The effect of distribution channels on mutual fund flows

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Abstract

The Morningstar fund rating has been reported to affect mutual fund flows in the U.S. markets. This paper finds that flow patterns in Finnish bank-managed funds are significantly different from the patterns in the U.S. Specifically, non-bank funds attract flows in a manner similar to the U.S. markets, i.e. Morningstar ratings affect fund flows. In contrast, Finnish bank-managed funds do not exhibit the same relationship between star ratings and flows. The results suggest that in Finland, five-star Morningstar ratings are not regarded as highly as in the U.S, where good performance attracts significantly higher flows. More significantly, our findings demonstrate the importance of banks' distribution channels in the Finnish financial market.

1.Introduction

Morningstar's mutual fund rating service is probably the most influential fund rating system in the world. Morningstar ratings are easily available, frequently updated, simple to comprehend and free for investors at morningstar.com. Investors use star ratings to compare funds[1], and their investment decisions may be made solely based on Morningstar star ratings. Mutual fund companies, especially in the U.S., take advantage of the reputation the ratings bring and emphasize stars in advertisements.

Fund's Morningstar rating is based on its historical performance with respect to both return and risk relative to its peer group. Specifically, Morningstar uses 36 months of load adjusted returns to compute a three-year risk-adjusted rating for each fund, every month. Every fund is assigned to one peer group. In the United States Morningstar has four groups: domestic equity, international equity, taxable bond and municipal bond. In Finland, Morningstar used to divide the funds only in two groups: equity and bond. According to Morningstar, due to the small number of funds available in Finland, more

groups could lead to unreliable results. Recently, Morningstar began using a new Morningstar Europe Star Rating for all European funds, including those in Finland. The number of fund groups has been increased to three. Each fund in Europe is assigned to one of the following groups: equity funds, bond funds, balanced and other funds. Funds are then further divided into smaller categories, which describe more closely the investment style of the fund, such as value, growth, small capitalization, or large capitalization.

Stars are assigned monthly to funds in every category so that funds with risk adjusted ratings in the top 10% of their peer group are assigned five stars, the next 22.5% receive four stars, the next 35% receive three stars, the next 22.5% receive two stars and the bottom 10% of funds in each peer group receive one star.

Del Guercio and Tkac[1] find that Morningstar ratings have unique power to affect equity fund asset flows in the U.S. Our study examines how stars affect external fund growth in a market outside of the U.S. We examine the Morningstar star effect on Finnish mutual funds using a more recent sample than Del Guercio and Tkac. More importantly, we examine a unique feature of the Finnish mutual fund market, namely the dominance of banks in the market, to determine whether this feature leads to significantly different flow patterns relative to the U.S. market.

We find that flow patterns in Finnish bank-managed funds are significantly different from the patterns in the U.S. market. Specifically, non-bank funds attract flows in a manner similar to the U.S market, i.e. Morningstar ratings affect fund flows. In contrast, Finnish bank-managed funds do not exhibit the same relationship between star ratings and flows. We believe this is because Finnish bank's customers value convenience and brand rather than past performance.

2. The performance-flow relationship

The relationship between fund performance and fund flows is reported to be positive and convex[2,3]. The best performing funds attract large inflows, whereas bad performing funds suffer proportionally smaller outflows. One proposed explanation for the convexity includes investors' unwillingness to sell losers. For example Shefrin and Statman[4] document the so called disposition effect in fund markets, where investors base their purchase decisions on publicly available performance information, but later do not sell funds that perform poorly. Goetzmann and Peles[5] find that the disposition effect could be due to cognitive dissonance, which makes investors overestimate the past performance of their funds. Investors tend to be more reluctant to sell bad performers, which leads to a convex performance-flow relationship.

If the convex relationship between flow and performance is due in part to investor behavioral characteristics, one might expect that sophisticated investors are less likely to be subject to such biases, which should lead to a less convex performance-flow relationship in markets where many sophisticated investors do business. This hypothesis is supported by results reported in Del Guercio and Tkac 2002 paper[6]. They examine the performance-flow relationship in the pension fund market, which is dominated by professional investors. They find that pension fund clients use quantitatively sophisticated measures like Jensen's alpha, tracking error, and out-performance of a market benchmark to evaluate pension fund managers. Pension clients also punish poorly performing managers by withdrawing assets under management, i.e. the performance-flow-relationship is less convex. In contrast, retail mutual fund investors use raw return performance and flock disproportionately to recent winners but do not withdraw assets from recent losers. Sawicki[7,8] finds a less convex performance-flow relationship in the Australian wholesale mutual fund market compared to the retail mutual fund market.

Del Guercio and Tkac[1] use an event study methodology on a sample of over 10,000 Morningstar rating changes from November 1996 to October 1999 in an effort to isolate

the effect of Morningstar ratings on mutual fund asset growth from other influences. They report significant abnormal flow following rating upgrades, and negative abnormal flow following rating downgrades, ranging from 13-30% of normal flow. More importantly, the results for funds getting their fifth star indicate substantially higher abnormal flows relative to flows for funds moving to another star level, even when the relationship is statistically significant. An upgrade from four to five stars results in $32 million in abnormal flow, or 25% above normal.

Bergstresser et. al.[9] suggest that the study of fund distribution channels is long overdue. The importance of the distribution channel is increasingly being acknowledged as critical to success in the asset management industry. Otten and Schweitzer[10] compare the US and European mutual fund markets. In particular, they examine the differences in distribution channels used between the two continents. European mutual funds predominantly use banks as the major distribution channel with a market share of 53%, whereas in the US only 8% of funds are sold through banks. While most European countries exhibit a strong bank dominance in mutual fund markets, the United Kingdom provides a stark contrast where banks have only 10% of the fund market. Otten and Schweitzer note that in Europe individuals seem to value service (e.g. being friendly and accurate) at least as much as performance. This could explain the strong position of banks[1].

A feature of the Finnish mutual fund market is the preponderance of bank-managed funds. As of 2002, approximately 70% of assets in Finland are managed by banks, which compares to approximately 5.3% in the U.S. market.[2] Korkeamaki and Smythe[11] study the effect of bank concentration on mutual fund expenses and returns in Finland. Their results demonstrate that bank funds charge significantly higher expenses than non-bank funds, similar to some other European countries, a result that contrasts with U.S. based

[1] Otten and Shweitzer note that they are not aware of any study that examines the effect of performance rankings on money in- and outflows in European markets. They suggest that it would be a fruitful venue for further research.

[2] The data are taken from 2002, which is the last year that Morningstar reported bank proprietary fund holdings for the U.S. market.

studies.[3] For example, Koppenhaver[12] and Frye[13] show that in the U.S., bank-affiliated mutual funds have significantly lower management fees relative to non-bank funds.

One could argue that funds belonging to a banking financial group have marketing and other scope economies, advantages that would allow them to charge lower fees. But the results in Finland are contradictory to the U.S results. The possible explanation could be that banks exploit their captive clients, which results in higher fees. By using their monopoly-like position to reduce investor search costs, banks can charge higher fees. Additionally, Korkeamaki and Smythe[11] find that non-bank equity and balanced funds have significantly higher risk-adjusted performance than their bank peers. Thus bank funds cost more to own, and they perform poorly.

Korpela and Puttonen[14] acknowledge that bank distributed equity and balanced funds charge higher expense ratios than independently distributed Finnish funds. Their findings suggest that existing customer relationships, bank cross-selling, and convenience contribute to fund selection by bank mutual fund customers suggesting that these characteristics have value equal to or higher than the operational expenses being charged by banks.[4]

Given the results from Korkeamaki and Smythe[11] and Korpela and Puttonen[14], we wish to examine whether the dominant bank structure in Finland impacts fund flows when an objective, quantitative measure of fund performance, Morningstar stars, is used as a decision tool by investors. If the market is competitive such that higher flows go to funds with more stars, then there should be no difference in flows between bank and non-bank funds that have the same number of stars. However, if Finnish banks have monopolistic power, then flow differences may exist.

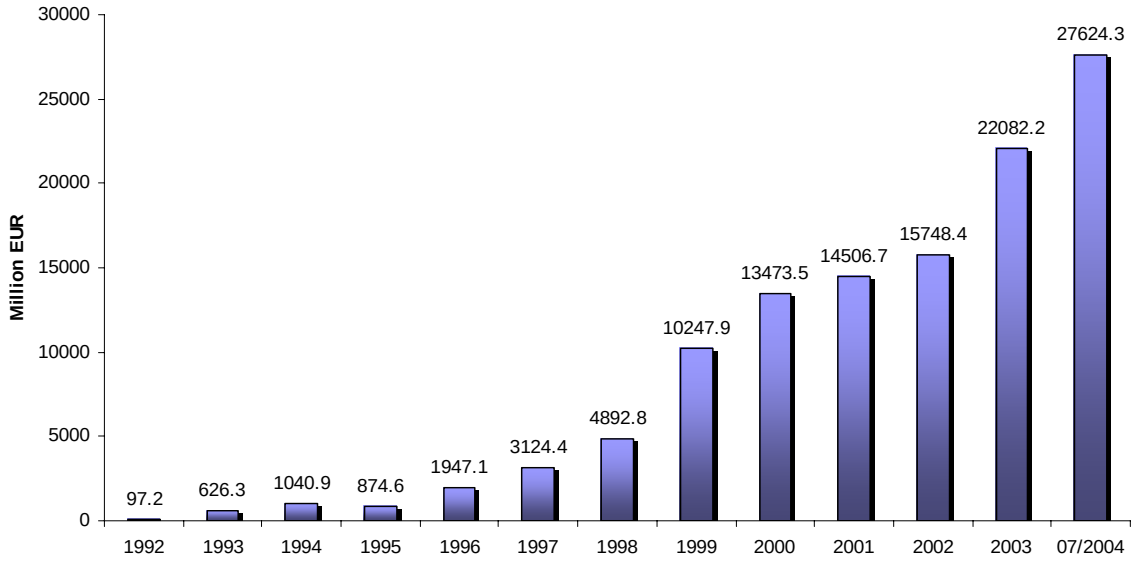
[3] Gil-Bazo and Martínez[15] find strong evidence supporting the hypothesis that funds managed by companies belonging to banks are more expensive in terms of annual expenses and redemption fees, while examining Spanish mutual fund markets, which are also bank dominated.

[4] For example, in October 2005 the three major banks (Nordea, Sampo and Osuuspankki) had a 68 percent market share in the Finnish fund market (Source: Finnish Financial Supervision)

3. Data

The growth of Finnish mutual funds has been tremendous since 1987 when the first funds were introduced. Figure one shows the amount of capital invested in mutual funds registered in Finland from 1992 onwards.

Figure 1. Invested capital in mutual funds registered in Finland (Source: Finnish Association of Mutual Funds)



In addition to asset growth, the number of mutual funds has grown substantially as well. According to The Finnish Association of Mutual Funds, the number of funds registered in Finland in July 2004 was 344, while the total number of mutual funds offered in Finland was 750. As a point of reference, in July 1997, there were a total of 118 mutual funds offered in Finland of which 64 were registered in Finland. Not surprisingly, the number of investors in mutual funds has also grown rapidly. Mutual funds registered in Finland had 76,374 investors in July 1997 compared to 1,478,724 investors in July 2004 (www.sijoitustutkimus.fi).

The funds included in this study are Finnish registered equity mutual funds, which have a Morningstar rating at some point during the evaluation period and report their monthly asset values and fund flows. The data set obtained from Morningstar consists of Morningstar star ratings from January 2002 to June 2004 i.e. thirty months of rating history. A fund needs at least three years of history in order to be rated by Morningstar. Therefore, mutual funds that did not exist at the end of June 2001 could not have been rated by June 2004.

4. Empirical Findings

Table 1 shows the number of funds and the number of star months in the sample (Panel A). In total, 111 funds are included in this study, segregated into four geographical fund types. These funds have 2,432 star months during the evaluation period, where a star month means that a fund has a Morningstar rating during a given month. Later, when the flows are calculated, unrated months are also included, resulting in a total of 3,298 fund months. The unrated fund months occur before a fund gets its initial rating, prior to June 2004 at the latest. There are 32 "missing" fund months from two funds that ceased to exist during the thirty month evaluation period. The small number of discontinued funds suggests a data set free of survivorship-bias. Panel B of Table 1 gives us our first glance at how our sample distribution of star months correlates with the expected proportions as calculated by Morningstar. In general, the observed proportions in column 7 are very close to the expected values based on Morningstar's star classification system. The primary deviations are in the two and four-star categories, where our sample is under (over) represented by approximately -7.57% (7.15%). As we demonstrate below, there is considerable deviation when we categorize our sample into bank and non-bank-managed funds.

[Insert Table 1 here]

The Finnish Association of Mutual Funds reports monthly flows at the end of each month. Similarly, if there are Morningstar ratings changes, they occur at the end of the month. Table 2 shows the summary statistics on monthly flows aggregated over the entire sample period for each Morningstar rating group and also the unrated fund months.

[Insert Table 2 here]

Unrated fund months are included only if the fund receives a rating by June 2004. Total flow in millions of euros is also presented in the third column, as well as the distribution of flows by star rating category. For comparison, the table also includes Del Guercio and Tkac[1] flows in the US fund market.[5]

The initial findings are quite surprising, but perhaps not unexpected in light of earlier studies of the Finnish fund market.[6] It seems that in Finland, five-star funds attract much lower flows than in the U.S. In fact, U.S. based five-star funds attract five times more flow than similarly rated Finnish funds. Additionally, while the U.S. five-star funds accounted for over 84% of the total flow, funds in the three lowest star rating categories actually lost assets. In Finland, all rating categories experience positive flows during the sample period, likely due to the booming economy and the increasing popularity of mutual funds. However, the largest proportion of new money went to three-star rated funds. In fact, the Finnish three-star funds attracted more net investment than the four- and five star funds combined.

The results suggest that in Finland, five-star Morningstar ratings are not regarded as highly as in the U.S, where good performance attracts significantly higher flows. One reason might be that the Morningstar ratings are less well known and are therefore used less frequently in Finland. An alternative explanation is that Finnish investors are contrarians or at a minimum understand the lack of persistence in mutual fund returns and

[5] Del Guercio and Tkac illustrate the distribution of flows graphically. Diane Del Guercio kindly provided us with the exact percentages.
[6] Kasanen, Lipponen, and Puttonen[16] do not find the performance-flow relationship in Finnish bank-managed mutual funds.

therefore do not chase performance, as measured by star ratings[17]. Finally, the seeming lack of interest in top performers might be due to the special characteristics of the Finnish mutual fund industry, namely the bank domination of the mutual fund markets discussed earlier. It is this latter possibility that we next examine.

Of the 111 Finnish equity funds in our sample, 70 are bank-managed, and 41 are managed by non-bank companies. Table 3 divides the funds and star months according to the bank relationship by showing the distribution of Morningstar ratings divided into bank and non-bank funds.

[Insert Table 3 here]

Bank-managed funds have clearly received fewer top ratings when compared to non-bank-managed funds, consistent with Korkeamaki and Smythe[11]. Nineteen percent of the non-bank star months received a five-star rating, whereas only about seven percent of the bank-managed funds received the highest rating. This suggests that in the sample used, non-bank-managed funds performed much better than bank-managed funds in terms of top performers. Bank funds received more three-star ratings than would be predicted by Morningstar's algorithm and at a much higher rate than non-bank-managed funds, suggesting mediocre performance, and as noted in Table 2, three-star funds received a disproportionate share of the flows in the Finnish market.

These results are in line with the Korkeamaki and Smythe[11] findings that Finnish bank-managed funds are not able to compensate for the higher fees with higher risk-adjusted returns. The risk- and fee adjusted performance, measured with Morningstar ratings, is apparently similar to the Korkeamaki and Smythe[11] results. Specifically, we observe lower ratings for Finnish bank-managed funds when compared to independently managed funds. These results thus affirm the prevailing sentiment among more sophisticated investors in Finland: bank funds perform, on average, worse than independently managed funds.

[Insert Table 4 here]

Columns 2-4 of Table 4 present the flows to each star rating group in Finnish bank-managed funds. The results suggest that the performance-flow relationship seems to be non-existent for these funds. The result is similar to findings in Kasanen, et. al.[16] who use regression analysis when examining the performance-flow relationship in the Finnish fund market. It would appear that banks' focus on other characteristics of value in the Finnish investor utility function other than past performance to sell their funds. When performance is measured using Morningstar ratings, five-star funds received less than seven percent of the total new money invested in bank funds, whereas three-star rated funds attracted 44% of total flows.

When the number of fund months is considered and the average flow for each rating category is calculated, one can see that the flows seem to be quite evenly distributed, a finding inconsistent with the performance-flow relationship documented in U.S. based studies. Still the three-star rated months attract, on average, the highest amount of new money, contrary to the previously reported positive performance-flow relationship in U.S. based studies.

The final three columns of Table 4 show that the positive performance-flow relationship is clearly visible in non-bank-managed funds. Nineteen percent of the non-bank funds received the highest rating (Table 3), yet these funds collected nearly 80% of the net subscriptions made to Finnish non-bank funds. Obviously, the non-bank five-star funds are rewarded for their top performance, and new money flows into the funds. As such, the fund flows for top-rated non-bank-managed funds are similar to the flows reported in the U.S. market by Del Guercio and Tkac[1].

While the results for the top-rated Finnish funds is startling, another key difference between the bank and non-bank funds is seen when comparing the three-star rated fund-months. Three-star status attracts less than eight percent of total flow to non-bank funds, while the corresponding figure is over 44% for bank funds. While positive flows for both

represent differences from DelGuercio and Tkac[1], the value for bank-managed funds is remarkable. Almost 50% of flows go to funds that a have a three-year record of mediocrity, clearly indicating that Finnish banks sell funds on characteristics other than costs and performance.

5. Conclusions

The purpose of this study is to examine whether Morningstar star ratings have an effect on Finnish mutual fund flows. In the U.S., Del Guercio and Tkac[1] find that fund flows go to funds with more stars. Most importantly, the fifth star attracts abnormally large flows to funds. Due to the special characteristics of the Finnish mutual fund market, primarily the bank dominance in the market, we investigate whether the Morningstar effect in Finland is similar to that in the U.S.

This study presents two main results. First, it seems that bank-managed funds in Finland are on average performing more poorly than their independently managed peers in terms of top performers, where performance is measured by Morningstar stars. Bank funds in our sample are under represented in the five-star category and over represented in the three-star category. For Finnish bank-managed funds, 7.32% of the included 1,475 bank fund months received the highest five-star rating. The corresponding percentage for non-bank-managed funds was 19.02% of the 957 star months. This is consistent with the findings in Korkeamaki and Smythe[11], which finds that bank-managed equity funds are unable to compensate for their higher fees with superior risk-adjusted returns.

Our second primary finding is that the performance-flow relationship in Finnish funds as a whole seems to be non-existent due to the somewhat random distribution of flows for bank-managed funds. On the other hand, non-bank-managed funds seem to experience flows consistent with the positive performance-flow relationship identified in previous work. The best performing bank-managed funds do not attract more money than mediocre bank funds, whereas the five-star non-bank funds gathered almost 80% of the

total money invested in non-bank funds. Since the Finnish mutual fund market is bank dominated, the overall picture shows no positive performance-flow relationship in Finland. More significantly, our findings demonstrate the importance of banks in the Finnish financial market. More research should be conducted to ascertain what it is about Finnish banks that lead investors to ignore characteristics that drive fund flows in the U.S. and the non-bank sector of the Finnish fund market. This could be examined, for example, by interviewing a sample of mutual fund buyers to determine whether banks actively sell their fund products or whether individuals are simply passive investors in bank funds.

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Table 1. Descriptive statistics of the fund sample.

Fund Category	Number of Funds	Number of Star Months
Finland	21	630
Europe	32	729
World	42	799
Other	16	274
Total	**111**	**2432**

Panel A. The number of funds in each geographical investment category and the number of fund months that funds have a Morningstar rating, i.e. star months. The data are from June 2002 to June 2004 and is obtained from Morningstar.

	Number of Star Months						
Rating	Finland	Europe	World	Other	Total	**%**	Morningstar Algorithm
5	56	73	86	75	290	**11.92 %**	10.00 %
4	179	271	229	42	721	**29.65 %**	22.50 %
3	225	223	336	94	878	**36.10 %**	35.00 %
2	121	94	109	39	363	**14.93 %**	22.50 %
1	49	68	39	24	180	**7.40 %**	10.00 %
Total	630	729	799	274	2432	**100.00 %**	100.00 %

Panel B. Distribution of the funds in the sample according to the geographical focus and star rating months. In the whole sample, the stars are distributed similarly as the Morningstar methodology expects.

Table 2. Summary statistics on mutual fund flow by Morningstar star rating category. Del Guercio and Tkac (2005) percentage flows are presented for comparison

Rating	Number of fund months	Total flow (Meur)	Percent of Total Flow	Del Guercio & Tkac flows
5	290	301.4	16.8%	84.8%
4	721	331.2	18.4	39.6
3	878	702.0	39.1	-19.8
2	363	45.4	2.5	-20.3
1	180	61.5	3.4	-7.2
Not rated	866	356.7	19.84	23.1
Total	3298	1797.8	100%	100%

Table 3. Distribution of stars among bank and non-bank managed funds.

Rating	Bank Star Months	%	Non-bank Star Months	%	Morningstar Algorithm
5	108	7.32 %	182	19.02 %	10.00 %
4	456	30.92 %	265	27.69 %	22.50 %
3	605	41.02 %	273	28.53 %	35.00 %
2	190	12.88 %	173	18.08 %	22.50 %
1	116	7.86 %	64	6.69 %	10.00 %
Total	1475	100.00 %	957	100.00 %	100.00 %

Table 4. Summary statistics of bank-managed and non-bank-managed fund flows by star rating.

	Bank-managed funds			*Non-bank-managed funds*		
Rating	**Fund Months**	**Flow (m-euro)**	**%**	**Fund Months**	**Flow (m-euro)**	**%**
5	108	103.88	6.70%	182	197.54	79.86%
4	456	296.95	19.15%	265	34.28	13.86%
3	605	683.19	44.06%	273	18.84	7.62%
2	190	58.78	3.79%	173	-13.37	-5.4%
1	116	48.73	3.14%	64	12.32	4.98%
Not rated	610	358.91	23.15%	256	-2.25	-0.91%
Total	2085	1550.43	100.00%	1213	247	100.00%