Flowspring

Rationalize This!

Introducing the Flowspring Rationalization Recommendation: A Starting Point for Analyzing Struggling Funds

April 2018

Highlights

The number of mutual funds and ETFs has grown significantly over the past several years. Many of these new launches struggle to gain assets in the increasingly competitive asset management environment. Consequently, rationalization discipline is key to maintaining a strong product line-up that can grow, remain resilient to market conditions, and accrete value to a firm's brand. We've developed the Flowspring Rationalization Recommendation to help asset managers with a starting point for analyzing struggling funds.

- There are currently 802 funds with $67 billion in assets which are assigned a recommendation of *Rationalize*, indicating that asset managers could safely liquidate or merge these products away.

- On average, funds assigned a recommendation of *Rationalize* have lost more than 50% of their value organically over the last 4 years.

- Funds assigned a recommendation of *Await Performance Improvement* improve their investment performance 43% more often than the average fund.

- PIMCO has the largest expected improvement ($7 billion) in organic growth from following our *Rationalize* recommendations.

Prolific Product Developers

Asset management product developers have been busy bees in recent years. Since Q1 2014, there's been a 13% increase in the total number of fund shareclasses, and a 41% increase in the number of exchange traded products. That's an average of 4 new shareclasses for every fund family that had a launch during that time period.

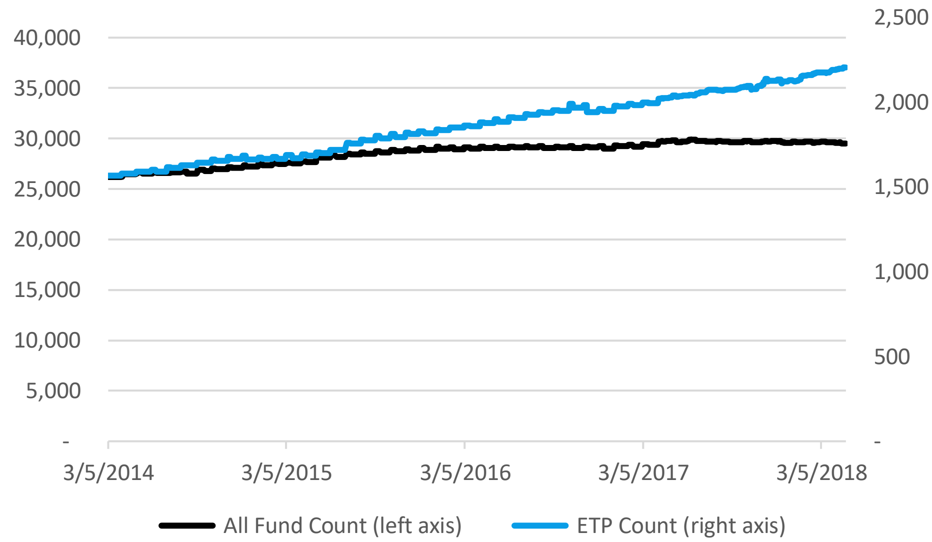

Figure 1: Total US mutual funds and Exchange Traded Product (ETP) counts through time

One reason for this growth is that wealth has grown over the same time period, and that wealth needs to be invested somehow. Investors are always looking for the next great product that will enhance their ability to meet financial goals, and product developers are certainly happy to supply the next big idea.

But they wouldn't be quite so eager to launch if not for the asymmetric payoff payoffs to launching a new fund – the benefits of a successful fund far exceeding the downsides of a failure. It's not that the costs of failure are inconsequential – in financial terms, there is a cost to communicating and liquidating assets, in human terms there is a cost to the individuals that were involved in running the fund, and in perception terms, there is damage to the brand of the parent company. Investors in the fund may also face significant tax implications.

Still, these costs are dwarfed by the potential profits achieved when a fund hits it big. The top 10% of funds by size collect an average of $67 million in fees per year. For the top 1%, that number is $240 million.

Augmenting this effect is the advantage that first movers have in the market. First movers with an innovative and in-demand product tend to get a head start in accumulating assets, allowing them to hit asset thresholds that will and accumulate a performance track record that will bring in additional investors before their later-moving peers.

Despite this boon in new products, the newer funds are not having a harder time attracting assets. The median assets per fund that is less than one year old currently stands at $22 million – a tad higher than the long-term average of $18 million.

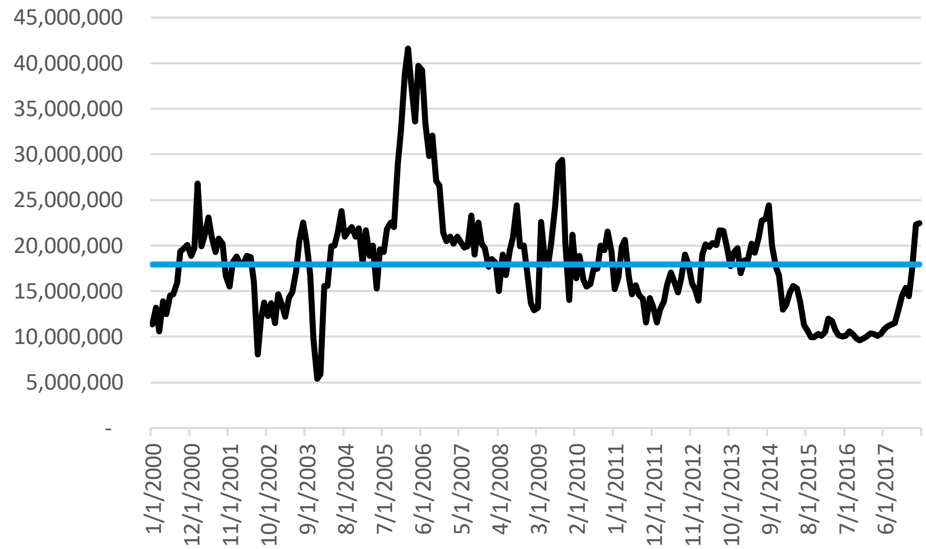

Figure 2: Median assets per fund for funds that are less than 1 year old

Despite the robustness of growth in products, asset managers continue to face significant headwinds to profitability. Decreasing fee revenue, margin compression, regulatory concerns, and shifting trends among their intermediaries continue to make the future look bleak. Rising asset prices have counteracted much of these problems recently, but inevitably another market correction will take place.

When that happens, it's the firms that have taken a disciplined approach to product rationalization (the act of liquidating, merging, or otherwise pruning a product from the product line-up) that will be more resilient.

An Simple Heuristic for Rationalization

The decision to rationalize a product is not simple. It's fraught with subjective considerations about internal politics, human emotions, brand perception and more. But underlying the decision to rationalize a fund must still be an objective assessment of its future prospects for growth and profitability.

We've developed the Flowspring Rationalization Recommendation as a simple, easy-to-understand heuristic for assigning one of the following 5 recommendations to each fund in our universe.

1. **Rationalize** – it's time to bring this fund to a close

2. **Watch Closely** – keep a close eye on the performance of the fund over the next 3 months

3. **Lower Expense Ratio** – lower the expense ratio to make a significant improvement in the fund's organic growth

4. **Await Performance** Improvement – await the abatement of temporary poor performance which is currently hurting organic growth significantly

5. **No Action** – this product is fine, and no action is needed

Our recommendation process uses a simple set of rules to assign a recommendation based on the following 6 input variables.

1. Fee growth over the last 6 months (fg_6m)
2. Flowspring's prediction for the fund's organic growth over the next 12 months (pred)
3. The impact of fees on pred (fee_impact)
4. The impact of short-term investment performance on pred (st_perf_impact)
5. The impact of long-term investment performance on pred (lt_perf_impact)
6. Current total annualized fees in dollars (fees)

We present the pseudocode for our heuristic using our input variables below.

```
generate_flowspring_rationalization_recommendation(
fg_6m,
pred,
fee_impact,
st_perf_impact,
lt_perf_impact,
fees) {
    if ((1 + pred) * (1 + fg_6m) < 0.5) {
        if (fg_6m < -.2 and pred < -.05) {
            return 'Rationalize'
        } else {
            return 'Watch Closely'
        }
    } else if ((1 + pred) * (1 + fg_6m) < 0.8) {
        if (fg_6m < -0.2 and pred < 0) {
            if (0.5 * pred > fee_impact) {
                return 'Lower Expense Ratio'
            } else {
                if (0.5 * pred > st_perf_impact) {
                    if (lt_perf_impact > 0) {
                        return 'Await Performance Improvement'
                    } else {
                        return 'Rationalize'
                    }
                } else {
                    if (fees > 5000000) {
                        return 'Watch Closely'
                    } else {
                        return 'Rationalize'
                    }
                }
            }
        } else {
            return 'Watch Closely'
        }
    } else {
        return 'No Action'
    }
}
```

Figure 3: Flowspring Rationalization Recommendation methodology psuedocode

Taking a closer look at the code, let's look at each recommendation and discover how it can be received.

1. **Rationalize**
    a. Criteria 1
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've already experienced a drop of 20% or more in fees
        iii. You are expected to experience another drop of at least 5% in fees
    b. Criteria 2
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've already experienced a drop of 20% or more in fees
        iii. You are expected to experience another drop of at least 5% in fees
        iv. Your expense ratio has not made a significantly negative impact
        v. Your short-term performance has made a significantly negative impact
        vi. Your long-term performance shows no signs that a short-term performance improvement is possible
    c. Criteria 3
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've already experienced a drop of 20% or more in fees
        iii. You are expected to experience another drop of at least 5% in fees
        iv. Your expense ratio has not made a significantly negative impact
        v. Your short-term performance has not made a significantly negative impact
        vi. Your fund is smaller in terms of fees (<$5million)
2. **Watch Closely**
    a. Criteria 1
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've not already experienced a drop of 20% or more in fees
        iii. You are not expected to experience another drop of at least 5% in fees
    b. Criteria 2
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've already experienced a drop of 20% or more in fees
        iii. You are expected to experience another drop of at least 5% in fees
        iv. Your expense ratio has not made a significantly negative impact
        v. Your short-term performance has not made a significantly negative impact
        vi. Your fund is large in terms of fees (>$5million)
    c. Criteria 3
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've not already experienced a drop of 20% or more in fees
        iii. You are not expected to experience another drop of at least 5% in fees
3. **Lower Expense Ratio**
    a. Criteria 1
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%

ii. You've already experienced a drop of 20% or more in fees
iii. You are expected to experience another drop of at least 5% in fees
iv. Your expense ratio has made a significantly negative impact

4. **Await Performance Improvement**
    a. Criteria 2
        i. The combined last 6 months and next 12 months of fee growth are expected to be less than -50%
        ii. You've already experienced a drop of 20% or more in fees
        iii. You are expected to experience another drop of at least 5% in fees
        iv. Your expense ratio has not made a significantly negative impact
        v. Your short-term performance has made a significantly negative impact
        vi. Your long-term performance shows signs that a short-term performance improvement is possible
5. **No Action**
    a. Criteria 1
        i. The combined last 6 months and next 12 months of fee growth are not expected to be less than -50%

Because this criteria set is absolute in nature, i.e. there is no comparison of numbers to categories or the universe as a whole, the resulting recommendations fluctuate in number and corresponding assets through time.

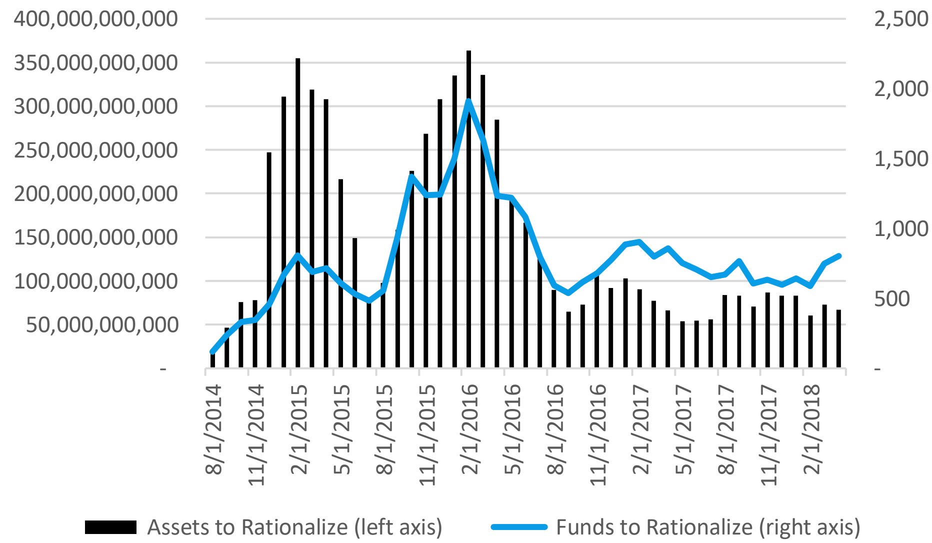

Figure 4: Total assets of funds recommended for rationalization

Our current recommendations suggest that there are $67 billion in assets across 802 funds that could safely be rationalized – far below the peaks seen in early 2015 and 2016.

The Framework Works

Although our heuristic is quite simple, it achieves striking results. First, we find that if we observe the organic growth of funds placed into each recommendation bucket (subsequent to the recommendation) and reconstituted these buckets each month, funds in the

Rationalize bucket would have lost 60% of their value organically over the last 4 years. In contrast, Figure 5 shows that the No Action bucket grew by 14% organically.

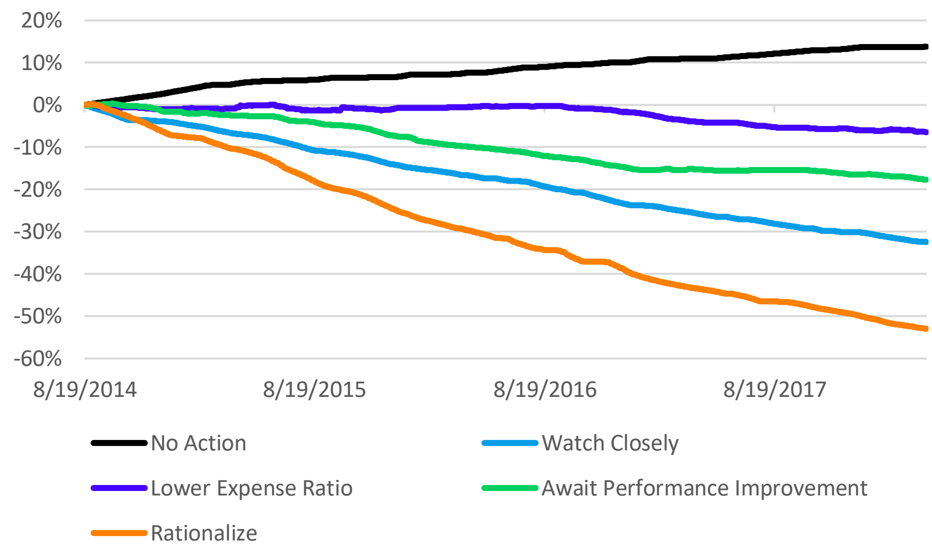

Figure 5: Cumulative subsequent organic growth of funds assigned to each recommendation bucket

Interestingly, our heuristic is not a great predictor of action relating to expense ratios. Of our 4 recommendations buckets which were meant to help failing funds, all of them cut fees at a lower rate than average over the subsequent 1-year time horizon. This may be why they are struggling in the first place, and we suggest that asset managers should take a closer look at lowering fees on products with our *Lower Expense Ratio* recommendation.

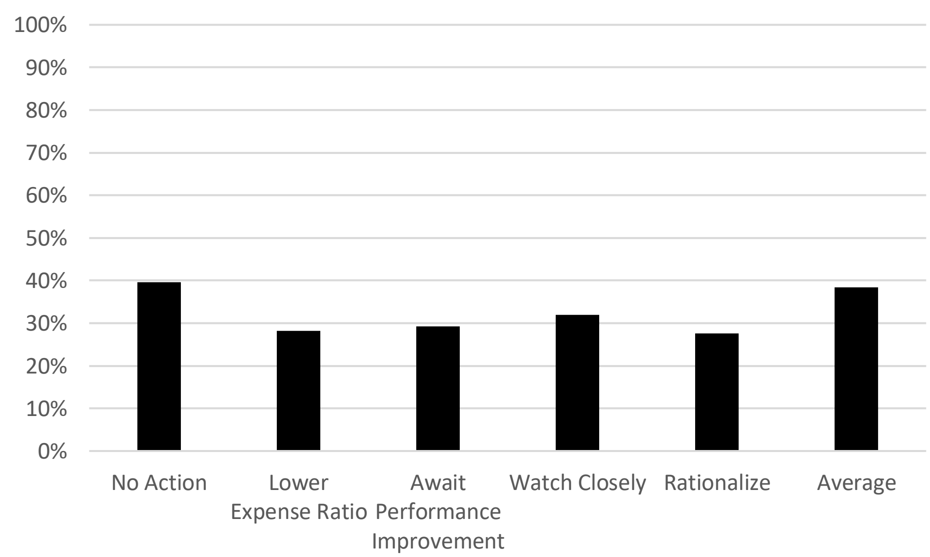

Figure 6: Percent of funds in each recommendation bucket that cut fees over the subsequent 6-months and 3-years

Investment performance, however, is a different story. 74% of funds with our *Await Performance Improvement* recommendation saw improved performance contributions to organic growth within the next 12 months – much higher than the 52% average. It's clear that the Flowspring Rationalization Recommendation does a good job of separating funds that are permanently impaired from those with temporary performance headwinds.

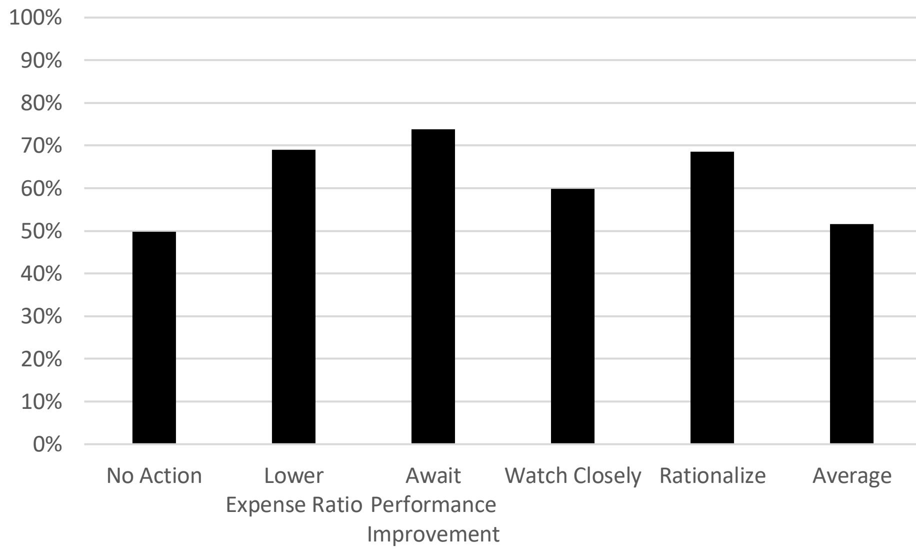

Figure 7: Percent of funds in each recommendation bucket that had improving contributions to organic growth from short-term performance over the subsequent 6-months and 3-years

Some Stand to Benefit from Rationalization Discipline More than Others

Naturally, rationalization discipline is not uniformly distributed across firms. Some firms are more reticent to close a fund, while others will happily prune struggling funds to make way for new ones. Below we list the 25 largest firms based on total assets, the percentage of their total assets which are currently recommended as *Rationalize*, and the amount by which we expect their organic growth to improve if they followed our Rationalize recommendations in both percentage and dollar terms.

	% of Assets to Rationalize	Improvement to Expected Organic Growth (%)	Improvement to Expected Organic Growth ($)
PIMCO	9.2%	2.34%	7,010,662,039
Goldman Sachs	3.8%	3.29%	2,537,096,452
Putnam	2.9%	3.34%	2,303,088,321
OppenheimerFunds	1.1%	0.56%	1,047,648,224
BlackRock	1.1%	0.24%	546,074,441
Fidelity Investments	1.2%	0.04%	523,368,976
Voya	2.3%	0.27%	349,614,134
American Century Investments	0.3%	0.17%	348,714,359
Harbor	1.4%	0.25%	297,353,454
Wells Fargo Funds	1.0%	0.08%	191,629,654
JPMorgan	1.2%	0.06%	168,516,710
John Hancock	0.1%	0.04%	110,346,240
Federated	0.2%	0.10%	97,998,175
Franklin Templeton Investments	0.1%	0.01%	73,973,033
Columbia	0.3%	0.04%	70,786,124
Principal Funds	0.2%	0.03%	56,424,855
SPDR State Street Global Advisors	0.1%	0.00%	26,706,309
Legg Mason	0.1%	0.03%	22,178,870
Eaton Vance	0.2%	0.02%	17,415,861
PowerShares	0.1%	0.05%	17,333,986
Metropolitan West Funds	0.2%	0.01%	15,332,593
Hartford Mutual Funds	0.3%	0.01%	13,186,915
Schwab Funds	0.1%	0.03%	10,035,750
Prudential Funds (PGIM Investments)	0.1%	0.00%	1,472,169
Janus Henderson	0.0%	0.00%	589,983

Figure 8: Top 25 fund families by total assets ranked by the improvement to their expected organic growth per annum by following Flowspring's Rationalization Recommendation. Note: firms with greater assets, e.g. Vanguard are not listed because they do not have a single fund with a *Rationalize* recommendation.

PIMCO leads the pack in dollar benefits to organic growth by pruning *Rationalize* recommended funds. Specifically, the PIMCO RAE Low Volatility Plus EMG fund has the worst prospects of any in their current fund line up.

Conclusion

Limitations on human capital and financial capital mean even the largest asset managers cannot launch funds ad infinitum and expect them to be successful. Many fund launches fail to gather profitable levels of assets. This effect is even more pronounced as fee levels continue to decrease. Consequently, discipline around rationalizing struggling funds is paramount to ongoing success.

We've outlined a simple heuristic for distinguishing which funds should be evaluated for rationalization, which should be "fixed" by lowering expense ratios or awaiting performance improvement, and those which need no action. Our algorithm shows ample predictive performance in that funds labeled *Rationalize* shrink significantly subsequent to the recommendation.

The Flowspring Rationalization Recommendation is meant to be a starting point for analyzing struggling funds in an objective way. Asset managers must bring more subjective, qualitative analysis to bear on any decision as important and impactful as fully liquidating or merging a fund.

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