



Fund Size and Performance: Why Small Funds are the Best Performers

Executive Summary

This article explains why small funds consistently outperform large ones. Our views are principally based on existing research that examines the relationship between fund size and performance. Given our own particular focus on alternative investments, moreover, much of this research relates specifically to the performance of hedge funds.

We begin by reiterating what much of the research states – namely, that small funds consistently outperform large funds within the hedge fund space. We include more recent, comprehensive studies to support this point.

We then give some of the key reasons for this trend. We first identify the factors that enable small funds to perform well. Secondly, we look at what causes larger funds to generate sub-optimal returns, especially with regards to diseconomies of scale. Where appropriate, we support our reasoning with the findings reached by existing empirical research.

Finally, we conclude by highlighting that while there are many factors to consider when deciding to invest in the right fund, small funds should be on the radar of all investors, given their superior track record. Given their many specific advantages vis-à-vis larger funds, ignoring a fund because it is “too small” means investors are highly likely to be ignoring a substantial amount of potential upside.

“Investment managers often profit far more from piling up assets than from handling those assets well. So, when one tells you that increased funds won’t hurt his investment performance, step back: his nose is about to grow.” Warren Buffett, 2003

When it comes to investing in funds, does size really matter? While conventional wisdom would suggest that the bigger the fund, the more attractive the proposition is for the investor, much of the real-world evidence gathered to date suggests that the truth is, in fact, quite the opposite.

Of course, that’s not to say that smaller funds don’t carry their own set of risks. Nevertheless, investors would be amiss to wholly disregard such funds purely on the basis of their size, especially when the figures show that they *consistently* outperform their bigger siblings. As we explain, this is down to both the unique qualities possessed by the smaller fund *and* the constraints on bigger funds that lead to sub-optimal returns.

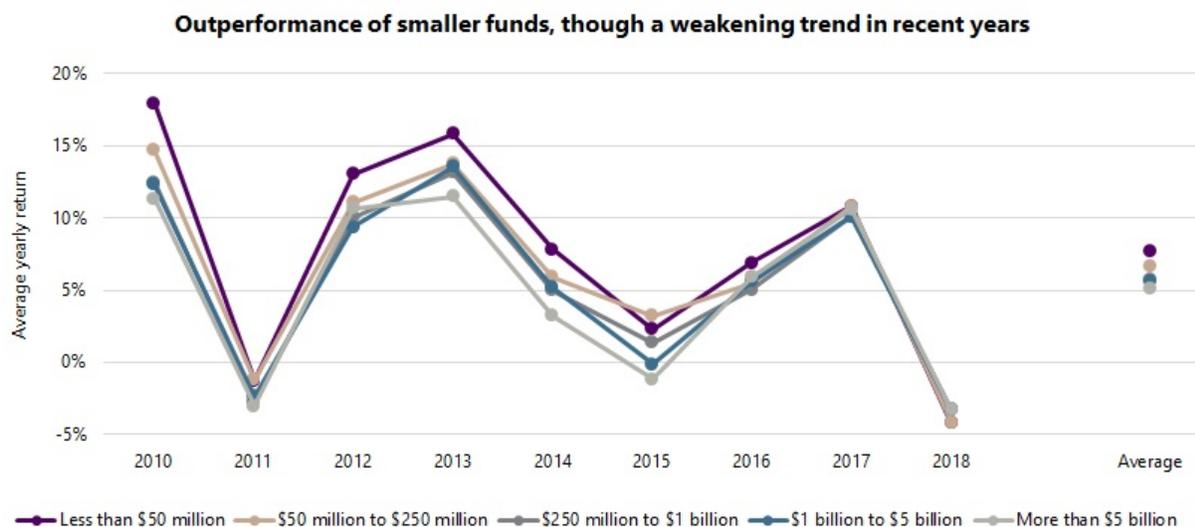
Research solidly in favour of small funds

In terms of performance and generating alpha, the bulk of the existing research identifies small hedge funds as being the best performers.

Among the most comprehensive recent work on this topic was carried out by Aurum, a specialist investment manager that's focused on selecting hedge funds. In June 2019, Aurum disclosed its [research](#) tracking the growth of the hedge fund industry between 2010 and 2018, involving some 8,000 active and closed hedge funds.

With the tracked funds divided into five groups according to AUM: less than \$50 million; \$50 million to \$250 million; \$250 million to \$1 billion; \$1 billion to \$5 billion; and greater than \$5 billion (analogous to micro caps, small caps, mid caps, large caps, and mega caps of equities), Aurum found that while year-on-year differences are visible, the clear overall trend is that smaller funds outperform their larger counterparts.

The average yearly return for the 'micro' group was 7.7%, compared with 6.6% for the 'small' group, 5.7% for the 'mid' group, 5.6% for the 'large' group, and 5.1% for the 'mega' group. Smaller funds were also more volatile, however, which suggests that there is a cost to achieving higher returns from such funds.



Averages of yearly statistics for the nine years of 2010 through 2018

Return	Return	Volatility	Beta	Sharpe ratio	Return variation
Less than \$50 million	7.7%	11.3%	0.38	0.61	16.5%
\$50 million to \$250 million	6.6%	9.4%	0.33	0.64	13.7%
\$250 million to \$1 billion	5.7%	8.8%	0.31	0.58	11.6%
\$1 billion to \$5 billion	5.6%	8.3%	0.34	0.59	10.6%
More than \$5 billion	5.1%	8.0%	0.38	0.55	9.7%
Average	6.1%	9.2%	0.35	0.59	12.4%

Source

Similarly, September 2019's ["The Performance Life Cycle of Hedge Funds: Can Investors Achieve Lasting Performance?" by Gao, Haight, Chengdong and Zhang](#) finds that between the January 1994 – December 2016 sample period, "small funds **consistently** outperform large funds after the first year."

Both this study and the Aurum research are especially pertinent given that the time period under examination includes substantial findings from the post-2008 world, and thus they account for the seismic structural disruptions experienced by the fund management industry over the last decade.

What about during times of crisis, you might be wondering? Surely larger funds have the expertise, the track record and even the sheer manpower to navigate through tough times relatively unscathed compared with their smaller peers? Again, the evidence is much to the contrary.

A [2015 study](#) of 7,261 hedge funds between 1994 and 2014 by CASS Business School reveals a "strong, negative relationship between hedge fund performance and size." What's more, it finds that investors would have been "better off with smaller hedge funds" than with large ones during the two financial crises within the 20-year period (the early 2000s' post-dotcom bubble and the Great Recession), all else being equal.

It is also worth noting that it's not only smaller funds that outperform bigger ones, but also young funds that outperform older ones. [Pertrac's "Impact of Size and Age on Hedge Fund Performance" \(2012\)](#) found that during between 1996 and 2011, the cumulative returns for the average small fund was 558%, substantially more than both the average mid-sized fund at 356%, and the average large fund at just 307%. But interesting, it also found that **newer** funds performed more capably than older ones. "2011 marks the eighth year in a row in which the average young fund has outperformed the average mid-age and average tenured fund, and the fourteenth year out of the last sixteen," the paper notes.

The research mentioned thus far provide just a few examples of studies that find a strong inverse relationship between fund size and investment performance. Many more studies conducted over the last 20 years or so find draw similar conclusions. And there are key reasons as to why this relationships exists.

Why small funds are the best performers

There are several key factors that specifically *boost* the performance of funds with smaller AUMs. Perhaps most advantageous of all is the fact that such funds can more easily move in and out of the market, which means that there is less adverse price action resulting from any change in the fund's trading positions. It also means that small funds can be nimbler and more easily take advantage of short-term opportunities, especially those with lower liquidity.

A fund managing billions, however, will invariably struggle to move in and out of the more illiquid markets with as much ease, as it will be invariably more of a challenge to find trading counterparties that are willing and/or able to deal in such colossal dollar amounts. As [Yan \(2008\)](#) finds, the inverse relationship between fund size and performance is even stronger when the funds are investing in less liquid portfolios.

It is worth acknowledging, moreover, that managers of smaller funds often have a greater hunger to prove themselves, especially if the fund is also young, and therefore does not have as long a track record to convince new investors to participate in its strategy as easily. This means that they often have to be more incentivised to perform well. And when starting out, managers may well be more focused on generating performance as opposed to other tasks such as marketing to new investors.

Indeed, [Aggarwal and Jorion \(2009\)](#) find this to be the case, with "emerging" fund managers – defined as recently established funds - adding more value than do their established peers. The study finds that emerging managers "have particularly strong financial incentives to create performance and may be more nimble than established ones." And relative to more established and older managers, incentive effects are more powerful for emerging managers because their initial wealth is smaller. "The marginal utility of the same dollar amount of fees should progressively decrease as the manager gets richer," the authors acknowledge.

As well as being more incentivised, small funds are also more likely to seek out early, unexploited opportunities. Kingsbridge Wealth Management's Alternative Strategies Fund, for instance, invests in structured Home Equity Contracts, which is now transforming the home equity financing landscape in the US. In doing so, investors are able to gain exposure to one of the most stable, hard to access asset classes in the country: owner-occupied single-family residential real estate. And with a greater potential variety of markets being accessible by small funds like Kingsbridge's, investors may also be able to attain more effective portfolio diversification.

Such opportunities are less likely to be maximised by bigger funds, or they may even remain off of their radar altogether. And even if they do participate, the bigger and more impactful market footprint of larger funds means that prices will move unfavourably as such funds enter and exit positions, which ultimately translates to diminished returns.

It is also more likely that managers of smaller funds will have built their portfolio from the ground up. This means there is less likelihood of persistent cognitive or emotional biases factoring into asset allocation decisions that could limit the fund manager's performance in the future, or indeed may have done so previously. For instance, a larger, older fund may well contain historic positions that have not performed well, but that the manager continues to favour for a particular reason,

and decides not to sell when it's appropriate to do so. A portfolio built from scratch, however, will not be as negatively influenced by such biases.

The problem with large funds

It would certainly be an exercise in dishonesty to deny the appeal of big funds. Their mere size, for a start, reflects the fact that they are commanding substantial inflows, and that investors are confident enough in the ability of the fund manager to the extent that they will commit large amounts of capital towards the investment strategy.

And it is often the case that such funds have managed to propel their assets under management (AUM) into the billions *precisely* because of their stellar past performance. There are fewer more powerful incentives for expedited investor interest than a long, glowing track record.

Larger funds can also exploit specific economies of scale that simply do not arise for smaller fund managers. The fund's fixed costs, for example, continue to represent a smaller and smaller proportion of their expenses as the fund grows. But as we observe, those economies of scale may not necessarily translate into higher take-home returns for the investor.

Indeed, the underperformance in larger funds is frequently attributed to them becoming **too big** in size. As alluded to by the Oracle of Omaha himself back in 2003, those fund managers who prefer to simply amass funds to swell their headline AUM figures are often doing so at the expense of implementing an optimal investment strategy. And the research around this issue lends much credence to Mr. Buffett's assertion.

The Financial Conduct Authority's [Asset Management Market Study](#) states that while economies of scale may benefit asset managers, "these do **not** seem to be passed on fully to investors." As such, the UK financial services regulator now consults with the relevant governance bodies to "consider the extent to which economies of scale have been passed on by the asset manager when they consider value for money."

Indeed, many highly lauded studies on the topic observe an increase in total net assets actually being accompanied by *diseconomies* of scale, that have an adverse impact on returns. Much of this research attributes the emergence of this problem to a handful of key factors.

Firstly, changing some fraction of the portfolio's composition requires transactions of larger dollar amounts, which are likely to increase costs attributable to price impact. Secondly, diseconomies of scale might emerge when a fund looks to increase its holdings as it grows in size. The fund may be compelled, therefore, to include new holdings that may not reflect the fund manager's top picks, or that may not necessarily be optimal for investors. Thus, funds may end up compromising on the quality or the liquidity of the portfolio.

Liquidity risk can also be a significant diseconomy of scale in bigger hedge funds. As Shawky and Wang (2017) conclude, a negative size-performance relationship emerges among funds with the highest liquidity risk. For high liquidity risk funds, "large funds are less able to recover from the relatively more significant losses incurred during market-wide liquidity crises, resulting in lower performance for large funds relative to small funds."

And finally, there is the issue of compensation, which often does not align with fund performance as the fund grows in size. Management fees tend to increase with fund assets, irrespective of the incentive fee, and thus becomes more important within the fund manager's overall compensation when funds grow large.

As such, managers have a strong incentive to increase their fund assets in order to boost their compensation, even when diseconomies of scale are present. Managers' compensation is therefore maximized at a much larger fund size than that which would generate the best performance. As Yin (2016) observes, the optimal fund size for managers' compensation differs substantially from the optimal size for fund performance. "In other words, the standard compensation contract does not solve the conflict of interest between fund investors and fund managers in the hedge fund industry."

And [Gao, Haight and Yin \(2018\)](#) reach a similar conclusion using a time series context, namely that the weight of the management fee, which increases with fund size, may provide "a disincentive to chase performance when funds grow large."

The authors also highlight a key implication of their findings for investors: that performance persistence is more achievable when funds maintain a small size. "Thus, investing in small funds, regardless of age, may provide for superior and sustainable returns."

Ultimately, there may not be an easy way to determine the "ideal fund size" or a "one size fits all." With all the variables to consider, including the chosen markets, the investing strategy, the purported skill of the manager and the associated fees, choosing the right fund is seldom easy.

But if you think a fund is too small to invest in, perhaps it is worth asking yourself what specifically makes that fund "too small". Certainly, if it is at risk of business and operational failure, say, by being unable to even cover its fixed costs (such as regulatory compliance, custodians and accounting), then staying away clearly makes sense.

But given the specific, pronounced qualities that smaller funds offer vis-à-vis their bigger peers, small funds are absolutely worth the risk. As the evidence shows, their performance is likely to outshine bigger funds, which means that they should *ordinarily* be preferable to investors. Their nimbleness, their size advantage when quickly moving in and out of trading positions, and their ability to more effectively tap into early, unexplored opportunities means that there is potentially a huge amount of upside being sacrificed should they be ignored.

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