FINANCIAL CONDUCT AUTHORITY

MS15/2.3: Annex 2

Market Study

Asset Management Market Study

Final Report: Annex 2 – Fund Merger and Closure Analysis

June 2017

Annex 2: Fund Merger and Closure Analysis

Background

1. In the interim report of the Asset Management Market Study, we found that there was some evidence of persistent underperformance.[1] We found that 11.4% of active equity funds which were in the bottom quartile for performance between 2006 and 2010 continued to be in the bottom quartile in the subsequent five years. However, our analysis also provided some evidence of potential self-correction occurring in the marketplace, in that asset managers are more likely to close or merge the funds which perform worse. Our findings in the Interim Report showed that 34.6% of active equity funds which were in the lowest quartile of performance during the period 2006-10 were subsequently closed or merged over 2011-2015.

2. We have undertaken further analysis looking at fund closures and mergers in order to better understand the effect these have on outcomes for investors.

3. We set out an overview of the methodology used for the analysis and the results of this further work which addresses the following areas:

   a) the effectiveness of the potential self-correction mechanism

   b) the impact of mergers on outcomes for investors in merging funds and recipient funds

   c) the conduct implications of mergers/closures of funds

Methodology

4. The further work which we undertook was focused on the following three areas outlined:
   - To understand the effectiveness of the potential self-correction mechanism we considered how the performance of those funds which were closed or merged compared to those which were not. Additionally, we analysed the length of time it took for funds in the worst performing quartile of performance to be closed or merged.
   - We then considered the effect of fund mergers on outcomes for investors by comparing the gross excess performance of both merging and recipient funds before and after the merger.
   - Lastly, we considered the conduct implications of fund closures and mergers by drawing on our on-going fund authorisation and firm supervision activity.

5. In undertaking this analysis, we have used data sourced from Morningstar Direct. The analysis focused on active equity funds which had been closed or merged at any point in the period 2003-2015.[2] We performed the analysis at a fund-level and gross of fees. We examined funds (as opposed to share classes) because we are interested

[1] AMMS Interim Report: Chapter 6, Page 106.

[2] In this analysis we considered GBP denominated open-ended funds available to UK investors.

in managers' decisions to close or merge funds. We performed the analysis gross of fees to avoid complications arising from RDR, which led to the introduction of additional share classes at different price points.

6. We are interested in the link between performance and fund closures and mergers. Aside from poor performance, there are many reasons why funds or share classes might be merged. For example, funds might be merged when one asset management company acquires or merges with another. In Morningstar Direct we are not able to identify the reason(s) for a fund merger. As a result, we have excluded from our analysis fund mergers which we consider are unlikely to be related to fund performance. In particular, we have excluded funds which have been merged into a fund belonging to a different asset manager as we believe these are likely to be due to merger or acquisition activity rather than performance. We have also excluded instances of share classes being merged into a different share class within the same fund, for example due to firms implementing the requirements of the RDR. Lastly we have not included funds in which only some of the share classes have been closed or merged. Even after these exclusions our dataset includes some funds which were closed or merged but which outperformed their benchmarks.

7. Figure 1 shows the number of funds which have closed or merged by year, as well as the number of fund mergers where we are able to identify the recipient fund. It shows that there are considerably more funds which are closed than merged and that there is variation across time.

Figure 1: Number of fund closures and mergers by year

	Closed	Merged	Merged and recipient fund known
2003	21	37	-
2004	16	18	-
2005	34	35	1
2006	24	2	2
2007	39	16	15
2008	65	20	18
2009	119	38	37
2010	86	15	15
2011	65	28	28
2012	93	46	46
2013	104	29	29
2014	55	27	26
2015	77	31	31
TOTAL	**798**	**342**	**248**

Source: Closures and mergers information from Morningstar Direct

The effectiveness of the potential self-correction mechanism

8. The provisional findings of the interim report showed that there was some evidence of potential self-correction occurring whereby worse performing funds were closed or merged by asset managers. We have performed further analysis to better understand the effectiveness of this mechanism.

9. Figure 2 shows the average gross excess return over the Morningstar Category benchmark of funds in each quartile of performance between 2006 and 2010. It further segments these by those which were subsequently closed or merged in the period 2011-15 and those which were not.

Figure 2: Gross annual excess returns for equity funds in each quartile of performance between 2006-10

Quartile of performance 2006-10	Performance over 2006-2010	Not subsequently closed or merged	Subsequently merged or closed
Q1	-2.6%	-2.5%	-2.8%
Q2	0.8%	0.8%	0.9%
Q3	3.1%	3.1%	3.1%
Q4	7.9%	8.1%	6.8%

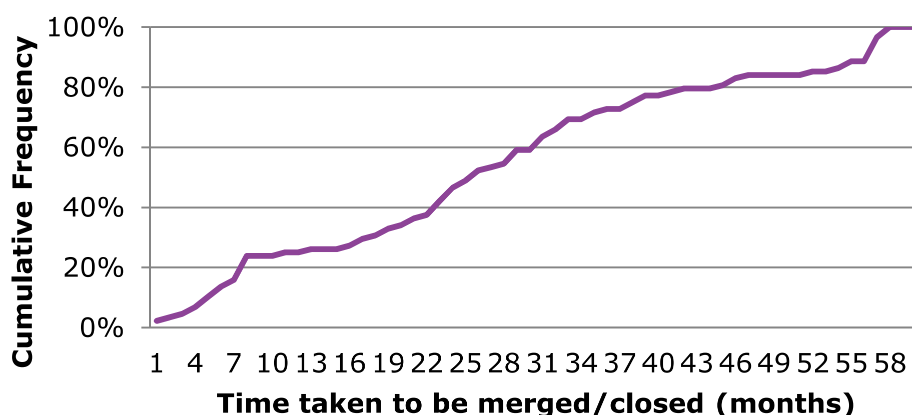
Source: Gross returns, benchmark and closure and merger information from Morningstar Direct

10. The table shows that although the funds which are merged or closed in the worst-performing quartile have negative gross excess returns, those which are not merged or closed did not perform significantly better. This suggests that while the self-correction mechanism might cover some of the worst-performing funds, it does not include them all.

11. We find that in 2015 there was £3.6 billion in funds which were in the lowest quartile of performance between 2006 and 2010 but which were not closed or merged, and instead remained in the lowest quartile in the period 2011-15. This is consistent with our findings in the Interim Report, in which we show that 11.4% of funds in the lowest quartile of performance between 2006-10 continue being in the lowest quartile in the subsequent 5 year period.

12. We looked at the time taken for equity funds which had been performing in the lowest quartile of performance between 2006 and 2010 to be merged or closed.

Figure 3: Time taken in months for funds in the worst quartile of performance between 2006-10 to be subsequently closed or merged



Source: Gross returns, benchmark and closure and merger information from Morningstar Direct

13. Figure 3 shows that a significant proportion of funds in the worst performing quartile over 2006-10 subsequently took a long time to be closed or merged. The average time taken to close or merge after having been in this quartile over 2006-10 was 2.4 years, and over a third took more than three years. This suggests that whilst asset managers take steps to close or merge worse-performing funds this can take some time to occur.

The effect of mergers on outcomes for investors in merging funds and recipient funds

14. We wanted to understand the effect of mergers on the performance of both merging funds and recipient funds (funds which have had other funds merged into them). There are a number of existing studies, mainly focused on the US market, which have considered this point. In summary:

- Analysis of US mutual fund mergers in the 1990's by Jayaraman et al. (2002) found that merging funds did see an increase in performance post-merger, whereas there was a negative performance effect on the recipient funds. They also found that recipient funds were significantly smaller than merging funds, suggesting that fund mergers might be partly motivated by a desire to achieve economies of scale. They state that the deterioration in performance of recipient funds could be due to the inability of the manager to liquidate poorly performing assets which were held by the merging fund before the merger.[3]
- Ding (2006) analysed 604 US equity fund mergers, finding a tendency for merging funds to be small in size and to have suffered poor performance and heavy outflows prior to being merged. They found the recipient funds were high performers pre-merger, but their performance tended to deteriorate post-merger. They attribute this deterioration in performance to the recipient fund becoming more conservative and holding more stocks with less systematic risk.[4]
- Vanguard (2013) analysed 915 US mutual funds that had merged at any point in the period 1997-2012. Vanguard found 87% of merging funds underperformed

[3] Jayaraman, N., Khorana, A. and Nelling, E. (2002), An Analysis of the Determinants and Shareholder Wealth Effects of Mutual Fund Mergers. The Journal of Finance, 57: 1521–1551

[4] Ding, Bill (2006), Mutual Fund Mergers: A Long-Term Analysis. Available at SSRN: https://ssrn.com/abstract=912927 or http://dx.doi.org/10.2139/ssrn.912927

relative to their assigned benchmarks prior to their merger date. They find that post-merger, these funds experienced greater returns compared to their benchmarks, however, 73% of funds still underperformed relative to their benchmarks.[5]

15. Figure 4 shows the gross performance over category benchmarks of merging funds and recipient funds pre- and post-merger. This shows that while the performance of merging funds improves after they have been merged, the performance of recipient funds deteriorates slightly after the merger. This is consistent with existing studies into the effect of fund mergers on outcomes.

16. We used an assessment period of three years pre- and post-merger to provide an indication of trend performance. In this analysis we considered only merging and recipient funds which had existed for at least three years before the merger and where the recipient fund had existed for at least three years after the merger.

Figure 4: Fund performance pre and post-merger

	Average annualised gross excess returns over three years (percentage points)	Proportion of funds underperforming their benchmarks on a gross basis
Pre-merger: Merging fund	-0.16	41%
Pre-merger: Recipient fund	1.87	29%
Post-merger: Recipient fund	1.29	35%

Source: Gross returns, benchmark and merger information from Morningstar Direct

17. We also looked at the distribution of fund performance before and after the merger. Figure 5 again shows that the merging funds perform better after they have been merged, while the recipient funds perform slightly worse after the merger.

Figure 5: Distribution of fund performance pre and post-merger

	Annualised 36 month performance		
Excess returns (percentage points) before and after merger	**Pre-merger: Merging Fund**	**Pre-merger: Recipient Fund**	**Post-Merger: Recipient Fund**
Average	-0.16	1.87	1.29
10th Percentile	-5.71	-2.58	-3.70
25th Percentile	-2.83	-0.30	-1.05
50th Percentile	0.62	2.00	1.07
75th Percentile	2.88	4.36	4.41
90th Percentile	4.50	6.69	6.10

Source: Gross returns, benchmark and merger information from Morningstar Direct

[5] Vanguard (2013), The mutual fund graveyard: An analysis of dead funds

18. We wanted to understand how merging funds compared to recipient funds. As shown in Figure 6, funds being merged tend to be relatively well established and are also merged into funds which have existed for some time[6]. However, 19.1% of funds were merged into recipient funds which were less than three years old.

Figure 6: Age of merging and recipient funds at time of merger (years)

	Merging funds	Recipient funds
Average	15.6	14.3
25th Percentile	6.2	3.5
50th Percentile	11.7	10.5
75th Percentile	23.1	23.3

Source: Inception date, obsolete date and merger and closure information from Morningstar Direct

19. Figure 7 shows that merging funds tend to be smaller than recipient funds, with almost 90% of funds merging into a larger recipient. This is consistent with merging funds being merged because they did not reach a sufficiently large size.

Figure 7: Size of merging fund as % of recipient fund

Percentile	Merging fund size
Mean	80.8%
10th	3.3%
25th	8.4%
50th	28.7%
75th	56.3%
90th	116.2%

Source: Merger information and fund-level AUM information from Morningstar Direct

The impact of mergers or closures on investor outcomes

20. Through previous supervisory work we have found that in many cases the cost of merging or closing a fund is often borne by the fund rather than the fund manager. This may reduce the benefits of a fund merger or closure to the investor, compounding the effect that the average performance of recipient funds deteriorates slightly after a merger. In addition, investors in some funds are not made aware of a fund merger.[7]

21. Whilst the self-correction mechanism described above might be beneficial for the overall functioning of the market, it could also lead to a number of conduct risks which we have observed in the past during our fund authorisation and firm supervision activity. These include:

[6] This was calculated by using the oldest share class in each fund

[7] In only a limited number of cases our rules stipulate specifically that investors are made aware of UCITS mergers. However, asset managers will generally need to consider their other obligations as regulated firms to, for example, treat customers fairly and ensure that communications are clear, fair and not misleading.

- Firms might not have a policy in place for considering fund closures and mergers which means that ensuring good customer outcomes might not be at the heart of the process.
- Draft circulars are often not sufficiently clear and transparent. For example, they often do not give sufficient explanation about the true reasons for the merger or termination. They may also draw customers' attention to the potential for increased investment returns following a merger, but may not give equal prominence to changes in the risk exposure, or if the cost for investors increases following a merger the letters might not contain a clear reason for this.
- Merger circulars typically do not contain performance information on the funds being combined, which hinders the ability of the investor to compare the historical performance of the fund into which their fund is being merged. The inclusion of this should be considered by fund managers in future merger applications.

22. Our fund supervision and authorisation work continues to focus on making sure that investors are not materially worse off as a result of a merger. We also continue to encourage firms to inform investors when a fund is incurring the costs of closing or merging a fund, and allow investors to access information on estimates of these costs. We believe that this information would enable investors to make a more informed decision about the likely effect of a fund closure or merger on their investments.

Conclusion

23. The interim report provided some evidence of persistent poor performance for funds. However, we also found evidence of potential self-correction occurring in the marketplace, where asset managers are more likely to close or merge worse performing funds.

24. Subsequently, we have looked into fund closures and mergers to understand the effect these have on outcomes for investors. We find that the performance of merging funds, on average, improves after they have been merged, but that the performance of recipient funds deteriorates slightly, on average, after the merger. This finding is consistent with existing academic literature on this topic.

25. We have not explored the potential reasons for the deterioration of recipient funds after the merger in this study. However, current academic research in the US suggests that this might be due to the inability of the manager to liquidate poorly performing assets which were held by the merging fund before the merger, or because the recipient fund becomes more conservative after the merger and chooses to hold more stocks with less systematic risk.

26. We also find that while an industry self-correction mechanism exists, it does not cover all funds which have relatively poor performance, and it can take a long time for the worst performing funds to be closed or merged.

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