

The Factors that Investors Value when Choosing Mutual Funds: Implications from a Market Dominated by Four Banks

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ABSTRACT

This thesis investigates the relationship between fund flows and fund company/fund specific attributes and analyses what underlying factors investors value when making investment decisions on the Swedish market for mutual funds. By conducting a study comprising both an analysis of fund data and an investor survey, we have been able to analyse investor behaviour from two viewpoints. The results show that fund companies should focus on improving the performance of mixed and fixed income funds as this increases future flows of capital to the fund. Despite the fact that the Swedish market is dominated by four banks, they do not receive proportionally larger fund flows than other fund companies. Inexperienced investors place a greater deal of importance on company specific variables in relation to fund specific variables. For experienced investors, the relationship is the opposite. Search and information costs, measured as visibility and company specific variables, are found to be important in the data analysis, but not significantly favoured by either group in the survey.

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1. Introduction

The mutual fund market in Sweden has grown by over 1,200% since 1990 and is still growing at a considerable rate (Fondbolagens Förening, 2006). Investors have opened their eyes and widely accepted mutual funds as one of the primary ways to invest and save their money. "In fact, it's no overstatement to suggest that this movement from Wall Street to Main Street is one of the most significant socioeconomic trends of the past few decades" (Serwer, 1999). Despite this, effective marketing of financial services is an area which is still relatively uncharted territory.

To be able to effectively market mutual funds it is crucial to understand how investors are affected by and interpret the information that is needed to make an investment decision. With the large growth in the industry, an increasing amount of research has been conducted on the relationship between flows and fund characteristics, the behaviour of mutual fund investors and the effects that search and information costs have on these decisions.¹ An increasing support for the importance of the market structure, and the effect that distribution channels have, can also be seen.²

There are few studies investigating the area from the investors' point of view. There are different types of investors acting on the market (experienced and inexperienced) with different levels of involvement, who base their investment decisions on different aspects. For example, advertising of mutual funds and their appearance in media can have differing effects on investors.³ To see substantial inflows, mutual fund companies have to target both types of investors in their marketing.

Most of the studies in the area are conducted on the U.S. market for mutual funds. The Swedish mutual fund market is different, as it is dominated by four banks⁴ that have more assets under management and wider brick and mortar distribution networks compared to the competitors. The market structure creates interesting opportunities to analyse how different types of investors are affected by search and information costs and expose factors that investors value in their decision making.

¹ See, for example, Chevalier and Ellison (1997), Sirri and Tufano (1998), Engström and Westerberg (2004).

² See, for example, Bergstresser et al. (2004), Knuutila et al. (2006).

³ See, for example, Foxall and Pallister (1998), Kaniel et al. (2007), Gallaher et al., (2006).

⁴ The four largest fund companies, owned by the four main bank groups, accounted for about 70% of the market for mutual funds in 2006 (Den Svenska Finansmarknaden, 2006).

1.1 Purpose

The purpose of this thesis is twofold: Firstly, we investigate how fund flow is related to fund company/fund specific attributes. Secondly, we analyse what underlying factors investors value when making their respective investment decisions. The analysis is conducted on the Swedish market for mutual funds to capture the effects from a market dominated by four banks.

1.2 Contribution

Our contribution is to explore and expose the key factors affecting investor decision-making when investing in mutual funds. To the best of our knowledge, no previous studies have analysed the relationship between fund flows and fund company/fund specific attributes on the Swedish market for mutual funds and connected it to behavioural data. Much of previous research on mutual funds deals with purely financial technicalities while the behavioural aspect from the investors' perspective is far from exhaustively dealt with.

1.3 Definitions⁵

We have defined the expressions and variables that we use in this study as follows:

Bank(s) refer to Nordea, SEB, SHB and Swedbank, i.e. the four main banks in Sweden. These four banks have a much wider distribution network, mainly consisting of local offices all over Sweden that they use to sell and promote their own mutual funds.

Independent fund company refers to the remaining companies that manage mutual funds. These companies do not have the same access to a distribution network.

Search and information costs are a form of transaction costs such as those incurred in determining what goods are available on the market or which has the lowest price, i.e. the cost (often time) of acquiring information.

1.4 Limitations

The investigation is divided into two parts, an analysis of fund data and a survey. Due to the dataset that was available to us, we have limited the time frame of our fund data analysis to include quarterly fund data from December 2000 to December 2006. We also only look at

⁵ Here we present the most important definitions for reading the paper while an additional list of definitions can be found in the Appendix (12.1).

funds that are *registered* in Sweden and not funds *offered* in Sweden.⁶ In addition, hedge funds and other specialised funds are excluded from the data.

The data from the survey part of the investigation is based on the respondents' subjective opinions of the different underlying variables. The respondents are, therefore, compared to each other rather than any established and well-defined control group. Actually setting up test groups to obtain a large sample of both experienced as well as inexperienced investors would have been too time-consuming and was beyond the limits of our economic resources. It is, however, our firm belief that the large number of responses outweighs any significant discrepancies that this subjectivity may cause.

Furthermore, it is important to realize that the market does not only contain individual investors, but some of the investments are made by institutions. The results of their actions on the market are observed and included in the fund data, but not in the survey as we only conducted it using individual investors. Although there, to the best of our knowledge, is no specific data on how the market for funds is divided between institutional and individual investors, the proportion of individual investors is known to be substantial.⁷

1.5 Disposition

The thesis begins with a section giving a background of the Swedish mutual fund industry and is followed by a section on previous research. Sections four and five comprise our formulated hypotheses and our chosen method. These sections are followed by a presentation of the collected data and the results of the analysis before moving on to a discussion of the results and the drawing of final conclusions.

⁶ Funds registered in Sweden are obliged by law to report to Finansinspektionen while there are also funds registered in other countries that are offered and sold on the Swedish market.

⁷ According to Fondbolagens Förening (Fondsparandet i Sverige 2006), 94% of the Swedish population aged 18-74 invests in mutual funds. Excluding PPM the percentage is still 77%.

2. The Swedish Mutual Fund Industry

This section aims to give a background of the Swedish mutual fund industry and the make-up of a typical bank group's operations in mutual funds. Having an overview of the intricacies of the Swedish mutual fund industry and its multiple facets will simplify the understanding of the problem area.

As mentioned, the Swedish market for mutual funds has grown at a tremendous pace in the last two decades (see Figure 1). The Swedish people and its institutions have increasingly gained interest in investing their savings in mutual funds and this has been further fuelled by the addition of the Premium Pension Authority (PPM) to the pension system.



Figure 1. Total Net Assets of the Swedish Mutual Fund Industry 1986-2006

The supply of funds has increased and the role of funds for the individual investor as well as society has grown in importance. Fund savings have risen dramatically and account for about 30 percent of the financial assets of Swedish households.

Reasons behind the high growth of investing in funds are that for a long time it was very difficult to invest in funds that did not have a focus on the Swedish market. However, as the market for funds has developed, Swedish investors have been enabled to invest in funds with a specialty focus such as certain industries or geographical areas of the world. The currency deregulation in January 1989 made it possible for Swedish investors to place their savings in foreign securities. Funds are a good alternative as investments abroad would usually

otherwise demand extensive search for information as well as large amounts of capital to be invested.

In 1991 a large tax reform took place with significant changes to the previous system, thus causing many Swedes to alter their behaviour in terms of savings. The tendency to borrow capital decreased as the value of interest deductions diminished and, at the same time, saving in fixed income investments became more attractive (Fondbolagens Förening, 2006). As a direct result, fixed income funds emerged as an increasingly appealing alternative with a better chance of obtaining a higher yield than with an ordinary bank account. In addition, equity funds also grew in importance as a good alternative to both direct investments into equity and other investment opportunities.

The introduction of Individual Retirement Accounts (IRA, or IPS in Swedish) occurred in 1994, increasing the possibility for individuals to gain control over their retirement capital. It was now possible to invest in both shares of funds and equity. It also became possible to shift the retirement capital between different forms of saving as well as switching institution altogether. Furthermore, in the fall of 2000, 4.4 million Swedes were for the first time individually allowed to invest a certain portion of their retirement capital in funds, in the so-called PPM savings system. As a result, 57 billion SEK were invested (Fondbolagens Förening, 2006).

2.1 The Bank Group vs. the Independent Fund Company

The four large banking groups in Sweden (Nordea, SEB, SHB, Swedbank) are all organised in a more or less similar fashion when it comes to how they deal with their fund management operations. Using SEB for example purposes, the bank has set up a separate fund company called SEB Asset Management which is owned directly by the group. In addition, the group has set up another company called SEB Trygg-Liv which deals with pension- and lifeinsurance. This additional division of the group is important as it contributes with a large portion of sold funds by selling pension insurances.⁸ Furthermore, it needs to be mentioned that the branch's conventional way of selling is through direct sales, usually on a regional level and not through the local branch offices. However, the distribution channel comprising the local branch offices is still beneficial as many investors are found through this channel.

⁸ SEB Trygg Liv accounted for 9% of SEB Group's operating profit in 2006. (SEB's Annual Report 2006).

The independent fund company focuses on selling funds without the additional banking services. The independent fund company can not rely on a steady flow of customers to local offices and instead often reaches out to investors through direct sales. Other ways for the independent fund company to distribute its funds is to reach an agreement with one of the main banks that then includes the fund in their array of available funds.

3. Theory and Previous Research

The amount of previous research that focuses on mutual funds is extensive, with existing empirical evidence from many markets. Traditionally, research has concentrated on the performance measure, for example researching if active management is profitable and if abnormal performance is related to certain fund characteristics. Along with the growth of the industry, more focus has been placed on the relationship between fund flows and fund characteristics. In addition, the importance of belonging to a larger fund company, in terms of visibility and knowledge among consumers, is increasingly being analysed, as well as reasons behind investor decision-making.

3.1 Performance-flow

Previous research has mostly focused on the relationship between fund flows and performance. A positive relationship can be justified by the fact that there is some, even if weak, evidence for persistence in mutual fund performance (e.g. Grinblatt and Titman, 1992; Carhart, 1997). A fund that has shown positive performance in the past could thus be expected to perform well in the future. Naturally, a positive linear relationship could be expected as investors should enter well-performing funds at the same pace as they exit poorly performing funds. However, investors are reported to invest proportionally more in funds with strong past performance, but withdraw funds at a slower rate from funds with poor performance which gives a positive and convex performance-flow relationship (e.g. Ippolito, 1992; Gruber, 1996; Chevalier and Ellison, 1997; Sirri and Tufano, 1998). The convexity of the performance-flow relationship is well documented and holds for both risk-adjusted as well as raw returns (e.g. Sirri and Tufano, 1998). The relationship appears to be strong as further studies have also confirmed the relationship. For example, using Morningstar stars⁹ as the performance measure, Del Guercio and Tkac (2005) find that funds with more stars receive higher flows, with especially the fifth star attracting abnormally large flows. The convex relationship can in part be due to investor behavioural characteristics, where uneducated individual investors by and large create the bias while more sophisticated investors, such as institutions, act more logically in a pure economic sense which should lead to a less convex

⁹ This is a proprietary Morningstar data point. Morningstar rates mutual funds from 1 to 5 stars based on how well they have performed (after adjusting for risk and accounting for sales charges) in comparison to similar funds. Within each Morningstar Category, the top 10% of funds receive 5 stars and the bottom 10% receive 1 star. Funds are rated for up to three time periods-three-, five-, and 10-years and these ratings are combined to produce an overall rating. Funds with less than three years of history are not rated. Ratings are objective, based entirely on a mathematical evaluation of past performance. (www.morningstar.com)

performance-flow relationship in markets where many of the latter do business. (Del Guercio and Tkac, 2002).

3.1.1 Performance-flow in Other Markets

The previous research presented above is concentrated on U.S. mutual funds, but interesting evidence also exists from other markets. The differences between Europe and the U.S. are significant, with Europe being dominated by large fund groups (Otten and Schweitzer, 2002). Large fund groups are mainly banks but also large independent fund companies. This means that the setting the market participants face differs substantially, as banks are both the main sellers of mutual funds and have superior brick and mortar distribution possibilities in Europe. The market structure can thus influence the results of performance-flow studies. For example, the performance-flow relationship seems to be non-existent on the Finnish market due to a random distribution of flows for bank managed funds and a large proportion of investors ignoring characteristics that drive fund flows in the U.S. and non-bank sector of the Finnish fund market (Knuutila et al., 2006). As in Finland, the Swedish market for mutual funds is bank-dominated which could indicate that similar results could be expected. Some support for this line of thought is presented by Engström and Westerberg (2004) who show that past performance is less important as a determinant of mutual fund flows in Sweden compared to studies conducted in the U.S.

3.2 The Effect of Company and Fund Characteristics on Fund Flow

Investors are clearly not only affected by past performance in selecting mutual funds. Other variables often taken into account are the fee structure and the risk. Investors prefer to pay lower fees, but are more sensitive to visible fees as front-end-load fees and commissions compared to less visible fees such as operating expenses (Barber et al., 2005). Investors seem to prefer funds with lower fees and less risk (Sirri and Tufano, 1998). Moreover, the role of the search and information costs that investors face is increasingly being recognized in the literature. Funds associated with lower search costs receive larger flows as investors seem to favour funds that they are familiar with, which is also in line with behavioural literature (Engström and Westerberg, 2004). Companies can lower the search costs of investors by increasing their visibility through advertising, and it has been shown that advertising in financial magazines tends to attract larger flows (Jain and Shuang Wu, 2000).

Funds belonging to a larger company have an advantage in that their greater visibility generates flows regardless of fund related variables as the search and information costs for the investor are lower. Different investors have different preferences and for some there is utility in the extra services that larger companies can provide or the security it means to place investment decisions with a company that you know. Mutual fund flows can be directly related to fund visibility as funds belong to larger companies (Sirri and Tufano, 1998). There are a number of adjacent studies confirming this. Nanda et al. (2004) show that star performance results in larger flows to the star fund and also to other funds within the same company, i.e. a fund company should see inflows to all their funds if they have one that is well performing (the star). Such spill-over effects have been confirmed by Ivkovic (2003). With better distribution channels the search and information costs investors face are lower as visibility increases, which is why the distribution channel is increasingly being acknowledged as important to succeed within the mutual fund industry (Bergstresser et al, 2004).

3.3 Banks and Independent Fund Companies

The effect of performance, company and fund characteristics on fund flow can differ depending on the company that manages the fund. The market can be classified into two groups, banks and independent fund companies. This classification is especially important on the Swedish market, as it is dominated by four banks. The main difference between the two groups is that the banks are larger than the independent fund companies and have access to a wide distribution network which increases their visibility among investors. First-time investors more often choose to invest in bank managed funds compared to experienced investors due to the lower search costs (Holliday, 1994). It has also been shown that bank investors mainly rely on other factors than past performance like previous marketing and the reputation of the bank, while non-bank investors are more focused on the performance measure (Frye, 2001). The banks are thus in a position that gives them an opportunity to gain large flows from investors who do not care much about fund characteristics.

Banks also have another advantage over independent fund companies in Sweden. Private pension savings in the form of pension insurance¹⁰ are a source of large fund flows in Sweden due to tax legislation which permits tax discounts for pension savings (Oxenstierna, 2006).

¹⁰ Private pension insurance exists as *Traditional Insurance*, with a guaranteed set rate of interest that is increased if the return is positive, as well as in the form of *Fund Insurance*, where the capital is invested in funds.

This is very significant for Sweden. Both the form of private pension savings as well as PPM and "Avtalspension – Tjänstepension" are, in practice, channelled to the main institutions on the market for mutual funds, namely Nordea, SEB, SHB and Swedbank (Oxenstierna, 2006). The four large banks thus again benefit from their superior distribution channel.

3.3.1 Differences in Performance

The financial press often reports that bank funds perform poorly compared to non-bank mutual funds (Frye, 2001). Bank managers have a reputation of performing worse compared to non-bank competitors (McTague, 1994). However the empirical evidence is mixed with evidence suggesting that bank-managed funds under-perform funds managed by independent fund companies but also with evidence of the contrary. The former view is supported by Lesseig et al. (2001) who find no evidence that bank-managed funds outperform funds managed by independent fund companies. Also, Knuutila et al. (2006), report that Finnish bank-managed funds on average perform poorly compared to funds managed by independent fund companies. The latter view is supported by both Koppenhaver (2000) and Frye (2001) who report that bank-managed money market and bond funds outperform funds managed by independent fund companies, at least in certain cases.

3.4 Research on Investor Decision-making

Few studies take the approach of studying the area of mutual funds from the investors' point of view. Investors are to a large extent naive and make their investment decisions based on a number of variables other than the performance-related that most of the studies conducted in this area use. For example, in a survey, as many as 75% of the investors did not know if they had invested in a mutual fund that focused on equity or fixed income (Capon et al., 1996).

3.4.1 Investors' Ability to Collect and Process Information

A fundamental aspect of investments is the inherent risk involved. As investors make risky decisions there is a need for them to both know what information is necessary as well as have the possibility to obtain that particular information (Jacoby et al., 2001). Their aptitude, stimulus and opportunity to collect this information are determinants for what the investor can reasonably expect in terms of return on their investment. However, there is such a vast magnitude of information on and about the market that it becomes virtually impossible for

investors to assess and process the information regarding the mutual funds on the market (e.g., Aldridge, 1998; Sandler, 2002). This affects the involvement of investors which has been confirmed by other studies that show that investors have low levels of involvement in situations regarding investment decision-making (e.g., Foxall and Pallister, 1998; Benartzi and Thaler, 1999). This, in turn, is likely to further reduce the proneness of investors to come to terms with the vast amount of available financial information. The result is thus a situation where many inexperienced, and to a lesser extent, experienced investors end up letting heuristics guide their decision-making process (Dawar and Parker, 1994). The use of heuristics can be suitable in many consumer decision situations although it is likely to be most useful in circumstances where products are relatively simple and rules of thumb often apply. As financial products are generally of a complex nature, heuristics could be dangerous to use, such as in the market for mutual funds. In order to comfortably make an investment decision not relying on heuristics, investors have a need to reduce the perceived risk of purchase, their lack of expertise and subsequently the skills needed to assess fund characteristics. However, the process of objectively assessing fund characteristics is too complex and investors do not feel like allocating their time to this (Martenson, 2005). Investors who still, consciously or unconsciously, use heuristics to make complex financial decisions are thus often described as naive and in a poor position on the financial market (Capon et al., 1996; Sandler, 2002).

3.4.2 Investor Behaviour

Within the area of consumer behaviour, involvement is assumed to influence subsequent consumer behaviours which is important when trying to predict the actions of consumers which includes the behaviour of investors (e.g., Alba and Hutchinson, 1987; Zaichkowsky, 1985a, 1985b, 1986, 1994; Laurent and Kapferer, 1985; Dholakia, 2001). Previous research also emphasizes the significant role of consumer knowledge although the effects of knowledge on investor behaviour can not only be regarded on its own, but must be studied along with a wider range of variables (Alba and Hutchinson, 1987).

A further look at behavioural data shows that non-professional investors might be classified into two groups based on knowledge, sophisticated and unsophisticated investors, which is a reason why we later classify our respondents in a similar fashion. Unsophisticated investors (the majority) focus their investments on funds based on advertising and advice from brokers (Gruber, 1996). A main reason for this, as mentioned above, is their lack of knowledge and low level of involvement (Foxall and Pallister, 1998). The low level of involvement also makes the visibility of funds important. Kaniel et al., (2007) and Gallaher et al., (2006) find that media coverage of mutual funds has a significant effect on investor flows to funds and that investor learning is affected, leading to positive news being capable of increasing net fund flows while negative news can reduce net fund flows. Gualtieri and Petrella, (2005) have studied the combination of media coverage and advertising and find support for the positive effect of visibility on fund flows. In terms of advertising past performance is commonly used to market mutual funds and it has been shown that this leads to increased flows in the post advertisement period. However, these funds do not show superior performance in advertisements might be misplaced (Jain and Shuang Wu, 2000).

4. Hypotheses

The purpose of the thesis is to investigate the relationship between fund flows and fund company/fund specific variables and to analyse what underlying factors investors value when making investment decisions on the Swedish market for mutual funds. The previous research in the area of fund flow and fund company/fund specific variables is broad, focusing on many different aspects of the relationship. The Swedish market for mutual funds with four dominating banks is different compared to the U.S. market. The search and information costs that the Swedish investors face should thus differ substantially compared to U.S. investors. We have chosen to focus on these costs, as it is the area where we believe to be able to find the most interesting implications for the fund companies. Based on the purpose and the main findings of previous research we formulate the following five hypotheses:

Hypothesis 1: There is no performance-flow relationship among funds in Sweden.

Motivation: There is a positive and convex relationship between performance and flow on the U.S. market. The Swedish market for mutual funds with four dominating banks is different compared to the U.S. market. Banks attract inexperienced investors and have a superior distribution network that should give them abnormally large flows, but there is no evidence that bank funds outperform funds managed by independent fund companies (if anything, there is evidence of the contrary). Previous research from other markets with a number of dominating banks shows that the relationship is non-existent or weaker. Due to the structural difference Swedish investors could be expected to make investment decisions based on other factors, more related to search and information costs.

Hypothesis 2: Banks receive proportionally larger flows due to the high search and information costs of investors.

Motivation: There is evidence that the search and information costs that investors face have an impact on the subsequent investment decisions. The market setting is important in determining to what extent these costs have an effect. The four main banks in Sweden clearly have an advantage over the independent fund companies, as they are more visible, are better known among investors and have superior distribution networks. The search and information costs that the investors face are thus much lower when investing with these banks. Consequently, the flows that they receive should be larger compared to independent fund companies.

Hypothesis 3a: Experienced investors value fund specific variables more than inexperienced investors.

Hypothesis 3b: Inexperienced investors value company specific variables more than experienced investors.

Motivation: Previous research has showed that investors can be split up into separate classifications. There is thus likely to be a difference between what factors experienced and inexperienced investors value most in their investment decisions. The division between the two groups of investors is described in the method. Fund specific variables comprise raw data from facts and figures which should be appealing to the experienced investor, capable of processing the information. Company specific variables comprise perceptions of the qualities of a company which should be appealing to inexperienced investors, incapable of processing the more complex fund specific variables.

Hypothesis 4: *Inexperienced investors value visibility specific variables more than experienced investors.*

Motivation: Visibility in the marketplace of mutual funds is considered to be an important aspect in attracting the attention of investors and subsequently their invested capital. As previous research shows, visibility is a variable considered to have a significant effect on fund flows. In addition, inexperienced investors, and first-time investors in particular, suffer from high search costs and therefore choose bank-managed funds more often than experienced investors. Therefore, factors affecting visibility could be expected to be more important to inexperienced investors compared to experienced investors.

5. Methodology

5.1 Choice of Approach

We have decided to conduct a two-part quantitative study investigating variables affecting investors' decision-making and the resulting fund flows. In the first part we analyse data on fund characteristics to establish an objective foundation for actual occurrences in fund flows on the Swedish market. The aim with the first part of the quantitative study is to test the first two hypotheses. In the second part, we conduct a survey to capture the perspective of the investors' subjective reasoning and opinions on variables they find important in their decision-making, thereby testing the last three hypotheses. A quantitative study offers good opportunities and a solid foundation to base general conclusions on. By combining an objective standpoint with a subjective one, we aim to cover the problem area from both sides of the spectrum. We have used Excel, SPSS and Stata to analyse our data.

5.2 The Quantitative Study, Part 1

The first part of the quantitative study consists of an analysis of how mutual fund flows are related to fund specific and fund company variables. The relationship is analysed on both the whole dataset and after splitting the funds into groups based on type of fund. As we focus on analysing the effect of past performance and the effect that search and information costs have on the flows for bank and independent fund companies, we include variables that capture these effects.

5.2.1 Performance-flow

Net flows are not available on the Swedish market other than on the fund company level. The size of a fund is affected by the asset inflows and outflows and the returns generated by the portfolio manager. To obtain a measure that reflects the growth of the fund that is due to new external money, an adjustment to the change in total net assets has to be made for the performance of the fund during the period. The measure is defined as follows:

$$FLOW_{i,t} = \frac{TNA_{i,t} - TNA_{i,t-1} \times (1 + R_{i,t})}{TNA_{i,t-1}},$$

where $TNA_{i,t}$ is the total assets in fund *i* at the end of quarter *t* and $R_{i,t}$ is the return of fund *i* during year *t*. This synthetic measure is widely used in the literature (e.g. Chevalier and

Ellison, 1997; Sirri and Tufano, 1998; Barber et al., 2005) and it is highly correlated with actual fund flow data (Ber and Ruenzi, 2006). With the definition it is assumed that all dividends are reinvested into the fund and that flows occur at the end of the period, but the results are not affected by this assumption (Sirri and Tufano, 1998). The variable can be seen as the growth in percentage instead of a flow of money in absolute terms, as it measures the change in each period as a percentage. An equally large flow of money thus has a larger percentage effect on small funds compared to large funds. The effect is that it is probably easier for smaller funds to grow compared to large funds (e.g. Chevalier and Ellison, 1997).

Performance and its relation to fund flows is the main variable that has been studied in previous research. In searching for investment opportunities an evaluation of past performance is natural to make and it is often the first variable that you find when searching for information to base the investment decision on. Fund performance can be measured in many different ways. We have chosen to use a return measure that is available to as many investors as possible, as it should have the widest impact on investment decisions. In all cases the investors have the raw return of the fund, $RET_{i,t} = NAV_{i,t} / NAV_{i,t-1} - 1$, which is why this is the measure used. However, as noted in the section on previous research, there is no difference in results between different return measures. Based on the market setting in Sweden the relationship is expected to be non-existent. We assume that dividends are reinvested in the fund on the dividend date at the prevailing Net Asset Value (NAV) for that day. As we want to measure the effect of past performance on fund flows the variable is lagged one period, thus assuming that investors are affected by the performance in the previous period when making their investment decisions. As we analyse Sweden-based funds the NAVs that are used are after tax deductions. The tax system implies that funds in practice use all received dividends (minus the capital gains tax of 30%) for further investments, which means that the return measure we use is including taxed dividends: (1-tax) * dividends + R.

5.2.2 Search and Information Costs

Search and information costs can be measured in different ways. Large fund companies naturally get more attention than smaller fund companies, as they have more clients and more assets under management. The size of the fund company should thus have a positive effect on fund flow. Fund size can also have an effect on the information cost of the investors, analogous to company size. As mentioned above, our definition of fund flow implicates that it

is easier for small funds to grow compared to large funds, which is why we expect to see a negative relationship. The size of the funds is measured as the log of the total net assets, $\ln(TNA_{i,t})$. The fund company size is measured as the log of the sum of the total net assets of the funds that are managed within the company, $\ln(COMPTNA_{i,t})$. Both variables are lagged one period, as we analyse the effect that size has on investment decisions in the next period.

The four main banks in Sweden control more than half of the assets under management of the funds registered in Sweden and are active in retail banking. Therefore, they should be better known among investors than other fund companies. Search and information costs can thus also be measured by a variable that indicates if the fund belongs to a bank or not, which is why a Bank dummy variable is included, BANK. The variable is assigned the value 1 if the fund is managed by a bank and 0 if the fund is managed by an independent fund company.

As almost all funds are managed by a company that at least has a couple of other funds under management, a lot of marketing effort is put in for all products together or for the fund company brand. This can result in positive spill-over effects, where family specific factors result in flows for all the funds within a certain family. Similarly, star funds within a fund company that generate visibility create flows for the other funds that the company has under management. To check for these effects, average flow to family, $COMPFLOW_{i,t}$, is included in the analysis.

5.2.3 Other Variables

The growth of individual funds is affected both by the type of fund and by the growth of their investment category. If, for example, the flows into equity funds investing in Eastern Europe are abnormally large in a certain period, all the funds in this category grow abnormally in this period which is why a positive relationship is expected. To examine this we first divide the sample between three types: equity-, mixed- and fixed income funds. Within each type the funds are grouped by the geographical area that the fund invests in and a variable measuring the average flow to the category, $CATFLOW_{i_{i_{i}}}$, is included in the analysis.

To capture the effects of reputation, previous marketing efforts and other characteristics that are excluded from our study a lagged net asset flow variable, $FLOW_{i_{t-1}}$, is also included.

Also, investment decisions do not have to be made each time an investment is made. A quite common example of this is monthly savings, where an investor chooses to invest a certain amount of money into a certain fund each month. In this case the investor does not make an evaluation every time money is invested in the fund, thus not knowing if this is the optimal investment that month. Because of this we should see current flows as dependent on past inflows. This also means that the variable checks for possible auto-correlation between the calculated fund flows (e.g. Zeckhauser et al., (1991)).

To check for period specific influences on fund performance we include a dummy, D_j , for each period in our sample. As we use quarterly data the dummy captures seasonal variations between the quarters. The variable is needed as we estimate observations from all quarters in one pooled regression. The dummy is assigned the value 1 if the observation is from the respective quarter, and 0 otherwise.

5.2.4 Regression Analysis

To conduct a complete analysis of the data we look at how the variables affect the fund flows by estimating the equation below with pooled OLS.¹¹ The constant term is not included in our regression as we have included a dummy variable for each quarter. The following model is estimated:

$$FLOW_{i,t} = \beta_0 RET_{i,t-1} + \beta_1 \ln(TNA_{i,t-1}) + \beta_2 \ln(COMPTNA_{i,t-1}) + \beta_3 BANK + \beta_4 COMPFLOW_{i,t} + \beta_5 CATFLOW_{i,t} + \beta_6 FLOW_{t-1} + \sum_{j=Q_1}^{25} \alpha_j D(j)_{i,t} + \varepsilon_{i,t},$$

where the variables are defined as presented in section 5.2. The model that we have chosen to estimate is based on our goal to analyse the performance-flow relationship and the effect of search and information costs on the investment decisions that investors face. The performance, flow, fund size and company size variables are lagged one period as there should be a time effect between the observed values and subsequent flows. In line with the literature, further lags are not included, as we believe that investors base their investment decisions on the most recent market events.

¹¹ This method of estimation is, for example, used by Ruenzi, (2005).

5.3 The Quantitative Study, Part 2 – The Survey

The quantitative study included a survey. After looking at an annual survey conducted by Fondbolagens Förening (Fondsparandet i Sverige, 2006)¹² as a starting point and looking at the questions they asked, we developed our own survey to suit the purpose of our thesis. The survey performed by Fondbolagens Förening is conducted on a large number of respondents, from all over Sweden, and gives a good overview of what the average investor thinks about the Swedish market for mutual funds. We want to investigate the underlying variables that first and foremost affect the decisions of investors. We have therefore, by conducting a prestudy, identified three consolidated variables (described below) that we find have a significant impact and presence in the decision-making process of investors. It also seems logical that there is likely to be a significant difference between the grounds for decisions between experienced and inexperienced investors, in accordance with our hypotheses. Therefore, the respondents have been split up into two groups representing "Experts" and "Non-experts". The division into these two groups was determined on the basis of how the respondents answered questions gauging their subjective level of expertise. If, when weighted, the respondent achieved a level of five or higher (on a scale of 1-7) they were classified as an "Expert". A weighted level of less than five resulted in the respondent being classified as a "Non-expert".

5.3.1 The Pre-Study and Identification of Variables

Based on the previous research, and in order to obtain answers to our hypotheses, we identified "Company Attributes", "Fund Attributes" and "Visibility" as consolidated variables that should affect investor decision-making. Each consolidated variable was determined through combining four to five questions gauging the importance each respondent attributed to the individual questions. We then conducted a pre-study where we conferred with family, friends and students in the computer rooms at Stockholm School of Economics, with questions based on the variables. The pre-study revealed that the identified variables fit well with our purpose and we could move on to construct a full survey with multiple questions measuring each variable.

¹² The survey by Fondbolagens Förening was conducted together with the market research company Prospera. 1620 people were included in the sample with an age range of 18-74. The response frequency was 83%.

5.3.2 Design of the Questionnaire

As mentioned, to measure the importance of different factors in the decision-making of investors we constructed four to five questions per consolidated variable. The respondents were asked to grade the importance of each different question on a scale from 1-7. Furthermore, in order to obtain a division between experienced and inexperienced investors, an additional consolidated variable for "Expertise" was set up where respondents above a certain level were to be labelled as "Experts" and the ones below the level were to be labelled as "Non-experts". We also included general questions to gauge their general interest in mutual funds. We did not want to make the questionnaire too long and time-consuming in order to avoid a situation where respondents could adhere to filling in the questionnaire in a routine manner. In total we had 25 questions (Appendix). The questionnaire included an introduction where we stated the purpose of the survey and defined "Bank" and "Independent Fund Company", to eliminate possible misunderstandings.

5.3.3 Choice of the Study Group and Execution of Survey

When choosing the study group we wanted as broad a sample of people as possible to avoid biased or skewed results. In order to obtain as close to a representative sample of the Swedish market for mutual funds as possible, we asked people to fill in a questionnaire at T-Centralen/Cityterminalen on Maundy Thursday, 5 April 2007. By doing this we have tried to obtain results that can be said to represent the general Swedish demography, as people travelling to all Swedish regions passed through this hub on their way home for Easter vacation on this day. To further broaden the study group, we completed the survey by asking a number of individuals living in Malmö and students in the computer rooms at Stockholm School of Economics to complete the questionnaire.

The respondents were not given any extensive information regarding how to fill in the questionnaire. Although we were present while the respondents were filling in the questionnaire, any additional information was only given regarding how to interpret the scales of the questions, not the questions as such. The respondents were not rewarded for filling in the questionnaire apart from us wishing them a "Happy Easter". The questionnaire demanded about 5-7 minutes of a respondent's time.

5.3.4 Reliability

The reliability of an investigation refers to how trustworthy the actual investigation is and making sure that the same investigation can be repeated, obtaining the same results (Malhotra and Birks, 2006). Since we have combined several questions to create consolidated variables we need to be sure that the chosen questions can be considered to measure a single latent variable. This internal consistency can be confirmed by making sure that Cronbach's Alpha is at least 0.7. All three consolidated variables, as well as the "Expertise" variable, have a Cronbach's Alpha of more than 0.7, indicating a good level of reliability. The conducted prestudy helped assure this by testing the various variables and highlighting questions that needed to be made clearer in order to minimize any discrepancies in how respondents interpret the questions in the questionnaire.

5.3.5 Validity

The term validity refers to the degree a certain measure is absolved from both random and systematic errors of measurement, or to be more precise, the extent to which the investigated variables actually measure what they are intended to measure (Söderlund, 2005; Malhotra and Birks, 2006). By obtaining a high validity it is possible to use conclusions to generalise over a larger population than only the sample and the risk of drawing the wrong conclusions from the results of the investigation are thus reduced (Malhotra and Birks, 2006). To establish construct validity we have used previously tested questions and measurements based on several questions.

Regarding the internal validity, this is a measure of how well the results of the investigation correspond with reality and whether the observed effects on the tested variables could have been influenced by external variables (Malhotra and Birks, 2006). It is possible that the prevailing conditions at T-Centralen/Cityterminalen, with a lot of people in movement, could have had some influence on the internal validity of our study. However, respondents were supervised to a certain extent while filling in the questionnaire in order to make sure they did not confer with each other over answers. Although only a smaller portion of the responses to the questionnaire were collected in Malmö and the computer rooms of the Stockholm School of Economics, the same form of supervision was conducted there in order to ensure an even level of internal validity.

External validity refers to whether the relationships between cause and effect that are exposed in the investigation are open to generalisation or not. Potential threats to the external validity can arise when the set of tested variables does not take into account the influence of other relevant variables that exist in reality (Malhotra and Birks, 2006). We have attempted to eliminate any discrepancies due to other variables by conducting our survey at T-Centralen/Cityterminalen which we believe is the best location at our disposal that could come close to being described as a representative location fitted to give as an unbiased picture as possible of the opinions of the Swedish people.

6. Data

6.1 The Fund Data Set

We collected the total net assets from Finansinspektionen, while NAVs for all the funds were obtained from the SIX Trust database. The examined period is 2000/12/31-2006/12/31 on a quarterly basis, and thus the sample comprises data on a total of 25 quarters. In the last quarter of 2006 the data consisted of 441 funds, but a number of funds were excluded due to start-ups (started in the last quarter 2006) and because they are non-public (not available to common investors) which left us with 425 funds for the last quarter. The first quarter consists of 346 funds and the difference is due to start-ups and that the obtained data is incomplete for 17 funds. Gaps for 120 funds in the data from Finansinspektionen were filled with information from PPM and directly from the fund companies. An overview of the number of funds, average total net assets and average flow is presented in Table 1.

		2000/12	2001/12	2002/12	2003/12	2004/12	2005/12	2006/12
All								
	Quantity	346	364	383	391	405	417	425
TNA	Total	606 461	610 691	470 058	630 219	730 407	1 003 426	1 195 290
	Mean	1 753	1 678	1 227	1 612	1 803	2 406	2 812
	Std. Deviation	3 500	3 481	2 454	3 185	3 608	4 677	5 742
Flow	Mean		34	18	45	36	35	18
	Std. Deviation		186	76	194	187	111	136

Table 1.The number of funds, average Total Net Assets (TNA) in MSEK and average net flows
(growth) in percentage 2000/12-2006/12.

The data includes funds from 32 fund companies. If one brand has several fund companies¹³ we have treated them as one, as they operate under the same roof and an investor is unlikely to view them as separate entities. Looking at the last quarter in Table 2, the average amount of funds per company is 13.3 and the average total net assets under management are 37,353 MSEK. Dividing the data into two groups, bank and non-bank, the bank group has an average total net assets of 184,226 MSEK while the non-bank group has an average total net assets of 16,371 MSEK. The numbers show the dominance of the four main banks, as their average size is substantially larger than for the other fund companies. Banks manage 202 of all the

¹³ For example Folksam has two fund management companies, Folksam Fond Aktiebolag and Folksam LO Fond Ab.

funds, and the independent fund companies manage 223. The average amount of funds per bank is thus much higher than for the other asset managers.

	Bank	Independent Fund Company	All
Total Net As	sets (MSEK)		
Total	736 905	458 384	1 195 290
Mean	184 226	16 371	37 353
Std. Deviation	92 754	21 144	66 356
Number of	Funds Sold b	y Company	
Total	202	223	425
Mean	50,5	8,0	13,3
Std. Deviation	13,5	8,6	16,9
Quantity	4	28	32

Table 2.The Total Net Assets (TNA) in MSEK, the number of funds sold by company and the
number of fund companies per 2006/12. Refer to the Appendix for a complete table over
the full period (Table 13).

To further illustrate the dominance of the four main banks on the Swedish market for mutual funds, one can look at the total net assets under management among banks and independent fund companies (Figure 2). The data shows that when combined, the four main banks, in the last quarter of 2006, had more than one and half times the amount of assets under management compared to the independent fund companies.

In the last quarter, the dataset contains funds that have combined total net assets that equal 95% of the total net assets of Swedish registered funds and 78% of all funds offered in Sweden as reported by Fondbolagens Förening. As we include almost all the funds that are registered in Sweden, and have a large percentage of the total net assets as reported by Finansinspektionen we believe that we have a more than sufficient sample to cover the investigated area well.

Figure 2. Total Net Assets under management for the period 2000/12-2006/12, divided by banks, independent fund companies and total.



Assets Under Management (MSEK)

6.1.1 Categorizing the Data

The funds are divided based on the type of securities that they mainly invest in. There are three types of funds: equity, mixed and fixed income. As of the last quarter 2006 the data contains 284 equity funds, 69 mixed funds and 72 fixed income funds.

To check for the flows into different investment categories the funds are then divided based on their investment objectives. Funds normally have a geographical area as their investment objective, which is why we have chosen to divide the data into Global, Sweden, Europe, North America, Asia (ex Japan), Japan, Emerging Market Eastern Europe (EM EE) and Emerging Market Other (EM Other). The Emerging Market (EM Other) category includes funds that invest in India, Latin America, Africa and funds investing in all emerging markets, and they are stacked together as the number of funds in each separate category is very small. If funds do not have a geographical area as the investment objective they focus on a certain industry. In our data the number of industry funds is low (20), and the number of funds focusing on the same industry is thus even lower. For this reason we have categorized the industry funds based on the geographical area that they invest in as well. Equity funds are clearly dominating, followed by almost equally many mixed and fixed income funds. The Global and Sweden categories are dominating within all three different types. Equity funds are more spread between the other geographical categories, while there are very few mixed and fixed income funds with these investment objectives.

	Equity		Miz	Mixed		ncome
	2000/12	2006/12	2000/12	2006/12	2000/12	2006/12
Global	71	82	38	46	3	3
Sweden	77	97	15	21	56	66
Nordic Region	12	14	0	0	0	0
Europe	27	31	1	2	2	3
North America	12	12	0	0	0	0
Asia (ex Japan)	10	12	0	0	0	0
Japan	8	8	0	0	0	0
EM EE*	7	16	0	0	0	0
EM Other*	7	12	0	0	0	0
Total	231	284	54	69	61	72
% of Total	67%	67%	16%	16%	17%	17%

 Table 3.
 Division of funds based on geographical region of investment.

* Emerging Markets Eastern Europe (EM EE) and Emerging Markets Other (EM Other). The Emerging Market (EM Other) category includes funds that invest in India, Latin America, Africa and funds investing in all emerging markets.

6.1.2 Survivorship Bias

The data set has survivorship bias, as we have not been able to include funds that were merged or closed during the period. Previous research shows this can bias the performance measure upwards (e.g. Malkiel, 1995). There could thus be a risk of failing to detect a performance-flow relationship among the worst performing funds (Brown et al., 1992; Goetzmann et al., 1992). Tests have been performed to see if this actually is the case. For example Sirri and Tufano (1998), Gruber (1996) and Frye (2001) find that the results of their performance-flow studies are not affected by survivorship biases in their samples.

The results above are based on U.S. data, but as we use data on Swedish funds the survivorship bias on the Swedish market is of interest. Dahlquist et al., (2000) study the bias on the Swedish market and find that it is lower compared to estimates based on U.S. data. Based on the previous research we have concluded that survivorship bias can be expected to be of minor importance in our sample. We have thus chosen not to undertake a further investigation of this, since it can be supposed that it should not have a significant effect on our results.

6.2 The Survey Data Set

In total 275 questionnaires were collected at the three different locations, the vast majority of them at T-Centralen/Cityterminalen. The number of people asked to fill in the questionnaire was about 1,100 resulting in a response frequency of around 25%. The reason we were forced to ask such a vast number of people is that people were often "on-the-go" and felt they did not have enough time to answer the questionnaire. Nevertheless, T-Centralen/Cityterminalen, in combination with the choice of date, was still a successful location for carrying out the survey. Furthermore, out of the 275 collected answers, only six were not suitable for use due to incomplete answers or filled in routinely with, for example, only the number "1". This results in a reduction of the total number of answers of roughly 2% which is an extremely low rejection rate.

As mentioned, the population sample sought after was as broad as possible to obtain a representative view of investors on the Swedish market for mutual funds. The gender distribution was relatively even with 54.3% women and 45.7% men and an age range of 18-72+ with a certain overrepresentation of people between 18 and 26 and, perhaps not surprisingly, a lack of people between 63 and 71 and 72+. The survey has aimed at acquiring such a broad sample in order to allow for general conclusions across the population rather than investigating the behaviour of certain age generations.

7. Results

7.1 Fund Data

The analysis of the fund data is divided into two parts. Firstly, to give a more intuitive understanding of the relationship between fund flow and fund performance, the data is divided into quartiles based on performance and compared to fund flow. Secondly, the results of the regression analysis are presented.

The relationship between performance and flow is shown in Figure 3 (and Table 14 in the Appendix). The funds are divided by category and sorted on performance for each year from 2000 to 2006. Based on the sorting, the funds are divided into quartiles, where quartile four contains the funds with the best performance. For each year and quartile in the investigated period the average fund flow is calculated. The graph shows the average flow per quartile over the whole period. The average flow into funds within quartile one is about half the flow compared to the average flow into funds within quartile four for all categories. The relationship seems to be positive for all types, but for mixed and fixed income funds it does not appear to be linear. The results suggest that there exists a positive relationship between performance and flow. However, it is important to remember that in this analysis we do not take the other variables into account that can have an effect on the relationship.

Figure 3. The relationship between performance and flow. The figure shows the relationship between performance and flow. The funds are divided by category and sorted on performance for each year from 2000 to 2006. Based on the sorting for each year the funds are divided into quartiles, where the funds with the best performance are in quartile four. Flow is defined as presented in 5.2.1. The graph shows the average flow over the period.



7.1.1 Regression Analysis

The results from the regression analysis are presented in this section. We have chosen not to report the estimation results for the quarterly dummy for the sake of brevity. If not indicated otherwise, the significance tests are carried out on the 5% level.

Independent variables	Equity	Mixed	Fixed Income	All
$RET_{i,t-1}$	0.126	1.211	1.210	0.124
1,1 1	(0.141)	(0.000)	(0.077)	(0.039)
$\ln(TNA_{i,t-1})$	-0.022	-0.026	-0.011	-0.025
1,1-17	(0.000)	(0.000)	(0.113)	(0.000)
$ln(COMPTNA_{i+1})$	0.004	0.010	-0.012	0.005
(1,1-1)	(0.418)	(0.335)	(0.193)	(0.159)
BANK	0.003	-0.025	0.015	0.001
	(0.858)	(0.288)	(0.596)	(.931)
COMPFLOW:	0.708	0.235	0.435	0.646
	(0.000)	(0.075)	(0.000)	(0.000)
CATFLOW	0.797	1.941	0.799	0.900
1,1	(0.000)	(0.000)	(0.002)	(0.000)
FLOW.	0.026	0.365	0.009	0.053
	(0.036)	(0.000)	(0.456)	(0.239)
	. /	. ,	. ,	
Adjusted R^2	11.46%	34.86%	8.35%	11.11%
No of Observations	5858	1421	1546	8825

Table 4.Coefficient estimates and p-values (in parentheses) from a regression of various variables
on the net asset flow into mutual funds.

The regression is conducted on the three types of funds and on the whole sample. For past performance the results are mixed, as there is a significant relationship between flow and past raw returns for mixed funds and for the whole sample. For fixed income funds the relationship is significant at the 10% level. The estimated coefficients show a much stronger relationship for mixed and fixed income types compared to equity funds and the whole sample. Even if the results point in slightly different directions we conclude that there is some evidence of a performance-flow relationship on the Swedish market, as three of the estimations indicate that a relationship exists.

Hypothesis 1: There is no performance-flow relationship among funds in Sweden.

The results from the analysis DO NOT support the hypothesis.

Fund size, $\ln(TNA_{i,t-1})$, is as expected negatively related to flow, meaning that large funds grow slower compared to small funds. The variable is significant for all types except fixed income funds. Company size, $\ln(COMPTNA_{i,t-1})$, has a positive coefficient for all types but fixed income, but is not significant for any of the categories. The results thus point towards a finding that the size of the fund company does not have a significant impact on the fund flows. The *BANK* dummy is not significant for any types, suggesting that banks do not receive abnormally large flows. Flow to the fund company, *COMPFLOW_{i,t}*, is an important determinant of the fund flows. The relationship is positive and significant for all types of funds and thus in line with our initial assumptions, even if the coefficient for mixed funds is only significant at the 10% level. As expected, flow to category, *CATFLOW_{i,t}*, is an important determinant of flows and the estimated coefficients are positive and significant in all cases. The growth in the past period, *FLOW_{t-1}*, is significant for the equity and mixed fund categories. As expected the estimated coefficients are positive. Again we see that the results are somewhat mixed when it comes to the effect of information costs, but the results clearly point towards banks not having an advantage compared to independent fund companies.

Hypothesis 2: Banks receive larger flows due to the high information costs of investors.

The results from the analysis DO NOT support the hypothesis.

7.2 Survey Data

After analysing the data collected from the survey using SPSS, a number of observations have been made. When looking at how the total population sample values the three different consolidated variables "Company attributes", "Fund attributes" and "Visibility", the results are as shown in Table 5.

Table 5.	Total population sample's valuation of consolidated variable	les.
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	Minimum	Maximum	Mean	Std. Deviation
Company	1,00	7,00	4,17	1,31
Fund	1,00	6,75	4,01	1,24
Visibility	1,00	7,00	3,81	1,20

One can see that the difference between the mean of the variables is almost non-existent. Therefore, on a general level, it appears as if there is no variable that outweighs another in terms of subjective importance.

When the population sample is divided into our two groups of "Experts" and "Non-experts" the following results are noted in Table 6 and 7 respectively.

	Minimum	Maximum	Mean	Std. Deviation
Company	1,00	5,60	3,52	1,16
Fund	2,50	6,50	4,96	0,97
Visibility	1,00	6,00	3,47	1,15

Table 6. Experts' valuation of consolidated variables.

Table 7. Non-experts' valuation of consolidated variables.

	Minimum	Maximum	Mean	Std. Deviation
Company	1,00	7,00	4,28	1,30
Fund	1,00	6,75	3,84	1,21
Visibility	1,00	7,00	3,87	1,21

According to these results "Experts" clearly favour "Fund attributes" (Mean = 4.9688) over "Company attributes" (Mean = 3.5250) as well as "Visibility" (Mean = 3.4750). Here "Visibility" is the least important consolidated variable. Among "Non-experts" the situation is very different from that of "Experts". "Non-experts" appear to value "Company attributes" (Mean = 4.2847) a lot more than "Fund attributes" (Mean = 3.8439) and "Visibility" (Mean = 3.8734). Interesting to notice is also that, although the difference may be marginal, "Visibility" is considered more important than "Fund attributes" among "Non-experts".

To be able to ascertain the difference in valuation between the two groups, the results must be shown to be significant. Testing for significance on the two independent variables (groups) the results were (Table 8):

 Table 8.
 Non-parametric test for significance between "Experts" and "Non-experts".

i.

	Company	Fund	Visibility
Asymp. Sig. (2-tailed)	0,000	0,000	0,114

The results from Tables 6-8 show that the difference in valuation of the consolidated variables "Company attributes" and "Fund attributes" is significant between the two groups. However, the valuation of the consolidated variable "Visibility" could not be ascertained on a significant level.

Hypothesis 3a: Experienced investors value fund specific variables more than inexperienced investors.

The results from the analysis DO support the hypothesis.

Hypothesis 3b: Inexperienced investors value company specific variables more than experienced investors.

The results from the analysis DO support the hypothesis.

Hypothesis 4: Inexperienced investors value visibility specific variables more than experienced investors.

The results from the analysis DO NOT support the hypothesis.

When looking at the data from specific questions in the questionnaire, several differences are revealed in terms of the importance respondents have assigned to individual variables. On a general level it is evident that respondents place most importance on the reputation of the company (Mean = 5.26), as can be seen in Table 9. The availability of the company (Mean = 4.54), its advisors (Mean = 4.23) and the fees of funds (Mean = 4.56) are also considered to be factors of significant importance.

After dividing the population sample into the two groups "Experts" (Table 9) and "Nonexperts" one can see that "Experts" assign most importance to the fees of the funds (Mean = 5.45) and their past performance (Mean = 5.30). "Non-experts", on the other hand, view the reputation of the company (Mean = 5.34), its availability (Mean = 4.63) and the advice given by their advisor (Mean = 4.45) as the most important factors affecting their decision of funds to invest in. Advertising is the factor that both "Experts" and "Non-experts", as well as on a total population sample-level, attach the least importance to (Mean = 2.50; 2.93 and 2.87 respectively). Other significant differences between "Non-experts" and "Experts" are the importance the two groups attribute to the actor (Mean = 4.29 for "Non-experts", Mean = 3.55 for "Experts") and the size of the actor (Mean = 4.10 for "Non-experts", Mean = 3.45 for "Experts") whose funds they invest in.

Table 9.Valuation of individual variables by Experts, Non-experts and the total population sample.
The last column presents a test for significance between sample mean differences of
Experts' and Non-experts' valuation of individual variables. The questions are presented
in the Appendix.

	Experts		Non-experts		All		Asymp. Sig.(2-
	Mean	Median	Mean	Median	Mean	Median	tailed)
Past Performance	5,30	6,00	3,61	4,00	3,86	4,00	0,000
Risk	4,78	5,00	3,76	4,00	3,91	4,00	0,000
Fees	5,45	5,00	4,40	4,00	4,56	5,00	0,001
Analysts	3,63	4,00	3,95	4,00	3,90	4,00	0,330
Advisors	2,98	3,00	4,45	5,00	4,23	4,00	0,000
Advertising	2,50	2,00	2,93	3,00	2,87	3,00	0,150
Availability	4,03	4,00	4,63	5,00	4,54	5,00	0,030
Company Size	3,45	4,00	4,10	4,00	4,01	4,00	0,019
Size of Fund	4,35	5,00	3,60	4,00	3,71	4,00	0,001
Reputation	4,80	5,00	5,34	6,00	5,26	6,00	0,055
Actor	3,55	3,50	4,29	4,00	4,18	4,00	0,018
Media	3,13	3,00	3,34	3,00	3,31	3,00	0,525

8. Discussion

We set out to investigate the relationship between fund flows and fund specific/company specific attributes and to explore and expose the factors that investors value the most as a basis for their investment decisions in the setting of the Swedish mutual fund market. The results of our analysis are discussed in the section below.

8.1 The Performance-flow Relationship

In line with previous research on U.S. data, but in contrast to our first hypothesis we have found evidence of a positive performance-flow relationship on the Swedish market. The regression analysis shows that the relationship is positive and significant for mixed funds, for fixed income funds and for the whole sample. Funds that perform well within these types of funds should thus see subsequent inflows. The results are the same for both banks and independent fund companies, suggesting that as long as the performance is good, investments will follow. We find the results interesting, as the dominance of the four main banks does not seem to have the effect on the fund flows that we expected. A possible interpretation of the results is that bank managed funds are performing as well as funds managed by independent fund companies. Of course, a performance-flow relationship exists on the market, if banks receive both large inflows and perform better than the independent fund companies.

8.2 Search and Information Costs

Previous research has shown that search and information costs are important to investors. Our analysis included four variables to measure these costs; fund size, company size, a bank dummy and flows to the company. The results from our study show mixed results. Company flow is positively related to fund flow for all the types of funds, which is in line with our expectations. The results suggest that there are spill-over effects, where marketing efforts for the whole company or for specific products generate flows to all the funds that the company manages. Fund company specific factors are thus important to investors. The spill-over effects can also be due to star funds within the fund company, where the best performing fund generates additional flows to the other funds that the company manages. The effect occurs because the star fund generates visibility or expectations for the company and respectively for all the funds that the company has under management. The findings are in line with previous research as the flow to company and visibility can be directly linked to fund flows.

The fund size is, as expected, negatively related to flows, while company size is not a significant determinant of flows. For fund size this is in line with our expectations, while we expected company size to be positively related to flow. With the definition of fund flows as the growth in total net assets in a certain period, it follows that it will be easier for smaller funds to show growth, which is why we see the negative relationship. The structure on the Swedish market for mutual funds might be the reason why company size is not significant, as it comprises many relatively small players and a few larger ones. There are also relatively few fund companies on the Swedish market for mutual funds, so many of them are known to the investors despite the fact that they are small.

The Bank dummy variable is not significant for any of the types of funds, suggesting that bank managed funds do not have an advantage on the market. Considering that the banks clearly are dominating the market and that it has been reported that banks receive abnormally large flows in such cases, it is interesting that we do not see an advantage for their funds. The investors are thus not affected by the fact that the banks are dominating, and seem to invest their money in all funds available on the market. There can be different reasons to why we see these results. Today, there are many ways to reach potential investors, for example, through the internet which is why the traditional brick and mortar distribution network might be losing its importance. The dominance of banks is supposedly mostly affecting individual private investors, but as discussed earlier in the thesis there are other types of investors acting on the market as well, who are more experienced and should base their investment decisions on all the available funds. The observed difference between banks and fund companies is smaller than expected and, as suggested in previous research, it is not clear if banks are underperforming independent fund companies in managing their funds. Thus, investing your money with a bank is not necessarily a bad choice.

Overall, the analysis above points towards search and information costs as being important to investors, but banks not having an advantage due to this. Fund company specific factors are important where, for example, marketing efforts for the whole company can increase the flows.

8.3 Other Variables

The flow to the fund region is an important determinant of flows. The variable is positively related to and significant in all fund categories. It is one of the most important determinants of flow, suggesting that investors are guided by region specific characteristics. This evidence points towards the fact that investors are guided by other factors than those directly related to the fund or fund company.

The results for the flow in the previous period show dissimilar results. It is significant for equity and mixed funds, while it is not significant for the other two estimations. For equity funds the estimated coefficient is much smaller compared to mixed funds. There is thus no clear evidence of how investors are affected by this variable. Previous research has shown that the relationship is positive and significant.

8.4 Experienced vs Inexperienced Investors

As expected, our study shows that experienced investors with a higher level of involvement and established expertise, although subjective, direct the focus of their efforts on looking at fund specific variables rather than more intangible ones such as company specific variables and visibility (Hypothesis 3a). This group is not as dependent on their advisors, if they even have one. Instead they are generally more capable and willing to acquire information as well as assume a higher level of control over their decision-making process, ultimately attributing less importance to what actor on the market they invest with or the size of that particular actor. However, one thing worthy of mention is that our study was conducted at a time when investors have been subjected to a bull market for a quite long period of time and there could therefore be reason to believe that the respondents' subjective valuations of variables are influenced by this. As Martenson (2005) argues, high returns in bull markets may increase subjective knowledge and thereby the illusion of control. Even so, these "Experts" have submitted a higher valuation of fund specific variables and thus, high performance, low fees, risk and the size of the fund are factors experienced investors look for as grounds for their decisions. This indicates that these are factors both banks and independent fund companies should focus on if the goal is to target experienced investors.

Investing in funds is a process comprising a complex product demanding a high level of involvement in order to obtain sufficient information and render qualified decision-making.

The inexperienced investor is not interested or unable to process the vast amounts of financial information available to them to acquire a solid knowledge foundation to base their decisions on. The results from our study show that as involvement and expertise decreases, the importance investors place in more intangible variables, such as company specific ones, rises (Hypothesis 3b). That is, investors with a low level of expertise do not feel confident and therefore choose to place the responsibility of processing the financial information on the shoulders of their advisor/bank/asset manager. This appears to have significant consequences on the choice of fund company as investors with a low level of expertise, the majority, choose not to look at what their supplier of funds actually delivers but instead look to actors they know have an established size, reputation and whom they have an established relationship with. The end result is that the extensive network of local branch offices possessed by the four large banks causes investors to be channelled into the arms of these banks giving them an advantage over independent fund companies. The bank then, of course, gives investment advice that funnels the investors' capital into funds managed by that particular bank. The size of the four large banks is thus a significant benefit in accumulating inexperienced investors who comprise the bulk of the investor population. However, the inexperienced investor does not necessarily make a poor choice when choosing a bank managed fund. The increased search cost of finding "the ultimate" fund, would be much higher than just selecting any fund, and the performance difference is generally likely to be quite small. In fact, inexperienced investors might do best in realizing that they *are* inexperienced and select the fund(s) that an advisor at their bank suggests (as the advice is free).

As experienced investors are more prone to look for, and be affected by, information regarding fund specific variables they are also more likely to digress from the channelling into the four large banks. Chances are higher they will discover other investment opportunities within independent fund companies and either shift or spread their investments across both types of actors. However, the vast majority of people living in Sweden have an account/relationship with at least one of the four large banks which means the banks automatically have a point of contact and potential lead for more business.

8.5 Investors and Visibility

Analysis of the results did not show significant support for the notion that inexperienced investors value visibility specific variables more than experienced investors (Hypothesis 4).

As inexperienced investors do not spend considerable time collecting and processing the available information on the market for funds they were expected to be more prone to value factors that relate to the visibility of a particular fund or company. Their low involvement can arguably make it more difficult to achieve mental penetration and make the investor acknowledge the option of investing in funds of an independent fund company rather than with the more conventional bank. In the case of experienced investors who search and process more information than inexperienced investors, it appears to be enough to establish a general presence on the market and from there on focus on the fund specific variables, as mentioned. According to the analysis of the results, the focus on visibility specific variables should thus be secondary to fund specific variables and company specific variables when targeting experienced and inexperienced investors respectively.

What is slightly peculiar is that "Advertising" received the lowest mean ranking of all individual variables in terms of importance according to both "Experts" and "Non-experts" as well as on the total population sample level. One explanation for this could lie in the subjectivity of the respondents' answers as they could be of the belief that they are not affected by advertising of funds to a significant extent. It is also possible that experienced investors view advertising as superfluous information of something they already are aware of and inexperienced investors simply pay relatively little or no attention to advertising for funds or fund companies. If this is true, independent fund companies are again likely to be at a disadvantage as they are likely to specialise in funds while the four large banks can benefit from the advertising of their other operations, in the end attracting customers who later also choose to invest in the bank's funds even though that was not their primary reason for contacting the bank.

An area adjacent to this is the possibility independent fund companies have of gaining access to the distribution network of the four main banks. As was mentioned early on in this thesis, independent fund companies can reach an agreement with one of the banks to include its fund(s) in the array of bank managed funds. This makes the fund available to investors choosing banks as their primary supplier of funds. It could also be true that inexperienced investors are not even aware of the fact that the fund they are investing in through the bank, does not actually belong to the bank at all. However, even though many independent fund companies distribute some of their funds through the networks of banks, advisors of the bank are still likely to primarily advocate the funds of the bank instead of those of the independent fund company.

8.6 Consequences for Banks and Independent Fund Companies

The results from the different analyses in many ways combine to point to the same conclusions. Even though experienced and inexperienced investors value different factors, fund companies should focus on performance to attract any type of investor as a positive performance-flow relationship exists on the Swedish market for mutual funds. The results show that both banks and independent fund companies with well performing funds will see subsequent inflows and also that banks seem to perform as well as independent fund companies. To have a well performing fund is a good way for independent fund companies to get more recognised among investors, as they are less recognised than the four main banks.

Despite the fact that the four main banks dominate the market we do not find that they have an advantage compared to the independent fund companies in that their funds receive abnormally large flows. This has interesting implications for the marketing of mutual funds. While banks do not receive abnormally large flows, we have found that marketing on the company level and other company specific variables are important in determining flows. Companies that are visible or have a well performing fund that generates spill-over effects can use this to generate flows for all the funds that they manage. On the other hand, according to the survey, all investors treat visibility as the least important consolidated variable suggesting that factors related to visibility, such as advertising, are not particularly important when making investment decisions. The results of the data analysis show that this is not the case, and thus the results from the survey, regarding this question, could lie in the subjectivity of the respondents' answers.

The impact of the structure of the Swedish market for mutual funds has become more and more evident. One example is how inexperienced investors place a great deal more importance in what actor they invest with in relation to experienced investors. The same is true for company size. Thus, banks being the largest actors stand in a much better position than independent fund companies. Although the four main banks fiercely compete with each other over customers, they all automatically receive a much larger flow of customers due to the convenience and security that inexperienced investors seek. In addition, the banks possessing their extremely potent distribution channel, offering the capability to handle the flow of customers, puts them at further advantage. The banks, in order to maintain their dominance and increase flows, should continue to exploit their distribution channel in the form of local branch offices to attract individual investors. Independent fund companies are thus left at a disadvantage due to their lack of this powerful distribution channel and are forced to chase customers to a much larger extent than the major banks need to.

The flow to category is also an important determinant of fund flows according to our estimated model. Especially for equity and mixed funds this is important, as for these types the risk-return relationship that an investor faces greatly depends on the market. When picking a fund investing in a certain category, it is important to evaluate the fund specific variables. To some extent this can explain why experienced investors value fund specific variables while inexperienced investors value fund company specific variables as experienced investors are more sensitive to the investment category of the fund.

9. Conclusions

Performance is positively related to flows on the Swedish mutual fund market for certain types of funds. For mixed funds, fixed income funds and for the sample as a whole, performance is positively related to flows. For equity funds we do not find a significant relationship. The fact that the Swedish market is dominated by four banks is not affecting the performance-flow relationship to the extent that we initially expected.

While performance has been shown to be significant in certain cases, it is important to acknowledge that fund specific characteristics are not necessarily the main determinant of the interest of investors. On the contrary, the less experienced an investor is, the more value they place in factors connected to the company itself, such as its reputation and its availability. This is because they lack the necessary knowledge, and the desire to gain this knowledge, to comfortably be able to assess complex financial products by themselves.

Inexperienced investors do not significantly value fund- and fund company visibility more than experienced investors. However, while experienced investors seem to only demand that the fund company establishes a general presence on the market in order to recognise it, inexperienced investors seem to crave higher levels of visibility for it to have an impact on their decision-making. In addition, the low involvement of inexperienced investors is likely to mean that considerable efforts to communicate visibility are needed in order to have an impact. This is further underlined by the low valuation investors attached to advertising.

All investors face search and information costs. Despite the fact that the four main banks clearly are dominating the market, both in terms of size and assets under management, the funds that they manage do not receive abnormally large flows. Even so, the visibility is important for all fund companies, where we see that marketing efforts for the whole company and spill-over effects from good performers attract flows to all funds that the company manages.

To conclude, a relationship exists between fund flows and certain fund company/fund specific attributes. The factors investors value differs as experienced investors value fund specific factors, while inexperienced investors favour company specific factors. The structure on the Swedish market for mutual funds has an impact on the results.

10. Suggestions for Further Research

This thesis is, to the best of our knowledge, the first to actually attempt to identify the underlying variables behind the decisions investors make regarding mutual funds. The variables in our investigation could benefit from a replicating or similar study which would add further strength to the conclusions drawn from the results in this thesis.

Furthermore, it would be useful to subject the variables identified in this thesis to more detailed practical testing to verify whether they are true only in the subjective mind of the investor or if they also bear significant truth in real-world, dynamic situations.

We have looked mainly at the net flows of funds and used the performance in the previous quarter as the determinant of subsequent flows. It would be interesting to look at different time periods and perhaps find evidence that other instances of time have significant effects on the flows to funds. Also, the convexity of the performance-flow relationship on the Swedish market for mutual funds could be analysed.

Performance has been an integral subject of this thesis and it would be interesting to set up a study with two groups, similar to ours, and then investigate the difference in actual performance between the portfolios of "Experts" and "Non-experts". This could show whether getting more involved in the vast amounts of financial information significantly increases return on investments.

An adjacent area to the one we have covered in this thesis is the growth of ethical funds and the importance investors place in investing in an ethical manner. As this category of funds grows, it is likely that its impact on investor decision-making increases and the area is thus open to further research. This is further commented upon in the Appendix.

11. References

Alba, J. W., Hutchinson, J. W., (1987), *Dimensions of Consumer Expertise*, Journal of Consumer Research, Vol. 13, No. 4, pp. 411–454.

Aldridge, A., (1998), *Habitus and Cultural Capital in the Field of Personal Finance*, The Sociological Review, Vol. 46, No. 1, pp. 1–23.

Barber, B. M., Odean, T., Zheng, L., (2005), *Out of Sight, Out of Mind: The Effects of Expenses on Mutual Fund Flows*, Journal of Business, Vol. 78, No. 6, pp. 2095-2119.

Benartzi, S., Thaler, R. H., (1999), *Risk Aversion or Myopia? Choices in Repeated Gambles and Retirement Investments*, Management Science, Vol. 45, No. 3, March, pp. 364–381.

Ber, S., Ruenzi, S., (2006), On the Usability of Synthetic Measures of Mutual Fund Net-Flows, Centre for Financial Research, Working paper, No.06-05.

Bergstresser, D., Chalmers, J.M.R., Tufano, P., (2004), *Assessing the Costs and Benefits of Brokers in the Mutual Fund Industry*, Working paper, Harvard Business School and University of Oregon.

Brown, S., Goetzmann, W., Ibbotson, R., Ross, S., (1992), *Survivorship Bias in Performance Studies*, Review of Financial studies, Vol. 5, pp. 553-580.

Capon, N., Fitzsimons, G. J., Prince, R. A., (1996), *An Individual Level Analysis of the Mutual Fund Investment Decision*, Journal of Financial Services Research, Vol. 10, No. 1, pp. 59–82.

Carhart, M. M. (1997), *On Persistence in Mutual Fund Performance*, Journal of Finance, Vol. 52, No. 1, pp. 57–82.

Chevalier, J., Ellison, G. (1997), *Risk Taking by Mutual Funds as a Response to Incentives*, Journal of Political Economy, Vol. 105, pp.1167-200.

Cooper, M. J., Gulen, H., Raghavendra Rau, P., (2004), *Changing Names with Style: Mutual Fund Name Changes and Their Effects on Fund Flows*, Forthcoming, Journal of Finance.

Dahlquist, M., Engström, S., Söderling, P., (2000), *Performance and Characteristics of Swedish Mutual Funds*, Journal of Financial and Quantitative Analysis, Vol. 35, Issue 3, pp. 409-423.

Dawar, N., Parker, W. P., (1994), *Marketing Universals: Consumers' Use of Brand Name, Price, Physical Appearance, and Retailer Reputations as Signals of Product Quality*, Journal of Marketing, Vol. 58, April, pp. 81–95.

Del Guercio, D., Tkac, P. A., (2002), *The Determinants of the Flow of Funds of Managed Portfolios: Mutual Funds vs. Pension Funds*, Journal of Financial and Quantitative Analysis, Vol. 37, No. 4, pp. 523-557.

Del Guercio, D., Tkac, P., (2005), *Star Power: Assessing the Effect of an Information Intermediary on Mutual Fund Flows*, Working Paper, Federal Reserve Bank of Atlanta/University of Oregon Department of Finance.

Dholakia, U. M., (2001), A Motivational Process Model of Product Involvement and Consumer Risk Perception, European Journal of Marketing, Vol. 35, No.11, pp. 1340–1361.

Engström, S., Westerberg, A., (2004), *Information Costs and Mutual Fund Flows*, SSE/EFI Working Paper Series in Economics and Finance No 555.

Foxall, G. R., Pallister, J. G., (1998), *Measuring Purchase Decision Involvement for Financial Services: Comparison of the Zaichkowsky and Mittal Scales*, International Journal of Bank Marketing, Vol. 16, No. 5, pp. 180–194.

Frye, M. B., (2001), *The Performance of Bank-Managed Mutual Funds*, the Journal of Financial Research, Vol. XXIV, No. 3, pp. 419-442.

Gallaher, S., Kaniel, R., Starks, L. T., (2006), *Madison Avenue Meets Wall Street: Mutual Fund Families, Competition and Advertising*, Available at Social Science Research Network: http://ssrn.com/abstract=879775.

Goetzmann, W., Greenwald, B., Huberman, G., (1992), *Market Response to Mutual Fund Performance*, Working Paper, Columbia University Business School.

Grinblatt, M. and Titman, S.,(1992), *The Persistence in Mutual Fund Performance*, *Journal of Finance*, Vol. 47, No.5, pp. 1977-1984.

Gruber, M. J., (1996), Another Puzzle: The Growth in Actively Managed Mutual Funds, The Journal of Finance, Vol. LI, No. 3, pp.783-810.

Gualtieri, P., Petrella, G., (January 2005) *Does Visibility Affect Mutual Fund Flows?*, Working paper, Università Cattolica.

Holliday, K. K., (2004), Mutual Funds, Bank Marketing, Vol. 26, No. 7, pp. 23-31.

Ippolito, R. A. (1992), Consumer Reaction to Measures of Poor Quality: Evidence From the Mutual Fund Industry, Journal of Law & Economics, Vol. 35, pp. 45–70.

Ivkovic, Z., (2003), Is Blood Thicker than Water: Spillovers in Mutual Fund Families, Working paper, Yale School of Management.

Jacoby, J., Morrin, M., Johar, G., Gürhan, Z., Küss, A., Mazursky, D. (2001), *Training Novice Investors to Become More Expert: The Role of Information Accessing Strategy*, The Journal of Psychology and Financial Markets, Vol. 2, No. 2, pp. 69–79.

Jain, P. C., Shuang Wu, J., (2000), *Truth in Mutual Fund Advertising: Evidence on Future Performance and Fund Flows*, The Journal of Finance, LV(2), pp. 937–958.

Kaniel, R., Starks, L. T., Vasudevan, V., (2007), *Headlines and Bottom Lines: Attention and Learning Effects from Media Coverage of Mutual Funds*, Available at Social Science Research Network: <u>http://ssrn.com/abstract=687103</u>.

Knuutila, M., Puttonen, V., Smythe, T., (2006), *The Effect of Distribution Channels on Mutual Fund Flows*, Forthcoming in Journal of Financial Services Marketing.

Koppenhaver, G.D., (2000), *Circle Unbroken: Bank-affiliated Money Market Mutual Funds*, Working Paper, Iowa State University.

Laurent, G., Kapferer, J-N., (1985), *Measuring Consumer Involvement Profiles*, Journal of Marketing Research, Vol. 22, No. 1, pp. 41-53.

Lesseig, V. P., Long, D. M., Smythe, T. I., (2001), *The Impact of Fund Company Ownership* on Mutual Fund Expense and Returns: Do You Get What You Pay For?, Working Paper, University of Tennessee at Chattanooga.

Malhotra, N. K., Birks D. F., (2006), *Marketing Research: An Applied Orientation*, Upper Saddle River: Prentice-Hall International.

Malkiel, B. G., (1995), *Returns from Investing in Equity Mutual Funds 1971-1991*, Journal of Finance, Vol.50, pp. 549-572.

Martenson, R., (2005), Success in Complex Decision Contexts: The Impact of Consumer Knowledge, Involvement, and Risk Willingness on Return on Investments in Mutual Funds and Stocks, International Review of Retail, Distribution and Consumer Research, Vol. 15, No. 4, pp. 449-469.

McTague, J., (1994), Laggards No Longer, Barron's 74, F22-F23.

Nanda, V., Wang, Z. J., Zheng, L., (2004), *Family Values and the Star Phenomenon: Strategies of Mutual Fund Families*, The Review of Financial Studies, Vol. 17, No. 3, pp. 667-698.

Otten, R., Schweitzer, M., (2002), A Comparison Between the European and the US Mutual Fund Industry, Managerial Finance, Vol. 28, No. 1, pp. 14-35.

Oxenstierna, G., (2006), Placeringsrådgivning, Studentlitteratur, Stockholm.

Ruenzi, S., (2005), *Mutual Fund Growth in Standard and Specialist Market Segments*, Centre for Financial Research, Working paper, No.05-08.

Sandler, R. (2002) Sandler Review: Medium and Long-term Retail Savings in the UK, (London: HM Treasury).

Serwer, A., (1999), A Nation of Traders, Fortune, Vol. 40, No.7, 10 November.

Sirri, E. R., Tufano, P., (1998), *Costly Search and Mutual Fund Flows*, The Journal of Finance, Vol. LIII, No. 5, pp. 1589-1622.

Söderlund, M., (2005), Mätningar och mått i markandsundersökarens värld, Liber, Malmö.

Zaichkowsky, J. L., (1985a), *Measuring the Involvement Construct*, Journal of Consumer Research, Vol. 12, December, pp. 341–352.

Zaichkowsky, J. L., (1985b), *Familiarity: Product Use, Involvement or Expertise*, Advances in Consumer Research, Vol. 12, No. 1, pp. 296–299.

Zaichkowsky, J. L., (1986), *Conceptualizing Involvement*, Journal of Advertising, Vol. 15, No. 2, pp. 4–14.

Zaichkowsky, J. L., (1994), *The Personal Involvement Inventory: Reduction, Revision and Application to Advertising*, Journal of Advertising, Vol. 23, No. 4, December, pp. 59–70.

Zeckhauser, R., Patel, J., Hendricks, D., (1991), *Non-rational Actors and Financial Market Behavior*, Theory and Decision 1, pp. 257–287.

Databases: SIX Trust Database

Internet sources:

http://www.fondbolagen.se

http://www.morningstar.com

http://www.ppm.nu

http://www.riksbank.se

http://www.ssrn.com/

Publications:

Fondbolagens förening, Fondsparandet i Sverige 2006, Stockholm.

SEB, Annual Report 2006, Stockholm

Sveriges riksbank, Den svenska finansmarknaden 2006, Stockholm.

12. Appendix

12.1 Definitions

Avtalspension – Tjänstepension refers to the portion of retirement savings that the individual's employer pays in agreement with the union. The regulations are somewhat different depending on what union the individual belongs to but the investment of this part can, in general, also be controlled by the individual.

Equity funds refer to funds that invest exclusively in the stocks of companies.

Fixed income funds refer to funds that invest exclusively in securities with an interest rate such as bonds and T-bills.

Fonbolagens Förening refers to The Swedish Investment Fund Association and is an industry organization where 25 out of 32 of the fund companies that are included in our study (and others) are registered members.

Individual Retirement Account refers to the portion of savings for retirement that investors put aside and control themselves without the aid of the state. This is called *Individuellt Pensionssparande (IPS)* in Swedish.

Mixed funds refer to funds that mix investments to include portions of both equity and fixed income.

NAV refers to the Net Asset Value of a fund. NAV can also be interpreted as the value of one share that an investors hold.

OLS refers to the regression method Ordinary Least Squares.

PPM refers to Premium pension which is part of the national pension and is administered by the Premium Pension Authority (PPM). Individuals personally decide how they want their money managed by choosing from PPM's range of funds.

Raw Performance refers to the performance measured as the change in the fund's dividend adjusted NAV, i.e. the most basic way of measuring returns.

SPSS, or Statistical Package for the Social Sciences, is a computer program used for statistical analysis.

TNA refers to the total net assets of a fund. This is the sum of all assets within a fund.

12.2 Fund Data

12.2.1 Fund Company Characteristics

Firstly, we include a list of the fund companies that are included in the sample. Fund companies marked with * belong to one of the four main banks. Secondly, there is a complete table of the fund company characteristics over the whole analysed period.

Aktie-Ansvar AB AMF Pension Fondförvaltning AB Avanza Fonder AB Banco Fonder AB Carlson Fonder Aktiebolag Carnegie Fond AB Catella Fondförvaltning AB Cicero Fonder AB Danske Capital Sverige AB Didner & Gerge Fonder Aktiebolag E. Öhman J:or Fonder AB East Capital Asset Management Aktiebolag Eldsjäl Fond AB Enter Fonder AB Erik Penser Fonder AB Folksam Fond Aktiebolag Gustavia Capital Management AB Handelsbanken Fonder AB* HQ Fonder Sverige Aktiebolag Kaupthing Fonder AB Lannebo Fonder AB Länsförsäkringar Fondförvaltning AB Nordea Fonder Aktiebolag* SEB Investment Management AB* Simplicity AB Sjunde AP-fonden Skandia Fonder AB Spiltan Fonder AB Swedbank Robur Fonder AB* Svenska Lärarfonder Aktiebolag Västernorrlandsfonden AB XACT Fonder Aktiebolag

Table 13.The number of funds, Total Net Assets (TNA) in MSEK and number of funds for the
period 2000/12-2006/12.

	2000/12	2001/12	2002/12	2003/12	2004/12	2005/12	2006/12			
	Bank									
Quantity	4	4	4	4	4	4	4			
-										
			Assets Un	der Manag	ement (MS	EK)				
Total	468 384	456 181	336 758	439 818	489 945	645 307	736 905			
Mean	117 096	114 045	84 190	109 954	122 486	161 327	184 226			
S.D.	49 681	55 865	39 414	52 108	58 688	79 218	92 754			
			Number of	Funds So	ld By Comp	any				
Total	175	179	186	189	197	200	202			
Mean	43,8	44,8	46,5	47,3	49,3	50,0	50,5			
S.D.	6,2	7,5	8,5	9,9	12,7	13,6	13,5			
	Non Ponk									
Quantity	20	23	25	27	27	27	28			
,										
			Assets Un	der Manag	ement (MS	EK)				
Total	138 077	154 511	133 300	190 402	240 462	358 119	458 384			
Mean	4 931	5 518	4 761	6 800	8 588	12 790	16 371			
S.D.	8 126	8 608	7 393	9 715	11 918	16 917	21 144			
			Number of	Funds So	ld By Comp	anv				
Total	171	185	197	202	208	217	223			
Mean	8,6	8,0	7,9	7,5	7,7	8,0	8,0			
S.D.	9,3	8,9	9,0	8,8	8,8	8,8	8,6			
	-			All						
Quantity	24	27	29	31	31	31	32			
			Assets Un	der Manag	ement (MS	EK)				
Total	606 461	610 691	470 058	630 219	730 407	1 003 426	1 195 290			
Mean	18 952	19 084	14 689	19 694	22 825	31 357	37 353			
S.D.	41 434	41 187	30 170	39 324	43 837	57 858	66 356			
			Number of	Funds So	ld By Comr	anv				
Total	346	364	383	391	405	417	425			
Mean	14.4	13.5	13.2	12.6	13.1	13.5	13.3			
S.D.	16.0	15.8	16.1	16.1	16.8	17.0	16.9			
	,-		· • , ·	, .	, _	,-	, .			

Fund Company Characteristics

12.2.2 Relative Performance and Flow

Data on the relationship between performance and flow is presented in Table 14 below.

Table 14. The relationship between performance and flow. The funds are divided by category and sorted on performance for each year from 2000 to 2006. Based on the sorting the funds are divided into quartiles, where quartile 4 contains the funds with the best performance. Flow is defined as presented in 5.2.1. For each year and quartile in the investigated period the average fund flow is calculated.

	Relative Performance and Growth					
	2001/12	2002/12	2003/12	2004/12	2005/12	2006/12
Equity						
1	0,255	0,174	0,260	0,207	0,187	-0,005
2	0,193	0,078	0,249	0,142	0,251	0,000
3	0,227	0,092	0,890	0,374	0,426	-0,018
4	0,135	0,123	0,486	1,006	0,278	0,681
Mixed						
1	0,329	0,099	0,354	0,266	0,189	0,171
2	0,671	0,967	0,253	0,170	0,390	0,066
3	0,320	0,168	0,636	0,409	0,542	0,115
4	0,290	0,172	0,626	0,296	0,771	0,528
Fixed						
Income						
1	0,180	0,159	0,106	-0,066	0,619	0,087
2	0,252	0,527	0,155	0,241	0,203	0,031
3	2,415	-0,058	0,061	0,039	0,224	0,075
4	0,273	0,305	0,730	0,136	0,568	0,468
All						
1	0,242	0,186	0,219	0,127	0,302	0,035
2	0,240	0,315	0,236	0,190	0,305	0,127
3	0,243	0,044	0,743	0,284	0,501	0,095
4	0,611	0,147	0,538	0,796	0,236	0,432

12.3 Ethical Funds and the Threat of New Competitors

A topic that lies slightly outside the scope of this thesis, but is still worthy of mention is the growing popularity of investing in ethical funds. At the end of our questionnaire, respondents were given the opportunity to generally comment on the questionnaire and/or mention any additional factors of importance they felt had not been brought up. Although we did not expect to receive many comments, as people are generally reluctant to spend more time than they have to, we received comments from almost 5% of the 269 respondents. Most of these felt strongly about stressing the importance of ethical funds as a factor affecting their

decision-making process of fund choices. The growing awareness and consideration that investors are starting to show on ethics thus appears to be a source of demand that both banks and independent asset managers should look to exploit as an area of future business.

It is worthy of mention that the market for mutual funds is potentially open to less conventional market participants. As Martenson (2005) points out, standardised products such as index funds could just as well be sold by supermarket chains that live up to the standards set up by Finansinspektionen and other regulatory institutions. There is thus a possibility of market entry from new competitors who focus on the retailing perspective, at least in the area of less complex financial products.

12.4 The Survey

Enkät

April 2007

Hej! Vi skriver examensuppsats vid Handelshögskolan i Stockholm och vill undersöka konsumenters beteende vad gäller fondsparande. Vi skulle uppskatta om ni kunde ge oss några minuter av er tid för att besvara denna enkät. Med "bank" avses i enkäten någon av storbankerna (SEB, Nordea, Handelsbanken, Swedbank). Med "fondbolag" avses institution annan än storbankerna med inriktning på fonder (t.ex Avanza, Carnegie, East Capital, HQ Fonder, etc) Svara helt enkelt ärligt på frågorna om fondsparande. Enkäten är helt anonym.

Tack på förhand! Otto Donner & Oskar Oxenstierna

- 1. Sparar / investerar du i fonder i dagsläget?
 - Ja
 - Nej
- 2. Sparar / investerar du endast via PPM / avtalspension eller även individuellt?
 - Endast via PPM / Avtalspension
 - Även individuellt fondsparande
 - Vet ej

3. Sparar / investerar du via din bank och/eller andra fondbolag?

- Bank
- Fondbolag
- Både bank och fondbolag
- Vet ej

4. Vilken typ av fond har du? (Aktie-, ränte-, blandfond, etc) Du kan ange mer än ett svar.

- Aktiefonder
- Räntefonder
- Blandfonder
- Annat
- Vet ej

5. Hur mycket tid lägger du ner på dina val av fonder / införskaffa finansrelaterad information?

- 0-3 timmar / månad
- 4-7 timmar / månad
- 8-11 timmar / månad
- Mer än 11 timmar / månad

6. Hur intresserad skulle du säga att du var av fonder?

Inte ett dugg intresserad (1 2 3 4 5 6 7) Mycket intresserad

7. Hur viktigt är historisk avkastning för ditt val av fond? Oviktigt (1 2 3 4 5 6 7) Mycket viktigt
8. Hur kunnig anser du dig vara vad gäller fondsparande? Okunnig (1 2 3 4 5 6 7) Mycket kunnig
9. Hur viktig är fondens risk / rating på ditt val av fond? Oviktig (1 2 3 4 5 6 7) Mycket viktig
10. Hur viktiga är fondens avgifter för ditt val av fond? Oviktiga (1 2 3 4 5 6 7) Mycket viktiga
11. Hur viktiga är bankens / fondbolagets analytiker för ditt val av fond? Oviktiga (1 2 3 4 5 6 7) Mycket viktiga
12. Var skulle du placera dig själv på skalan nedanför?Jag kan ingenting om fondsparande (1 2 3 4 5 6 7) Jag är expert på fondsparande
13. Hur viktig är din rådgivare för ditt val av fond? Oviktig (1 2 3 4 5 6 7) Mycket viktig
14. Hur viktigt är reklam för ditt val av fond? Oviktigt (1 2 3 4 5 6 7) Mycket viktigt
 15. Hur viktig anser du bankens / fondbolagets tillänglighet vara? (T.ex enkelhet att boka möte, få rådgivning, osv) Oviktig (1 2 3 4 5 6 7) Mycket viktig
16. Hur viktig anser du bankens / fondbolagets storlek vara? Oviktig (1 2 3 4 5 6 7) Mycket viktig
17. Hur erfaren skulle du säga att du var vad gäller fondsparande? Helt oerfaren (1 2 3 4 5 6 7) Mycket oerfaren
18. Hur viktig anser du fondens storlek vara för ditt val av fond? Oviktig (1 2 3 4 5 6 7) Mycket viktig
19. Hur viktigt anser du bankens / fondbolagets rykte vara? Oviktigt (1 2 3 4 5 6 7) Mycket viktigt
20. Hur viktigt är det för dig vilken aktör på fondmarknaden du sparar / investerar hos? Oviktigt (1 2 3 4 5 6 7) Mycket viktigt
21. Hur viktigt är bankens / fondbolagets synlighet i media för ditt val av fond? Oviktigt (1 2 3 4 5 6 7) Mycket viktigt

22. Vilket av följande står NAV för vad gäller fondsparande?

- Net Aggregate Velocity
- Net Accumulated Variance
- Net Asset Value
- Vet ej

23. Är det några andra faktorer som påverkar ditt val av fonder som ej tagits upp i denna enkät?

Här fanns det utrymme för svarandens eventuella fritext.

24. Kön?

- Man
- Kvinna

25. Till vilken åldersgrupp hör du?

- 18-26
- 27-35
- 36-44
- 45-53
- 54-62
- 63-71
- 72+