + \\ & (\beta_{5,inflow} - \beta_{5,outflow}) \times \text{Log}(\text{Assets}_{i,t-1}) + (\gamma_{1,inflow} - \\ & \gamma_{1,outflow}) \times \text{IntermediateAge}_t + (\gamma_{2,inflow} - \gamma_{2,outflow}) \times \\ & \text{EstablishedAge}_t + \sum_k \delta_k \times (\text{Month } k_{t,inflow} - \text{Month } k_{t,outflow}) + \\ & (\epsilon_{i,t,inflow} - \epsilon_{i,t,outflow}) \end{aligned}$$

In the previous section, table 7 provided estimated coefficients for the relationship between net flows and past performance metrics. Table 8 shows the results of conducting separate regressions for inflow and outflow. For example, the coefficient for the net flow to performance relationship for the best performing funds in terms of raw returns, as shown in table 7, is 7.48. However, by performing individual regressions for inflow and outflow, we can disaggregate this coefficient into two components of $\beta_{3,inflow} = 9.39$ and $\beta_{3,outflow} = 1.91$. If we subtract the outflow coefficient (1.91) from the inflow coefficient (9.39), we obtain the original net flow coefficient (7.48).

For funds with the highest past performance level (*HighPerf*), the coefficients for the inflow-performance relationship are 9.39 for raw returns, 8.06 for Sharpe Ratio and 6.56 for Jensen's Alpha. All are highly statistically significant with p-values of 0.000. The equivalent coefficients for the outflow-performance relationship are 1.91 for raw returns, -0.21 for Sharpe Ratio and -1.11 for Jensen's Alpha. None of these are statistically significant at a significance level of 0.05. The regression outcomes indicate that the higher estimated net inflows for the best performing funds are primarily driven by increased inflows rather than decreased outflows.

Across all performance metrics, the middle-performing funds (*MidPerf*) show a positive relationship between inflows and past performance. They also show a positive relationship between outflows and past performance. All coefficients are positive and statistically significant. However, the inflow coefficients are higher than the comparable values for outflow (1.30 vs 0.70, 1.41 vs 0.67, and 1.31 vs 0.69). Consequently, the net flow coefficients in table 7 are all positive. A fund increasing its relative raw-returns performance by ten percentiles, say from the 40th to 50th percentile, would receive an estimated $1.30 * 0.1 = 0.13$ percentage points increased monthly inflow. Simultaneously, it would also experience $0.70 * 0.1 = 0.07$ percentage points increased outflows.

For the worst performing funds (*LowPerf*), the positive relationship between net flow and past performance is driven by positive inflow coefficients and negative outflow coefficients, with the exception of the inflow coefficient of -0.38 for Jensen's Alpha. The negative outflow coefficients are all statistically significant, in contrast to the inflow coefficients which are not. A fund increasing its relative Sharpe Ratio-performance by ten percentiles, say from the 50th to 60th percentile, would experience an estimated $3.21 * 0.1 = 0.321\%$ increased net flow. Of this increase, $1.09 * 0.1 = 0.109\%$ would come from inflow, and $2.13 * 0.1 = 0.213\%$ from lower outflow.

The net flow regressions showed that the dummy coefficients for funds intermediately aged (6 to 10 years old) and established (10+ years old) had similar dummy coefficients for all regression results. When broken down into inflow and outflow, we can see that they are different. The dummies

estimate that established funds experience much lower inflows, but that they also experience lower outflows, than intermediate funds.

The goodness of fit measurement, represented by the coefficient of determination (R^2), shows that the independent variables explain a larger proportion of the variability of the dependent variable for inflow regressions than for outflow regressions.

Table 8: Regressing Inflow and outflow percent on performance ranks. All funds

The table reports the regression output for regressing the dependent variables $InflowPercent_{i,t}$ and $OutflowPercent_{i,t}$ on the independent variables established by equation 6. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are the net percentage flow to a fund's investment category (Norwegian or global funds) and log (assets). IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

	<i>Raw Returns</i>		<i>Sharpe Ratio</i>		<i>Jensen's Alpha</i>	
	Inflow%	Outflow%	Inflow%	Outflow%	Inflow%	Outflow%
LowPerf	1.59 (0.123)	-1.52 (0.043)	1.09 (0.210)	-2.13 (0.007)	-0.38 (0.696)	-2.83 (0.001)
MidPerf	1.30 (0.000)	0.70 (0.000)	1.41 (0.000)	0.67 (0.000)	1.31 (0.000)	0.69 (0.000)
HighPerf	9.39 (0.000)	1.91 (0.051)	8.06 (0.000)	-0.21 (0.804)	6.56 (0.000)	-1.11 (0.147)
Flow to Category	0.14 (0.061)	-0.21 (0.001)	0.14 (0.060)	-0.21 (0.001)	0.14 (0.060)	-0.21 (0.001)
Ln assets	-0.08 (0.008)	0.03 (0.105)	-0.07 (0.020)	0.04 (0.026)	-0.05 (0.077)	0.04 (0.010)
IntermediateAge	-1.80 (0.000)	0.31 (0.018)	-1.70 (0.000)	0.27 (0.046)	-1.90 (0.000)	0.22 (0.103)
EstablishedAge	-2.73 (0.000)	-0.70 (0.000)	-2.69 (0.000)	-0.78 (0.000)	-2.85 (0.000)	-0.83 (0.000)
Intercept	4.63 (0.000)	2.57 (0.000)	4.57 (0.000)	2.68 (0.000)	4.83 (0.000)	2.80 (0.000)
Month dummies	YES	YES	YES	YES	YES	YES
Adjusted R ²	9.4%	6.2%	9.0%	5.9%	8.1%	5.9%
Observations	10 870	10 870	10 870	10 870	10 870	10 870

5.3.2 Augmented inflow and outflow regression models

Performing regressions as in 5.3.1 is useful, particularly if the goal is to disaggregate the relationship between net flows and performance. However, if the aim is to study the relationship between past performance and inflow or outflow, the models can be improved. In equation 5, the control variable $Net\ Flow\ To\ Category_t$ can be substituted with the more tailored control variables

Inflow To Category_t and *Outflow From Category_t*. These represent the average, in-sample, inflow or outflow percentage to funds with the same objective (global or Norwegian investing).

Also, it is a reasonable assumption that the inflow percent and outflow percent are correlated. Therefore, it would be beneficial to control for outflow percent when estimating the relationship between inflow percent and past performance, and vice versa. Equations 11 and 12 incorporate these changes, and represent modified versions of equation 5.

$$\begin{aligned}
 \text{Inflow Percent}_{i,t} = & \beta_0 + \beta_1 \times \text{LowPerf}_{i,t} + \beta_2 \times \text{MidPerf}_{i,t} + \beta_3 \times \text{HighPerf}_{i,t} & (11) \\
 & + \beta_4 \times \text{Inflow To Category}_t + \beta_5 \times \text{Log}(\text{Assets}_{i,t-1}) + \beta_6 \times \\
 & \text{Outflow Percent}_{i,t} + \gamma_1 \times \text{IntermediateAge}_t + \gamma_2 \times \text{EstablishedAge}_t + \\
 & \sum_k \delta_k \text{Month } k_t + \epsilon_{i,t}
 \end{aligned}$$

$$\begin{aligned}
 \text{Outflow Percent}_{i,t} = & \beta_0 + \beta_1 \times \text{LowPerf}_{i,t} + \beta_2 \times \text{MidPerf}_{i,t} + \beta_3 \times \text{HighPerf}_{i,t} & (12) \\
 & + \beta_4 \times \text{Outflow From Category}_t + \beta_5 \times \text{Log}(\text{Assets}_{i,t-1}) + \\
 & \beta_6 \times \text{Inflow Percent}_{i,t} + \gamma_1 \times \text{IntermediateAge}_t + \gamma_2 \times \\
 & \text{EstablishedAge}_t + \sum_k \delta_k \text{Month } k_t + \epsilon_{i,t}
 \end{aligned}$$

After conducting new regressions based on equations 11 and 12, table 9 was constructed. When compared to the results in table 8, the statistically significant coefficient estimates have not changed meaningfully. However, some previously statistically insignificant relationships are now significant. For example, the relationship between high performing funds and outflow measured by Jensen's Alpha (p-value went from 0.147 to 0.008), or low performing funds and inflow measured by raw returns or Sharpe Ratio (p-values went from 0.123 to 0.046 for raw returns and 0.21 to 0.049 for Sharpe Ratio). Moreover, all adjusted R² values increased.

Removing or introducing new independent variables to a linear regression causes the interactions between the independent variables in the model to change, and thereby also the coefficients and p-values. Even though termed "independent", correlations between variables are hardly ever zero. As long as problematic multicollinearity is not introduced, however, it is not deemed a problem. VIF-tests for the outcomes in table 8 and 9 are comparable (see appendix C), and low for the newly added explanatory variables (outflow percent, inflow percent, inflow to category and outflow from

category). Thus, problematic multicollinearity is not considered an issue. The augmented equations are therefore used for any further analysis of inflow and outflow percentages.

Table 9: Augmented Inflow and outflow percent regressions

The table reports the regression output for regressing the dependent variables $InflowPercent_{i,t}$ and $OutflowPercent_{i,t}$ on the independent variables established by equations 11 and 12. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are $InflowPercent_{i,t}$, $OutflowPercent_{i,t}$, and the outflow-percent and inflow-percent to a fund's investment category (Norwegian or global funds), and log (assets). IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

	<i>Raw Returns</i>		<i>Sharpe Ratio</i>		<i>Jensen's Alpha</i>	
	Inflow%	Outflow%	Inflow%	Outflow%	Inflow%	Outflow%
LowPerf	1.96 (0.046)	-1.71 (0.017)	1.64 (0.049)	-2.25 (0.003)	0.35 (0.70)	-2.81 (0.001)
MidPerf	1.13 (0.000)	0.56 (0.001)	1.24 (0.000)	0.50 (0.004)	1.12 (0.000)	0.54 (0.004)
HighPerf	8.95 (0.000)	0.91 (0.331)	8.16 (0.000)	-1.09 (0.146)	6.92 (0.000)	-1.81 (0.008)
Inflow to Category	0.25 (0.077)		0.25 (0.076)		0.25 (0.076)	
Inflow from Category		0.44 (0.000)		0.44 (0.000)		0.44 (0.000)
Outflow%	0.25 (0.000)		0.26 (0.000)		0.27 (0.000)	
Inflow%		0.11 (0.000)		0.11 (0.000)		0.12 (0.000)
Ln assets	-0.09 (0.002)	0.03 (0.040)	-0.08 (0.003)	0.04 (0.007)	-0.06 (0.020)	0.05 (0.003)
IntermediateAge	-1.90 (0.000)	0.47 (0.000)	-1.80 (0.000)	0.42 (0.000)	-1.98 (0.000)	0.40 (0.001)
EstablishedAge	-2.51 (0.000)	-0.36 (0.002)	-2.45 (0.000)	-0.43 (0.000)	-2.59 (0.000)	-0.46 (0.000)
Intercept	3.46 (0.000)	1.13 (0.003)	3.35 (0.000)	1.22 (0.002)	3.56 (0.000)	1.31 (0.001)
Month dummies	YES	YES	YES	YES	YES	YES
Adjusted R2	12.4%	10.9%	12.2%	10.8%	11.5%	10.9%
Observations	10 870	10 870	10 870	10 870	10 870	10 870

5.4 Across Time

Running regressions across time primarily serves as a control mechanism. If the results vary significantly over time with no discernible pattern, the regression results only offer information on past investor actions. Ideally, the results are uniform across time, thereby revealing patterns that can be used to postulate future investor behavior.

It is preferable to conduct multiple regressions over shorter time intervals, especially during periods of particular interest such as financial crises, oil crises, and the COVID-19 pandemic. However, the limited number of funds in the Norwegian market restricts the amount of cross-sectional data, making it difficult to perform meaningful regressions. Therefore, three time periods are constructed, where each encompasses one of the mentioned crises. Period 3 are the 29 months from the start of COVID-19 in February of 2020, until the time-end of the study in June 2022. To ensure an unbiased approach, the time preceding the COVID-19 crisis is divided in half. Period 1 covers the 96 months from January 2004 to December 2011. Period 2 comprises the 97 months from January 2012 to January 2020.

Table 10 reports results for regressing percentage of net inflow, inflow, and outflow on past relative performance. There are evident differences between the time periods. However, most notably there are differences between the longer period 1 and 2 results, and the shorter period 3 results. The only coefficient for the period 3 net inflow regressions that is statistically significant, is for the positive relationship between relative Jensen's alpha rank and net inflows for the lowest performing funds.

Relative to period 1 and 2, period 3 also provides a different, and statistically significant, relationship between outflow percent and historical 36-month raw returns among the best performing funds. A *HighPerf* coefficient of 8.24 implies substantial outflows from a fund for increasing a funds relative raw returns rank.

Periods 1 and 2 generally follow the same pattern as before in tables 7, 8 and 9. For the best and worst performing funds, a fund is expected to receive meaningfully more net inflow percentages if it increases its relative performance rank. For the best performing funds, this is predominantly expected to come from increased inflows, whereas for the lowest performing funds, it is expected to come from statistically significant decreased outflows, and statistically insignificant inflows. The middle performing funds all have positive coefficient estimates for the relationship between both inflow percent and outflow percent, and relative performance. However, some measures are low, and some are not statistically significant.

Table 10: Regression results across time

The table reports the regression output for regressing the dependent variables $Net\ Flow\ Percent_{i,t}$, $InflowPercent_{i,t}$ and $OutflowPercent_{i,t}$ on the independent variables established by equations 5, 11 and 12. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Log (assets) is a control variable for all sets. Control variables specific to set A includes the net percentage flow to a fund's investment category. For set B $OutflowPercent_{i,t}$ and inflow percent to a fund's investment category. Set C, $InflowPercent_{i,t}$ and outflow percent for a fund's investment category. IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the `VcovPL()` function in R, with the selection to two-way cluster on fund and month.

Set A: Net inflow percent

	<u>Raw Returns</u>			<u>Sharpe Ratio</u>			<u>Jensen's Alpha</u>		
	Net Flow Percent _{i,t}			Net Flow Percent _{i,t}			Net Flow Percent _{i,t}		
	Period1	Period2	Period3	Period1	Period2	Period3	Period1	Period2	Period3
LowPerf	3.81 (0.018)	2.21 (0.056)	3.79 (0.232)	3.82 (0.002)	3.54 (0.009)	0.29 (0.941)	2.88 (0.044)	1.83 (0.232)	4.37 (0.022)
MidPerf	-0.09 (0.853)	1.48 (0.000)	0.20 (0.872)	0.25 (0.578)	1.040 (0.004)	1.67 (0.260)	-0.029 (0.952)	1.14 (0.013)	1.33 (0.071)
HighPerf	11.86 (0.000)	6.94 (0.000)	-4.84 (0.314)	12.4 (0.000)	8.03 (0.000)	-5.29 (0.156)	10.69 (0.000)	6.97 (0.000)	-1.17 (0.752)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dummy variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	11.4%	7.8%	2.9%	11.9%	7.8%	3.0%	11.1%	7.2%	3.2%
Observations	4760	4763	1347	4760	4763	1347	4760	4763	1347

Set B: Inflow percent

	<u>Raw Returns</u>			<u>Sharpe Ratio</u>			<u>Jensen's Alpha</u>		
	Inflow Percent _{i,t}			Inflow Percent _{i,t}			Inflow Percent _{i,t}		
	Period1	Period2	Period3	Period1	Period2	Period3	Period1	Period2	Period3
LowPerf	2.14 (0.242)	0.54 (0.540)	5.51 (0.016)	2.08 (0.135)	1.57 (0.100)	-0.431 (0.879)	1.36 (0.344)	-1.36 (0.285)	2.66 (0.163)
MidPerf	0.80 (0.107)	1.85 (0.000)	-0.08 (0.932)	1.06 (0.010)	1.17 (0.000)	2.14 (0.070)	0.53 (0.264)	1.59 (0.000)	1.80 (0.089)
HighPerf	15.00 (0.000)	5.57 (0.003)	1.93 (0.620)	14.16 (0.000)	6.67 (0.000)	-5.84 (0.141)	11.98 (0.000)	4.74 (0.000)	-3.14 (0.491)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dummy variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	16.9%	13.7%	8.4%	16.9%	13.0%	8.7%	15.2%	12.4%	8.8%
Observations	4760	4763	1347	4760	4763	1347	4760	4763	1347

Set C: Outflow percent

	<u>Raw Returns</u>			<u>Sharpe Ratio</u>			<u>Jensen's Alpha</u>		
	Outflow Percent _{i,t}			Outflow Percent _{i,t}			Outflow Percent _{i,t}		
	Period1	Period2	Period3	Period1	Period2	Period3	Period1	Period2	Period3
LowPerf	-2.60 (0.011)	-2.06 (0.034)	1.73 (0.433)	-2.76 (0.004)	-2.54 (0.044)	-0.84 (0.699)	-2.36 (0.010)	-3.74 (0.006)	-2.28 (0.420)
MidPerf	1.14 (0.000)	0.29 (0.185)	-0.33 (0.582)	1.02 (0.000)	0.05 (0.805)	0.44 (0.416)	0.75 (0.013)	0.40 (0.056)	0.44 (0.555)
HighPerf	1.99 (0.164)	-2.14 (0.031)	8.24 (0.006)	0.10 (0.942)	-2.28 (0.017)	-0.34 (0.866)	-0.26 (0.808)	-3.13 (0.001)	-2.16 (0.257)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dummy variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	19.8%	5.8%	5.8%	19.3%	6.2%	4.1%	19.1%	6.4%	4.2%
Observations	4760	4763	1347	4760	4763	1347	4760	4763	1347

To analyze if any period 3 results are statistically different from period 1 and 2, a new dummy variable "COVID" is introduced to the baseline equation. COVID has a value of 1 for any month in period 3, and the value 0 otherwise. Interaction terms with COVID are also established:

$COVID \times LowPerf_{i,t}$, $COVID \times MidPerf_{i,t}$ and $COVID \times HighPerf_{i,t}$.

The modified (from equation 5) regression equation becomes:

$$\begin{aligned} Flow\ Percentage_{i,t} = & (\beta_0 + COVID) + (\beta_1 \times LowPerf_{i,t} + \beta_{1,COVID} \times COVID \times LowPerf_{i,t}) + \\ & (\beta_2 \times MidPerf_{i,t} + \beta_{2,COVID} \times COVID \times MidPerf_{i,t}) + (\beta_3 \times \\ & HighPerf_{i,t} + \beta_{3,COVID} \times COVID \times HighPerf_{i,t}) + \beta_4 \times \\ & Flow\ To\ Category_t + \beta_5 \times Log(Assets_{i,t-1}) + \gamma_1 \times \\ & IntermediateAge_t + \gamma_2 \times EstablishedAge_t + \sum_k \delta_k Month\ k_t + \epsilon_{i,t} \end{aligned}$$

The coefficient for COVID allows for an adjustment to the intercept for period 3. That is, if COVID = 1, then the intercept becomes $(\beta_0 + \beta_{COVID})$. In a similar manner, the interaction terms allow for modifications of the coefficients for period 3. For example, if COVID = 1, $\beta_1 \times LowPerf_{i,t} + \beta_{1,COVID} \times COVID \times LowPerf_{i,t}$ equals $(\beta_1 + \beta_{1,COVID}) \times LowPerf_{i,t}$. When COVID = 0, the equation equals the original equation 5 from the methodology.

The regression results are presented in table 11. Based on the interaction term findings, the flow to performance relationships have been statistically different in period 3 for the highest performing funds. For example, the coefficient for HighPerf X COVID in the relative Sharpe Ratio regression is -15.06. This compares to 10.07 for HighPerf. Considering that HighPerf X COVID is an adjustment to HighPerf, the estimated coefficient between net inflow percent and relative Sharpe Ratio rank for top-performing funds, becomes -4.99. Calculated by taking -15.06 + 10.07. Both have p-values of 0.000, where HighPerf's null hypothesis is a value of zero, while HighPerf X COVID's null hypothesis is the that there is no difference from it and the obtained value for HighPerf.

When looking at the results in appendix C.4, we can also see that the VIF-results for LowPerf X COVID and MidPerf X COVID are elevated (17.60 and 5.78), implying that they are significantly correlated to the pre-existing independent variables. HighPerf X COVID has a lower value of 2.00.

Table 11: Regression results across time with interaction variables and dummies for post-COVID period

The table reports the regression output for regressing the dependent variables $Net\ Flow\ Percent_{i,t}$, $InflowPercent_{i,t}$ and $OutflowPercent_{i,t}$ on the independent variables established by equations 5, 11 and 12. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, Jensen's Alpha, along with interaction terms with the dummy COVID that takes on the value 1 if the month is February 2020 or later. Log (assets) is a control variable for all sets. Control variables specific to the dependent variable Net Flow Percent_{i,t} includes the net percentage flow to a fund's investment category. For the dependent variable Inflow Percent_{i,t}, specific control variables are $OutflowPercent_{i,t}$ and inflow percent to a fund's investment category. Similarly, for the dependent variable Outflow Percent_{i,t}, $InflowPercent_{i,t}$ and outflow percent for a fund's investment category are specific control variables. IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

	Raw Returns	Sharpe Ratio	Jensen's Alpha	Raw Returns	Sharpe Ratio	Jensen's Alpha	Raw Returns	Sharpe Ratio	Jensen's Alpha
	Net Flow Percent _{i,t}	Net Flow Percent _{i,t}	Net Flow Percent _{i,t}	Inflow Percent _{i,t}	Inflow Percent _{i,t}	Inflow Percent _{i,t}	Outflow Percent _{i,t}	Outflow Percent _{i,t}	Outflow Percent _{i,t}
LowPerf	2.94 (0.003)	3.55 (0.000)	2.31 (0.030)	1.36 (0.187)	1.81 (0.033)	0.13 (0.891)	-2.18 (0.002)	-2.48 (0.002)	-2.87 (0.000)
MidPerf	0.67 (0.033)	0.65 (0.026)	0.54 (0.109)	1.33 (0.000)	1.15 (0.000)	1.07 (0.000)	0.70 (0.000)	0.53 (0.004)	0.57 (0.002)
HighPerf	9.36 (0.000)	10.07 (0.000)	8.87 (0.000)	10.18 (0.000)	10.13 (0.000)	8.27 (0.000)	-0.08 (0.925)	-1.12 (0.169)	-1.78 (0.015)
LowPerf x COVID	1.42 (0.674)	-2.52 (0.544)	1.27 (0.588)	4.79 (0.062)	-1.27 (0.679)	1.81 (0.476)	3.86 (0.100)	1.78 (0.477)	0.49 (0.875)
MidPerf x COVID	-0.53 (0.682)	0.74 (0.629)	0.57 (0.514)	-1.57 (0.155)	0.64 (0.608)	0.42 (0.731)	-1.17 (0.045)	-0.21 (0.717)	-0.24 (0.752)
HighPerf x COVID	-14.88 (0.003)	-15.06 (0.000)	-9.90 (0.010)	-9.71 (0.021)	-16.4 (0.000)	-11.12 (0.012)	7.77 (0.014)	0.20 (0.920)	-0.33 (0.862)
COVID	0.77 (0.084)	1.08 (0.101)	0.34 (0.337)	0.48 (0.125)	1.04 (0.077)	0.43 (0.293)	-0.52 (0.158)	-0.27 (0.467)	-0.02 (0.958)
Intercept	1.97 (0.001)	1.83 (0.003)	2.02 (0.002)	3.48 (0.000)	3.36 (0.000)	3.60 (0.000)	1.20 (0.002)	1.25 (0.002)	1.30 (0.001)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	YES	YES
Adjusted R ²	6.6%	6.9%	6.3%	13.0%	12.9%	11.9%	11.1%	10.8%	10.9%
Observations	10 870	10 870	10 870	10 870	10 870	10 870	10 870	10 870	10 870

5.5 Global versus Norwegian funds

5.5.1 Net flow

Table 12 displays the coefficient results for regressing net inflow percentages on relative performance for segregated Norwegian and global fund portfolios. The outcomes for the separate portfolios are comparable to one-another and the aggregated portfolio in table 7. Net flow to performance slopes are positive and substantial for the best and worst performing funds (HighPerf and LowPerf), while modest for middle-performing funds (MidPerf).

The statistical significance of the coefficients of the Norwegian and global portfolios are lower than for the aggregate portfolio for some coefficients. Most notably the LowPerf coefficients for the global funds when Sharpe Ratio or Jensen's Alpha measures performance. Sharpe Ratio's coefficient of 3.03 has a p-value of 0.094 and Jensen's Alpha's coefficient value of 2.48 has a p-value of 0.212. This compares to the aggregate portfolio's LowPerf coefficients of 3.21 (p-value 0.001) for Sharpe Ratio and 2.25 (p-value 0.011) for Jensen's Alpha.

The coefficients for the intercept-dummies for established and intermediately aged funds are much larger in magnitude for the Norwegian portfolio than the global portfolio. Assets under management appear to affect the portfolios similarly, with lower net flow percentages received as funds grow larger. Adjusted R-squared values are also much higher for the Norwegian portfolio.

Table 12: Regressing net flow percent on performance ranks. Norwegian and global funds

The table reports the regression output for regressing the dependent variable $Net\ Flow\ Percent_{i,t}$ on the independent variables established by equation 5 for the separated Norwegian and global portfolios. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are the net percentage flow to a fund's investment category (Norwegian or global funds) and log (assets). IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

Independent variable	Raw Returns		Sharpe Ratio		Jensen's Alpha	
	Net flow Percent _{i,t}		Net flow Percent _{i,t}		Net flow Percent _{i,t}	
	NOR	Global	NOR	Global	NOR	global
LowPerf	2.29 (0.011)	4.79 (0.037)	3.15 (0.002)	3.03 (0.094)	2.34 (0.041)	2.48 (0.212)
MidPerf	0.88 (0.010)	-0.06 (0.917)	0.83 (0.023)	0.59 (0.333)	0.65 (0.081)	0.45 (0.349)
HighPerf	7.70 (0.000)	5.50 (0.011)	7.17 (0.000)	7.86 (0.000)	7.50 (0.000)	6.40 (0.005)
Industry NET	0.45 (0.059)	0.19 (0.022)	0.45 (0.059)	0.19 (0.023)	0.45 (0.059)	0.19 (0.023)
Ln assets	-0.08 (0.002)	-0.10 (0.013)	-0.09 (0.000)	-0.11 (0.009)	-0.08 (0.002)	-0.09 (0.024)
IntermediateAge	-3.12 (0.000)	-1.16 (0.006)	-2.99 (0.000)	-1.13 (0.006)	-3.23 (0.000)	-1.15 (0.007)
EstablishedAge	-2.94 (0.000)	-1.34 (0.002)	-2.88 (0.000)	-1.26 (0.002)	-3.08 (0.000)	-1.25 (0.002)
Intercept	2.57 (0.001)	1.51 (0.055)	2.52 (0.002)	1.57 (0.053)	2.77 (0.002)	1.53 (0.053)
Month dummies	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	10.7%	1.8%	10.6%	2.4%	10.5%	2.0%
Observations	7184	3686	7184	3686	7184	3686

5.5.2 Global and Norwegian Inflows

Table 13 demonstrates the results for regressing inflow percentages on relative performance for Norwegian and global fund portfolios. The regressors are provided by equation 11 in section 5.3.2. There is a noticeable difference in magnitude and statistical significance between the inflow-performance slopes of the Norwegian and global portfolio for the best performing funds. The coefficients are positive and sizable, with generally low p-values, but the global fund coefficients are lower and less statistically significant. For example, while Norwegian funds are expected to receive $11.09 * 0.1 = 1.109$ percentage points increased inflows if a fund moves 10 percentiles in the top performing category, the comparable value for global funds is 0.436 percentage points. Placing this into perspective, the average monthly inflow percentages for both fund categories are similar, being 2.18% for Norwegian funds and 2.14% for global funds (see table 1).

Inflow-performance slopes are all positive for the low-performing funds as measured by raw returns and Sharpe Ratio, but with p values ranging from 0.130 to 0.232, none are statistically significant.

This contrasts to the combined portfolio results in table 9 which shows the aggregate portfolio having a statistically significant inflow-performance relationship. The middle-performing funds exhibit a positive relationship between inflow and performance for all performance metrics.

Like before, the independent variables explain a larger proportion of the dependent variable variance in the Norwegian portfolio regressions, as measured by R^2 . The magnitude of the coefficients for age-dummies are also larger for Norwegian funds. Unlike the net inflow regressions, the Norwegian and global funds do not have the same relationship between inflow and assets under management. Global funds experience a reduction in expected monthly inflow percent by -0.09 to -0.11 times a fund's logarithmic assets under management. The equivalent numbers for Norwegian funds are not statistically different from zero.

Table 13: Regressing inflow percent on performance ranks. Norwegian and global funds.

The table reports the regression output for regressing the dependent variable $Inflow\ Percent_{i,t}$ on the independent variables established by equations 11 for the separated Norwegian and global portfolios. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are the inflow percentage flow to a fund's investment category (Norwegian or global funds), log (assets), and the outflow percentage from the given fund. IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

Independent variable	Raw Returns		Sharpe Ratio		Jensen's Alpha	
	Inflow Percent _{i,t}		Inflow Percent _{i,t}		Inflow Percent _{i,t}	
	NOR	Global	NOR	Global	NOR	global
LowPerf	1.33 (0.155)	3.29 (0.130)	1.20 (0.232)	2.09 (0.177)	-0.30 (0.821)	1.14 (0.445)
MidPerf	1.29 (0.000)	0.66 (0.230)	1.30 (0.000)	1.11 (0.036)	0.96 (0.019)	1.40 (0.003)
HighPerf	11.09 (0.000)	4.36 (0.047)	8.13 (0.000)	6.21 (0.010)	7.51 (0.000)	4.25 (0.086)
Inflow to category	0.29 (0.206)	0.22 (0.027)	0.29 (0.203)	0.22 (0.028)	0.29 (0.202)	0.22 (0.028)
Outflow percent	0.25 (0.000)	0.23 (0.001)	0.27 (0.000)	0.24 (0.001)	0.28 (0.000)	0.23 (0.001)
Ln assets	-0.04 (0.136)	-0.10 (0.015)	-0.05 (0.088)	-0.11 (0.014)	-0.04 (0.188)	-0.09 (0.025)
IntermediateAge	-2.76 (0.000)	-1.10 (0.005)	-2.77 (0.000)	-1.06 (0.005)	-3.15 (0.000)	-1.07 (0.007)
EstablishedAge	-3.34 (0.000)	-1.90 (0.000)	-3.43 (0.000)	-1.82 (0.000)	-3.76 (0.000)	-1.79 (0.000)
Intercept	3.63 (0.000)	3.14 (0.000)	3.87 (0.000)	3.13 (0.000)	4.38 (0.000)	3.09 (0.000)
Month dummies	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R ²	19.0%	6.2%	17.6%	6.8%	16.8%	6.5%
Observations	7184	3686	7184	3686	7184	3686

5.5.3 Global and Norwegian outflows

Table 14 shows the results for regressing inflow percentages on relative performance for Norwegian and global fund portfolios. The regressors are provided by equation 12 in section 5.3.2. The best performing funds clearly have different relationships between outflow and past performance. Global funds have negative coefficients, which are strongly statistically significant for Sharpe Ratio and Jensen's Alpha. For the Norwegian portfolio the relationship varies by the performance metric, but the only statistically significant figure is the positive relationship between outflow and past raw returns. The middle performing funds for both categories generally have a low, positive and statistically significant associations between outflow and past relative performance. The lowest performing funds all have negative coefficients for the relationship between past performance and outflow, albeit some have non-significant p-values at the 0.05 significance level.

Like the previous regression results, the Norwegian portfolio regressions have higher adjusted R-squared values. The magnitude of the coefficients for age-dummies are much smaller for the outflow regression than for the previous inflow regression, indicating that fund age is a smaller contributor to net flows. The outflow-performance relationship is only positive and statistically significant for Norwegian funds.

There is a drastic difference between Norwegian and global funds and their relationship to the control variable "Outflow From Category". For each percentage point of outflow from the Norwegian fund category, an individual fund is expected to experience 0.71 percentage points outflow. This contrasts to the global fund category, where the expectation is 0.20 to 0.21 percentage points outflow for each percentage point of outflow from the category.

Table 14: Regressing outflow percent on performance ranks. Norwegian and global funds

The table reports the regression output for regressing the dependent variable $Outflow\ Percent_{i,t}$ on the independent variables established by equation 12 for the separated Norwegian and global portfolios. The primary variables of interest are LowPerf, MidPerf and HighPerf, which are the fractional performance ranks of the bottom 20%, middle 60% and top 20% of funds. The resulting coefficients on these variables represent the slope of the relationship between net flow percent and past 36-month performance for each performance level (Sirri and Tufano, 1998). Performance metrics utilized are Raw Returns, Sharpe Ratio, and Jensen's Alpha. Control variables are the outflow percentage flow from a fund's investment category (Norwegian or global funds), log (assets), and the inflow percentage to a given fund. IntermediateAge and EstablishedAge are intercept dummy variables indicating if a fund is 6 to 10 years old, or 10+. Funds 5 years or younger are the base group. Intercept dummies for the month are also included, with March as the base group. The figures in parentheses are p-values calculated using robust standard errors by using the VcovPL() function in R, with the selection to two-way cluster on fund and month.

Independent variable	Raw Returns		Sharpe Ratio		Jensen's Alpha	
	Outflow Percent _{i,t}		Outflow Percent _{i,t}		Outflow Percent _{i,t}	
	NOR	Global	NOR	Global	NOR	global
LowPerf	-1.42 (0.107)	-2.17 (0.083)	-2.74 (0.004)	-1.39 (0.197)	-3.47 (0.001)	-1.79 (0.129)
MidPerf	0.36 (0.053)	0.86 (0.006)	0.43 (0.040)	0.58 (0.048)	0.27 (0.196)	1.10 (0.000)
HighPerf	2.86 (0.008)	-1.80 (0.153)	0.08 (0.924)	-2.61 (0.008)	-1.09 (0.145)	-3.08 (0.005)
Outflow from category	0.71 (0.000)	0.21 (0.006)	0.71 (0.000)	0.20 (0.006)	0.71 (0.000)	0.21 (0.006)
Inflow percent	0.14 (0.000)	0.08 (0.000)	0.15 (0.000)	0.08 (0.000)	0.15 (0.000)	0.08 (0.000)
Ln assets	0.06 (0.002)	0.01 (0.752)	0.06 (0.001)	0.01 (0.586)	0.06 (0.000)	0.01 (0.798)
IntermediateAge	0.82 (0.000)	0.17 (0.402)	0.68 (0.003)	0.18 (0.354)	0.56 (0.016)	0.187 (0.353)
EstablishedAge	-0.04 (0.822)	-0.57 (0.000)	-0.20 (0.286)	-0.58 (0.000)	-0.32 (0.092)	-0.56 (0.000)
Intercept	-0.01 (0.980)	1.98 (0.000)	0.35 (0.421)	1.88 (0.000)	0.63 (0.157)	1.87 (0.000)
Month dummies	YES	YES	YES	YES	YES	YES
Adjusted R ²	16.3%	6.0%	16.1%	6.0%	16.3%	6.2%
Observations	7184	3686	7184	3686	7184	3686

6. Discussion

6.1 Fund Analysis

The primary reason for including a fund analysis component in the thesis, is to allow for a deeper understanding of what exactly investors are reacting to when they allocate capital. If the sample of funds were to show an incredible propensity to outperform their benchmark's, or vice versa, it would be rational to assume that it would be a contributing factor in determining their capital allocation decisions.

The fund analysis section already provides the main discussion of the fund performance results. The key points were that global funds in aggregate have had disappointing returns, Norwegian funds have performed adequately relative to the benchmark, and the difference in performance between the fund groups increases in times of crisis. This is applicable both in terms of unadjusted raw returns, but also adjusted for risk metrics such as Sharpe Ratio or Jensen's Alpha from the Fama-French three-factor model. My findings align with others, such as Sørensen (2009) and Børsheim and Eilertsen (2016). Active mutual funds in Norway generally do not outperform their benchmarks after adjusting for several factors of risk.

The fact that Norwegian funds do better than global funds aligns with the work of Coval and Moskowitz (2001) who find that local investors have informational advantages and therefore outperform. Brautaset and Torset (2020) conclude the same for the Scandinavian investors, and particularly for times of crisis. This demonstrates a benefit to home country bias, and potentially partly explains it.

The most important results pertaining to the flow-performance relationships are the results from the 36-month rolling performances in figures 3, 5 and 6. The results show that the selected sample of funds provide varied performances for investors to react to, both in magnitude and across time. This is ideal when studying how performance affects capital flows.

Although deemed not particularly relevant for the flow-performance relationship to be studied, one of the more interesting findings of the thesis is the considerable correlation between the performance groups. Primarily for the Norwegian funds, but global funds also demonstrate similarities. For example, in figure 5 all the global performance groups show worsening Sharpe Ratio performances leading up to the oil crisis. How active funds in Norway synchronically differ from their benchmarks could be an entire research topic of its own that can be pursued further.

6.2 Net flow percent

The results for the relationship between net flow percent and relative performance found in table 7 (aggregate portfolio), table 10 (for different time periods), and table 12 (separated Norwegian and global portfolios), demonstrate that Norwegian retail investors participate in considerable performance chasing. These findings hold true across all performance metrics considered: Raw returns, Sharpe Ratio, and Jensen's Alpha.

Perhaps the key discovery, highlighting the tendency to chase performance, lies in the significant disparity between the estimated net inflow percentages of the top-performing funds (*HighPerf*) compared to the rest. Investors allocate significantly higher proportions of their investments to funds that have demonstrated superior performance compared to other funds. These results are highly statistically significant for the aggregate portfolio, as well as for the Norwegian portfolio and global portfolio considered separately. The results are also valid across time (except for the short time "period 3" coming after the COVID-19 outbreak).

The studies of Ippolito (1992), Chevalier and Ellison (1997), Sirri and Tufano (1998), and the more recent results from Huang et al. (2007) and Christoffersen and Xu (2017), all demonstrate that net flows in the U.S. have a convex relationship to recent performance. Lynch and Musto (2003) argue that the convex relationship exists because the worst performers change their investment strategy and investors therefore do not consider their past performance as much as they do for other funds.

My findings do not show that net flow percent is convexly related to past performance rank. In fact, the regression coefficients indicate that funds experience significant percentage net inflow from increasing their relative percentile rank if they are amongst the worst performers. Thereafter the relationship becomes less sensitive for the middle-performing funds, and finally very responsive to the top-performing funds. These results align with Ferreira et al. (2012), who show that flow-performance relationships vary by country and are not necessarily convex.

6.3 Inflow percent

The inflow percent results in table 9 (aggregate portfolio), 10 (for different time periods) and 13 (Norwegian and global separated), demonstrate that inflows are a primary driver of the performance chasing occurring in net flows.

All estimated slopes for the relationship between inflow percent and past relative performance are either positive and statistically significant, or not statistically different from zero. Particularly the relationships for the best performing funds (*HighPerf*) are substantial and statistically robust. These inflow percent results largely explain the large net flow percent results seen for this

performance group. It is worth noting that, like net flow percent, there is an exception observed during the short period since COVID-19, referred to as “period 3”. During this time, there’s no statistically significant relationship for the inflow-performance relationship for the top-performers.

The study by Clifford et al. (2013) is the only comparable study I could find that specifically examines the relationship between relative performance and net flows, inflows, and outflows as separate entities. Like me, they use the piecewise regression model by Sirri and Tufano (1998). They study U.S. funds from 2000 to 2009. Their results are similar to mine, showing a statistically insignificant inflow-performance relationship for the worst performing funds, small but statistically significant relationship for middle-performing funds, and a large and statistically significant relationship for the very best funds.

The statistically insignificant values being predominantly found in the lowest performing funds (*LowPerf*) could be related to the assumptions of Lynch and Musto (2003). Investors might be less sensitive to the performances of the worst performing funds as they are likely to change strategies, thereby rendering past performances less relevant.

The results are similar for both global and Norwegian funds, however the results imply that investors are more sensitive to the performances of top-performing Norwegian funds than global funds, across all performance metrics. A possible cause of this is that the absolute performances of the top global funds are considerably worse than for Norwegian funds. The best global funds have prolonged periods of time where their returns and Sharpe Ratios (figures 3 and 5) are close to index funds, and their Fama-French alpha values are often just slightly above zero (figure 6).

6.4 Outflow percent

The outflow percent results in table 9 (aggregate portfolio), 10 (for different time periods) and 14 (Norwegian and global separated), show conflicting results for the relationship between relative past performance and percentage outflow. The results vary by time, performance metric, and whether one is evaluating global or Norwegian funds.

For the aggregate portfolio (table 9), the only statistically significant relationship between percentage outflow and past performance for the best performing funds, is when performance is measured by Jensen’s Alpha. However, when the portfolio is disaggregated into Norwegian and global funds (table 14), the top-performing Norwegian funds have a statistically significant positive relationship with increased performance rank. However, they do not have statistically meaningful performance-outflow relationships with Sharpe Ratio or Jensen’s Alpha.

The best-performing global funds experience the exact opposite. The outflow-performance relationship for raw returns is not statistically significant, meanwhile it is for Sharpe Ratio and Jensen's alpha. The results explain why the Norwegian and global funds have similar relationships between net flow percentages and past performance, but not so for the equivalent inflow-performance relationship. Top-performing global funds decrease their outflow percentages as they increase their relative performance rank, and thereby increase their net flow percentages.

For middle-performing funds, the initial results in table 9 indicate that the aggregate portfolio has a low but highly statistically significant outflow-performance relationship. These results generally carry over to both the global and Norwegian portfolios in table 14. However, when looking across time in table 10, we see no consistency. It has only occurred in one of the three periods considered.

The outflow percent results for the worst performing funds are the most statistically significant, and arguably the most interesting. The *LowPerf* coefficients for the aggregate portfolio in table 9 are negative and statistically significant. This suggests that outflows drop as funds increase their relative performance. It also puts the positive relationship between net flows and past relative performance of the lowest performing funds into perspective. A significant portion increasing net flows is related to decreased outflow percentages.

The results for the lowest performing funds are also consistent across time, except for the shorter "period 3" occurring after COVID-19. When broken down to portfolios of global and Norwegian funds in table 14, the coefficients are negative but not all are statistically significant. Although there is insufficient evidence to reject the null hypothesis at the 0.05 level, several factors still imply that the outcomes are likely meaningful. Firstly, the fact that all coefficients have similar values. Secondly, the aggregated results are statistically significant. For example, the *LowPerf* coefficients measured by raw returns for the Norwegian and global funds respectively are -1.42 and -2.17 with p-values of 0.107 and 0.083. The coefficient of -1.71 for the aggregated portfolio is statistically significant with a p-value of 0.017. It is plausible that the low, but statistically insignificant, p-values for the separated portfolios occur because of limited cross-sectional data.

Models based on the sorting of funds by performance rank obviously benefit from having as much cross-sectional data as possible. For the aggregate portfolio, the minimum number of funds during the time of the study has been 50. For the global portfolio the comparable figure is 15, and Norwegian 31. Increasing the number of funds would be beneficial, however the Norwegian fund market is comparatively small, and the fund-selection process would need to be relaxed, which could cause its own problems.

The only comparable research I could find, by Clifford, Fulkerson, Jordan and Waldman (2013) also presents a negative (and statistically significant) relationship between outflow percent and the rank of the lowest performing funds. They, however, additionally find negative relationships for middle-performing funds, and positive for top-performing funds.

Investors are often assumed to suffer from the disposition effect (Shefrin and Statman, 1985). This is a behavioral anomaly where people are reluctant to sell losing investments while eager to sell those that have performed well. The bias is rooted in people's loss aversion and regret avoidance.

Investors hold on to investments to avoid realizing losses, while sell to make sure they experience any unrealized gains. My results suggest that Norwegian retail investors are not suffering from this behavioral anomaly. In fact, the negative slopes for the outflow-performance relationship on several metrics for the best and worst performing fund categories, can be interpreted as if the opposite is occurring.

6.5 Other independent variables

6.5.1 Fund age

The results for the dummy variables *IntermediateAge* (6 to 10 years old) and *EstablishedAge* (over 10 years old) found in tables 7, 10 and 12, indicate that funds experience lower net flow percentages as they grow older. This is valid for both Norwegian and global funds, although the impact is greater for Norwegian funds. It is also valid across time, as can be seen in appendix B.4. Looking in tables 13 and 14, it becomes clear that this is predominantly due to decreased inflow percentages.

The observation that net flow percentages decline as funds mature aligns with the findings reported by Chevalier and Ellison (1997) in the U.S. and Børsheim and Eilertsen (2016) for Norwegian mutual funds.

There could be a myriad of reasons for why younger funds receive higher net flow percentages. The reason is likely a composite of several factors. Young funds are exciting and might offer innovative investment ideas, they could be advertised and promoted more, and they have no historical record to disappoint investors. As seen in the fund analysis section, most funds do not beat their benchmarks.

6.5.2 Flows to category & outflow and Inflow percent

Tables 9, 13, 14 and appendix B.4 show that outflow percent and inflow percent share a positive relationship. This signifies that increased outflows or inflows are partly offset by an increase in the other. This is likely related to periods of elevated turnover. i.e., there are periods of time where investors both purchase and sell more mutual funds than in others.

Applicable to all tables: the inflow to category, outflow from category, and net flow all have a positive relationship to inflow percent, outflow percent and net flow percent, as one would expect. As a fund category grows or shrinks, it is expected to influence the funds individually.

6.5.3 Assets under management

Previous research on the impact of assets under management on percentage net flows has primarily shown that there is a negative relationship between the two. The original work by Chevalier and Ellison (1997) and Sirri And Tuffano (1998) found this to be the case in the U.S., while Hermansen and Holmeide (2014), Rieker (2015) and Jahr and Kristiansen (2017) found the same in Norway. Børsheim and Eilertsen (2016) on the other hand found a positive or non-significant relationship, depending on regression model.

According to the findings in table 7, there is a statistically significant negative relationship between net flows and flow percentages for the aggregate portfolio. In table 12 this can be seen to be similarly applicable to both Norwegian and global funds, and in appendix B.4 it can be seen to generally hold up across time.

However, the analysis of inflow and outflow percentages in tables 13 and 14 reveals differences between global funds and Norwegian funds. Specifically, global funds exhibit a statistically significant relationship between inflow percentages and fund size, whereas Norwegian funds do not. On the other hand, Norwegian funds display a statistically significant relationship between outflow percentages and fund size. Consequently, the origin of the relationship between fund size and net flow percent varies between global and Norwegian funds.

There are good arguments to be made on both sides as to what *should* be the relationship between fund size and flows.

An argument in favor of smaller funds receiving larger net flow percentages, is that the nominal amount of money required for a larger percentage flow is lower. Also, Chen et al. (2004) find that increasing fund size leads to worse returns for funds. If investors believe this to generally be true, lower fund flows could ensue regardless of actual results.

On the other hand, an argument can be made that larger funds enjoy name recognition, have more money for marketing, and can push costs down due to economics of scale.

7. Conclusion

In this thesis I mainly evaluate three aspects of the equity mutual fund market in Norway. Firstly, a performance analysis of funds with investment objectives focused on Norwegian or global equities, spanning from January 2001 to June 2022. An additional focus is given to times of crisis (global financial crisis, oil crisis, and COVID-19 pandemic). The performance measures used are raw returns, Sharpe Ratio, and Jensen's alpha from the Fama-French three-factor model.

Then I analyse monthly net flow percentages from Norwegian retail investors to see if the investors chase past performance. Lastly, I evaluate if any findings are predominantly related to inflow, outflow, or both.

The fund analysis finds that mutual funds investing in Norwegian equities generally perform better than those that focus on global equities. The equally weighted Norwegian portfolio provides a higher raw return than its benchmark over the January 2001 to June 2022 timeframe. It also provides a higher Sharpe Ratio. However, it has a slightly negative Fama-French three-factor alpha-value that is statistically no different than zero. The Norwegian portfolio has performed better in times of crisis. The equally weighted global portfolio on the other hand has produced disappointing returns. Underperforming in all performance metrics, and it shows no signs of doing better during times of crisis. Even the best performing funds spend considerable time not performing well.

The net flow percentage results demonstrate that Norwegian retail investors chase performance. The regression estimates indicate that all funds receive higher net flow percentages if they increase their fractional performance rank. This is particularly true for the best and worst 20% of funds, but is also applicable to the middle 60%. These findings hold true for funds with both a Norwegian and global investment focus, as well as over time, except for the relatively short period that has lapsed since COVID-19 started.

When the net flow percent results are disaggregated into its parts of inflow percent and outflow percent, it becomes clear that the performance chasing primarily occurs on the purchasing side, where investors greatly prefer the best performing funds. The outflow percent results however indicate that investors are eager to sell the absolute worst performing funds. These results are applicable across performance metrics and time (except for period 3), and also for both Norwegian and global funds. The outflow percent results for the better performing funds are not uniform, and vary by performance metric. A further evaluation of what drives outflow percent would be an interesting area for further study

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Appendix A – Individual fund regression results

Appendix A presents Fama-French three-factor regression results for all the individual funds used in the study.

A.1 Norwegian funds

Fund	Date range	$\beta_{i,MKT}$	$\beta_{i,SMB}$	$\beta_{i,HML}$	Annual alpha (α_i)	R²	alpha (α_i) p-value	Breusch-Pagan test p-value	Breusch-Godfrey test p-value
<i>Alfred Berg Aktiv</i>	Jan 2001 – Jun 2022	0.966	0.081	-0.015	-0.078	0.932	0.951	0.523	0.399
<i>Alfred Berg Aktiv II</i>	Jan 2001 – Aug 2012	0.963	0.172	0.009	-2.355	0.925	0.293	0.050	0.281
<i>Alfred Berg Gambak</i>	Jan 2001 – Jun 2022	0.986	0.143	-0.029	0.326	0.865	0.862	0.251	0.670
<i>Alfred Berg Humanfond</i>	Jan 2001 – Jun 2022	0.947	0.026	-0.016	0.365	0.961	0.690	0.055	0.992
<i>Alfred Berg Norge Classic</i>	Jan 2001 – Jun 2022	0.964	0.014	-0.001	1.643	0.977	0.019	0.969	0.646
<i>C WorldWide Norge</i>	Jan 2001 – Jun 2022	0.966	-0.007	-0.020	1.003	0.965	0.252	0.039	0.895
<i>Danske Invest Norge I</i>	Jan 2001 – Jun 2022	0.940	-0.011	0.022	1.144	0.967	0.167	0.369	0.068
<i>Danske Invest Norge II</i>	Jan 2001 – Jun 2022	0.935	-0.010	0.022	1.934	0.966	0.021	0.403	0.071
<i>Danske Invest Norge Vekst</i>	Jan 2001 – Jun 2022	0.894	0.151	-0.066	-1.875	0.867	0.269	0.104	0.147
<i>DNB Norge</i>	Jan 2001 – Jun 2019	0.955	0.002	0.000	-0.603	0.975	0.456	0.018	0.144
<i>DNB Norge (Avanse I)</i>	Jan 2001 – Jan 2014	0.987	0.010	-0.004	-0.922	0.992	0.151	0.301	0.518
<i>DNB Norge (Avanse II)</i>	Feb 2003 – Aug 2014	0.981	-0.006	0.010	0.072	0.991	0.916	0.330	0.584
<i>DNB Norge (I)</i>	Jan 2001 – Dec 2013	0.951	-0.002	-0.015	0.349	0.984	0.694	0.001	0.602
<i>DNB Norge (III)</i>	Jan 2001 – Jun 2019	0.956	0.002	-0.001	0.097	0.975	0.906	0.017	0.174
<i>DNB Norge Selektiv</i>	Jan 2001 – Jun 2022	0.998	0.058	-0.016	-0.167	0.933	0.897	0.042	0.003
<i>DNB SMB A</i>	May 2001 – Jun 2022	1.026	0.395	-0.049	-3.425	0.824	0.158	0.115	0.631
<i>Eika Norge</i>	Oct 2003 – Jun 2022	0.944	0.078	0.040	0.386	0.939	0.744	0.357	0.026
<i>Eika SMB</i>	Jan 2001 – Aug 2013	0.892	0.248	0.069	-5.921	0.901	0.010	0.308	0.385
<i>NB Aksjefond</i>	Jan 2001 – Aug 2013	0.939	0.117	0.044	-4.449	0.960	0.003	0.721	0.834
<i>Terra Norge</i>	Jan 2001 – Aug 2013	0.984	0.091	-0.048	-1.871	0.950	0.271	0.569	0.763
<i>Fondsfinans Norge</i>	Jan 2003 – Jun 2022	0.964	0.080	0.030	1.291	0.906	0.395	0.096	0.899
<i>PLUSS Aksje</i>	Jan 2001 – Jun 2022	0.917	0.002	-0.001	-0.025	0.956	0.979	0.000	0.004
<i>Holberg Norge</i>	Feb 2001 – Jun 2022	0.907	0.150	0.013	-0.655	0.872	0.698	0.000	0.199

<i>KLP AksjeNorge P</i>	Jan 2001 – Jun 2022	0.988	0.046	0.015	0.229	0.962	0.807	0.000	0.330
<i>Landkreditt Norge</i>	Jul 2006 – Apr 2016	0.868	0.105	0.076	-0.891	0.904	0.687	0.502	0.582
<i>Nordea Avkastning</i>	Jan 2001 – Jun 2022	1.002	0.055	-0.005	-0.940	0.970	0.269	0.002	0.501
<i>Nordea Kapital</i>	Jan 2001 – Jun 2022	0.986	0.025	-0.002	-0.171	0.974	0.826	0.006	0.280
<i>Nordea Norge Verdi</i>	Jan 2001 – Jun 2022	0.866	0.058	0.031	0.454	0.902	0.740	0.000	0.739
<i>Nordea SMB</i>	Jan 2003 – Dec 2014	0.870	0.401	0.109	-9.004	0.858	0.001	0.818	0.342
<i>Nordea Vekst</i>	Jan 2003 – Dec 2014	0.971	0.075	-0.007	-2.345	0.973	0.044	0.826	0.697
<i>ODIN Norge C NOK</i>	Jan 2001 – Jun 2022	0.862	0.101	0.061	-1.218	0.856	0.476	0.108	0.193
<i>Pareto Aksje Norge A</i>	Oct 2002 – Jun 2022	0.815	0.050	0.062	0.080	0.818	0.966	0.496	0.799
<i>Pareto Investment Fund A</i>	Jan 2001 – Jun 2022	1.048	0.089	-0.017	-0.931	0.907	0.562	0.001	0.091
<i>Storebrand Norge A</i>	Jan 2001 – Jun 2022	0.994	0.042	0.008	-0.155	0.971	0.849	0.000	0.071
<i>Storebrand Verdi A</i>	Jan 2001 – Jun 2022	0.898	-0.054	0.067	3.485	0.921	0.006	0.003	0.107
<i>Delphi Norge A</i>	Jan 2001 – Jun 2022	1.013	0.162	-0.039	-1.559	0.878	0.394	0.043	0.043
<i>Delphi Vekst</i>	Jan 2001 – Aug 2013	0.937	0.280	-0.076	-6.161	0.875	0.024	0.327	0.418
<i>First Generator S</i>	Oct 2010 – Jun 2022	1.449	0.167	0.116	-1.178	0.768	0.752	0.996	0.379
<i>Landkreditt Utbytte A</i>	Apr 2013 – Jun 2022	0.742	-0.028	0.010	5.262	0.715	0.021	0.122	0.851
<i>Storebrand Vekst A</i>	Jan 2001 – Jun 2022	0.955	0.277	-0.123	-4.108	0.831	0.056	0.001	0.784
<i>FORTE Norge</i>	Apr 2011 – Jun 2022	0.995	0.047	-0.015	0.195	0.797	0.934	0.031	0.101
<i>FORTE Trønder</i>	Feb 2013 – Jun 2022	1.128	0.135	-0.048	-1.212	0.733	0.719	0.002	0.138
<i>Nordea Norge Pluss</i>	May 2011 – Jun 2022	1.077	0.054	0.015	-0.225	0.904	0.891	0.206	0.534
<i>Storebrand Norge Fossilfri A</i>	May 2017 – Jun 2022	0.761	0.068	-0.098	0.254	0.853	0.918	0.199	0.155
<i>Equally weighted Norwegian portfolio</i>	Jan 2001 – Jun 2022	0.957	0.084	-0.003	-0.552	0.975	0.450	0.000	0.805

A.2 Global funds using MSCI World as a reference benchmark

<i>Fund</i>	<i>Date range</i>	$\beta_{L,MKT}$	$\beta_{L,SMB}$	$\beta_{L,HML}$	<i>Annual alpha (α_i)</i>	R^2	<i>alpha (α_i) p-value</i>	<i>Breusch-Pagan test p-value</i>	<i>Breusch-Godfrey test p-value</i>
<i>Alfred Berg Global</i>	Jan 2001 - Jun 2022	0.912	0.054	-0.045	-1.185	0.931	0.164	0.097	0.313
<i>C WorldWide Global Aksjer</i>	Jan 2001 - Jun 2022	0.922	0.029	-0.181	0.928	0.846	0.496	0.366	0.007
<i>DNB Global</i>	Jan 2001 - Aug 2019	1.049	0.052	0.050	-2.487	0.957	0.002	0.835	0.021
<i>DNB Global (II)</i>	Jan 2001 - Aug 2015	1.071	0.041	-0.108	-1.421	0.978	0.041	0.029	0.186
<i>Eika Global</i>	Aug 2001 - Jun 2022	1.120	0.287	0.064	-2.652	0.865	0.086	0.246	0.237
<i>Terra Global</i>	Jan 2001 - Nov 2013	0.942	0.202	-0.109	-2.528	0.880	0.136	0.013	0.188
<i>PLUSS Utland Aksje</i>	Jan 2001 - Jun 2022	1.110	0.047	-0.036	-1.499	0.941	0.117	0.799	0.391
<i>Holberg Global A</i>	Sep 2006 - Jun 2022	1.122	0.211	-0.142	0.083	0.922	0.951	0.777	0.098
<i>Nordea Global Value fund</i>	Nov 2003 - Apr 2016	0.937	0.102	0.029	-1.104	0.837	0.548	0.275	0.392
<i>Nordea Internasjonale Aksjer</i>	Jan 2001 - Dec 2017	1.082	0.118	-0.048	-2.364	0.948	0.015	0.450	0.185
<i>ODIN Global C</i>	Aug 2007 - Jun 2022	1.192	0.350	-0.157	-1.415	0.900	0.420	0.502	0.255
<i>SEB Globalfond</i>	Jan 2001 - Jun 2022	0.925	0.048	-0.114	-1.450	0.926	0.109	0.001	0.586
<i>Storebrand Global Value</i>	Jan 2001 - Jun 2022	1.129	0.163	0.230	-2.883	0.927	0.008	0.265	0.108
<i>Storebrand Pionér</i>	Jan 2001 - Mar 2013	1.169	0.219	-0.062	-3.809	0.937	0.014	0.766	0.991
<i>Delphi Global A</i>	Jun 2006 - Jun 2022	1.123	0.345	-0.247	0.339	0.867	0.851	0.612	0.493
<i>KLP AksjeGlobal Flerfaktor P</i>	Jan 2014 - Jun 2022	0.820	-0.177	0.079	-0.577	0.919	0.641	0.031	0.462
<i>Storebrand Global Multifactor A</i>	Jan 2007 - Jun 2022	1.042	0.338	0.217	-0.266	0.964	0.759	0.286	0.669
<i>Pareto Global B</i>	Dec 2012 - Jun 2022	1.121	0.257	0.200	-2.656	0.913	0.106	0.863	0.976
<i>DNB Global Lavkarbon - A</i>	Sep 2016 - Jun 2022	0.907	0.092	-0.017	0.944	0.931	0.644	0.666	0.887
<i>Equally weighted developed world portfolio</i>	Jan 2001 - Jun 2022	1.043	0.135	-0.022	-1.619	0.982	0.001	0.090	0.162

A.3 Global funds using MSCI ACWI as a reference benchmark

<i>Fund</i>	<i>Date range</i>	$\beta_{i,MKT}$	$\beta_{i,SMB}$	$\beta_{i,HML}$	<i>Annual alpha (α_i)</i>	R^2	<i>alpha (α_i) p-value</i>	<i>Breusch-Pagan test p-value</i>	<i>Breusch-Godfrey test p-value</i>
<i>BNPP L1 OBAM</i>	May 2004 - Jul 2014	1.554	0.274	-0.482	-4.057	0.916	0.102	0.010	0.078
<i>DNB Global Selektiv (I)</i>	Okt 2004 – Aug 2013	1.025	0.057	0.024	-0.795	0.976	0.405	0.286	0.739
<i>DNB Globalspar</i>	Jan 2001 - Aug 2013	1.031	0.119	0.165	-2.214	0.957	0.044	0.000	0.003
<i>Omega Global</i>	Aug 2001 - Aug 2011	1.005	0.103	-0.125	-3.907	0.934	0.011	0.455	0.602
<i>Skagen Global</i>	Jan 2001 – Jun 2022	1.154	0.312	-0.034	4.135	0.883	0.005	0.366	0.107
<i>Storebrand Global Solutions A</i>	Nov 2012 - Jun 2022	1.046	0.180	-0.095	0.850	0.890	0.616	0.575	0.280
<i>Skagen Focus A</i>	Jun 2015 - Jun 2022	1.302	0.660	0.463	-1.329	0.916	0.591	0.486	0.803
<i>Danske Invest Global Sustainable Future,</i>	Jul 2015 – Jun 2022	0.927	0.057	-0.035	-1.360	0.907	0.443	0.015	0.130
<i>FORTE Global</i>	Apr 2011 - Jun 2022	1.103	0.276	0.202	-3.347	0.920	0.023	0.026	0.724
<i>Nordea 1 - Global Stars Fund BP</i>	Jun 2016 - Jun 2022	0.964	0.100	-0.032	1.100	0.925	0.535	0.987	0.314
<i>Equally weighted global ACWI-portfolio</i>	Jan 2001 – Jun 2022	1.115	0.252	0.067	-0.730	0.968	0.304	0.000	0.230

Appendix B – Full flow regression outputs

B.1 Table 7

B.1.1 Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.057185	0.611677	3.3632	0.0007731	***
LOWPERF	3.115537	0.972226	3.2045	0.0013567	**
MIDPERF	0.607188	0.314633	1.9298	0.0536538	.
HIGHPERF	7.484382	1.674393	4.4699	7.905e-06	***
Flowtocateg	0.343469	0.127808	2.6874	0.0072123	**
Lnassets	-0.104275	0.025073	-4.1589	3.222e-05	***
Intermediate	-2.110346	0.351834	-5.9981	2.060e-09	***
Established	-2.024898	0.343744	-5.8907	3.959e-09	***
Jan	0.288474	0.355290	0.8119	0.4168444	
Feb	0.220894	0.332406	0.6645	0.5063647	
Apr	0.389657	0.303318	1.2846	0.1989422	
May	-0.198893	0.319733	-0.6221	0.5339163	
Jun	0.154230	0.276633	0.5575	0.5771803	
Jul	0.252235	0.313064	0.8057	0.4204363	
Aug	0.112879	0.300196	0.3760	0.7069101	
Sep	0.261304	0.313644	0.8331	0.4047940	
Oct	0.161108	0.406822	0.3960	0.6921000	
Nov	0.471225	0.355717	1.3247	0.1852923	
Dec	0.839566	0.358334	2.3430	0.0191489	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.1.2 Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.894408	0.637147	2.9733	0.0029529	**
LOWPERF	3.212315	0.939502	3.4192	0.0006304	***
MIDPERF	0.746853	0.315894	2.3643	0.0180841	*
HIGHPERF	8.264918	1.455337	5.6790	1.389e-08	***
Flowtocateg	0.343427	0.127864	2.6859	0.0072448	**
Lnassets	-0.106203	0.025285	-4.2003	2.687e-05	***
Intermediate	-1.971563	0.357080	-5.5213	3.441e-08	***
Established	-1.912764	0.355238	-5.3845	7.418e-08	***
Jan	0.291139	0.355324	0.8194	0.4125969	
Feb	0.223716	0.332224	0.6734	0.5007140	
Apr	0.391947	0.303301	1.2923	0.1962905	
May	-0.196744	0.319867	-0.6151	0.5385157	
Jun	0.155999	0.276684	0.5638	0.5728913	
Jul	0.254791	0.313312	0.8132	0.4161110	
Aug	0.115842	0.300407	0.3856	0.6997888	
Sep	0.263472	0.313880	0.8394	0.4012620	
Oct	0.166452	0.407115	0.4089	0.6826532	
Nov	0.473803	0.355681	1.3321	0.1828551	
Dec	0.842117	0.358702	2.3477	0.0189087	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.1.3 Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.029285	0.644336	3.1494	0.0016404	**
LOWPERF	2.445042	0.964856	2.5341	0.0112876	*
MIDPERF	0.615176	0.312127	1.9709	0.0487589	*
HIGHPERF	7.668375	1.397256	5.4882	4.153e-08	***
Flowtcateg	0.343518	0.127880	2.6863	0.0072368	**
Lnassets	-0.093044	0.024889	-3.7384	0.0001862	***
Intermediate	-2.114058	0.367524	-5.7522	9.049e-09	***
Established	-2.024447	0.360864	-5.6100	2.073e-08	***
Jan	0.289872	0.355139	0.8162	0.4143904	
Feb	0.222453	0.332376	0.6693	0.5033305	
Apr	0.391434	0.303466	1.2899	0.1971215	
May	-0.197492	0.319610	-0.6179	0.5366428	
Jun	0.155600	0.276594	0.5626	0.5737493	
Jul	0.254102	0.313093	0.8116	0.4170466	
Aug	0.114565	0.300145	0.3817	0.7026917	
Sep	0.263160	0.313334	0.8399	0.4009983	
Oct	0.164488	0.406722	0.4044	0.6859101	
Nov	0.473160	0.355586	1.3306	0.1833325	
Dec	0.841410	0.358376	2.3478	0.0189003	*

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2 Table 8

B.2.1 Inflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.631698	0.587904	7.8783	3.635e-15	***
LOWPERF	1.594162	1.034768	1.5406	0.123444	
MIDPERF	1.302458	0.300066	4.3406	1.434e-05	***
HIGHPERF	9.390282	1.740008	5.3967	6.931e-08	***
Flowtcateg	0.137310	0.073204	1.8757	0.060720	.
Lnassets	-0.076169	0.028760	-2.6485	0.008097	**
Intermediate	-1.799483	0.356150	-5.0526	4.429e-07	***
Established	-2.725917	0.356410	-7.6483	2.209e-14	***
Jan	0.215874	0.298284	0.7237	0.469254	
Feb	-0.127149	0.255462	-0.4977	0.618690	
Apr	-0.192539	0.256503	-0.7506	0.452892	
May	-0.173819	0.295526	-0.5882	0.556432	
Jun	-0.223810	0.277703	-0.8059	0.420300	
Jul	-0.785123	0.286693	-2.7386	0.006181	**
Aug	-0.545860	0.295011	-1.8503	0.064297	.
Sep	-0.202310	0.299910	-0.6746	0.499964	
Oct	0.296333	0.382176	0.7754	0.438131	
Nov	0.394438	0.348899	1.1305	0.258281	
Dec	0.631567	0.339640	1.8595	0.062980	.

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2.2 Outflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.574513	0.353125	7.2907	3.299e-13	***
LOWPERF	-1.521375	0.752470	-2.0218	0.043217	*
MIDPERF	0.695270	0.173541	4.0064	6.207e-05	***
HIGHPERF	1.905900	0.974610	1.9556	0.050544	.
Flowtcateg	-0.206159	0.064489	-3.1968	0.001394	**
Lnassets	0.028106	0.017356	1.6194	0.105397	
Intermediate	0.310863	0.131025	2.3725	0.017683	*
Established	-0.701020	0.128079	-5.4733	4.515e-08	***
Jan	-0.072600	0.225774	-0.3216	0.747792	
Feb	-0.348043	0.193257	-1.8009	0.071741	.
Apr	-0.582196	0.202145	-2.8801	0.003983	**
May	0.025074	0.254024	0.0987	0.921373	
Jun	-0.378040	0.213980	-1.7667	0.077305	.
Jul	-1.037357	0.220409	-4.7065	2.551e-06	***
Aug	-0.658739	0.228605	-2.8816	0.003965	**
Sep	-0.463614	0.208314	-2.2256	0.026065	*
Oct	0.135224	0.269782	0.5012	0.616215	
Nov	-0.076787	0.228025	-0.3367	0.736315	
Dec	-0.207999	0.233124	-0.8922	0.372292	

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2.3 Inflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.574062	0.610314	7.4946	7.168e-14	***
LOWPERF	1.085993	0.865710	1.2545	0.209704	
MIDPERF	1.412193	0.241433	5.8492	5.082e-09	***
HIGHPERF	8.055583	1.737617	4.6360	3.594e-06	***
Flowtcateg	0.138047	0.073342	1.8822	0.059830	.
Lnassets	-0.067817	0.029205	-2.3221	0.020244	*
Intermediate	-1.703368	0.365430	-4.6613	3.180e-06	***
Established	-2.694360	0.372498	-7.2332	5.035e-13	***
Jan	0.219337	0.298065	0.7359	0.461826	
Feb	-0.124553	0.255110	-0.4882	0.625393	
Apr	-0.189499	0.256525	-0.7387	0.460095	
May	-0.171022	0.295263	-0.5792	0.562452	
Jun	-0.221334	0.277064	-0.7989	0.424391	
Jul	-0.782027	0.286079	-2.7336	0.006275	**
Aug	-0.542446	0.294384	-1.8427	0.065407	.
Sep	-0.198962	0.299397	-0.6645	0.506357	
Oct	0.302855	0.382309	0.7922	0.428277	
Nov	0.398026	0.348510	1.1421	0.253446	
Dec	0.635101	0.339477	1.8708	0.061397	.

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2.4 Outflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.679654	0.367180	7.2979	3.127e-13	***
LOWPERF	-2.126323	0.781527	-2.7207	0.006524	**
MIDPERF	0.665341	0.169526	3.9247	8.737e-05	***
HIGHPERF	-0.209336	0.842785	-0.2484	0.803841	
Flowtcateg	-0.205380	0.064300	-3.1941	0.001407	**
Lnassets	0.038386	0.017218	2.2293	0.025813	*
Intermediate	0.268195	0.134391	1.9956	0.045999	*
Established	-0.781595	0.126492	-6.1790	6.682e-10	***
Jan	-0.071802	0.224868	-0.3193	0.749499	
Feb	-0.348269	0.192779	-1.8066	0.070856	.
Apr	-0.581446	0.201518	-2.8853	0.003918	**
May	0.025721	0.253603	0.1014	0.919216	
Jun	-0.377333	0.212910	-1.7723	0.076379	.
Jul	-1.036818	0.219363	-4.7265	2.313e-06	***
Aug	-0.658287	0.227841	-2.8892	0.003869	**
Sep	-0.462433	0.207066	-2.2333	0.025551	*
Oct	0.136403	0.268594	0.5078	0.611575	
Nov	-0.075776	0.226968	-0.3339	0.738488	
Dec	-0.207016	0.232155	-0.8917	0.372565	

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2.5 Inflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.827764	0.634436	7.6095	2.979e-14	***
LOWPERF	-0.382589	0.980685	-0.3901	0.696452	
MIDPERF	1.305079	0.332199	3.9286	8.597e-05	***
HIGHPERF	6.558049	1.671994	3.9223	8.825e-05	***
Flowtcateg	0.138254	0.073417	1.8831	0.059710	.
Lnassets	-0.049662	0.028038	-1.7712	0.076547	.
Intermediate	-1.897037	0.375011	-5.0586	4.292e-07	***
Established	-2.851378	0.374360	-7.6167	2.819e-14	***
Jan	0.217467	0.297598	0.7307	0.464953	
Feb	-0.126538	0.255246	-0.4957	0.620082	
Apr	-0.190391	0.256556	-0.7421	0.458040	
May	-0.172222	0.295098	-0.5836	0.559495	
Jun	-0.222058	0.276633	-0.8027	0.422155	
Jul	-0.783181	0.285409	-2.7441	0.006078	**
Aug	-0.544381	0.294106	-1.8510	0.064202	.
Sep	-0.199536	0.298375	-0.6687	0.503675	
Oct	0.299790	0.381597	0.7856	0.432108	
Nov	0.396984	0.348256	1.1399	0.254344	
Dec	0.633973	0.338902	1.8707	0.061418	.

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.2.6 Outflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.798478	0.365573	7.6551	2.096e-14	***
LOWPERF	-2.827632	0.851288	-3.3216	0.000898	***
MIDPERF	0.689904	0.197962	3.4850	0.000494	***
HIGHPERF	-1.110326	0.766008	-1.4495	0.147228	
Flowtocateg	-0.205264	0.064292	-3.1927	0.001414	**
Lnassets	0.043382	0.016663	2.6035	0.009241	**
Intermediate	0.217021	0.133025	1.6314	0.102827	
Established	-0.826931	0.125683	-6.5795	4.937e-11	***
Jan	-0.072406	0.224719	-0.3222	0.747302	
Feb	-0.348991	0.192745	-1.8106	0.070225	.
Apr	-0.581825	0.201417	-2.8887	0.003876	**
May	0.025270	0.253554	0.0997	0.920612	
Jun	-0.377658	0.212699	-1.7755	0.075835	.
Jul	-1.037283	0.219138	-4.7335	2.235e-06	***
Aug	-0.658946	0.227783	-2.8929	0.003825	**
Sep	-0.462696	0.206820	-2.2372	0.025294	*
Oct	0.135302	0.268330	0.5042	0.614105	
Nov	-0.076176	0.226781	-0.3359	0.736953	
Dec	-0.207437	0.231982	-0.8942	0.371238	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3 Table 9

B.3.1 Inflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.4620465	0.5712897	6.0601	1.406e-09	***
outflowpercent	0.2523240	0.0348065	7.2493	4.473e-13	***
LOWPERF	1.9592805	0.9810936	1.9970	0.0458461	*
MIDPERF	1.1314668	0.2993594	3.7796	0.0001579	***
HIGHPERF	8.9492457	1.6690838	5.3618	8.410e-08	***
Inflow.to.categor	0.2529888	0.1430794	1.7682	0.0770604	.
Lnassets	-0.0866054	0.0274057	-3.1601	0.0015813	**
Intermediate	-1.9056224	0.3528549	-5.4006	6.783e-08	***
Established	-2.5141517	0.3480968	-7.2226	5.444e-13	***
Jan	0.1577206	0.3256270	0.4844	0.6281404	
Feb	0.0279302	0.2650153	0.1054	0.9160677	
Apr	0.0528184	0.2241023	0.2357	0.8136787	
May	-0.1540026	0.2719744	-0.5662	0.5712428	
Jun	-0.0626189	0.2473664	-0.2531	0.8001630	
Jul	-0.2792645	0.2404535	-1.1614	0.2455018	
Aug	-0.2277237	0.2502425	-0.9100	0.3628364	
Sep	-0.0072357	0.2627405	-0.0275	0.9780302	
Oct	0.2562551	0.3771378	0.6795	0.4968525	
Nov	0.4188093	0.3376062	1.2405	0.2148077	
Dec	0.7385172	0.3190783	2.3145	0.0206571	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3.2 Outflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.130469	0.374796	3.0162	0.002565	**
inflowpercent	0.109615	0.014005	7.8270	5.462e-15	***
LOWPERF	-1.707090	0.713945	-2.3911	0.016817	*
MIDPERF	0.558192	0.167876	3.3250	0.000887	***
HIGHPERF	0.905946	0.932195	0.9718	0.331151	
Outflow.from.categ	0.442148	0.103759	4.2613	2.050e-05	***
Lnassets	0.033402	0.016265	2.0537	0.040033	*
Intermediate	0.468741	0.122212	3.8355	0.000126	***
Established	-0.360762	0.119629	-3.0157	0.002570	**
Jan	-0.202637	0.161449	-1.2551	0.209465	
Feb	-0.210207	0.147930	-1.4210	0.155347	
Apr	-0.335850	0.183628	-1.8290	0.067433	.
May	0.150259	0.184502	0.8144	0.415430	
Jun	-0.176146	0.154432	-1.1406	0.254060	
Jul	-0.518287	0.181010	-2.8633	0.004200	**
Aug	-0.289348	0.153754	-1.8819	0.059877	.
Sep	-0.261802	0.163945	-1.5969	0.110320	
Oct	0.097634	0.179509	0.5439	0.586522	
Nov	-0.083859	0.142411	-0.5889	0.555969	
Dec	-0.186424	0.140904	-1.3231	0.185845	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3.3 Inflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.34657588	0.59074475	5.6650	1.508e-08	***
outflowpercent	0.26419990	0.03456003	7.6447	2.272e-14	***
LOWPERF	1.63505747	0.82996732	1.9700	0.048861	*
MIDPERF	1.23564721	0.25476223	4.8502	1.251e-06	***
HIGHPERF	8.16127678	1.63696039	4.9856	6.272e-07	***
Inflow.to.categor	0.25296564	0.14271862	1.7725	0.076343	.
Lnassets	-0.08135737	0.02777526	-2.9291	0.003406	**
Intermediate	-1.80184922	0.36079933	-4.9940	6.005e-07	***
Established	-2.45225615	0.36333922	-6.7492	1.562e-11	***
Jan	0.16109457	0.32624865	0.4938	0.621473	
Feb	0.03453427	0.26524343	0.1302	0.896412	
Apr	0.06111016	0.22401741	0.2728	0.785018	
May	-0.15333124	0.27248775	-0.5627	0.573645	
Jun	-0.05755373	0.24697365	-0.2330	0.815738	
Jul	-0.26419236	0.24020722	-1.0999	0.271421	
Aug	-0.21782467	0.24986874	-0.8718	0.383361	
Sep	0.00011812	0.26249836	0.0004	0.999641	
Oct	0.26070577	0.37764965	0.6903	0.489997	
Nov	0.42229057	0.33753705	1.2511	0.210927	
Dec	0.74437272	0.31914254	2.3324	0.019697	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3.4 Outflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.221184	0.390483	3.1274	0.0017685	**
inflowpercent	0.114842	0.014117	8.1349	4.574e-16	***
LOWPERF	-2.252642	0.756532	-2.9776	0.0029117	**
MIDPERF	0.502004	0.172679	2.9071	0.0036548	**
HIGHPERF	-1.093872	0.753104	-1.4525	0.1463955	
Outflow.from.categ	0.440443	0.103540	4.2539	2.119e-05	***
Lnassets	0.043182	0.015935	2.7099	0.0067410	**
Intermediate	0.424830	0.124694	3.4070	0.0006593	***
Established	-0.430997	0.118286	-3.6437	0.0002700	***
Jan	-0.202749	0.161081	-1.2587	0.2081749	
Feb	-0.210507	0.148261	-1.4198	0.1556824	
Apr	-0.334898	0.183401	-1.8260	0.0678717	.
May	0.151555	0.184464	0.8216	0.4113269	
Jun	-0.174753	0.153580	-1.1379	0.2552031	
Jul	-0.515629	0.180335	-2.8593	0.0042541	**
Aug	-0.287289	0.153221	-1.8750	0.0608187	.
Sep	-0.260307	0.163496	-1.5921	0.1113832	
Oct	0.096554	0.178718	0.5403	0.5890286	
Nov	-0.085254	0.141714	-0.6016	0.5474602	
Dec	-0.189543	0.140373	-1.3503	0.1769517	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3.5 Inflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.5572747	0.6021504	5.9076	3.575e-09	***
outflowpercent	0.2688430	0.0348462	7.7151	1.315e-14	***
LOWPERF	0.3476733	0.9045490	0.3844	0.7007185	
MIDPERF	1.1201890	0.3155210	3.5503	0.0003864	***
HIGHPERF	6.9170115	1.5825989	4.3707	1.250e-05	***
Inflow.to.categor	0.2532823	0.1426640	1.7754	0.0758638	.
Lnassets	-0.0646878	0.0268338	-2.4107	0.0159393	*
Intermediate	-1.9838993	0.3715511	-5.3395	9.508e-08	***
Established	-2.5933472	0.3658264	-7.0890	1.435e-12	***
Jan	0.1593978	0.3262541	0.4886	0.6251564	
Feb	0.0343996	0.2655506	0.1295	0.8969322	
Apr	0.0627178	0.2240687	0.2799	0.7795563	
May	-0.1549830	0.2724199	-0.5689	0.5694275	
Jun	-0.0568560	0.2466277	-0.2305	0.8176813	
Jul	-0.2601485	0.2391982	-1.0876	0.2768023	
Aug	-0.2166913	0.2492188	-0.8695	0.3846026	
Sep	0.0015127	0.2614849	0.0058	0.9953845	
Oct	0.2572535	0.3772217	0.6820	0.4952731	
Nov	0.4214927	0.3374340	1.2491	0.2116512	
Dec	0.7444216	0.3187080	2.3357	0.0195225	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

B.3.6 Outflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.309207	0.379169	3.4528	0.0005569	***
inflowpercent	0.115786	0.014200	8.1539	3.911e-16	***
LOWPERF	-2.807559	0.807577	-3.4765	0.0005100	***
MIDPERF	0.539232	0.186070	2.8980	0.0037630	**
HIGHPERF	-1.813764	0.680779	-2.6642	0.0077274	**
Outflow.from.categ	0.440277	0.103599	4.2498	2.157e-05	***
Lnassets	0.046186	0.015481	2.9834	0.0028573	**
Intermediate	0.397186	0.123021	3.2286	0.0012477	**
Established	-0.455424	0.117103	-3.8891	0.0001012	***
Jan	-0.203279	0.161053	-1.2622	0.2069096	
Feb	-0.210913	0.148407	-1.4212	0.1552929	
Apr	-0.335015	0.183385	-1.8268	0.0677524	.
May	0.151434	0.184448	0.8210	0.4116571	
Jun	-0.174778	0.153446	-1.1390	0.2547190	
Jul	-0.515373	0.180248	-2.8592	0.0042546	**
Aug	-0.287277	0.153134	-1.8760	0.0606839	.
Sep	-0.260334	0.163506	-1.5922	0.1113685	
Oct	0.095528	0.178563	0.5350	0.5926733	
Nov	-0.085891	0.141607	-0.6065	0.5441665	
Dec	-0.190475	0.140208	-1.3585	0.1743297	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4 Table 10 Results across time

B.4.1 Set A: Net flow percent

B.4.1.1 Period 1. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.050285	0.662255	3.0959	0.0019735	**
Jan	-0.405743	0.337328	-1.2028	0.2291086	
Feb	-0.248679	0.296178	-0.8396	0.4011610	
Apr	0.067132	0.245003	0.2740	0.7840937	
May	-0.696766	0.225782	-3.0860	0.0020403	**
Jun	-0.291731	0.189642	-1.5383	0.1240361	
Jul	-0.196676	0.184313	-1.0671	0.2859902	
Aug	-0.230982	0.238260	-0.9695	0.3323682	
Sep	-0.260309	0.156107	-1.6675	0.0954790	.
Oct	-0.319552	0.232840	-1.3724	0.1700000	
Nov	-0.085081	0.351190	-0.2423	0.8085853	
Dec	0.115241	0.229666	0.5018	0.6158461	
Flowtocateg	0.946278	0.071651	13.2067	< 2.2e-16	***
LOWPERF	3.811897	1.615928	2.3590	0.0183669	*
MIDPERF	-0.087710	0.473430	-0.1853	0.8530290	
HIGHPERF	11.857234	2.430274	4.8790	1.101e-06	***
Lnassets	-0.100230	0.036124	-2.7746	0.0055487	**
Intermediate	-1.572060	0.442654	-3.5514	0.0003868	***
Established	-1.592831	0.474582	-3.3563	0.0007962	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.2 Period 2. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.514632	0.800031	3.1432	0.0016816	**
Jan	0.598270	0.424106	1.4107	0.1584100	
Feb	0.520553	0.344687	1.5102	0.1310543	
Apr	0.066852	0.247714	0.2699	0.7872678	
May	0.083895	0.261350	0.3210	0.7482189	
Jun	0.103634	0.296830	0.3491	0.7270034	
Jul	0.359143	0.302271	1.1881	0.2348341	
Aug	0.124761	0.346238	0.3603	0.7186137	
Sep	0.552001	0.369882	1.4924	0.1356690	
Oct	0.401006	0.487173	0.8231	0.4104765	
Nov	0.347514	0.357061	0.9733	0.3304721	
Dec	0.752832	0.435425	1.7290	0.0838816	.
Flowtocateg	0.121582	0.086362	1.4078	0.1592480	
LOWPERF	2.209035	1.156161	1.9107	0.0561080	.
MIDPERF	1.476663	0.379046	3.8957	9.925e-05	***
HIGHPERF	6.935396	2.086994	3.3232	0.0008968	***
Lnassets	-0.095030	0.028289	-3.3593	0.0007877	***
Intermediate	-3.083557	0.660611	-4.6677	3.129e-06	***
Established	-2.715116	0.620622	-4.3748	1.241e-05	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.3 Period 3. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.023817	2.431662	1.6548	0.098210	.
Jan	-0.511063	0.934974	-0.5466	0.584741	
Feb	-0.910122	1.002195	-0.9081	0.363975	
Apr	0.565547	1.074601	0.5263	0.598778	
May	-0.410018	1.112594	-0.3685	0.712541	
Jun	-0.592835	0.950878	-0.6235	0.533089	
Jul	-1.231247	0.982578	-1.2531	0.210398	
Aug	-1.577444	0.945209	-1.6689	0.095376	.
Sep	-0.744256	0.983033	-0.7571	0.449124	
Oct	0.105488	0.944754	0.1117	0.911113	
Nov	0.375211	1.176869	0.3188	0.749912	
Dec	-0.117889	1.175952	-0.1002	0.920161	
Flowtocateg	0.253882	0.085434	2.9717	0.003015	**
LOWPERF	3.786600	3.165408	1.1962	0.231815	
MIDPERF	0.201627	1.248217	0.1615	0.871699	
HIGHPERF	-4.836363	4.803724	-1.0068	0.314217	
Lnassets	-0.152939	0.132426	-1.1549	0.248339	
Intermediate	-1.213966	0.550886	-2.2037	0.027719	*
Established	-2.227899	0.561437	-3.9682	7.629e-05	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.4 Period 1. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.783577	0.642254	2.7771	0.005507	**
Jan	-0.404076	0.336716	-1.2001	0.230180	
Feb	-0.245667	0.296425	-0.8288	0.407279	
Apr	0.068105	0.245455	0.2775	0.781437	
May	-0.695580	0.225302	-3.0873	0.002031	**
Jun	-0.291122	0.190432	-1.5287	0.126394	
Jul	-0.195680	0.184995	-1.0578	0.290222	
Aug	-0.229461	0.238583	-0.9618	0.336216	
Sep	-0.260321	0.157075	-1.6573	0.097525	.
Oct	-0.316655	0.232966	-1.3592	0.174136	
Nov	-0.084118	0.349703	-0.2405	0.809921	
Dec	0.116069	0.231197	0.5020	0.615666	
Flowtcateg	0.946106	0.070783	13.3663	< 2.2e-16	***
LOWPERF	3.824431	1.261666	3.0313	0.002449	**
MIDPERF	0.252979	0.454857	0.5562	0.578119	
HIGHPERF	12.395829	2.440517	5.0792	3.936e-07	***
Lnassets	-0.097212	0.035328	-2.7517	0.005952	**
Intermediate	-1.445774	0.432340	-3.3441	0.000832	***
Established	-1.467876	0.469338	-3.1275	0.001773	**

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.5 Period 2. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.325646	0.869316	2.6753	0.007493	**
Jan	0.602028	0.424429	1.4184	0.156127	
Feb	0.524064	0.344171	1.5227	0.127904	
Apr	0.071004	0.248020	0.2863	0.774674	
May	0.087897	0.261461	0.3362	0.736752	
Jun	0.107315	0.296501	0.3619	0.717416	
Jul	0.363426	0.302966	1.1996	0.230370	
Aug	0.128117	0.346783	0.3694	0.711814	
Sep	0.556719	0.369963	1.5048	0.132442	
Oct	0.408968	0.487884	0.8382	0.401933	
Nov	0.350872	0.357810	0.9806	0.326836	
Dec	0.757235	0.435917	1.7371	0.082433	.
Flowtcateg	0.121781	0.086205	1.4127	0.157812	
LOWPERF	3.542217	1.349896	2.6241	0.008717	**
MIDPERF	1.039549	0.363156	2.8625	0.004221	**
HIGHPERF	8.033094	1.366250	5.8797	4.393e-09	***
Lnassets	-0.090608	0.031446	-2.8813	0.003978	**
Intermediate	-2.942367	0.667812	-4.4060	1.076e-05	***
Established	-2.730716	0.644051	-4.2399	2.279e-05	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.6 Period 3. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.704036	2.578012	1.8247	0.068275	.
Jan	-0.512956	0.935759	-0.5482	0.583667	
Feb	-0.913079	1.000279	-0.9128	0.361501	
Apr	0.558623	1.068323	0.5229	0.601133	
May	-0.413405	1.107589	-0.3732	0.709024	
Jun	-0.598893	0.947552	-0.6320	0.527468	
Jul	-1.238043	0.979715	-1.2637	0.206568	
Aug	-1.583441	0.944646	-1.6762	0.093929	.
Sep	-0.751123	0.979775	-0.7666	0.443439	
Oct	0.102413	0.941401	0.1088	0.913387	
Nov	0.368933	1.172903	0.3145	0.753155	
Dec	-0.120746	1.172316	-0.1030	0.917980	
Flowtcateg	0.253082	0.085248	2.9688	0.003043	**
LOWPERF	0.285436	3.842963	0.0743	0.940803	
MIDPERF	1.674858	1.485288	1.1276	0.259679	
HIGHPERF	-5.285276	3.718953	-1.4212	0.155501	
Lnassets	-0.184975	0.128752	-1.4367	0.151045	
Intermediate	-1.250231	0.659375	-1.8961	0.058166	.
Established	-2.327292	0.716706	-3.2472	0.001195	**

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.7 Period 1. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.963403	0.689905	2.8459	0.0044476	**
Jan	-0.405245	0.338489	-1.1972	0.2312820	
Feb	-0.249265	0.296561	-0.8405	0.4006616	
Apr	0.068787	0.246065	0.2795	0.7798351	
May	-0.694978	0.225639	-3.0801	0.0020815	**
Jun	-0.291201	0.190462	-1.5289	0.1263513	
Jul	-0.196389	0.184022	-1.0672	0.2859343	
Aug	-0.230869	0.238764	-0.9669	0.3336265	
Sep	-0.257193	0.155468	-1.6543	0.0981290	.
Oct	-0.313993	0.233003	-1.3476	0.1778533	
Nov	-0.082597	0.350512	-0.2356	0.8137160	
Dec	0.117391	0.230130	0.5101	0.6099989	
Flowtcateg	0.948714	0.071574	13.2551	< 2.2e-16	***
LOWPERF	2.881348	1.429991	2.0149	0.0439672	*
MIDPERF	-0.029045	0.482245	-0.0602	0.9519758	
HIGHPERF	10.696087	2.119638	5.0462	4.676e-07	***
Lnassets	-0.069700	0.033727	-2.0666	0.0388271	*
Intermediate	-1.696809	0.456249	-3.7190	0.0002023	***
Established	-1.710285	0.489313	-3.4953	0.0004779	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.8 Period 2. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.384858	0.881848	2.7044	0.006867	**
Jan	0.599871	0.423647	1.4160	0.156850	
Feb	0.522134	0.344497	1.5156	0.129677	
Apr	0.068943	0.248356	0.2776	0.781332	
May	0.085453	0.261167	0.3272	0.743535	
Jun	0.104536	0.296999	0.3520	0.724874	
Jul	0.360690	0.302562	1.1921	0.233274	
Aug	0.124823	0.345964	0.3608	0.718268	
Sep	0.553324	0.368395	1.5020	0.133168	
Oct	0.402440	0.486726	0.8268	0.408375	
Nov	0.347238	0.356568	0.9738	0.330188	
Dec	0.753180	0.434670	1.7328	0.083203	.
Flowtcateg	0.122012	0.086269	1.4143	0.157331	
LOWPERF	1.830592	1.532815	1.1943	0.232433	
MIDPERF	1.142745	0.460868	2.4796	0.013189	*
HIGHPERF	6.969892	1.634985	4.2630	2.056e-05	***
Lnassets	-0.066649	0.027586	-2.4160	0.015729	*
Intermediate	-3.009514	0.684738	-4.3951	1.131e-05	***
Established	-2.794258	0.655480	-4.2629	2.057e-05	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.1.9 Period 3. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	4.195231	2.196358	1.9101	0.056338	.
Jan	-0.513425	0.936374	-0.5483	0.583570	
Feb	-0.920262	1.001331	-0.9190	0.358243	
Apr	0.544940	1.061441	0.5134	0.607759	
May	-0.427176	1.106463	-0.3861	0.699504	
Jun	-0.614136	0.949615	-0.6467	0.517924	
Jul	-1.254811	0.982388	-1.2773	0.201717	
Aug	-1.591281	0.946582	-1.6811	0.092982	.
Sep	-0.761951	0.981490	-0.7763	0.437698	
Oct	0.092625	0.941519	0.0984	0.921647	
Nov	0.360541	1.172376	0.3075	0.758488	
Dec	-0.126113	1.172991	-0.1075	0.914398	
Flowtcateg	0.254138	0.084503	3.0075	0.002684	**
LOWPERF	4.372735	1.913606	2.2851	0.022465	*
MIDPERF	1.333710	0.737503	1.8084	0.070768	.
HIGHPERF	-1.168911	3.700124	-0.3159	0.752119	
Lnassets	-0.236320	0.111937	-2.1112	0.034942	*
Intermediate	-0.830686	0.688834	-1.2059	0.228059	
Established	-1.820955	0.728571	-2.4993	0.012562	*

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.4.2 Set B: Inflow percent

B.4.2.1 Period 1. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.674248	0.826787	2.0250	0.0429228	*						
outflowpercent	0.310836	0.055166	5.6346	1.856e-08	***						
Jan	-0.368129	0.310827	-1.1844	0.2363323							
Feb	-0.156801	0.333562	-0.4701	0.6383178							
Apr	0.081984	0.269449	0.3043	0.7609388							
May	-0.622601	0.332244	-1.8739	0.0610018	.						
Jun	-0.070299	0.255731	-0.2749	0.7834091							
Jul	-0.011767	0.261523	-0.0450	0.9641147							
Aug	-0.164871	0.282552	-0.5835	0.5595809							
Sep	-0.094328	0.236832	-0.3983	0.6904326							
Oct	-0.262330	0.303297	-0.8649	0.3871223							
Nov	0.041335	0.363635	0.1137	0.9095024							
Dec	0.316249	0.317809	0.9951	0.3197428							
Inflow.to.categor	0.976176	0.150902	6.4689	1.086e-10	***						
LOWPERF	2.139269	1.827151	1.1708	0.2417291							
MIDPERF	0.802021	0.496845	1.6142	0.1065445							
HIGHPERF	14.996779	2.806074	5.3444	9.497e-08	***						
Lnassets	-0.101265	0.042746	-2.3690	0.0178764	*						
Intermediate	-1.497218	0.422600	-3.5429	0.0003996	***						
Established	-1.796687	0.456568	-3.9352	8.432e-05	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.2 Period 2. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	4.326788	0.714479	6.0559	1.504e-09	***						
outflowpercent	0.184477	0.051410	3.5884	0.0003361	***						
Jan	0.560899	0.368107	1.5237	0.1276402							
Feb	0.317605	0.290916	1.0917	0.2750012							
Apr	-0.064879	0.195599	-0.3317	0.7401355							
May	0.123447	0.211898	0.5826	0.5602050							
Jun	0.056303	0.233178	0.2415	0.8092094							
Jul	-0.244187	0.246278	-0.9915	0.3214883							
Aug	-0.105516	0.257894	-0.4091	0.6824513							
Sep	0.448620	0.327618	1.3693	0.1709580							
Oct	0.581179	0.410843	1.4146	0.1572515							
Nov	0.567071	0.279382	2.0297	0.0424398	*						
Dec	0.735510	0.387756	1.8968	0.0579100	.						
Inflow.to.categor	0.084775	0.076760	1.1044	0.2694693							
LOWPERF	0.536433	0.874715	0.6133	0.5397300							
MIDPERF	1.849812	0.372416	4.9671	7.036e-07	***						
HIGHPERF	5.574596	1.883150	2.9603	0.0030891	**						
Lnassets	-0.076001	0.029189	-2.6038	0.0092487	**						
Intermediate	-2.882745	0.650969	-4.4284	9.707e-06	***						
Established	-3.258118	0.617020	-5.2804	1.347e-07	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.3 Period 3. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	5.030455	2.529853	1.9884	0.0469685	*						
outflowpercent	0.202235	0.043768	4.6206	4.198e-06	***						
Jan	-0.998258	0.725831	-1.3753	0.1692609							
Feb	-1.201614	0.666231	-1.8036	0.0715208	.						
Apr	-0.175201	0.632930	-0.2768	0.7819697							
May	-0.846806	0.711173	-1.1907	0.2339774							
Jun	-0.957611	0.761487	-1.2576	0.2087749							
Jul	-1.261506	0.793038	-1.5907	0.1119092							
Aug	-1.550189	0.717545	-2.1604	0.0309197	*						
Sep	-0.893306	0.737512	-1.2112	0.2260180							
Oct	0.596804	0.879748	0.6784	0.4976488							
Nov	0.190761	1.058483	0.1802	0.8570063							
Dec	-0.229882	0.821927	-0.2797	0.7797612							
Inflow.to.categor	0.439816	0.132555	3.3180	0.0009312	***						
LOWPERF	5.514097	2.296658	2.4009	0.0164908	*						
MIDPERF	-0.083835	0.975621	-0.0859	0.9315353							
HIGHPERF	1.929022	3.890901	0.4958	0.6201332							
Lnassets	-0.175205	0.146767	-1.1938	0.2327818							
Intermediate	-0.382189	0.574868	-0.6648	0.5062754							
Established	-2.327955	0.722405	-3.2225	0.0013016	**						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.4 Period 1. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.3433495	0.8143723	1.6496	0.0991008	.						
outflowpercent	0.3236315	0.0538924	6.0051	2.054e-09	***						
Jan	-0.3683909	0.3140702	-1.1730	0.2408719							
Feb	-0.1483806	0.3355872	-0.4422	0.6583993							
Apr	0.0920727	0.2689168	0.3424	0.7320776							
May	-0.6271705	0.3355124	-1.8693	0.0616439	.						
Jun	-0.0627535	0.2553529	-0.2458	0.8058849							
Jul	0.0078756	0.2595874	0.0303	0.9757979							
Aug	-0.1511700	0.2817563	-0.5365	0.5916193							
Sep	-0.0834097	0.2348246	-0.3552	0.7224557							
Oct	-0.2577300	0.3052821	-0.8442	0.3985804							
Nov	0.0479085	0.3632511	0.1319	0.8950783							
Dec	0.3218778	0.3195458	1.0073	0.3138431							
Inflow.to.categor	0.9791873	0.1501905	6.5196	7.782e-11	***						
LOWPERF	2.0793090	1.3905734	1.4953	0.1349056							
MIDPERF	1.0617702	0.4119439	2.5775	0.0099828	**						
HIGHPERF	14.1601660	2.8043856	5.0493	4.601e-07	***						
Lnassets	-0.0871810	0.0414885	-2.1013	0.0356649	*						
Intermediate	-1.4064879	0.4333568	-3.2456	0.0011803	**						
Established	-1.7234750	0.4667911	-3.6922	0.0002248	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.5 Period 2. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	4.224299	0.747110	5.6542	1.658e-08	***						
outflowpercent	0.193486	0.051249	3.7754	0.0001617	***						
Jan	0.562534	0.368585	1.5262	0.1270271							
Feb	0.321927	0.291057	1.1061	0.2687557							
Apr	-0.060955	0.195971	-0.3110	0.7557828							
May	0.125127	0.211856	0.5906	0.5548009							
Jun	0.058217	0.233660	0.2492	0.8032554							
Jul	-0.234482	0.248038	-0.9454	0.3445283							
Aug	-0.101576	0.258889	-0.3924	0.6948139							
Sep	0.451952	0.327448	1.3802	0.1675822							
Oct	0.583780	0.411749	1.4178	0.1563130							
Nov	0.565190	0.279778	2.0201	0.0434256	*						
Dec	0.737701	0.388731	1.8977	0.0577943	.						
Inflow.to.categor	0.084987	0.076504	1.1109	0.2666726							
LOWPERF	1.568712	0.952159	1.6475	0.0995149	.						
MIDPERF	1.169200	0.281987	4.1463	3.438e-05	***						
HIGHPERF	6.665353	1.393750	4.7823	1.785e-06	***						
Lnassets	-0.069600	0.031876	-2.1834	0.0290532	*						
Intermediate	-2.745891	0.651256	-4.2163	2.530e-05	***						
Established	-3.273569	0.638548	-5.1266	3.068e-07	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.6 Period 3. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	5.803781	2.674319	2.1702	0.030169	*						
outflowpercent	0.207134	0.048249	4.2930	1.891e-05	***						
Jan	-0.998317	0.726448	-1.3742	0.169598							
Feb	-1.200288	0.665036	-1.8048	0.071326	.						
Apr	-0.171004	0.627730	-0.2724	0.785344							
May	-0.842195	0.706704	-1.1917	0.233583							
Jun	-0.954515	0.756626	-1.2615	0.207336							
Jul	-1.259341	0.789290	-1.5955	0.110831							
Aug	-1.551701	0.716605	-2.1654	0.030538	*						
Sep	-0.893358	0.734691	-1.2160	0.224215							
Oct	0.595642	0.876222	0.6798	0.496760							
Nov	0.190151	1.056536	0.1800	0.857199							
Dec	-0.229737	0.822057	-0.2795	0.779931							
Inflow.to.categor	0.437848	0.132984	3.2925	0.001019	**						
LOWPERF	-0.431079	2.821187	-0.1528	0.878579							
MIDPERF	2.144867	1.183027	1.8130	0.070052	.						
HIGHPERF	-5.841514	3.963118	-1.4740	0.140727							
Lnassets	-0.174853	0.145680	-1.2003	0.230255							
Intermediate	-0.571224	0.653768	-0.8737	0.382418							
Established	-2.579566	0.898239	-2.8718	0.004146	**						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.7 Period 1. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.592550	0.847060	1.8801	0.0601570	.						
outflowpercent	0.338034	0.054852	6.1627	7.745e-10	***						
Jan	-0.369506	0.321415	-1.1496	0.2503581							
Feb	-0.144603	0.339363	-0.4261	0.6700529							
Apr	0.102972	0.270622	0.3805	0.7035901							
May	-0.633453	0.339535	-1.8656	0.0621523	.						
Jun	-0.054100	0.256077	-0.2113	0.8326894							
Jul	0.028451	0.257870	0.1103	0.9121518							
Aug	-0.138030	0.282590	-0.4884	0.6252558							
Sep	-0.068991	0.237976	-0.2899	0.7719005							
Oct	-0.254087	0.313407	-0.8107	0.4175635							
Nov	0.056813	0.368189	0.1543	0.8773771							
Dec	0.332547	0.321713	1.0337	0.3013405							
Inflow.to.categor	0.979122	0.152707	6.4118	1.578e-10	***						
LOWPERF	1.356371	1.434435	0.9456	0.3444115							
MIDPERF	0.531307	0.475611	1.1171	0.2640070							
HIGHPERF	11.985373	2.570469	4.6627	3.206e-06	***						
Lnassets	-0.060556	0.037251	-1.6256	0.1040989							
Intermediate	-1.726112	0.460348	-3.7496	0.0001792	***						
Established	-2.025398	0.478179	-4.2356	2.322e-05	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.8 Period 2. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	4.445458	0.773627	5.7463	9.694e-09	***						
outflowpercent	0.189105	0.050839	3.7197	0.0002018	***						
Jan	0.560996	0.367423	1.5268	0.1268676							
Feb	0.319592	0.290866	1.0988	0.2719282							
Apr	-0.063057	0.195795	-0.3221	0.7474259							
May	0.123625	0.211256	0.5852	0.5584461							
Jun	0.056118	0.233088	0.2408	0.8097517							
Jul	-0.239941	0.245726	-0.9765	0.3288868							
Aug	-0.105122	0.257680	-0.4080	0.6833249							
Sep	0.448599	0.325843	1.3767	0.1686589							
Oct	0.579229	0.410162	1.4122	0.1579576							
Nov	0.563829	0.278513	2.0244	0.0429822	*						
Dec	0.734240	0.387336	1.8956	0.0580720	.						
Inflow.to.categor	0.085226	0.076593	1.1127	0.2658876							
LOWPERF	-1.362791	1.275765	-1.0682	0.2854780							
MIDPERF	1.586845	0.431279	3.6794	0.0002364	***						
HIGHPERF	4.740623	1.333855	3.5541	0.0003830	***						
Lnassets	-0.046956	0.029303	-1.6024	0.1091234							
Intermediate	-2.847989	0.662348	-4.2998	1.744e-05	***						
Established	-3.329888	0.647524	-5.1425	2.820e-07	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.2.9 Period 3. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	5.302795	2.524553	2.1005	0.0358742	*						
outflowpercent	0.210254	0.048231	4.3593	1.406e-05	***						
Jan	-0.999902	0.728989	-1.3716	0.1704109							
Feb	-1.205677	0.666438	-1.8091	0.0706561	.						
Apr	-0.176833	0.625937	-0.2825	0.7775965							
May	-0.850650	0.708407	-1.2008	0.2300455							
Jun	-0.964971	0.757795	-1.2734	0.2031016							
Jul	-1.267507	0.792448	-1.5995	0.1099514							
Aug	-1.554260	0.718944	-2.1619	0.0308068	*						
Sep	-0.898361	0.737009	-1.2189	0.2230881							
Oct	0.585442	0.874341	0.6696	0.5032419							
Nov	0.184881	1.057147	0.1749	0.8611955							
Dec	-0.231063	0.824787	-0.2801	0.7794074							
Inflow.to.categor	0.439262	0.131725	3.3347	0.0008775	***						
LOWPERF	2.660342	1.903998	1.3972	0.1625750							
MIDPERF	1.797112	1.054436	1.7043	0.0885526	.						
HIGHPERF	-3.136865	4.554466	-0.6887	0.4911043							
Lnassets	-0.205633	0.134122	-1.5332	0.1254716							
Intermediate	-0.204351	0.690640	-0.2959	0.7673628							
Established	-2.158551	0.898006	-2.4037	0.0163659	*						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3 Set C: Outflow percent

B.4.3.1 Period 1. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	-0.0986939	0.4241328	-0.2327	0.81601							
inflowpercent	0.1370664	0.0171048	8.0133	1.394e-15	***						
Jan	0.0487901	0.1927423	0.2531	0.80017							
Feb	-0.0467908	0.1368690	-0.3419	0.73247							
Apr	-0.1749527	0.1209256	-1.4468	0.14802							
May	0.2685843	0.1168517	2.2985	0.02158	*						
Jun	0.0826717	0.1165883	0.7091	0.47830							
Jul	-0.1731150	0.1349873	-1.2825	0.19975							
Aug	-0.1756987	0.1083237	-1.6220	0.10487							
Sep	0.0032128	0.0944823	0.0340	0.97288							
Oct	0.0463385	0.1567742	0.2956	0.76757							
Nov	-0.0256422	0.1424575	-0.1800	0.85716							
Dec	-0.0449091	0.1000530	-0.4489	0.65356							
Outflow.from.categ	0.9170958	0.0576474	15.9087	< 2.2e-16	***						
LOWPERF	-2.6038899	1.0226149	-2.5463	0.01092	*						
MIDPERF	1.1438689	0.2297739	4.9782	6.644e-07	***						
HIGHPERF	1.9919777	1.4294519	1.3935	0.16353							
Lnassets	0.0351759	0.0286786	1.2266	0.22005							
Intermediate	0.3359382	0.1743721	1.9266	0.05409	.						
Established	-0.1562273	0.1929181	-0.8098	0.41809							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.2 Period 2. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.456408	0.474069	3.0721	0.002137	**						
inflowpercent	0.087856	0.028604	3.0715	0.002142	**						
Jan	-0.158304	0.169057	-0.9364	0.349118							
Feb	-0.187538	0.163440	-1.1474	0.251258							
Apr	-0.052396	0.181715	-0.2883	0.773099							
May	0.118859	0.211189	0.5628	0.573590							
Jun	-0.010336	0.156596	-0.0660	0.947376							
Jul	-0.542806	0.165537	-3.2791	0.001049	**						
Aug	-0.157480	0.188117	-0.8371	0.402556							
Sep	-0.166047	0.184853	-0.8983	0.369088							
Oct	0.162752	0.221056	0.7362	0.461616							
Nov	0.182651	0.195385	0.9348	0.349927							
Dec	-0.064319	0.206140	-0.3120	0.755041							
Outflow.from.categ	0.279033	0.103710	2.6905	0.007159	**						
LOWPERF	-2.057169	0.968532	-2.1240	0.033721	*						
MIDPERF	0.286725	0.216506	1.3243	0.185458							
HIGHPERF	-2.142237	0.991875	-2.1598	0.030839	*						
Lnassets	0.030803	0.021311	1.4454	0.148420							
Intermediate	0.486176	0.231359	2.1014	0.035659	*						
Established	-0.378195	0.168850	-2.2398	0.025148	*						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.3 Period 3. Performance metric: Raw Returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	2.203067	0.659880	3.3386	0.0008654	***						
inflowpercent	0.073651	0.021988	3.3496	0.0008319	***						
Jan	-0.202970	0.461556	-0.4398	0.6601884							
Feb	-0.131257	0.358016	-0.3666	0.7139583							
Apr	-0.997665	0.362256	-2.7540	0.0059670	**						
May	-0.521392	0.552334	-0.9440	0.3453520							
Jun	-0.375514	0.530766	-0.7075	0.4793830							
Jul	-0.483360	0.375400	-1.2876	0.1981136							
Aug	-0.275071	0.331767	-0.8291	0.4071913							
Sep	-0.366303	0.295029	-1.2416	0.2146091							
Oct	0.562087	0.444103	1.2657	0.2058549							
Nov	-0.209426	0.285311	-0.7340	0.4630617							
Dec	-0.453965	0.421894	-1.0760	0.2821162							
Outflow.from.categ	0.084507	0.040658	2.0785	0.0378567	*						
LOWPERF	1.728571	2.201933	0.7850	0.4325795							
MIDPERF	-0.334657	0.607939	-0.5505	0.5820838							
HIGHPERF	8.240678	2.980088	2.7652	0.0057668	**						
Lnassets	-0.028059	0.049308	-0.5690	0.5694200							
Intermediate	0.988649	0.250553	3.9459	8.367e-05	***						
Established	-0.011543	0.274018	-0.0421	0.9664067							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.4 Period 1. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	-0.1135336	0.4266870	-0.2661	0.7901879							
inflowpercent	0.1436390	0.0169120	8.4933	< 2.2e-16	***						
Jan	0.0480622	0.1927893	0.2493	0.8031404							
Feb	-0.0486298	0.1377130	-0.3531	0.7240110							
Apr	-0.1751745	0.1203578	-1.4554	0.1456116							
May	0.2719243	0.1146286	2.3722	0.0177212	*						
Jun	0.0822344	0.1143370	0.7192	0.4720356							
Jul	-0.1724651	0.1333622	-1.2932	0.1960019							
Aug	-0.1752152	0.1066846	-1.6424	0.1005805							
Sep	0.0059219	0.0936420	0.0632	0.9495784							
Oct	0.0480065	0.1559560	0.3078	0.7582324							
Nov	-0.0266742	0.1411372	-0.1890	0.8501050							
Dec	-0.0505239	0.0986127	-0.5123	0.6084321							
Outflow.from.categ	0.9128003	0.0576505	15.8333	< 2.2e-16	***						
LOWPERF	-2.7611483	0.9586799	-2.8802	0.0039926	**						
MIDPERF	1.0173714	0.2898907	3.5095	0.0004531	***						
HIGHPERF	0.1025618	1.4064514	0.0729	0.9418709							
Lnassets	0.0506323	0.0289129	1.7512	0.0799758	.						
Intermediate	0.2850024	0.1834516	1.5536	0.1203570							
Established	-0.2402619	0.1918138	-1.2526	0.2104206							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.5 Period 2. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.578216	0.508529	3.1035	0.001924	**						
inflowpercent	0.091335	0.028491	3.2057	0.001356	**						
Jan	-0.161948	0.169671	-0.9545	0.339889							
Feb	-0.190256	0.163932	-1.1606	0.245873							
Apr	-0.053753	0.181386	-0.2963	0.766978							
May	0.116711	0.211225	0.5525	0.580603							
Jun	-0.012129	0.156598	-0.0775	0.938265							
Jul	-0.543323	0.165493	-3.2831	0.001034	**						
Aug	-0.158639	0.188426	-0.8419	0.399877							
Sep	-0.169384	0.185323	-0.9140	0.360767							
Oct	0.156285	0.221946	0.7042	0.481369							
Nov	0.178790	0.195972	0.9123	0.361644							
Dec	-0.068745	0.206069	-0.3336	0.738696							
Outflow.from.categ	0.278588	0.103699	2.6865	0.007245	**						
LOWPERF	-2.536055	1.259097	-2.0142	0.044046	*						
MIDPERF	0.049256	0.199946	0.2463	0.805425							
HIGHPERF	-2.283835	0.958848	-2.3819	0.017265	*						
Lnassets	0.033134	0.021883	1.5142	0.130051							
Intermediate	0.480575	0.241782	1.9876	0.046909	*						
Established	-0.371703	0.171186	-2.1713	0.029955	*						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.6 Period 3. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	2.241905	0.604435	3.7091	0.0002166	***						
inflowpercent	0.077097	0.023419	3.2921	0.0010207	**						
Jan	-0.200780	0.466480	-0.4304	0.6669644							
Feb	-0.124232	0.362957	-0.3423	0.7321966							
Apr	-0.987009	0.361206	-2.7325	0.0063682	**						
May	-0.511508	0.554961	-0.9217	0.3568528							
Jun	-0.362296	0.531402	-0.6818	0.4955003							
Jul	-0.466203	0.378008	-1.2333	0.2176763							
Aug	-0.261542	0.339729	-0.7699	0.4415233							
Sep	-0.354564	0.300811	-1.1787	0.2387318							
Oct	0.566804	0.447893	1.2655	0.2059177							
Nov	-0.204405	0.289311	-0.7065	0.4799865							
Dec	-0.448771	0.424130	-1.0581	0.2902044							
Outflow.from.categ	0.085181	0.040434	2.1066	0.0353355	*						
LOWPERF	-0.841406	2.173794	-0.3871	0.6987678							
MIDPERF	0.436640	0.537060	0.8130	0.4163529							
HIGHPERF	-0.340780	2.024175	-0.1684	0.8663295							
Lnassets	0.013163	0.043359	0.3036	0.7614982							
Intermediate	0.812422	0.271946	2.9874	0.0028649	**						
Established	-0.181614	0.301061	-0.6032	0.5464479							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.7 Period 1. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	-0.0212443	0.4135227	-0.0514	0.959030							
inflowpercent	0.1478531	0.0170102	8.6921	< 2.2e-16	***						
Jan	0.0465716	0.1937751	0.2403	0.810078							
Feb	-0.0495530	0.1385288	-0.3577	0.720577							
Apr	-0.1750532	0.1208492	-1.4485	0.147536							
May	0.2729294	0.1144935	2.3838	0.017174	*						
Jun	0.0828119	0.1139725	0.7266	0.467510							
Jul	-0.1704593	0.1333443	-1.2783	0.201192							
Aug	-0.1743713	0.1069949	-1.6297	0.103228							
Sep	0.0077313	0.0941196	0.0821	0.934536							
Oct	0.0461583	0.1566671	0.2946	0.768292							
Nov	-0.0284784	0.1409038	-0.2021	0.839838							
Dec	-0.0554034	0.0989273	-0.5600	0.575478							
Outflow.from.categ	0.9122774	0.0576940	15.8124	< 2.2e-16	***						
LOWPERF	-2.3550346	0.9134554	-2.5782	0.009963	**						
MIDPERF	0.7477230	0.2996521	2.4953	0.012619	*						
HIGHPERF	-0.2570355	1.0571069	-0.2431	0.807900							
Lnassets	0.0468948	0.0268423	1.7470	0.080694	.						
Intermediate	0.2476976	0.1768418	1.4007	0.161377							
Established	-0.2844424	0.1899506	-1.4975	0.134341							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.8 Period 2. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	1.758278	0.493438	3.5633	0.0003698	***						
inflowpercent	0.088272	0.028193	3.1310	0.0017527	**						
Jan	-0.159748	0.169603	-0.9419	0.3462958							
Feb	-0.188691	0.163408	-1.1547	0.2482626							
Apr	-0.053554	0.181508	-0.2951	0.7679680							
May	0.117638	0.211070	0.5573	0.5773214							
Jun	-0.011395	0.156207	-0.0729	0.9418515							
Jul	-0.543897	0.165204	-3.2923	0.0010011	**						
Aug	-0.158290	0.187931	-0.8423	0.3996737							
Sep	-0.167786	0.184553	-0.9091	0.3633192							
Oct	0.159835	0.221256	0.7224	0.4700849							
Nov	0.181434	0.195661	0.9273	0.3538234							
Dec	-0.065994	0.205320	-0.3214	0.7479071							
Outflow.from.categ	0.279030	0.103639	2.6923	0.0071206	**						
LOWPERF	-3.744582	1.351485	-2.7707	0.0056151	**						
MIDPERF	0.397550	0.207977	1.9115	0.0559992	.						
HIGHPERF	-3.129571	0.955964	-3.2737	0.0010690	**						
Lnassets	0.029172	0.021345	1.3667	0.1717806							
Intermediate	0.437999	0.240040	1.8247	0.0681101	.						
Established	-0.364872	0.169197	-2.1565	0.0310955	*						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.4.3.9 Period 3. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	2.290991	0.554214	4.1338	3.792e-05	***						
inflowpercent	0.078268	0.024144	3.2417	0.001218	**						
Jan	-0.200803	0.465792	-0.4311	0.666465							
Feb	-0.120741	0.363987	-0.3317	0.740156							
Apr	-0.980062	0.359394	-2.7270	0.006476	**						
May	-0.505590	0.554693	-0.9115	0.362209							
Jun	-0.355711	0.533641	-0.6666	0.505160							
Jul	-0.456674	0.380416	-1.2005	0.230175							
Aug	-0.254841	0.340909	-0.7475	0.454874							
Sep	-0.347885	0.302144	-1.1514	0.249780							
Oct	0.568842	0.450383	1.2630	0.206804							
Nov	-0.201091	0.290011	-0.6934	0.488186							
Dec	-0.445595	0.423815	-1.0514	0.293271							
Outflow.from.categ	0.085963	0.040941	2.0997	0.035947	*						
LOWPERF	-2.277023	2.822058	-0.8069	0.419888							
MIDPERF	0.437693	0.741703	0.5901	0.555211							
HIGHPERF	-2.158680	1.902958	-1.1344	0.256840							
Lnassets	0.040472	0.041549	0.9741	0.330196							
Intermediate	0.729522	0.254153	2.8704	0.004164	**						
Established	-0.308825	0.239269	-1.2907	0.197033							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.5 Table 11 Results across time with COVID-interactions

B.5.1 Net flow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.965923	0.604264	3.2534	0.001144	**
LOWPERF	2.936222	1.004743	2.9224	0.003481	**
MIDPERF	0.673101	0.315876	2.1309	0.033120	*
HIGHPERF	9.357855	1.620843	5.7735	7.980e-09	***
Flowtocateg	0.344266	0.126951	2.7118	0.006702	**
Lnassets	-0.104588	0.025479	-4.1048	4.075e-05	***
Intermediate	-2.137647	0.353632	-6.0448	1.545e-09	***
Established	-2.022142	0.344483	-5.8701	4.483e-09	***
Jan	0.299595	0.350906	0.8538	0.393247	
Feb	0.210355	0.332128	0.6334	0.526515	
Apr	0.379614	0.294110	1.2907	0.196828	
May	-0.210252	0.310009	-0.6782	0.497651	
Jun	0.144959	0.266874	0.5432	0.587021	
Jul	0.264371	0.310148	0.8524	0.394009	
Aug	0.125279	0.298474	0.4197	0.674689	
Sep	0.272428	0.305652	0.8913	0.372786	
Oct	0.174470	0.393398	0.4435	0.657416	
Nov	0.484229	0.341619	1.4175	0.156379	
Dec	0.850420	0.353580	2.4052	0.016182	*
COVID	0.767286	0.443638	1.7295	0.083742	.
COVIDXLOW	1.418232	3.374002	0.4203	0.674244	
COVIDXMID	-0.531607	1.297875	-0.4096	0.682109	
COVIDXHIGH	-14.876275	4.937673	-3.0128	0.002594	**

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.2 Net flow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.832586	0.625689	2.9289	0.003409	**
LOWPERF	3.551399	0.900209	3.9451	8.027e-05	***
MIDPERF	0.649878	0.291488	2.2295	0.025800	*
HIGHPERF	10.073554	1.427583	7.0564	1.813e-12	***
Flowtocateg	0.344653	0.127007	2.7137	0.006665	**
Lnassets	-0.106885	0.025792	-4.1441	3.438e-05	***
Intermediate	-2.050871	0.361579	-5.6720	1.448e-08	***
Established	-1.987660	0.361437	-5.4993	3.899e-08	***
Jan	0.302929	0.350998	0.8631	0.388128	
Feb	0.212960	0.331995	0.6415	0.521240	
Apr	0.382344	0.294257	1.2994	0.193850	
May	-0.207427	0.310257	-0.6686	0.503786	
Jun	0.147413	0.266855	0.5524	0.580680	
Jul	0.267216	0.310159	0.8615	0.388957	
Aug	0.128450	0.298551	0.4302	0.667026	
Sep	0.275280	0.305836	0.9001	0.368092	
Oct	0.180188	0.393655	0.4577	0.647155	
Nov	0.487311	0.341521	1.4269	0.153642	
Dec	0.853576	0.353599	2.4140	0.015796	*
COVID	1.084676	0.662171	1.6381	0.101438	
COVIDXLOW	-2.519610	4.156732	-0.6062	0.544427	
COVIDXMID	0.742361	1.536705	0.4831	0.629044	
COVIDXHIGH	-15.062870	3.137784	-4.8005	1.604e-06	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.3 Net flow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.019113	0.643836	3.1361	0.0017169	**
LOWPERF	2.307825	1.064165	2.1687	0.0301293	*
MIDPERF	0.543674	0.339293	1.6024	0.1091023	
HIGHPERF	8.873462	1.390884	6.3797	1.846e-10	***
Flowtcateg	0.344776	0.127112	2.7124	0.0066906	**
Lnassets	-0.094299	0.024429	-3.8602	0.0001139	***
Intermediate	-2.129298	0.369448	-5.7635	8.466e-09	***
Established	-2.050895	0.364077	-5.6331	1.814e-08	***
Jan	0.301378	0.351112	0.8584	0.3907165	
Feb	0.211621	0.332311	0.6368	0.5242579	
Apr	0.381548	0.294791	1.2943	0.1955891	
May	-0.208496	0.310453	-0.6716	0.5018617	
Jun	0.146489	0.267205	0.5482	0.5835458	
Jul	0.266125	0.310329	0.8576	0.3911569	
Aug	0.126972	0.298647	0.4252	0.6707300	
Sep	0.274469	0.305729	0.8978	0.3693371	
Oct	0.177453	0.393603	0.4508	0.6521126	
Nov	0.486300	0.341773	1.4229	0.1548013	
Dec	0.852520	0.353666	2.4105	0.0159461	*
COVID	0.342119	0.356557	0.9595	0.3373249	
COVIDXLOW	1.274279	2.353776	0.5414	0.5882594	
COVIDXMID	0.566170	0.867825	0.6524	0.5141563	
COVIDXHIGH	-9.900464	3.832815	-2.5831	0.0098053	**

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.4 Inflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.4789030	0.5754801	6.0452	1.541e-09	***
outflowpercent	0.2502121	0.0347633	7.1976	6.533e-13	***
LOWPERF	1.3629330	1.0317185	1.3210	0.186519	
MIDPERF	1.3254871	0.3037293	4.3640	1.289e-05	***
HIGHPERF	10.1809856	1.7736380	5.7402	9.712e-09	***
Inflow.to.categor	0.2341329	0.1353835	1.7294	0.083765	.
Lnassets	-0.0885627	0.0275023	-3.2202	0.001285	**
Intermediate	-1.9377144	0.3525055	-5.4970	3.951e-08	***
Established	-2.5213995	0.3483408	-7.2383	4.850e-13	***
Jan	0.1742561	0.3160193	0.5514	0.581364	
Feb	0.0088872	0.2607503	0.0341	0.972811	
Apr	0.0253793	0.2128617	0.1192	0.905096	
May	-0.1772589	0.2615588	-0.6777	0.497975	
Jun	-0.0874367	0.2368144	-0.3692	0.711971	
Jul	-0.2847814	0.2320190	-1.2274	0.219697	
Aug	-0.2302645	0.2478692	-0.9290	0.352922	
Sep	-0.0052423	0.2493310	-0.0210	0.983226	
Oct	0.2738650	0.3522834	0.7774	0.436940	
Nov	0.4314241	0.3154434	1.3677	0.171442	
Dec	0.7488508	0.3094602	2.4199	0.015543	*
COVID	0.4822449	0.3143283	1.5342	0.125008	
COVIDXLOW	4.7949853	2.5704919	1.8654	0.062153	.
COVIDXMID	-1.5662647	1.1020811	-1.4212	0.155291	
COVIDXHIGH	-9.7142293	4.2233740	-2.3001	0.021461	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.5 Inflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.3645e+00	5.9071e-01	5.6956	1.261e-08	***						
outflowpercent	2.5948e-01	3.4804e-02	7.4553	9.649e-14	***						
LOWPERF	1.8108e+00	8.4707e-01	2.1377	0.032560	*						
MIDPERF	1.1535e+00	2.3531e-01	4.9023	9.611e-07	***						
HIGHPERF	1.0127e+01	1.6166e+00	6.2642	3.889e-10	***						
Inflow.to.categor	2.3417e-01	1.3495e-01	1.7353	0.082719	.						
Lnassets	-8.3004e-02	2.8101e-02	-2.9538	0.003146	**						
Intermediate	-1.8904e+00	3.6130e-01	-5.2323	1.706e-07	***						
Established	-2.5385e+00	3.6901e-01	-6.8794	6.342e-12	***						
Jan	1.7726e-01	3.1641e-01	0.5602	0.575333							
Feb	1.3888e-02	2.6101e-01	0.0532	0.957567							
Apr	3.2172e-02	2.1263e-01	0.1513	0.879737							
May	-1.7631e-01	2.6200e-01	-0.6729	0.501004							
Jun	-8.3071e-02	2.3624e-01	-0.3516	0.725112							
Jul	-2.7285e-01	2.3171e-01	-1.1776	0.239000							
Aug	-2.2258e-01	2.4758e-01	-0.8990	0.368674							
Sep	8.4691e-04	2.4906e-01	0.0034	0.997287							
Oct	2.7787e-01	3.5271e-01	0.7878	0.430817							
Nov	4.3445e-01	3.1534e-01	1.3777	0.168318							
Dec	7.5393e-01	3.0909e-01	2.4392	0.014735	*						
COVID	1.0414e+00	5.8856e-01	1.7694	0.076853	.						
COVIDXLOW	-1.2730e+00	3.0762e+00	-0.4138	0.679007							
COVIDXMID	6.4149e-01	1.2489e+00	0.5136	0.607526							
COVIDXHIGH	-1.6350e+01	3.4422e+00	-4.7499	2.062e-06	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.5.6 Inflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.5976452	0.5972086	6.0241	1.756e-09	***						
outflowpercent	0.2644105	0.0351592	7.5204	5.893e-14	***						
LOWPERF	0.1349826	0.9887079	0.1365	0.8914094							
MIDPERF	1.0692324	0.3243524	3.2965	0.0009821	***						
HIGHPERF	8.2656236	1.5602441	5.2976	1.196e-07	***						
Inflow.to.categor	0.2346890	0.1350322	1.7380	0.0822352	.						
Lnassets	-0.0661704	0.0264273	-2.5039	0.0122991	*						
Intermediate	-2.0012166	0.3720546	-5.3788	7.653e-08	***						
Established	-2.6295251	0.3688260	-7.1294	1.072e-12	***						
Jan	0.1752815	0.3169188	0.5531	0.5802200							
Feb	0.0139383	0.2616763	0.0533	0.9575215							
Apr	0.0338964	0.2132616	0.1589	0.8737170							
May	-0.1781236	0.2624239	-0.6788	0.4973025							
Jun	-0.0826411	0.2365880	-0.3493	0.7268680							
Jul	-0.2687095	0.2316191	-1.1601	0.2460193							
Aug	-0.2213127	0.2475809	-0.8939	0.3713948							
Sep	0.0019715	0.2488054	0.0079	0.9936779							
Oct	0.2736321	0.3529348	0.7753	0.4381764							
Nov	0.4333441	0.3158303	1.3721	0.1700673							
Dec	0.7537868	0.3092138	2.4378	0.0147948	*						
COVID	0.4318582	0.4102925	1.0526	0.2925654							
COVIDXLOW	1.8138981	2.5476179	0.7120	0.4764815							
COVIDXMID	0.4202076	1.2214632	0.3440	0.7308380							
COVIDXHIGH	-11.1226718	4.4410999	-2.5045	0.0122775	*						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.5.7 Outflow percent. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.201356	0.389988	3.0805	0.0020718	**
inflowpercent	0.110502	0.014227	7.7672	8.745e-15	***
LOWPERF	-2.183515	0.709316	-3.0783	0.0020868	**
MIDPERF	0.700806	0.167370	4.1872	2.847e-05	***
HIGHPERF	-0.080515	0.857851	-0.0939	0.9252245	
Outflow.from.categ	0.442397	0.105045	4.2115	2.558e-05	***
Lnassets	0.033175	0.017208	1.9279	0.0538917	.
Intermediate	0.466936	0.122402	3.8148	0.0001371	***
Established	-0.368063	0.119436	-3.0817	0.0020636	**
Jan	-0.202299	0.160642	-1.2593	0.2079440	
Feb	-0.209166	0.148208	-1.4113	0.1581865	
Apr	-0.334634	0.182856	-1.8300	0.0672708	.
May	0.151474	0.184065	0.8229	0.4105617	
Jun	-0.174931	0.153435	-1.1401	0.2542680	
Jul	-0.516865	0.180722	-2.8600	0.0042445	**
Aug	-0.288230	0.153794	-1.8741	0.0609399	.
Sep	-0.260947	0.163996	-1.5912	0.1115990	
Oct	0.098339	0.179637	0.5474	0.5840925	
Nov	-0.083705	0.142577	-0.5871	0.5571577	
Dec	-0.186345	0.140721	-1.3242	0.1854610	
COVID	-0.520873	0.369271	-1.4105	0.1584080	
COVIDXLOW	3.856557	2.346446	1.6436	0.1002933	
COVIDXMID	-1.173845	0.584144	-2.0095	0.0445075	*
COVIDXHIGH	7.768361	3.172254	2.4488	0.0143472	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.8 Outflow percent. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.249738	0.402748	3.1030	0.0019205	**
inflowpercent	0.114951	0.014382	7.9926	1.455e-15	***
LOWPERF	-2.477913	0.781139	-3.1722	0.0015172	**
MIDPERF	0.527663	0.184216	2.8644	0.0041864	**
HIGHPERF	-1.117949	0.813329	-1.3745	0.1693041	
Outflow.from.categ	0.441303	0.104833	4.2096	2.579e-05	***
Lnassets	0.043532	0.016751	2.5988	0.0093677	**
Intermediate	0.421506	0.125046	3.3708	0.0007521	***
Established	-0.430455	0.119318	-3.6076	0.0003104	***
Jan	-0.203560	0.160351	-1.2695	0.2043043	
Feb	-0.210007	0.148497	-1.4142	0.1573281	
Apr	-0.334387	0.182787	-1.8294	0.0673706	.
May	0.151819	0.184164	0.8244	0.4097484	
Jun	-0.174368	0.152647	-1.1423	0.2533554	
Jul	-0.515183	0.180311	-2.8572	0.0042822	**
Aug	-0.287259	0.153507	-1.8713	0.0613291	.
Sep	-0.260535	0.163798	-1.5906	0.1117312	
Oct	0.096039	0.178980	0.5366	0.5915595	
Nov	-0.085816	0.142033	-0.6042	0.5457249	
Dec	-0.189883	0.140446	-1.3520	0.1764021	
COVID	-0.271545	0.373569	-0.7269	0.4673061	
COVIDXLOW	1.783108	2.506303	0.7114	0.4768210	
COVIDXMID	-0.210854	0.582209	-0.3622	0.7172378	
COVIDXHIGH	0.197364	1.967856	0.1003	0.9201127	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.5.9 Outflow percent. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.298548	0.396822	3.2724	0.0010698	**
inflowpercent	0.115729	0.014397	8.0383	1.006e-15	***
LOWPERF	-2.869416	0.820544	-3.4970	0.0004725	***
MIDPERF	0.568878	0.184618	3.0814	0.0020656	**
HIGHPERF	-1.775153	0.728638	-2.4363	0.0148559	*
Outflow.from.categ	0.441070	0.104870	4.2059	2.622e-05	***
Lnassets	0.047442	0.016180	2.9321	0.0033741	**
Intermediate	0.395159	0.122578	3.2237	0.0012690	**
Established	-0.458990	0.116285	-3.9471	7.959e-05	***
Jan	-0.203921	0.160210	-1.2728	0.2031037	
Feb	-0.210356	0.148526	-1.4163	0.1567181	
Apr	-0.334418	0.182684	-1.8306	0.0671914	.
May	0.151794	0.184078	0.8246	0.4096067	
Jun	-0.174350	0.152418	-1.1439	0.2526920	
Jul	-0.515025	0.180160	-2.8587	0.0042619	**
Aug	-0.287304	0.153362	-1.8734	0.0610446	.
Sep	-0.260499	0.163732	-1.5910	0.1116374	
Oct	0.095245	0.178659	0.5331	0.5939687	
Nov	-0.086267	0.141822	-0.6083	0.5430150	
Dec	-0.190570	0.140256	-1.3587	0.1742608	
COVID	-0.022657	0.425520	-0.0532	0.9575369	
COVIDXLOW	0.487192	3.096930	0.1573	0.8749999	
COVIDXMID	-0.243371	0.769914	-0.3161	0.7519318	
COVIDXHIGH	-0.327528	1.884403	-0.1738	0.8620179	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6 Table 12 Separated global and Norwegian net flow percent

B.6.1 Norwegian. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.572833	0.776131	3.3149	0.0009212	***
Jan	0.691319	0.416592	1.6595	0.0970661	.
Feb	0.438693	0.400557	1.0952	0.2734627	
Apr	0.524279	0.378513	1.3851	0.1660650	
May	-0.118186	0.381645	-0.3097	0.7568172	
Jun	0.529741	0.319336	1.6589	0.0971836	.
Jul	0.406090	0.420607	0.9655	0.3343343	
Aug	0.300984	0.375035	0.8025	0.4222618	
Sep	0.456868	0.424781	1.0755	0.2821700	
Oct	0.532949	0.533117	0.9997	0.3174967	
Nov	0.554290	0.456251	1.2149	0.2244523	
Dec	1.189817	0.504793	2.3570	0.0184479	*
Flowtocateg	0.453254	0.239817	1.8900	0.0587988	.
LOWPERF	2.287250	0.902602	2.5341	0.0112960	*
MIDPERF	0.876695	0.339581	2.5817	0.0098513	**
HIGHPERF	7.703426	1.977040	3.8964	9.850e-05	***
Lnassets	-0.079593	0.025605	-3.1085	0.0018879	**
Intermediate	-3.119765	0.607172	-5.1382	2.847e-07	***
Established	-2.935656	0.594049	-4.9418	7.917e-07	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6.2 Global. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.509176	0.786623	1.9186	0.055119	.
LOWPERF	4.785365	2.296465	2.0838	0.037248	*
MIDPERF	-0.058624	0.559123	-0.1048	0.916501	
HIGHPERF	5.496187	2.151459	2.5546	0.010670	*
Jan	-0.176481	0.473394	-0.3728	0.709320	
Feb	0.157733	0.480908	0.3280	0.742938	
Apr	0.158489	0.399836	0.3964	0.691845	
May	-0.200682	0.449428	-0.4465	0.655242	
Jun	-0.407439	0.402113	-1.0132	0.311010	
Jul	0.061441	0.396404	0.1550	0.876833	
Aug	-0.114063	0.403686	-0.2826	0.777534	
Sep	-0.141513	0.439600	-0.3219	0.747536	
Oct	-0.363340	0.545493	-0.6661	0.505405	
Nov	0.360864	0.566289	0.6372	0.524006	
Dec	0.191761	0.467733	0.4100	0.681845	
Flowtocateg	0.192209	0.083889	2.2912	0.022006	*
Lnassets	-0.103088	0.041710	-2.4716	0.013498	*
intermediate	-1.155478	0.424162	-2.7241	0.006477	**
established	-1.343747	0.424840	-3.1629	0.001575	**

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6.3 Norwegian. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.520713	0.802385	3.1415	0.0016875	**
Jan	0.696685	0.416975	1.6708	0.0948033	.
Feb	0.442870	0.400659	1.1054	0.2690424	
Apr	0.527735	0.378893	1.3928	0.1637136	
May	-0.113540	0.381955	-0.2973	0.7662775	
Jun	0.534076	0.319426	1.6720	0.0945702	.
Jul	0.409864	0.420956	0.9737	0.3302621	
Aug	0.305631	0.375205	0.8146	0.4153453	
Sep	0.460828	0.425094	1.0841	0.2783748	
Oct	0.541408	0.533311	1.0152	0.3100528	
Nov	0.558871	0.456333	1.2247	0.2207281	
Dec	1.194141	0.504945	2.3649	0.0180617	*
Flowtocateg	0.454354	0.240160	1.8919	0.0585465	.
LOWPERF	3.146447	1.036934	3.0344	0.0024190	**
MIDPERF	0.827959	0.363622	2.2770	0.0228170	*
HIGHPERF	7.170741	1.728066	4.1496	3.369e-05	***
Lnassets	-0.090658	0.026258	-3.4525	0.0005585	***
Intermediate	-2.992181	0.637909	-4.6906	2.774e-06	***
Established	-2.883024	0.642983	-4.4838	7.446e-06	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6.4 Global. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.574091	0.814401	1.9328	0.053335	.
LOWPERF	3.034045	1.809129	1.6771	0.093613	.
MIDPERF	0.588930	0.608707	0.9675	0.333354	
HIGHPERF	7.858513	2.128703	3.6917	0.000226	***
Jan	-0.176596	0.473342	-0.3731	0.709108	
Feb	0.159152	0.480873	0.3310	0.740690	
Apr	0.158487	0.399861	0.3964	0.691866	
May	-0.200652	0.449419	-0.4465	0.655284	
Jun	-0.407548	0.401573	-1.0149	0.310231	
Jul	0.060969	0.396165	0.1539	0.877699	
Aug	-0.114561	0.403167	-0.2842	0.776310	
Sep	-0.142938	0.439539	-0.3252	0.745049	
Oct	-0.364066	0.545301	-0.6676	0.504404	
Nov	0.360347	0.566359	0.6363	0.524652	
Dec	0.190871	0.467701	0.4081	0.683221	
Flowtcateg	0.191678	0.083968	2.2828	0.022502	*
Lnassets	-0.108982	0.041872	-2.6028	0.009285	**
intermediate	-1.134245	0.413376	-2.7439	0.006102	**
established	-1.259012	0.410054	-3.0704	0.002154	**

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6.5 Norwegian. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	2.771107	0.877118	3.1593	0.001588	**
Jan	0.694667	0.416978	1.6660	0.095766	.
Feb	0.440421	0.400840	1.0987	0.271915	
Apr	0.526766	0.378927	1.3902	0.164526	
May	-0.115371	0.381793	-0.3022	0.762522	
Jun	0.532595	0.319844	1.6652	0.095922	.
Jul	0.407570	0.421034	0.9680	0.333066	
Aug	0.302428	0.375007	0.8065	0.420005	
Sep	0.459210	0.425219	1.0799	0.280206	
Oct	0.537122	0.532918	1.0079	0.313542	
Nov	0.556512	0.456735	1.2185	0.223091	
Dec	1.192012	0.505040	2.3602	0.018290	*
Flowtcateg	0.454561	0.240348	1.8913	0.058630	.
LOWPERF	2.341864	1.148460	2.0391	0.041473	*
MIDPERF	0.649179	0.371515	1.7474	0.080614	.
HIGHPERF	7.502686	1.580206	4.7479	2.095e-06	***
Lnassets	-0.079882	0.025974	-3.0754	0.002110	**
Intermediate	-3.228014	0.653093	-4.9427	7.882e-07	***
Established	-3.083722	0.655617	-4.7035	2.605e-06	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.6.6 Global. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.533606	0.792182	1.9359	0.052954	.
LOWPERF	2.477972	1.986385	1.2475	0.212302	
MIDPERF	0.452011	0.482731	0.9364	0.349148	
HIGHPERF	6.403876	2.262023	2.8310	0.004665	**
Jan	-0.176010	0.473205	-0.3720	0.709948	
Feb	0.159752	0.481140	0.3320	0.739887	
Apr	0.158893	0.400289	0.3969	0.691431	
May	-0.200588	0.449455	-0.4463	0.655414	
Jun	-0.407709	0.401687	-1.0150	0.310177	
Jul	0.061762	0.395797	0.1560	0.876007	
Aug	-0.114318	0.403168	-0.2835	0.776773	
Sep	-0.141456	0.438596	-0.3225	0.747077	
Oct	-0.362435	0.544859	-0.6652	0.505970	
Nov	0.361880	0.565899	0.6395	0.522551	
Dec	0.192281	0.467653	0.4112	0.680978	
Flowtocateg	0.191333	0.083883	2.2809	0.022609	*
Lnassets	-0.091399	0.040512	-2.2561	0.024122	*
intermediate	-1.147298	0.426436	-2.6904	0.007168	**
established	-1.248074	0.410889	-3.0375	0.002402	**

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.7 Table 13 Separated global and Norwegian inflow percent

B.7.1 Norwegian. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	3.631091	0.699881	5.1882	2.182e-07	***
outflowpercent	0.251037	0.033917	7.4016	1.499e-13	***
Jan	0.390546	0.388827	1.0044	0.31521	
Feb	-0.025532	0.286385	-0.0892	0.92896	
Apr	0.155014	0.235912	0.6571	0.51115	
May	-0.141827	0.298504	-0.4751	0.63471	
Jun	0.168435	0.272528	0.6180	0.53656	
Jul	-0.202411	0.261367	-0.7744	0.43870	
Aug	-0.164686	0.286091	-0.5756	0.56488	
Sep	0.145331	0.302028	0.4812	0.63040	
Oct	0.481534	0.465901	1.0336	0.30138	
Nov	0.393321	0.382453	1.0284	0.30379	
Dec	0.971853	0.392382	2.4768	0.01328	*
Inflow.to.categor	0.285065	0.225411	1.2646	0.20604	
LOWPERF	1.328791	0.887377	1.4974	0.13432	
MIDPERF	1.288667	0.308173	4.1816	2.929e-05	***
HIGHPERF	11.092215	2.062481	5.3781	7.766e-08	***
Lnassets	-0.038283	0.025690	-1.4902	0.13621	
Intermediate	-2.761269	0.626399	-4.4082	1.058e-05	***
Established	-3.342466	0.604457	-5.5297	3.321e-08	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.7.2 Global. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.142895	0.690605	4.5509	5.514e-06	***						
outflowpercent	0.234607	0.071271	3.2918	0.001005	**						
LOWPERF	3.294659	2.172801	1.5163	0.129525							
MIDPERF	0.655368	0.546120	1.2000	0.230200							
HIGHPERF	4.359741	2.193941	1.9872	0.046978	*						
Jan	-0.227048	0.391873	-0.5794	0.562361							
Feb	0.205157	0.385464	0.5322	0.594596							
Apr	-0.104847	0.294760	-0.3557	0.722083							
May	-0.124695	0.369283	-0.3377	0.735632							
Jun	-0.477824	0.325653	-1.4673	0.142385							
Jul	-0.399298	0.357754	-1.1161	0.264443							
Aug	-0.315845	0.371215	-0.8508	0.394913							
Sep	-0.279547	0.378869	-0.7378	0.460656							
Oct	-0.130785	0.540512	-0.2420	0.808821							
Nov	0.489050	0.536195	0.9121	0.361790							
Dec	0.306877	0.393429	0.7800	0.435438							
Inflow.to.categor	0.223570	0.101107	2.2112	0.027081	*						
Lnassets	-0.104481	0.043111	-2.4235	0.015419	*						
intermediate	-1.095022	0.391361	-2.7980	0.005169	**						
established	-1.902359	0.420575	-4.5232	6.283e-06	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.7.3 Norwegian. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.871942	0.739762	5.2340	1.706e-07	***						
outflowpercent	0.271499	0.034355	7.9028	3.136e-15	***						
Jan	0.397790	0.390819	1.0178	0.30879							
Feb	-0.011775	0.288188	-0.0409	0.96741							
Apr	0.170897	0.235591	0.7254	0.46823							
May	-0.139400	0.299550	-0.4654	0.64168							
Jun	0.179489	0.270423	0.6637	0.50688							
Jul	-0.175499	0.259736	-0.6757	0.49926							
Aug	-0.147105	0.284674	-0.5167	0.60535							
Sep	0.160594	0.301470	0.5327	0.59426							
Oct	0.490109	0.468342	1.0465	0.29538							
Nov	0.401535	0.382616	1.0494	0.29401							
Dec	0.985536	0.391304	2.5186	0.01180	*						
Inflow.to.categor	0.285585	0.224374	1.2728	0.20313							
LOWPERF	1.196561	0.950448	1.2589	0.20809							
MIDPERF	1.297740	0.315784	4.1096	4.008e-05	***						
HIGHPERF	8.126705	1.908898	4.2573	2.096e-05	***						
Lnassets	-0.049417	0.027867	-1.7733	0.07622	.						
Intermediate	-2.770839	0.673501	-4.1141	3.931e-05	***						
Established	-3.432464	0.664112	-5.1685	2.424e-07	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.7.4 Global. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.129519	0.717245	4.3633	1.317e-05	***						
outflowpercent	0.237634	0.070973	3.3482	0.0008214	***						
LOWPERF	2.085003	1.544040	1.3504	0.1769853							
MIDPERF	1.106448	0.527946	2.0958	0.0361717	*						
HIGHPERF	6.211083	2.410481	2.5767	0.0100137	*						
Jan	-0.227325	0.391904	-0.5801	0.5619148							
Feb	0.205972	0.385631	0.5341	0.5932930							
Apr	-0.103768	0.294670	-0.3522	0.7247455							
May	-0.125346	0.369333	-0.3394	0.7343382							
Jun	-0.477895	0.325232	-1.4694	0.1418106							
Jul	-0.397491	0.357155	-1.1129	0.2658081							
Aug	-0.315288	0.370317	-0.8514	0.3946026							
Sep	-0.280029	0.378789	-0.7393	0.4597878							
Oct	-0.132292	0.540496	-0.2448	0.8066555							
Nov	0.488104	0.536309	0.9101	0.3628206							
Dec	0.305795	0.393752	0.7766	0.4374343							
Inflow.to.categor	0.223246	0.101533	2.1988	0.0279577	*						
Lnassets	-0.106525	0.043181	-2.4670	0.0136720	*						
intermediate	-1.059704	0.379871	-2.7896	0.0053039	**						
established	-1.817093	0.406469	-4.4704	8.042e-06	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.7.5 Norwegian. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	4.377043	0.814167	5.3761	7.852e-08	***						
outflowpercent	0.281014	0.034296	8.1939	2.971e-16	***						
Jan	0.394774	0.392007	1.0071	0.3139							
Feb	-0.011629	0.289734	-0.0401	0.9680							
Apr	0.174230	0.235688	0.7392	0.4598							
May	-0.143948	0.300143	-0.4796	0.6315							
Jun	0.179592	0.270678	0.6635	0.5070							
Jul	-0.168916	0.258784	-0.6527	0.5140							
Aug	-0.146388	0.283890	-0.5157	0.6061							
Sep	0.162440	0.301187	0.5393	0.5897							
Oct	0.481450	0.469177	1.0262	0.3049							
Nov	0.398736	0.383636	1.0394	0.2987							
Dec	0.985614	0.391304	2.5188	0.0118	*						
Inflow.to.categor	0.286074	0.224455	1.2745	0.2025							
LOWPERF	-0.299831	1.260898	-0.2378	0.8120							
MIDPERF	0.960462	0.391176	2.4553	0.0141	*						
HIGHPERF	7.512297	1.768689	4.2474	2.190e-05	***						
Lnassets	-0.035750	0.026215	-1.3637	0.1727							
Intermediate	-3.148076	0.688371	-4.5732	4.883e-06	***						
Established	-3.762036	0.671128	-5.6055	2.153e-08	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.7.6 Global. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	3.088622	0.706698	4.3705	1.274e-05	***						
outflowpercent	0.231352	0.070643	3.2750	0.001067	**						
LOWPERF	1.136244	1.488288	0.7635	0.445240							
MIDPERF	1.397887	0.465758	3.0013	0.002706	**						
HIGHPERF	4.247936	2.476498	1.7153	0.086375	.						
Jan	-0.227447	0.391070	-0.5816	0.560871							
Feb	0.205735	0.385116	0.5342	0.593225							
Apr	-0.105263	0.294525	-0.3574	0.720814							
May	-0.124433	0.368747	-0.3374	0.735798							
Jun	-0.479055	0.324359	-1.4769	0.139780							
Jul	-0.402508	0.356052	-1.1305	0.258349							
Aug	-0.317896	0.369828	-0.8596	0.390078							
Sep	-0.279754	0.377669	-0.7407	0.458899							
Oct	-0.129979	0.540113	-0.2407	0.809839							
Nov	0.490376	0.536002	0.9149	0.360317							
Dec	0.307272	0.393114	0.7816	0.434478							
Inflow.to.categor	0.223594	0.101830	2.1958	0.028172	*						
Lnassets	-0.092664	0.041455	-2.2353	0.025457	*						
intermediate	-1.068982	0.397260	-2.6909	0.007158	**						
established	-1.790006	0.408107	-4.3861	1.186e-05	***						

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.8 Table 14 Separated global and Norwegian outflow percent

B.8.1 Norwegian. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)							
(Intercept)	-0.010949	0.427762	-0.0256	0.9795795							
inflowpercent	0.137957	0.019915	6.9273	4.663e-12	***						
Jan	-0.379859	0.193409	-1.9640	0.0495666	*						
Feb	-0.347903	0.205620	-1.6920	0.0906955	.						
Apr	-0.202054	0.126999	-1.5910	0.1116561							
May	0.214862	0.165011	1.3021	0.1929218							
Jun	-0.253744	0.197321	-1.2859	0.1985046							
Jul	-0.321497	0.152787	-2.1042	0.0353940	*						
Aug	-0.224862	0.121703	-1.8476	0.0646971	.						
Sep	-0.192040	0.108059	-1.7772	0.0755818	.						
Oct	-0.087891	0.187312	-0.4692	0.6389261							
Nov	-0.168146	0.140932	-1.1931	0.2328691							
Dec	-0.294553	0.132991	-2.2148	0.0268025	*						
Outflow.from.categ	0.713341	0.109981	6.4860	9.400e-11	***						
LOWPERF	-1.418857	0.881236	-1.6101	0.1074255							
MIDPERF	0.357042	0.184143	1.9389	0.0525487	.						
HIGHPERF	2.857332	1.081290	2.6425	0.0082470	**						
Lnassets	0.056971	0.018458	3.0865	0.0020332	**						
Intermediate	0.816073	0.223328	3.6542	0.0002599	***						
Established	-0.042943	0.190974	-0.2249	0.8220936							

Signif. codes:	0	'***'	0.001	'**'	0.01	'*'	0.05	'.'	0.1	' '	1

B.8.2 Global. Performance metric: Raw returns

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.9755556	0.4609590	4.2858	1.868e-05	***
inflowpercent	0.0779621	0.0204042	3.8209	0.0001352	***
LOWPERF	-2.1652351	1.2495471	-1.7328	0.0832125	.
MIDPERF	0.8641396	0.3137227	2.7545	0.0059077	**
HIGHPERF	-1.7965262	1.2570873	-1.4291	0.1530555	
Jan	-0.0074383	0.2653345	-0.0280	0.9776367	
Feb	0.0434920	0.2292022	0.1898	0.8495127	
Apr	-0.3350904	0.2726972	-1.2288	0.2192256	
May	0.1191373	0.2342256	0.5086	0.6110328	
Jun	-0.0700697	0.2646167	-0.2648	0.7911808	
Jul	-0.6136610	0.2241220	-2.7381	0.0062100	**
Aug	-0.2667230	0.2297465	-1.1609	0.2457400	
Sep	-0.1586962	0.2276422	-0.6971	0.4857656	
Oct	0.3113365	0.2297370	1.3552	0.1754416	
Nov	0.1349012	0.2535080	0.5321	0.5946627	
Dec	0.1213782	0.2613637	0.4644	0.6423864	
Outflow.from.categ	0.2050623	0.0739685	2.7723	0.0055945	**
Lnassets	0.0065767	0.0208027	0.3161	0.7519095	
intermediate	0.1674826	0.1996327	0.8390	0.4015500	
established	-0.5730506	0.1602225	-3.5766	0.0003526	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.8.3 Norwegian. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	0.350816	0.435485	0.8056	0.420515	
inflowpercent	0.147466	0.019924	7.4013	1.502e-13	***
Jan	-0.380095	0.192626	-1.9732	0.048507	*
Feb	-0.344920	0.206357	-1.6715	0.094672	.
Apr	-0.200015	0.127143	-1.5731	0.115729	
May	0.218643	0.165531	1.3209	0.186591	
Jun	-0.251619	0.195722	-1.2856	0.198627	
Jul	-0.316378	0.152311	-2.0772	0.037820	*
Aug	-0.220875	0.121814	-1.8132	0.069841	.
Sep	-0.190548	0.107580	-1.7712	0.076566	.
Oct	-0.090231	0.187589	-0.4810	0.630529	
Nov	-0.170123	0.140431	-1.2114	0.225771	
Dec	-0.301864	0.132543	-2.2775	0.022787	*
Outflow.from.categ	0.710561	0.109328	6.4993	8.609e-11	***
LOWPERF	-2.747121	0.960025	-2.8615	0.004229	**
MIDPERF	0.426406	0.207083	2.0591	0.039520	*
HIGHPERF	0.083270	0.869507	0.0958	0.923708	
Lnassets	0.060760	0.018597	3.2672	0.001091	**
Intermediate	0.675576	0.230581	2.9299	0.003402	**
Established	-0.203359	0.190446	-1.0678	0.285644	

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.8.4 Global. Performance metric: Sharpe Ratio

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.8793405	0.4806959	3.9096	9.411e-05	***
inflowpercent	0.0795731	0.0206445	3.8545	0.0001180	***
LOWPERF	-1.3873043	1.0759691	-1.2894	0.1973567	.
MIDPERF	0.5775394	0.2918483	1.9789	0.0479017	*
HIGHPERF	-2.6125713	0.9826974	-2.6586	0.0078814	**
Jan	-0.0072625	0.2652309	-0.0274	0.9781566	.
Feb	0.0423494	0.2293587	0.1846	0.8535196	.
Apr	-0.3347310	0.2727392	-1.2273	0.2197912	.
May	0.1189390	0.2342947	0.5076	0.6117314	.
Jun	-0.0696870	0.2642896	-0.2637	0.7920439	.
Jul	-0.6126870	0.2239299	-2.7361	0.0062478	**
Aug	-0.2660448	0.2295013	-1.1592	0.2464378	.
Sep	-0.1575492	0.2274135	-0.6928	0.4884868	.
Oct	0.3116048	0.2293816	1.3585	0.1744026	.
Nov	0.1342626	0.2532762	0.5301	0.5960724	.
Dec	0.1211715	0.2611309	0.4640	0.6426568	.
Outflow.from.categ	0.2047452	0.0739597	2.7683	0.0056627	**
Lnassets	0.0118668	0.0217731	0.5450	0.5857704	.
intermediate	0.1847965	0.1991752	0.9278	0.3535677	.
established	-0.5785158	0.1595229	-3.6265	0.0002912	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.8.5 Norwegian. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	0.628445	0.444389	1.4142	0.1573530	.
inflowpercent	0.150806	0.019877	7.5868	3.693e-14	***
Jan	-0.381944	0.192380	-1.9854	0.0471423	*
Feb	-0.346104	0.206593	-1.6753	0.0939198	.
Apr	-0.201152	0.127257	-1.5807	0.1139967	.
May	0.218048	0.165806	1.3151	0.1885250	.
Jun	-0.252714	0.195073	-1.2955	0.1951950	.
Jul	-0.316992	0.151836	-2.0877	0.0368584	*
Aug	-0.222016	0.121958	-1.8204	0.0687361	.
Sep	-0.191972	0.107384	-1.7877	0.0738647	.
Oct	-0.095087	0.188014	-0.5057	0.6130530	.
Nov	-0.172856	0.140037	-1.2344	0.2171095	.
Dec	-0.306442	0.132780	-2.3079	0.0210333	*
Outflow.from.categ	0.709273	0.109080	6.5023	8.439e-11	***
LOWPERF	-3.473593	1.036083	-3.3526	0.0008047	***
MIDPERF	0.266448	0.206161	1.2924	0.1962504	.
HIGHPERF	-1.091028	0.748553	-1.4575	0.1450178	.
Lnassets	0.063643	0.018208	3.4953	0.0004764	***
Intermediate	0.557251	0.230744	2.4150	0.0157592	*
Established	-0.324319	0.192360	-1.6860	0.0918394	.

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

B.8.6 Global. Performance metric: Jensen's alpha

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	1.8711920	0.4616413	4.0533	5.154e-05	***
inflowpercent	0.0769586	0.0205908	3.7375	0.0001887	***
LOWPERF	-1.7946770	1.1811733	-1.5194	0.1287476	
MIDPERF	1.0992299	0.3006760	3.6559	0.0002599	***
HIGHPERF	-3.0815066	1.0902919	-2.8263	0.0047342	**
Jan	-0.0077113	0.2652587	-0.0291	0.9768096	
Feb	0.0438543	0.2291293	0.1914	0.8482264	
Apr	-0.3356263	0.2729016	-1.2298	0.2188345	
May	0.1185751	0.2342591	0.5062	0.6127672	
Jun	-0.0710061	0.2646768	-0.2683	0.7885030	
Jul	-0.6144427	0.2243410	-2.7389	0.0061947	**
Aug	-0.2674046	0.2298444	-1.1634	0.2447366	
Sep	-0.1594434	0.2277992	-0.6999	0.4840157	
Oct	0.3109222	0.2300887	1.3513	0.1766782	
Nov	0.1348401	0.2535047	0.5319	0.5948248	
Dec	0.1213485	0.2613956	0.4642	0.6425082	
Outflow.from.categ	0.2054143	0.0740423	2.7743	0.0055603	**
Lnassets	0.0057514	0.0225177	0.2554	0.7984161	
intermediate	0.1870082	0.2012794	0.9291	0.3528996	
established	-0.5594010	0.1583724	-3.5322	0.0004172	***

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Appendix C – Variance Inflation Factor (VIF) results

C.1 Tables 7 & 8

Tables 7 and 8 have the same independent variables and therefore the same VIF-results.

C.1.1 Performance metric: Raw Returns

LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Established	Jan	Feb
1.498345	2.071150	1.528147	1.018279	1.095367	2.504825	2.684796	1.790881	1.830468
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.844272	1.844416	1.835306	1.800772	1.804570	1.789869	1.771722	1.797383	1.796754

C.1.2 Performance metric: Sharpe Ratio

LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Established	Jan	Feb
1.495116	2.071492	1.543190	1.018278	1.092866	2.537337	2.731503	1.790885	1.830472
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.844274	1.844418	1.835306	1.800775	1.804575	1.789869	1.771734	1.797386	1.796757

C.1.3 Performance metric: Jensen's alpha

LOWPERF	MIDPERF	HIGHPERF	Flowtocateg	Lnassets	Intermediate	Established	Jan	Feb
1.505036	2.072940	1.525401	1.018308	1.086558	2.509231	2.680446	1.790878	1.830465
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.844265	1.844409	1.835297	1.800767	1.804567	1.789860	1.771699	1.797377	1.796748

C.2 Table 9

C.2.1 Inflow percent. Performance metric: Raw returns

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Inflow.to.categ	Lnassets	Intermediate
1.048449	1.499217	2.074902	1.529409	1.059958	1.095252	2.506829
Established	Jan	Feb	Apr	May	Jun	Jul
2.697628	1.789888	1.835162	1.861916	1.846768	1.845168	1.848091
Aug	Sep	Oct	Nov	Dec		
1.833007	1.800385	1.771891	1.797390	1.798430		

C.2.2 Outflow percent. Performance metric: Raw returns

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.102307	1.498786	2.077171	1.544491	1.079774	1.096998	2.535990
Established	Jan	Feb	Apr	May	Jun	Jul
2.775094	1.796584	1.833981	1.842646	1.837130	1.828424	1.851828
Aug	Sep	Oct	Nov	Dec		
1.815641	1.788798	1.772114	1.796586	1.801482		

C.2.3 Inflow percent. Performance metric: Sharpe Ratio

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Inflow.to.categ	Lnassets	Intermediate
1.044674	1.496886	2.074963	1.543087	1.059958	1.093129	2.538835
Established	Jan	Feb	Apr	May	Jun	Jul
2.747629	1.789892	1.835163	1.861901	1.846769	1.845163	1.848037
Aug	Sep	Oct	Nov	Dec		
1.832994	1.800371	1.771905	1.797391	1.798426		

C.2.4 Outflow percent. Performance metric: Sharpe Ratio

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.096607	1.495308	2.078467	1.555236	1.079732	1.094211	2.565252
Established	Jan	Feb	Apr	May	Jun	Jul
2.819303	1.796593	1.833983	1.842640	1.837125	1.828416	1.851807
Aug	Sep	Oct	Nov	Dec		
1.815626	1.788791	1.772141	1.796598	1.801494		

C.2.5 Inflow percent. Performance metric: Jensen's alpha

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Inflow.to.categ	Lnassets	Intermediate
1.045017	1.508154	2.076659	1.525829	1.059948	1.087062	2.510143
Established	Jan	Feb	Apr	May	Jun	Jul
2.698683	1.789885	1.835161	1.861897	1.846760	1.845156	1.848040
Aug	Sep	Oct	Nov	Dec		
1.832995	1.800363	1.771867	1.797383	1.798419		

C.2.6 Outflow percent. Performance metric: Jensen's alpha

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.086353	1.505080	2.078854	1.533410	1.079819	1.087399	2.543256
Established	Jan	Feb	Apr	May	Jun	Jul
2.777773	1.796584	1.833978	1.842633	1.837117	1.828407	1.851790
Aug	Sep	Oct	Nov	Dec		
1.815616	1.788782	1.772095	1.796580	1.801459		

C.3 Table 10 VIF-results across time

C.3.1 Set A: Net flow percent

C.3.1.1 Performance metric: Raw returns period 1

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.740006	1.824128	1.819494	1.811849	1.827097	1.853963	1.850686	1.832484	1.821401
Nov	Dec	Flowtocateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.862169	1.923284	1.106103	1.515730	2.100014	1.604827	1.151854	2.699496	2.954671

C.3.1.2 Performance metric: Raw returns period 2

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.909002	1.831892	1.862254	1.859651	1.856699	1.849691	1.864962	1.818835	1.775688
Nov	Dec	Flowtocateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.841448	1.831707	1.056291	1.502657	2.081781	1.507680	1.079656	2.030736	2.163848

C.3.1.3 Performance metric: Raw returns period 3

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.667403	1.930914	1.951505	1.949728	1.942353	1.657114	1.660299	1.654779	1.641925
Nov	Dec	Flowtocateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.642478	1.660152	1.063657	1.503085	2.151168	1.518492	1.112964	2.937557	2.929585

C.3.1.4 Performance metric: Sharpe Ratio period 1

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.739999	1.824120	1.819484	1.811842	1.827088	1.853953	1.850677	1.832477	1.821369
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.862161	1.923273	1.106102	1.522554	2.110380	1.612325	1.149243	2.726006	2.993504

C.3.1.5 Performance metric: Sharpe Ratio period 2

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.909011	1.831903	1.862269	1.859662	1.856709	1.849710	1.864979	1.818847	1.775752
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.841463	1.831724	1.056288	1.496816	2.089552	1.497513	1.082226	2.036865	2.164004

C.3.1.6 Performance metric: Sharpe Ratio period 3

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.667401	1.930887	1.951444	1.949723	1.942387	1.657104	1.660270	1.654741	1.641875
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.642447	1.660137	1.063647	1.509252	2.127969	1.765227	1.101344	3.356063	3.507754

C.3.1.7 Performance metric: Jensen's alpha period 1

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.739994	1.824115	1.819474	1.811828	1.827084	1.853950	1.850674	1.832454	1.821283
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.862143	1.923262	1.105997	1.502474	2.080958	1.561119	1.114846	2.686253	2.911356

C.3.1.8 Performance metric: Jensen's alpha period 2

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.909005	1.831898	1.862262	1.859655	1.856701	1.849699	1.864966	1.818838	1.775703
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.841449	1.831709	1.056284	1.527609	2.075953	1.501257	1.073058	2.038545	2.151704

C.3.1.9 Performance metric: Jensen's alpha period 3

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct
1.667437	1.930918	1.951561	1.949768	1.942345	1.657157	1.660303	1.654800	1.641861
Nov	Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established
1.642485	1.660162	1.063757	1.521854	2.116064	1.648080	1.192930	2.949740	3.161178

C.3.2 Set B: Inflow percent

C.3.2.1 Performance metric: Raw returns period 1

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.077053	1.761241	1.811584	1.820385	1.814876	1.816850	1.852568
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.832457	1.839689	1.825291	1.850256	1.925807	1.182302	1.517969
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.113020	1.608088	1.146502	2.699713	2.964457		

C.3.2.2 Performance metric: Raw returns period 2

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.032291	1.893585	1.843583	1.877792	1.868301	1.852594	1.895671
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.883392	1.805270	1.776032	1.821056	1.823430	1.087204	1.504878
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.083902	1.509161	1.080104	2.031806	2.175525		

C.3.2.3 Performance metric: Raw returns period 3

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.058394	1.655557	1.936186	1.970149	1.952713	1.936913	1.696480
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.714994	1.668761	1.638549	1.643281	1.683215	1.133345	1.504610
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.151894	1.541971	1.114898	2.950679	2.933572		

C.3.2.4 Performance metric: Sharpe Ratio period 1

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.067868	1.761237	1.811565	1.820329	1.814853	1.816816	1.852366
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.832363	1.839605	1.825263	1.850224	1.925779	1.182270	1.525154
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.122051	1.611693	1.145109	2.725874	3.007443		

C.3.2.5 Performance metric: Sharpe Ratio period 2

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.034283	1.893592	1.843606	1.877812	1.868306	1.852602	1.895741
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.883421	1.805285	1.776073	1.821054	1.823444	1.087205	1.499991
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.089818	1.499042	1.082763	2.037923	2.175955		

C.3.2.6 Performance metric: Sharpe Ratio period 3

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.037960	1.655549	1.936145	1.969651	1.952548	1.936800	1.696238
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.714868	1.668623	1.638498	1.643232	1.683125	1.133385	1.509472
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.130360	1.765580	1.102401	3.364192	3.514988		

C.3.2.7 Performance metric: Jensen's alpha period 1

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.061547	1.761226	1.811562	1.820294	1.814824	1.816791	1.852257
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.832316	1.839537	1.825162	1.850181	1.925721	1.182287	1.504354
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.086808	1.560269	1.111016	2.685477	2.930831		

C.3.2.8 Performance metric: Jensen's alpha period 2

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.038318	1.893587	1.843601	1.877806	1.868302	1.852595	1.895757
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.883408	1.805275	1.776033	1.821055	1.823430	1.087193	1.535853
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.079010	1.505275	1.073533	2.039295	2.163259		

C.3.2.9 Performance metric: Jensen's alpha period 3

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.038552	1.655574	1.936167	1.969681	1.952543	1.936755	1.696238
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.714884	1.668653	1.638524	1.643260	1.683142	1.133318	1.523239
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.118158	1.649828	1.194034	2.956679	3.169395		

C.3.3 Set C: Outflow percent

C.3.2.1 Performance metric: Raw returns period 1

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.122544	1.727255	1.826054	1.834095	1.816147	1.844823	1.935531
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.870828	1.863791	1.814465	1.848857	1.861476	1.180827	1.515991
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.104743	1.648450	1.155963	2.722705	3.029997		

C.3.2.2 Performance metric: Raw returns period 2

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.142537	1.921406	1.826768	1.836027	1.827658	1.813767	1.853844
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.824728	1.798119	1.777770	1.828910	1.807892	1.111108	1.502648
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.100705	1.514965	1.081213	2.091883	2.308173		

C.3.2.3 Performance metric: Raw returns period 3

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.073827	1.687770	1.938755	1.940483	1.953689	1.934479	1.708585
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.677875	1.665636	1.629285	1.642045	1.674182	1.135345	1.507200
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.151234	1.520105	1.119291	2.939452	2.973359		

C.3.2.4 Performance metric: Sharpe Ratio period 1

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.118315	1.727252	1.826045	1.834083	1.816133	1.844814	1.935528
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.870817	1.863776	1.814434	1.848852	1.861468	1.180910	1.522769
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.117358	1.648444	1.152821	2.746742	3.067124		

C.3.2.5 Performance metric: Sharpe Ratio period 2

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.132286	1.921419	1.826781	1.836038	1.827675	1.813781	1.853840
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.824741	1.798142	1.777846	1.828924	1.807910	1.111085	1.497106
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.096779	1.507967	1.083457	2.091668	2.308989		

C.3.2.6 Performance metric: Sharpe Ratio period 3

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.075633	1.687775	1.938734	1.940417	1.953662	1.934501	1.708540
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.677866	1.665599	1.629260	1.642014	1.674169	1.135350	1.509283
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.139867	1.769713	1.107125	3.359261	3.563280		

C.3.2.7 Performance metric: Jensen's alpha period 1

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.093082	1.727237	1.826047	1.834077	1.816098	1.844812	1.935511
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.870812	1.863732	1.814336	1.848827	1.861363	1.180725	1.502475
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.083197	1.586077	1.117761	2.718019	3.003063		

C.3.2.8 Performance metric: Jensen's alpha period 2

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.125517	1.921387	1.826770	1.836032	1.827663	1.813771	1.853834
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.824731	1.798110	1.777738	1.828873	1.807840	1.111081	1.528760
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.090194	1.505867	1.073535	2.097646	2.300209		

C.3.2.9 Performance metric: Jensen's alpha period 3

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.076235	1.687827	1.938805	1.940598	1.953786	1.934572	1.708759
Aug	Sep	Oct	Nov	Dec	Outflow.from.categ	LOWPERF
1.677988	1.665718	1.629224	1.642045	1.674213	1.135457	1.522494
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.124373	1.649663	1.200308	2.951401	3.201039		

C.4 Table 11 VIF-results across time with COVID interactions

C.4.1 Net flow percent Performance metric: Raw returns

LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Established	Jan	Feb	Apr
1.716078	2.360883	1.745936	1.018409	1.108917	2.508766	2.688680	1.791293	1.830766	1.844544
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.844739	1.835527	1.801215	1.805046	1.790256	1.772222	1.797889	1.797131	12.110902	17.602712
COVIDXMID	COVIDXHIGH								
5.779022	1.996308								

C.4.2 Net flow percent Performance metric: Sharpe Ratio

LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Established	Jan	Feb	Apr
1.711291	2.362203	1.742440	1.018402	1.106274	2.555087	2.747863	1.791290	1.830767	1.844539
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.844733	1.835521	1.801212	1.805045	1.790249	1.772212	1.797885	1.797127	12.108514	17.599336
COVIDXMID	COVIDXHIGH								
5.770768	2.002863								

C.4.3 Net flow percent Performance metric: Jensen's alpha

LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Established	Jan	Feb	Apr
1.719480	2.361241	1.729975	1.018452	1.108247	2.510901	2.691494	1.791284	1.830759	1.844531
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.844726	1.835513	1.801205	1.805037	1.790241	1.772180	1.797878	1.797119	12.113368	17.583339
COVIDXMID	COVIDXHIGH								
5.760734	2.000247								

C.4.4 Inflow percent Performance metric: Raw returns

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Jan	Feb	Apr
1.052665	1.717691	2.366737	1.746183	1.079420	1.109004	2.510611	Jan	Feb	Apr
Established	Jan	Feb	Apr	May	Jun	Jul	Jan	Feb	Apr
2.702086	1.790411	1.835897	1.863454	1.847773	1.846379	1.848202	Jan	Feb	Apr
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW	Jan	Feb	Apr
1.833036	1.800396	1.772418	1.797678	1.798625	12.129307	17.612873	Jan	Feb	Apr
COVIDXMID	COVIDXHIGH						Jan	Feb	Apr
5.783592	1.999252						Jan	Feb	Apr

C.4.5 Inflow percent Performance metric: Sharpe Ratio

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Flowtcateg	Lnassets	Intermediate	Jan	Feb	Apr
1.047179	1.713364	2.365828	1.742318	1.079416	1.106706	2.556361	Jan	Feb	Apr
Established	Jan	Feb	Apr	May	Jun	Jul	Jan	Feb	Apr
2.764563	1.790409	1.835897	1.863436	1.847765	1.846369	1.848141	Jan	Feb	Apr
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW	Jan	Feb	Apr
1.833023	1.800380	1.772406	1.797674	1.798617	12.127078	17.600519	Jan	Feb	Apr
COVIDXMID	COVIDXHIGH						Jan	Feb	Apr
5.770810	2.003054						Jan	Feb	Apr

C.4.6 Inflow percent Performance metric: Jensen's alpha

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Flowtocateg	Lnassets	Intermediate
1.047513	1.722714	2.365230	1.730239	1.079402	1.108915	2.511717
Established	Jan	Feb	Apr	May	Jun	Jul
2.710241	1.790403	1.835894	1.863431	1.847757	1.846363	1.848142
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.833022	1.800374	1.772371	1.797667	1.798611	12.132569	17.583436
COVIDXMID	COVIDXHIGH					
5.760829	2.000429					

C.4.7 Outflow percent Performance metric: Raw returns

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.111241	1.716239	2.369309	1.766082	1.115957	1.110053	2.541122
Established	Jan	Feb	Apr	May	Jun	Jul
2.781217	1.797908	1.834828	1.843564	1.837488	1.828930	1.852368
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.815659	1.788890	1.772767	1.797265	1.801671	12.151965	17.611143
COVIDXMID	COVIDXHIGH					
5.782878	1.998034					

C.4.8 Outflow percent Performance metric: Sharpe Ratio

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.107054	1.711572	2.368446	1.761329	1.115917	1.107104	2.586034
Established	Jan	Feb	Apr	May	Jun	Jul
2.843089	1.797910	1.834827	1.843555	1.837477	1.828919	1.852357
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.815650	1.788879	1.772771	1.797269	1.801675	12.157347	17.599687
COVIDXMID	COVIDXHIGH					
5.771188	2.010460					

C.4.9 Outflow percent Performance metric: Jensen's alpha

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Outflow.from.categ	Lnassets	Intermediate
1.093751	1.719605	2.366763	1.741733	1.116068	1.108537	2.545585
Established	Jan	Feb	Apr	May	Jun	Jul
2.792903	1.797900	1.834823	1.843548	1.837470	1.828911	1.852336
Aug	Sep	Oct	Nov	Dec	COVID	COVIDXLOW
1.815637	1.788871	1.772723	1.797249	1.801634	12.155338	17.584326
COVIDXMID	COVIDXHIGH					
5.760877	2.003827					

C.6 Table 12 Separated global and Norwegian net flow percent

C.6.1 Norwegian. Performance metric: Raw returns

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1.797175	1.838428	1.838420	1.846958	1.838385	1.798212	1.803141	1.779177	1.755642	1.787073
Dec	Flowtocateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
1.786277	1.042473	1.481622	2.057097	1.570078	1.101051	3.191594	3.522481		

C.6.2 Global. Performance metric: Raw returns

LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr	May	Jun	Jul	Aug
1.556026	2.107615	1.572230	1.832079	1.893170	1.856984	1.854255	1.847164	1.814547	1.820672
Sep	Oct	Nov	Dec	Flowtcateg	Lnassets	intermediate	established		
1.812090	1.822738	1.820517	1.819114	1.084033	1.135118	1.995979	2.040704		

C.6.3 Norwegian. Performance metric: Sharpe Ratio

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1.797192	1.838444	1.838430	1.846972	1.838396	1.798228	1.803165	1.779186	1.755681	1.787090
Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
1.786291	1.042528	1.482012	2.054391	1.623216	1.104871	3.296082	3.652528		

C.6.4 Global. Performance metric: Sharpe Ratio

LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr	May	Jun	Jul	Aug
1.528966	2.112282	1.541846	1.832078	1.893168	1.856983	1.854254	1.847162	1.814546	1.820672
Sep	Oct	Nov	Dec	Flowtcateg	Lnassets	intermediate	established		
1.812087	1.822732	1.820512	1.819110	1.084030	1.095197	1.989266	2.055487		

C.6.5 Norwegian. Performance metric: Jensen's alpha

Jan	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1.797182	1.838427	1.838409	1.846958	1.838380	1.798210	1.803149	1.779170	1.755612	1.787076
Dec	Flowtcateg	LOWPERF	MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
1.786276	1.042520	1.482444	2.062495	1.559844	1.100890	3.144798	3.429930		

C.6.6 Global. Performance metric: Jensen's alpha

LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr	May	Jun	Jul	Aug
1.583358	2.124217	1.529778	1.832078	1.893174	1.856984	1.854256	1.847164	1.814547	1.820672
Sep	Oct	Nov	Dec	Flowtcateg	Lnassets	intermediate	established		
1.812087	1.822733	1.820514	1.819110	1.084043	1.087733	2.002117	2.063253		

C.7 Table 13 Separated global and Norwegian inflow percent

C.7.1 Norwegian. Performance metric: Raw returns

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.067671	1.785693	1.858153	1.872070	1.859451	1.852304	1.871111
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.848329	1.798770	1.753792	1.789192	1.792260	1.072861	1.482236
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.059371	1.577295	1.101574	3.196938	3.528272		

C.7.2 Global. Performance metric: Raw returns

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.036601	1.557554	2.113990	1.573149	1.858329	1.873314	1.857786
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855379	1.849506	1.827677	1.827516	1.810865	1.820582	1.821238
Dec	Inflow.to.categor	Lnassets	intermediate	established		
1.818525	1.113191	1.135176	1.996932	2.056907		

C.7.3 Norwegian. Performance metric: Sharpe Ratio

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.059593	1.785700	1.858136	1.872018	1.859463	1.852286	1.870992
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.848307	1.798734	1.753830	1.789200	1.792243	1.072865	1.484805
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.057932	1.623148	1.105471	3.298372	3.666998		

C.7.4 Global. Performance metric: Sharpe Ratio

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.035355	1.529593	2.115641	1.543795	1.858329	1.873314	1.857784
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855376	1.849505	1.827667	1.827514	1.810859	1.820578	1.821233
Dec	Inflow.to.categor	Lnassets	intermediate	established		
1.818522	1.113201	1.095267	1.990292	2.071753		

C.7.5 Norwegian. Performance metric: Jensen's alpha

outflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.059345	1.785688	1.858149	1.872016	1.859439	1.852280	1.871035
Aug	Sep	Oct	Nov	Dec	Inflow.to.categor	LOWPERF
1.848336	1.798736	1.753750	1.789192	1.792246	1.072855	1.487768
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.064175	1.559469	1.101832	3.144863	3.454425		

C.7.6 Global. Performance metric: Jensen's alpha

outflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.039047	1.584529	2.135217	1.533093	1.858329	1.873315	1.857790
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855379	1.849508	1.827700	1.827523	1.810861	1.820577	1.821234
Dec	Inflow.to.categor	Lnassets	intermediate	established		
1.818521	1.113193	1.087795	2.003182	2.078346		

C.8 Table 14 Separated global and Norwegian outflow percent

C.8.1 Norwegian. Performance metric: Raw returns

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.179312	1.790664	1.823230	1.848121	1.829104	1.817685	1.867700
Aug	Sep	Oct	Nov	Dec	Ind.growth.outflow	LOWPERF
1.811002	1.788033	1.754168	1.784187	1.795981	1.137297	1.481855
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.066269	1.603290	1.102250	3.263530	3.694438		

C.8.2 Global. Performance metric: Raw returns

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.047039	1.557165	2.109553	1.574551	1.815883	1.859455	1.852243
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855666	1.850827	1.845543	1.831613	1.807085	1.814446	1.822252
Dec	Outflow.from.categ	Lnassets	intermediate	established		
1.818974	1.064769	1.137459	2.004083	2.085092		

C.8.3 Norwegian. Performance metric: Sharpe Ratio

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.153982	1.790703	1.823204	1.848103	1.829073	1.817676	1.867634
Aug	Sep	Oct	Nov	Dec	Ind.growth.outflow	LOWPERF
1.810958	1.788023	1.754246	1.784209	1.795948	1.137395	1.482068
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.064035	1.638964	1.106186	3.368736	3.836842		

C.8.4 Global. Performance metric: Sharpe Ratio

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.053461	1.529392	2.116389	1.546568	1.815883	1.859459	1.852243
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855665	1.850833	1.845547	1.831617	1.807087	1.814442	1.822252
Dec	Outflow.from.categ	Lnassets	intermediate	established		
1.818971	1.064788	1.097610	1.996753	2.096636		

C.8.5 Norwegian. Performance metric: Jensen's alpha

inflowpercent	Jan	Feb	Apr	May	Jun	Jul
1.139325	1.790679	1.823198	1.848090	1.829064	1.817663	1.867621
Aug	Sep	Oct	Nov	Dec	Ind.growth.outflow	LOWPERF
1.810954	1.788011	1.754118	1.784173	1.795838	1.137458	1.482829
MIDPERF	HIGHPERF	Lnassets	Intermediate	Established		
2.067722	1.572133	1.102021	3.241057	3.650761		

C.8.6 Global. Performance metric: Jensen's alpha

inflowpercent	LOWPERF	MIDPERF	HIGHPERF	Jan	Feb	Apr
1.051591	1.583444	2.131453	1.531662	1.815884	1.859465	1.852243
May	Jun	Jul	Aug	Sep	Oct	Nov
1.855667	1.850833	1.845543	1.831616	1.807083	1.814443	1.822255
Dec	Outflow.from.categ	Lnassets	intermediate	established		
1.818972	1.064857	1.089564	2.009774	2.102816		