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## *Changes in the Names of Polish Investment Funds vs. Fund Flows*

Zmiany nazw funduszy inwestycyjnych a napływ kapitału

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### **Introduction**

The functioning of investment funds can be compared to the life cycle of products. Once launched on the market, sales increase (fund flows increase). Later, the fund goes from maturity to saturation, which is associated with a stable and reduced capital inflow. In the last stage, the outflow of capital increases and the sale of shares decreases.

Unlike traditional products, investment funds can function for a very long time at the level of maturity and saturation. At these stages, most funds manage assets whose size does not need to be increased. The problem for managers may be the outflow of capital, which involves the need to maintain high liquidity and failure to implement the adopted investment strategy. As noted by Chen et al. [2004] and Elton, Gruber and Blake [2012], long-term stay at the stage of maturity and saturation is one of the characteristics of these financial institutions. High assets of the funds allow managers to focus on managing their assets rather than finding new sources of capital.

New funds on the market are poorly recognizable, which translates into increased management efforts to achieve above-average returns. Some of the new funds also

decide to increase their expenditures to spread the information about their activities. In turn, as proved by the results of research, the higher the cost of the funds' promotion, the greater the flow of capital. High rates of return and advertising of funds reduce investors' loyalty to their previous funds, which often causes investors to withdraw capital from other long-term funds with weaker investment results [Sirri, Tufano, 1998; Jain, Wu, 2000; Massa, 2003; Barber, Huang, Odean, 2005; Aydogdu, Wellman, 2011].

What are the ways in which managers can prevent investors from withdrawing funds and directing them to compete institutions? The method most frequently cited in the literature is the reduction of costs and fees charged to the assets of the funds in order to retain existing shareholders and acquire new ones [Barber, Huang, Odean, 2005; Barber, Huang, Odean, 2016; Cuthbertson, Nitzsche, O'Sullivan 2016]. What other actions can a manager take to maintain or increase the volume of managed assets? One of the most commonly employed methods, besides reducing costs, is a change in investment strategy. However, this method involves withdrawal of funds by those investors who do not accept the new investment style or the change in the level of investment risk. Another possible way is to rename the fund. The effectiveness of such methods was demonstrated by Cooper, Gulen and Rau [2005] on the example of US equity funds. The authors pointed to a decrease in fund flows over a period of six months before renaming and the lowering of marketing fees (12b-1 fees) as the dominant factors influencing the renaming of funds. They also paid attention to the period of operation of the funds – the older the fund, the greater the need to change its name (the average life of the fund before the change of name was 107 months). Similar results were documented by Espenlaub, Haq and Khurshed [2017] for US investment funds as well.

In the case of Polish open-end investment funds, the majority of fund managers in the situation of outflow of capital decided to temporarily reduce the fees for the purchase of shares or their complete abolition. Between 2008 and 2016, every third fund changed their name and in most cases, the change was limited to a slight revision of the name or to the change of name of the management company. The researchers studied a sample of 176 funds (equity, mixed, debt, and money market funds), looking for answers to how investors respond to changes in fund names and how their responses translate into changes in fund flows.

## 1. Data

The subject of the analysis was the change of names of Polish investment funds between November 2008 and December 2016. The data concerning the change of names of investment fund come from the register of changes of the Polish Financial Supervision Authority (KNF). There were chosen only those cases of changed names of open-end funds which were not linked to the introduction of new investment strat-

egies. As a result, the study showed 248 changes in 176 funds, including 88 equity funds, 46 mixed funds, 26 debt funds and 16 concerning the money market funds.

The first step divides the cases of name change by their nature into two groups. The first group includes the name change associated with the change of the name of the company which manages the fund (group “change of management company name”). The second group contains all the other cases (group “other changes”). For detailed results, three subgroups were identified in the second group – for positive, negative and neutral changes. Positive changes were made because of the possibility of combining the name of the funds with the investment style, e.g. Novo Investment (“Lokata” in Polish) to Novo Cash (“Gotówkowy” in Polish). In the negative cases, the introduced changes eliminated the connection with the investment strategy in the new fund names. Neutral changes did not bring any new information to the name of the fund or changed the unknown to unknown (*ignotum per ignotum*), such as Noble Fund Africa changed to Noble Fund Africa and Frontier. In the next step, the criteria for classification were changed and the group of changes was divided according to the funds’ investment strategies. For different types of funds (equity, debt, mixed, and money market funds), the investors’ reactions to changes in names of management companies and other changes were taken under scrutiny.

## 2. Methodology

The research process began with calculations for each case of the change of name for the capital inflow value and the designation of periods before and after the name change. Fund flows were calculated according to the formula [Sirri, Tufano, 1998]:

$$Fund\ Flow = \frac{TNA_t - TNA_{t-1}(1 + r_t)}{TNA_{t-1}} \quad (1)$$

where:

$TNA_t$  – a fund’s total net asset at time  $t$

$r_t$  – the fund’s return at time  $t$

In the first stage, there were checked the differences in fund flows before and after the change of the funds’ names. The period before the change of names was set for three months preceding the month of change, which resulted from the need to inform investors about the planned change by the fund managers three months in advance. The period after renaming was set at three, six and twelve months. The choice of periods of varying lengths after the name change was due to the desire to see how long the name change had affected the flow of capital to the funds. Due to the demonstration of deviation from the normal distribution for the time series tested, the Wilcoxon parity test was used to verify the statistical significance of differences in fund flows.

In the second stage, investor reactions to fund name changes were investigated using event analysis. The analysis was based on a mean return model. The month of the fund's name change was adopted as the reference point, and three months before and six months after the month of this change were considered the event period. In turn, the expected amount of fund flow was estimated from the period  $\langle t_{-12}, t_{+4} \rangle$ . The cumulative abnormal flows (CAF) was calculated according to the formula:

$$CAF_{-3,+6} = \sum_{t=-3}^{+6} \frac{1}{N} \sum_{i=1}^N (FF_{it} - \overline{FF}_i) \quad (2)$$

where:

$N$  – number of observations

$FF$  – fund flow to fund  $i$  in period  $t$

$\overline{FF}$  – fund flows from period  $\langle t_{-12}, t_{+4} \rangle$

The obtained results were checked for statistical significance using a generalized sign test:

$$t_{sign} = \sqrt{N} \frac{\hat{p} - 0,5}{\sqrt{0,5(1 - 0,5)}} \quad (3)$$

where:

$\hat{p}$  – the ratio of positive cumulative abnormal returns; under the null hypothesis, this ratio should not significantly differ from 0,5

### 3. Results

#### 3.1. Division of name changes

Changes in the names of fund management companies did not affect the inflow of capital to funds. Differences in average fund flows before and after changes are close to zero. There was observed a significant increase in capital inflow for other changes that persist for up to twelve months after the change. The highest values of fund flows occurred for positive changes. For neutral changes, the inflow of capital is maintained at a similar level throughout the year after the name change. On the other hand, negative changes have been received by investors as expected, i.e. the exclusion of the investment style from the name of the funds translates into the outflow of funds from the funds, and it intensifies in time since the change.

Table 1. Difference in capital inflow (%)

| Changes                   | Number | $t_0;t_{-3}$ | $t_0;t_{-6}$ | $t_0;t_{-9}$ | $t_0;t_{-12}$     |
|---------------------------|--------|--------------|--------------|--------------|-------------------|
| Fund management companies | 132    | 0.1          | 0.3          | 0.3          | 0.1               |
| Positive                  | 14     | 3.6**        | 4.6**        | 3.7          | 2.7               |
| Neutral                   | 91     | 3.0**        | 2.1**        | 2.6**        | 2.8**             |
| Negative                  | 11     | -0.4         | -1.0         | -2.8         | -4.1 <sup>1</sup> |

<sup>1</sup> – outflow; \* p=0.1; \*\* p=0.05; \*\*\* p=0.01

Source: own calculation.

Taking into account the type of funds, the investors' reactions to renaming is no longer as unidirectional as in the case of a general division of name changes. Overreaction was observed for most types of funds. The change of names of management companies for debt funds and money market funds was received by investors as an incentive to continue investing. On the other hand, for equity funds, these changes turned out to be unfavorable and affected the reduction of fund flows throughout the period after the change. The investors associated with mixed funds, however, withdrew the invested funds. On the basis of the results for each fund, it can be said that the results stem from the predominance of funds with capital outflows versus those with fund flows.

Table 2. Difference in fund flows due to the type of investment funds (%)

| Changes                   | Type of mutual funds | Number | $t_0;t_{-3}$      | $t_0;t_{-6}$      | $t_0;t_{-9}$      | $t_0;t_{-12}$     |
|---------------------------|----------------------|--------|-------------------|-------------------|-------------------|-------------------|
| Fund management companies | Equity               | 59     | -1.9              | -2.2              | -2.3              | -2.6              |
|                           | Mixed                | 43     | -0.4 <sup>1</sup> | -0.7 <sup>1</sup> | -0.5 <sup>1</sup> | -0.2 <sup>1</sup> |
|                           | Debt                 | 16     | 3.0               | 5.5               | 6.3               | 5.6               |
|                           | Money market         | 14     | 6.1*              | 8.3**             | 7.5**             | 6.4*              |
| Other                     | Equity               | 62     | 2.4               | 0.3               | 0.1               | 0.1               |
|                           | Mixed                | 24     | 4.8               | 4.7*              | 3.0               | 2.1               |
|                           | Debt                 | 22     | 3.7***            | 6.1***            | 9.1***            | 7.4***            |
|                           | Money market         | 8      | -3.4              | -2.6              | -2.8              | -2.1              |

<sup>1</sup> – outflow; \* p=0.1; \*\* p=0.05; \*\*\* p=0.01

Source: own calculation.

Investors reacted very quickly to other changes to equity funds. After the capital inflow in the first three months after the change, there was a significant decline in the later period. It was different in the case of the other types of funds. Fund flows to mixed funds remained high for the first six months and then declined. It is worth to note the inflow of capital to debt and the money market funds. Both types of funds implement similar investment strategies and belong to the group of safe funds. In the case of debt funds, the inflow of capital increases the further in time from the change of the name. In turn, for money market funds, the inflow of capital after the change is significantly lower than the inflow of capital in the period before the change.

### 3.2. Event studies

The renaming of funds is publicised well in advance, so that the introduced changes should not have an impact on the investors' reactions and thus, on the change of fund flows. The results of the analysis of events indicate overreaction on the investors' part, which increases with time since the change of the fund's name.

Table 3. Cumulative Abnormal Flows (%)

| Changes                   | $t_0$ | $t_{+1};t_{+3}$ | $t_{+1};t_{+6}$ | $t_{+4};t_{+6}$ |
|---------------------------|-------|-----------------|-----------------|-----------------|
| Fund management companies | 3.1   | 2.8             | 8.9             | 6.1             |
| Positive                  | 4.7   | 3.9             | 17.0***         | 13.1***         |
| Neutral                   | 11.4  | 3.9             | 9.4             | 5.5             |
| Negative                  | -6.0  | 19.8            | 25.5            | 5.7             |

\*  $p=0.1$ ; \*\*  $p=0.05$ ; \*\*\*  $p=0.01$

Source: own calculation.

In the case of positive and neutral changes, after the initial violent reaction in the months of change, the inflow of additional capital decreases over the next three months but rises substantially in the following three months. On the other hand, when it comes to the negative changes, after the outflow of additional capital in the months of change, in subsequent months fund flows not only increase, but also remain at a very high level compared to the other changes.

The investors' overreactions have also been proven in the case of division of funds according to their investment policy. However, only in the case of changes in names of management companies and mixed funds the changes were negatively evaluated by investors, which prompted them to withdraw capital from these funds. In turn, changes in the names of management companies had the greatest impact on debt and money market funds, especially from four to six months after the change.

Table 4. Cumulative Abnormal Flows due to the type of investment funds (%)

| Changes                   | Type of mutual funds | $t_0$ | $t_{+1};t_{+3}$ | $t_{+1};t_{+6}$ | $t_{+4};t_{+6}$ |
|---------------------------|----------------------|-------|-----------------|-----------------|-----------------|
| Fund management companies | Equity               | 2.1   | 4.2             | 6.4**           | 2.2***          |
|                           | Mixed                | -0.8  | -3.4            | -9.2            | -5.8***         |
|                           | Debt                 | 3.2   | 3.4             | 25.5            | 22.1***         |
|                           | Money market         | 19.1  | 15.1***         | 55.9***         | 40.8***         |
| Other                     | Equity               | 15.5  | 1.4             | -0.5            | -1.9            |
|                           | Mixed                | -0.2  | 12.5            | 21.5            | 9.0             |
|                           | Debt                 | 4.6   | 11.2***         | 38.9***         | 27.7**          |
|                           | Money market         | -3.0  | 0.0             | 3.8             | 3.8             |

\*  $p=0.1$ ; \*\*  $p=0.05$ ; \*\*\*  $p=0.01$

Source: own calculation.

In case of other changes, investors' reactions were different depending on the type of funds. The largest influx of additional capital was seen once again for debt funds. The increase in additional capital was also observed for mixed funds and money market funds. Still, in the case of mixed funds, the investors' response was significantly stronger. It is worth noting the change in the response of investors investing in equity funds. In their first reaction, the investors assessed the changes in a positive manner and directed additional capital to the funds (period  $t_0$ ). In the subsequent three months, however, they significantly reduced the inflow of additional capital, and in the following three months there was an outflow of capital.

## Conclusions

Based on the obtained results, it can be stated that the changes in the names of the funds caused investors to overreact. As expected, the strongest reactions were triggered by positive and negative changes. For these changes, the highest differences in changes in fund flows were observed before and after the names' change. Additionally, for positive changes, there were also proven increased fund flows, and for negative changes the outflow of capital whose magnitude increased further with time since the change. Such a high influx of additional capital in reaction to the negative changes is an unexpected result. Taking into account the nature of these changes, there was expected an outflow of additional capital, not an inflow, as happened. (The outflow of additional capital was shown at the extension of the event window for the period of seven to twelve months.) On the other hand, the reactions of investors to changes in names of management companies were different, depending on the type of funds. The most violent reaction of investors was observed for mixed funds. The changes for these funds were negatively received by investors, which translated into the inflow of capital changing into outflow. On the other hand, debt and money market fund participants showed overreactions of investors, which intensified in the period from four to nine months after the change of name.

Those noticeable investor overreactions had several sources. Undoubtedly, some impact on investors' reactions was triggered by return rates obtained by the funds, with no significant correlation between them and fund flows (Spearman coefficients are at the level of  $-0.12 - 0.18$  [own calculation]). The demonstrated low correlation between investment performance and fund flows is not a surprise. As presented by Barber, Huang and Odean [2016], investors' reactions to changes in returns vary and depend on the knowledge and wealth of investors. The smarter the investor, the more factors they take into account. Less educated investors focus only on return rates. Additionally, Barberis and Schleifer [2003] and Cooper, Gulen and Rau [2005] pointed out that, in the case of similar types of funds, investors categorize investment risk in line with the management strategy pursued by the managers and are guided by historical return rates. Similar behavior of investors was observed in the study

of mixed funds, debt funds, and money market funds. More research is needed to fully process this relationship.

According to the author, there was a significant importance of the mistakes made by investors in the processing of information, combined with the way they were informed about the name changes, which was limited to the publication of short and concise information on the topic. In their first reaction, investors provided positive feedback for most of the changes and then re-evaluated the information after some time. The highest differences in fund flows occurred between four and nine months after the change. The source of the delay in evaluating information may be the lack of tendency of Polish investors to acquire information on funds on a regular basis. According to the Investment Funds Survey [ARC, 2015], only 48% of investors survey fund information more than once a month and 30% do so several times a year.

Changing the name of a fund may also influence the change in investor preferences. Investment funds are perceived as financial instruments which facilitate higher returns than other forms of saving. In fact, some investors have negative experiences regarding the funds. Despite the poor performance of the investment funds and the losses suffered by investors, the latter do not withdraw their money due to a strong aversion to losses. Only 23% of investors withdrew from investing in funds due to losses incurred [ARC, 2015]. Changing the name of a fund can affect investor behavior and shift the investors' reference points. In turn, these changes may encourage investors to terminate their investments and count their losses, which is especially evident in the case of changes in names of management companies, equity funds and mixed funds (respectively, reduction of fund flows and capital outflows after renaming).

In conclusion, it must be stated that changes in fund names have an impact on the size of the inflow of capital to the funds, even though not all investor reactions have turned out to be desirable. In some cases, the introduction of changes had the opposite effect than the desired one, and instead of resulting in increased fund flows, the funds experienced outflows of capital.

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### Zmiany nazw polskich funduszy inwestycyjnych a napływ kapitału

Na próbie 176 polskich funduszy inwestycyjnych (akcyjnych, mieszanych, dłużnych i rynku pieniężnego) sprawdzono, jak zmiany nazw wpływały na wielkość napływu kapitału w okresie 2008–2016. Zmiany podzielono, wykorzystując trzy kryteria. Pierwszym kryterium była zmiana nazwy funduszu, wynikająca ze zmiany nazwy spółki zarządzającej. Drugim kryterium była możliwość połączenia nowych nazw funduszy z realizowanymi przez nie strategiami inwestycyjnymi. Uzyskany zbiór zmian podzielono na zmiany pozytywne (nowa nazwa sugerowała styl inwestycyjny funduszu), neutralne i negatywne (nazwy funduszy nie były powiązane z realizowaną polityką inwestycyjną). Za trzecie kryterium przyjęto rodzaje funduszy (uzyskano cztery grupy zmian dla funduszy akcyjnych, mieszanych, dłużnych i rynku pieniężnego). W celu określenia wpływu zmian nazw funduszy na wielkość napływu kapitału wykorzystano różnice w średnich napływach przed i po zmianach. Aby uzyskać szczegółowe wyniki, wykorzystano drugą metodę – analizę zdarzeń.

Na podstawie uzyskanych rezultatów badań można wnioskować, że zmiany nazw funduszy mają wpływ na wielkość napływu kapitału nawet do 12 miesięcy. Największy napływ kapitału do funduszy wykazano dla zmian pozytywnych, szczególnie w okresie od 4. do 9. miesiąca po wprowadzeniu zmian. Z kolei największy odpływ kapitału dla zmian negatywnych – głównie w okresie od 7. do 12. miesiąca. Ponadprzeciętny napływ kapitału zaobserwowano także w przypadku zmian nazw dla funduszy dłużnych i rynku pieniężnego.

### Changes in the Names of Polish Investment Funds vs. Fund Flows

There was conducted a survey on a sample of 176 Polish investment funds. It studied how the name changes affected the size of fund flows in the years 2008–2016. In the analysis of these changes, there were applied three criteria. The first was a change in the name of the fund resulting from the change of the name of the management company. The second criterion was the ability to combine new fund names with their investment strategies. The resulting set of changes was divided into positive changes (the new name suggested a new investment style for the fund), neutral and negative (fund names were not linked to the investment policy). The third criterion were the types of funds (there were four groups of changes: for equity, mixed equity, debt and money market funds). In order to determine the impact of changes in fund names on fund flows, there were used differences in average fund flows before and after changes. For detailed results, a second method was used – event analysis.

Based on the results of the study, it can be concluded that changes in fund names have an impact on the size of fund flows even within a period of up to twelve months. The largest inflow of capitals to funds was demonstrated for positive changes, especially in the period from four to nine months after the change. In turn, the largest outflow of capital for negative changes was noted mainly in the period from seven to twelve months.