



Labeling Equity Fund Managers

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In order to make sense of the bewildering array of thousands of equity mutual funds, market participants label funds and form small fund groups. Ideally, funds would be labeled by the way managers analyze, buy and sell stocks - their investment strategy. Implementing this framework requires asking the manager about her or his strategy and labeling the fund accordingly.

But market participants are often skeptical of such an approach and instead look for supposedly objective but indirect labeling. For this and other reasons, Style Box labeling, which is based on the characteristics of the stocks held by the fund, is currently popular. It is widely used by advisors, consultants, managers, and investors for describing, analyzing, and choosing among fund offerings.

It is critical to determine if a fund labeling approach is effective, that it is grouping funds together that are pursuing the same strategy, while avoiding the undesirable consequences of a poorly thought out scheme. I compare Strategy labeling, which labels based on the fund's stated strategy, to Style Box labeling, which labels based on the stocks held by the fund. I find strong evidence that Strategy labeling is superior to Style Box labeling in terms of forming homogeneous strategy clusters and for identifying top performing managers within each strategy.



Poorly Conceived Labeling

To understand the problems created by ill-conceived labeling, consider a professional football team analogy. Imagine players, rather than being asked the position they play and labeled accordingly, are labeled based on their weight and 40 yard sprint time. The group of players weighing between 200 and 230 pounds with sprint times between 4.5 and 5.0 seconds are labeled “midsized, midspeed” or mid-mid for short. The mid-mid players include quarterbacks, punters, receivers, and safeties, among others. Such a labeling approach has the advantage of being objective, but in spite of its objectivity, it turns out to be detrimental to team performance.

First, knowing that a player is mid-mid says nothing about what he does on the team. So the label has to include a modifier, such as the player is a “mid-mid quarterback” or he is a “mid-mid receiver”. In order to identify all receivers on the team, it is necessary to look across all weight, speed groups.

Second, the mid-mid label gets in the way of player performance, because mid-mid players are compared to other mid-mid players as a group. So a quarterback has to be concerned about receiving since he is being compared to mid-mid receivers, while the receiver has to be concerned about passing since he is being compared to the mid-mid quarterbacks. As a result, each wastes time on developing skills that help little with their specialty. This undesirable consequence is the insidious result of labeling players based on weight and speed rather than on the position played.

Third, it is difficult to identify the best player at each position since the mid-mid group and all other groups include a variety of position players. So the “best” mid-mid player may not get you at all close to identifying the best player in each position.

The final challenge is hiring an assistant coach who can meet mid-mid’s diverse player needs. Such a person would have to know something about passing, receiving, and punting, among other things. In fact each assistant coach would need all skills since there is a wide range of positions in each group. Thus coaches would be generalists not specialists.

So what started out as an objective way to label players has produced negative consequences for the team as a whole. This may seem a silly example, since the obvious solution is to label players based on the position played rather than by weight and speed. But as silly as this example may seem, it is close to what we see in the US equity fund market.



Rather than labeling funds by what they do, that is their investment strategy, funds are labeled by the stocks they hold. The small-cap value fund, for example, is so labeled because of the small market cap, low PE stocks held, not the investment strategy being pursued. As a consequence, the small-cap value label reveals little about how the manager goes about picking stocks. In addition, the fund is fit into the fund distribution system as a small-cap value fund and as a result the manager faces pressure to stay in that box. This generates a conflict between being “style pure” versus staying strategy consistent. Underperformance results as the manager responds to sales and marketing pressures. Finally, it is impossible to identify the best managers in each strategy, since all strategies are being pursued in each box, making it difficult to compare manager performance based on strategy. Instead, we only know the best performing box managers.

Well Conceived Labeling

Successful managers generate superior returns by analyzing the economic, market, and company specific factors which impact equity returns and then construct a portfolio to exploit these factors. The primary purpose of any fund labeling approach is to help investors identify successful active managers who are pursuing successful strategies. Therefore, a fund labeling approach should:

1. say something about the manager’s investment strategy,
2. not get in the way of executing the investment strategy, and
3. help identify successful strategy managers.

I test which labeling approach, Style Box or a fund’s self described Strategy, is best at meeting these criteria. There are legitimate concerns regarding each approach’s ability to capture a fund’s strategy and meet the three criteria listed above. For Style Box labeling, the question is the time invariant link between strategy and stock holding characteristics. Do managers who hold small-cap value stocks, for example, pursue the same strategy and if so, do they over time always hold small-cap value stocks? For Strategy labeling, the question is the reliability of the information gathered and the integrity of the strategy identification process. I compare these two approaches using two cluster analysis goodness-of-fit metrics to determine which is better in terms of forming homogeneous strategy clusters and for identifying top performing managers within each strategy.



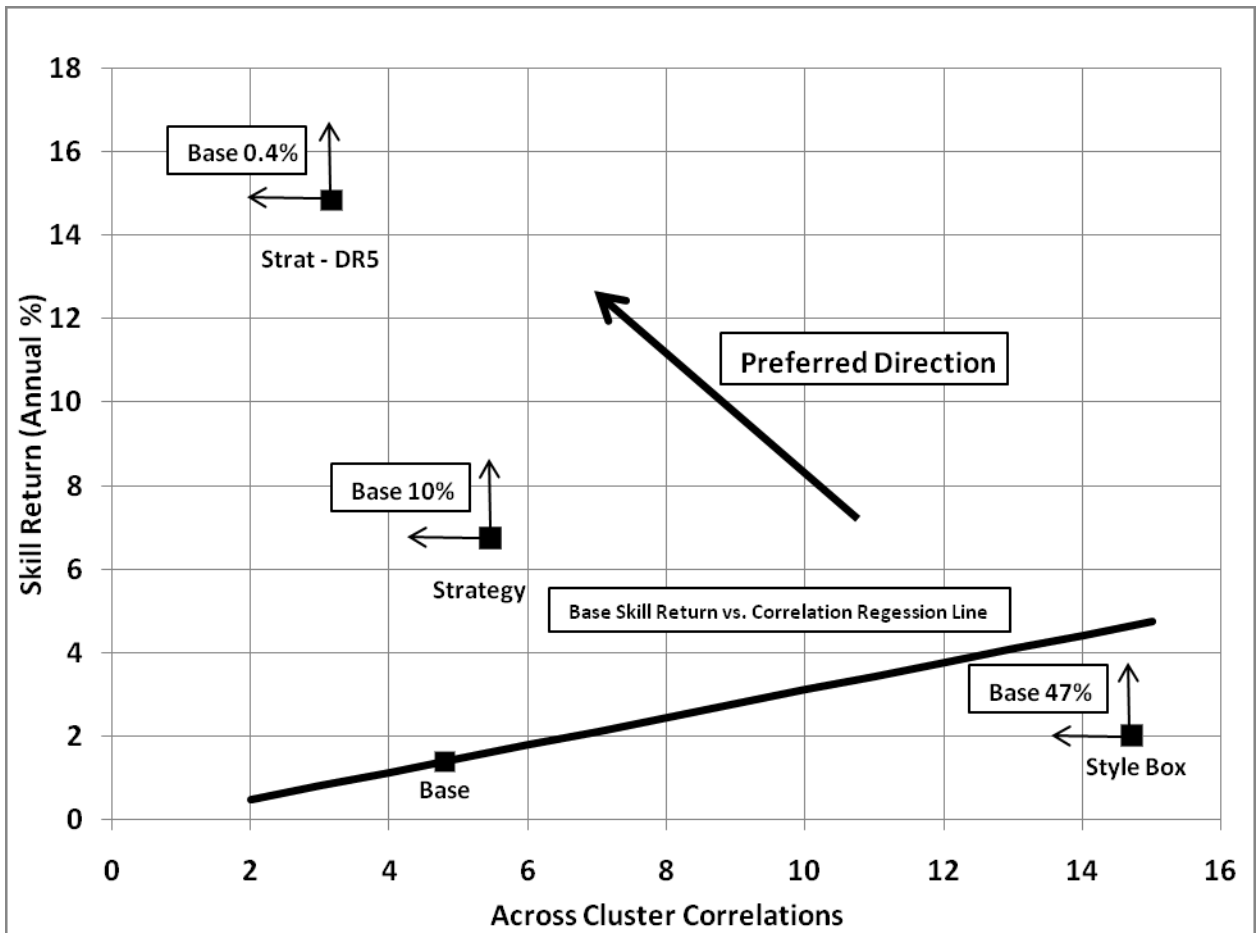
Fund Labeling Tests

I test fund labeling effectiveness using 276,317 fund/month observations over the 1988-2007 time period by estimating two cluster analysis goodness-of-fit metrics: 1) across cluster correlations and 2) skill returns. Lower correlations and higher returns are better. The basis for this cluster analysis goodness-of-fit test is comparable to risk-return optimizing an investment portfolio.

The results presented in the Graph below reveal that Style Box labeling is inferior to all other approaches, including Base clustering, which assigns funds at random. The preferred direction in the Graph is northwest, which means lower correlations and higher returns. However, Style Box labeling moves in the opposite direction, with higher correlations and lower returns. Since Style Box labeling plots below the random assignment Base regression line in the Graph, it performs worse than does random labeling. This means that Style Box labeling produces heterogeneous strategy clusters and thus makes it difficult to identify top performing managers within a particular strategy.

Both Strategy labeling and Strategy- successful active manager (which is labeled a Diamond Rating 5 manager or DR5 for short) labeling are superior, with Strat-DR5 performing as well as one can expect. This is demonstrated in the Graph by the fact that only 4 of the 1000 random fund assignment Base simulation risk-return pairs are better than that produced by Strat-DR5 labeling.

Thus Strategy labeling moves in the right direction, producing lower correlations along with higher returns. This means that Strategy labeling leads to the formation of homogeneous strategy clusters and allows for easier identification of top performing managers within each strategy. Strategy labeling is based on the information contained in the "Principal Strategies" section of the fund's prospectus and so these results support the usefulness of this information for fund labeling.





Conclusion

Strategy labeling is very effective at clustering funds pursuing the same strategy and at identifying skilled active managers within these strategies. On the contrary, Style Box labeling is very ineffective since it spreads common strategies across clusters rather than concentrating them within clusters.

Both Style Box and Strategy labeling have their problems, as Style Box is based on the premise there is a strong time consistent link between strategy and the characteristics of the stocks held by the manager, while Strategy is based on the reliability of information provided by the manager and fund. These issues can only be addressed by empirically testing which approach is best at clustering funds pursuing the same strategy and allowing for the identification of skilled managers within these strategies. The evidence strongly supports Strategy labeling as being the more effective approach.

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