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Everything You Think You Know About Fund Flows is Wrong

Backward-Looking Category-Based Analysis Will Lead You Astray

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Executive Summary

The study of fund flows informs nearly all product decisions at asset management firms. The prevailing method of understanding flows is to aggregate historical flows by category. We show that this method is deeply flawed because it does not properly account for other flow drivers that are highly correlated with fund categories. Moreover, it does not properly relate past flows to future flows, potentially leading to disastrous conclusions.

- There is massive variation in flow drivers across categories. For example, the top 10 categories averaged in the mid-90th percentile for alpha, while the bottom 10 categories were lower than the 5th percentile on average.
- Factor models for flows result in more stable, accurate and predictable flow attribution than category aggregate flows. After neutralizing all other factors, flows to category factors can look entirely different than their corresponding category aggregate on a relative and absolute basis.
- 36% of gross flows occur between funds in different categories, as opposed to funds within the same category.
- The floor on forecasting category factor performance is roughly 4x higher than the floor on forecasting category aggregates (using r-squared as a measure of forecast accuracy).

Predicting Funds Flows is Important

Asset managers employ teams of individuals dedicated to launching the most effective and relevant investment products. But how does an asset manager know if a product will meet investor needs and interests? The flow of funds into and out of mutual funds and ETFs holds many clues about investors' changing needs and interests.

The prevailing way to gain insight from fund flows is by aggregating them in various ways – by fund category, by size, by fund family, etc. Surely by summing up flows for a group and examining those flows through time, we'll gain insight into trends in investor demand, right? Unfortunately, while this type of analysis is easy to put together, it is fraught with hidden flaws that can lead asset managers astray.

Whatever aggregation method you use is bound to be correlated with other drivers of fund flows, making it hard to determine whether the true investor preference was the category or the other drivers. Fortunately, there exists a tool with which to disentangle these effects known as a factor model.

Factor models have been employed extensively to analyze risk and predict return of investment portfolios but have not yet reached the same level of popularity for analyzing fund flows. This is unfortunate, because fund flows are significantly less noisy than returns, making them an even better use case for factor models. The insights gleaned from factor models of flows can help asset managers experience greater flow-based growth, and lower flow volatility.

At Flowspring, we've built a factor model specifically tailored to modeling fund flows which we call our Global Flow Model. It's designed to model the non-linear relationships between funds' characteristics (e.g. past performance, manager team makeup, portfolio composition, fees, legal structure, etc.) and future flows. The rest of this paper shows how factors, like those used in the Global Flow Model are much more effective, and just as intuitive as category-based aggregation.

Important Drivers Correlate with Fund Category

A major problem with category-aggregated fund flows is that the category system is bound to correlate with other factors that influence flows. For example, we know that past performance is a huge driver of fund flows, whether you use absolute measures like raw returns, risk-adjusted measures like the Sharpe Ratio, or category relative measure like category alpha. We also know that categories are specifically built to group similar investment strategies together because they are all likely to have similar return profiles. Consequently, different categories can have very different performance.



Figure 1: Asset-weighted trailing 1-year Sharpe Ratio percentile for top 10 and bottom 10 categories

Clearly, to attribute target-date funds' net flows entirely to investor preferences for target date funds would be folly as they owe a significant portion to their very strong recent performance. Conversely, the bottom 10 fund categories do not owe their flows entirely to investor preferences for their category either, as they've faced significant headwinds from poor recent performance. Now consider that there are a multitude of factors that drive fund flows (fees, turnover, portfolio composition, management team composition, fund brand, distribution channels, etc.), and you'll begin to see how muddied the waters are for category-aggregate fund flows.

Factor Modeling is Superior to Category Aggregation

Fortunately, there exist tools to disentangle the effects of confounding drivers and identify the pure effect of each – they're called factor models. Factor models have been used widely only the investment side of asset management firms for decades as a robust way to forecast future return distributions, and attribute past performance to various factors.

There are three main advantages of factors over category aggregates. First and foremost, the conclusions drawn from factors are far more likely to be correct than their corresponding category aggregates. We demonstrate this with style box categories in Figures 2 and 3.



Figure 2. Cumulative flow growth of style box category factors from the Flowspring Global Flow Model



Figure 3. Cumulative flow growth of aggregated style box categories

An asset manager only looking at Figure 3 might assume that launching a Mid-Cap Blend fund would have a high probability of success – after all, cumulative flows to that aggregate category are up nearly 15% since 2014. But a savvy asset manager, seeing Figure 2, would know that after accounting for all other factors (performance, fees, management teams, etc.)

that Mid-Cap Blend funds, and all style box related funds, have seen cumulative net outflows since 2014. Furthermore, the Mid-Cap Blend funds aren't even the most attractive of the style box funds. That title would go to Large Blend funds which merely experienced a 5% cumulative outflow.

The second advantage of factors over aggregate categories is that factors are significantly less noisy than their category aggregate counterparts. This is plainly visible in Figures 2 and 3. Changes to investor preferences are smooth, evolving over months or years. They don't bounce around day-to-day. By removing the effects of other factors, we achieve a less noisy true signal with factors. Category aggregate noise is even more pronounced among categories with fewer funds (not pictured).

Finally, as a direct consequence of the first two advantages, factors are more forecastable than their category-average counterparts. We naively forecast the factors and the category aggregates using a trailing 60-day moving average. Our intent is not to showcase the best forecasting method available, but to indicate that the floor on forecasting performance for factors is higher than the floor for category aggregates.



Figure 4: Trailing 60-day moving average of flow growth vs next 60-day average of flow growth for all factors individually



Figure 5: Trailing 60-day moving average of flow growth vs next 60-day average of flow growth for all category aggregates individually

The r-squared value for past vs subsequent factor flow growth is more than 4 times higher than the r-squared value for past vs subsequent category aggregate flow growth. Reducing the noise in the time series obviously helps quite a bit. Imagine what could be done with a less naïve strategy than simply assuming the past average will be the future performance.

Ignore Inter-Category Flows to Your Own Detriment

One common method of performing competitive analysis in the asset management industry is to search for funds with the largest net inflows within the category of interest. The assumption underlying this analysis is that the funds with the largest net inflows are the ones winning flows away from other less attractive funds in the same category.

While this type of analysis is easy to understand, it can dreadfully misrepresent the true sources and sinks of flows. The most evident flaw is that it ignores inter-category flows. Surely, for example, the competitive threats to a fund in the Corporate Bond category are not limited to other Corporate Bond funds. They may include all types of bond funds or even equity funds or other asset classes if investor preferences for risk are shifting.



Figure 6: Aggregate flows between funds in the same category vs flows between funds in different categories

We find that 35% of all flows among funds come from funds of a different category. To ignore flows of this magnitude is likely to significantly impair any conclusions.

Conclusion

Asset managers face important decisions regarding which funds to launch, which to close, and where to spend marketing budgets. As the industry becomes more competitive, it will be more important than ever to base these decisions on the most sound analytical methods available.

We've shown that traditional category-aggregate based analysis is deeply flawed, resulting in incorrect conclusions, and potentially leading asset managers astray as they position their product portfolios for future growth.

A far better solution to flow analysis, is based on factor models which can isolate the effect of any individual factor after accounting for all others. These factors, which can range from categories to management team composition to portfolio characteristics and more are more stable and more forecastable. If you're performing fund flow analysis, do yourself a favor and switch to a factor-based methodology. It will save you the trouble of many wrong conclusions.

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