

# How to Generate Alpha without Selecting Superior Funds

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by Bob Veres

In Part I of my series on active investment management, I described two types of research that attempted to help advisors uncover above-average talent: identifying conditions where you are more likely to find outperformers, and better ways to identify above-average managers.

As it turns out, there's a third possibility. Instead of identifying superior funds, you identify superior combinations of funds – which, of course, includes a fund selection process, but then takes it one step further.

To see how this works, meet one of the most interesting researchers in the asset management space: Gary Miller of Frontier Asset Management in the global financial capital of Sheridan, WY. Frontier manages \$1.8 billion in assets, either directly via separate accounts with advisory firm clients or through the Envestnet platform.



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Miller's investment philosophy contradicts everything you hear from traditional academic research. "We come to this with three core beliefs," says Miller: "active fund managers can add value; we can identify those managers in advance, and they will continue being successful."

## Beyond style boxes

Miller's process for identifying fund managers who add value requires several steps. First, he surveys the fund universe using returns-based style analysis (RBSA), a tool that he co-invented with Nobel Laureate Bill Sharpe. RBSA compares each fund manager's monthly (or, at times, daily or weekly) return performance against all the possible mixes of index returns. The goal is to use a complex regression analysis to determine, with some precision, which asset classes each fund is invested in, today and historically.

Step two is to compare each fund's returns against its own customized benchmark, so Miller can see whether or not the manager is adding value.

What's wrong with simply measuring a fund's returns against the average performance of its style box? "Style box investing just doesn't work," Miller says, "because it allows one set of managers to outperform during different periods simply because of the way they invest."

As an extreme example, consider the most successful funds in the frenzied bull market leading up to the tech bubble burst. "In each style box category," Miller says, "the top of the peer group were the funds with the largest cap weightings that were also the most growth-oriented." In other words, they had the advantage of being more exposed than their peers to the larger-cap growth stocks that were being bid up in the frenzy.

When the bubble burst, those same managers dropped like stones to the bottom of their style box rankings, because their over-weightings were now dragging them down instead of lifting them up. This is an exaggerated example of what happens all the time: when growth outperforms value, the value funds with the highest growth orientation will outperform their deep-value peers. Unless you have a much finer calibration tool than nine style boxes, it's impossible to know whether a manager is adding value compared to the actual investment category he/she is invested in, or whether the outperformance is due to the random winds of the marketplace.

Interestingly, the more precise style analysis rankings tend to eliminate low-active-share managers – which relates to the active-share research referenced in my first article in this series.

After reading through the literature, however, Miller decided not to use active-share screens because he says it's just as likely to identify funds with high negative alpha as above-average ones. But he says that there's a qualitative explanation for why high active-share managers tend to rise to the top of the style analysis rankings, closely related to the comments by Morningstar's Don Phillips that I cited in Part I of this series. Some fund companies are more focused on their own

growth and profits, while others are more concerned about delivering above-average performance to their investors, potentially at the expense of their own organization's growth and profits.

"The closet indexers, the managers who really try to fit comfortably in a box, are there because that's where the assets are," Miller explains. "That's how the big foundations and pension funds invest – in peer groups. Part of the decision to be a closet-indexer peer-group manager relates to that vast pool of money that has invested that way for many many years – although," he adds, "a lot of that money today is going into index funds instead."

In contrast, the funds that win the style analysis beauty contest tend to be eclectic go-anywhere managers. "The best way to describe them is that these managers really like this investing stuff," Miller explains. "They wake up in the morning and say: I'm going to pick good stocks. Or: I'm going to allocate my portfolios where I really think the opportunities are. I don't care so much about having trillions of dollars invested with me through pension funds."

Later in the interview, he said that these funds companies tend to be independent, and the managers don't care what style box they're invested in. "I think those are the starting points for a qualitative evaluation," says Miller.

Is he willing to name names? "Wally Weitz is really interested in the investment side of it, and in doing the best job for his clients, as opposed to getting massive amounts of money from pension funds," says Miller. "The American Funds are not peer-group or boxy managers. We have a lot of money with Primecap, which came from Capital Research, and they're not style-box managers either."

Miller also sings the praises of the T. Rowe Price Capital Appreciation Fund (closed to investors), the Osterweis fund group, DoubleLine, Montag & Caldwell, Odyssey Aggressive Growth, the Castle Focus Fund, the PIA Fund and Sterling Asset Management. To see a specific analysis of a fund that doesn't fit comfortably into a style box, he calls up the First Eagle Global Fund on his computer. "You can say it's global, but they always have 6-10% of their money in gold bars," Miller says. Looking at a customized style benchmark recently and over many years, Miller finds that the fund has consistently added value compared with the securities in which it has been invested.

Miller also likes Ivy Asset Strategies for its ability to successfully adjust its allocations with the investing climate. "This fund is global in the equities it will buy," he says, "but they make lots of changes to the basic allocation. Long-term, they've outperformed the international index with a .55 beta, even though the return pattern is very similar."

Looking more closely, he finds that during the April 2000 through September 2003 downturn, the fund did not experience the losses of the market as a whole. A possible explanation can be found in the fact that its beta dropped to 0.16 during this time period. In the aftermath, the fund changed its allocations dramatically all over again. "It took them about a year after the market bottom to really decide it was time to go back in strongly," says Miller. "But in the recovery period, starting in September 2003, the world index doubled in five years, and Ivy did even better. During this time period, its beta went up to about .99."

## **Horse race**

The result of the style analysis process is 130 funds that will go on Frontier's buy list. Miller decides which of these funds will go into the actual portfolios, in which percentages, using a process that might be unique in the industry.

"Our overall goal is not necessarily to find the best managers, but to find the best combination of management," says Miller. "What we're trying to do is assemble a team, and not worry so much about how each one is doing individually. We're looking for a group of managers that as a group outperforms our blended benchmark consistently through all different time periods."

How is that group identified? Miller has his computer calculate the returns of every combination of the 130 funds he's identified over the past 16 years, on the theory that the winner of this horse race involving trillions of alternative combinations will provide a mix of funds that will deliver an above-benchmark return going forward.

There are a few constraints on this process, which makes it a bit more complicated than it sounds. Perhaps the simplest is that Miller formulates an asset allocation that he wants the different fund mixtures to approximate – a shifting asset allocation which he believes adds additional value in ways that I won't talk about in this article. The portfolio allocations his model considers should match his target allocation.

However, this is a fairly imprecise constraint. Even though the data is available, Miller doesn't use his style-analysis data on the individual funds to map precisely to the asset allocation. "That's a change from when I first started doing this back in the 1980s," he says. "Back then, I would use style analysis and do some trial and error to get close to the mix I wanted. But

now,” he says, “we cut out the middleman. As long as the return patterns match [the target asset allocation] over all the many different time periods that we’re evaluating, we’re okay with straying from the precise allocations.”

Another simple constraint is the sizing. “We don’t like to include any fund that will make up less than 4% of a position; that seems not worth the trouble,” says Miller. “And we don’t like to own more than 15% in an individual fund.”

In addition, the past returns used to evaluate the performance are weighted. More recent returns are weighted more heavily than the older ones. Bear markets and downdrafts get twice the weighting of bullish markets, which puts a defensive spin on the winning allocations. “We’re actually going to take our process out to 20 years shortly,” says Miller. “We don’t want to leave out the bear market where value beat growth.”

Finally, the most complicated constraint is an assumption that Miller makes about the fund track records themselves. “I did some statistical work 25 years ago which suggests that maybe half of any above-average performance can be attributed to something other than skill,” he says. So instead of using the actual track records for each of the 130 funds, he uses a track record that cuts their alpha in half.

The alpha calculation is actually not that complicated. Miller defines historical alpha as the fund’s return over and above the fund’s customized benchmark; that is, above the return of the index funds in percentages that are as close as he can approximate the fund’s actual asset mix. “If one of the funds we’ve identified has an alpha of 3% in a particular time period, and the fees are 1%,” Miller explains, “then we calculate its before-fee [historical] alpha as 4%. We divide that figure in half, and then subtract the fees back out.” In this hypothetical case, the “expected alpha” – the number used in the optimization process for this particular time period, is calculated as 2% minus the 1% fee, or 1%.

In another example, a fund might have a 2% historical alpha above its custom benchmark over a particular time period, and the same 1% expense ratio. The same calculation would assume 0% alpha in that slice of the track record. Miller notes that this systematic diminution of each fund’s track record, before the optimization begins, puts a heavy emphasis on the amount of each fund’s fees, and tends to favor index funds.

With these constraints, Miller’s computer rattles and shakes on his desk, and tests every possible combination of every fund on the list in a very wide variety of different percentage allocations, and spits out performance statistics over the past 16 years. “The mathematics are mind-boggling,” says Miller. “We pay a lot of money for an optimizer developed by some professors at Texas Tech – the same people who designed the optimizer in Microsoft Excel. That optimizer is not nearly robust enough for us,” he adds. “It turns out they have a much more robust optimizer that we use.”

At the end, Miller looks at his best-performing hypothetical combinations on a month by month basis, compared with the blended benchmark. “Optimally, we want the winning portfolio to outperform our benchmark in every individual month,” he says, and immediately concedes that this seldom actually happens over the full 16-year (soon to be 20-year) time period. In the portfolio he showed me, there were five months that underperformed the asset allocation mix when the markets were falling.

From there, Miller moves on to the quarterly returns. The current portfolio underperformed in just one of the quarters when the benchmark was down, and in two others the returns were basically even. When he looked at rolling 12-month periods, the winning portfolio had outperformed each time, and the R-squared and beta are virtually identical to the index. “This gives us confidence that our managers are, as a group, acting like the mix we want, but they’re adding value,” he says. “We believe this is going to continue in the future, just not as much.”

Interestingly, the selection process often excludes some of the best-performing funds, includes some lesser-performing ones, and will have 10-20% of the final “winning” portfolio in index funds. “We also tend to end up with a lot of all-cap managers,” Miller says, “and we get our large-cap exposure from them, because we seldom end up with what you would call large-cap managers in the final portfolio. “We can love a fund and put it into the optimizer over and over again and never buy it when we look at the winning combination,” he adds. “What we believe is that we’re capturing a group of smart managers who think differently than one another and provide complementary return patterns.

## Alpha and caveats

But the big question is: does the process produce additional value? Miller says the globally-diversified balanced portfolio – where he has the longest track record (since March of 2000) – has produced an added return of 1.2% a year. In the past three years through June, this same portfolio has returned 1.19% above the benchmark. The numbers are slightly lower for the growth and income separate account (1.17%), the long-term growth (0.39%), and the more defensive conservative (0.98%) and capital preservation (0.94%) portfolios.

When he explains Frontier's performance, Miller sounds more like a researcher than a money manager, and you get the feeling that the portfolio management process is, in his mind, a long-running experiment. The added-value (alpha) figure, Miller explains, is not a comparison between the Frontier return and one of the major indices. Instead, it's the portfolio return minus the blended returns of the indices in the target asset allocation that Miller's team was aiming for.

That causes Miller to question whether he's capturing real manager alpha or the same kind of return variances we see inside the style boxes. In other words, could these above-average returns be due to a mismatch between the underlying fund holdings and the benchmark?

"As it happens, the return patterns [between the portfolio and the target asset allocations] match pretty well," Miller says. "The R-squared is 97%, even though we're not really trying to optimize the R-squared. Our beta is 0.96. Our T stat is 2.98, which is the statistic used to give your statistical confidence. Most analysts are very excited about 2.0, which gives you 95% confidence. A T stat of 2.98 with this much data gives you a 99.9% confidence level that the alpha is greater than zero.

Then Miller immediately adds a couple of qualifiers to his alpha calculation. "One is that one of our asset classes is the HFRX Global Hedge Fund Index, which I thought was really smart 10 years ago," he says. "It has been a lousy performer relative to some of the other hedge fund indices. Writing a paper on this subject," he adds, "I'm planning on adding a 2-3% return to the index every year, which would bring the alpha down a bit."

"You could also," he says, "question the fact that I used the S&P 500 and the Russell 2000 as the proxies for my U.S. stock indices. I don't use midcap. I've looked at adjusting by using the S&P 500 and the Wilshire 4500, to get the same large/small ratio," Miller adds. "But that doesn't seem to impact anything."

Finally, the 1.2% added value is a composite performance figure, which reflects certain frictions in real-world management that create a discrepancy between the actual portfolios and the model's returns.

"Our smaller accounts use no-transaction (NTF) funds instead of transaction-fee funds," Miller explains, "and our numbers include transaction costs. In some accounts, there are positions that we don't want to sell due to tax considerations, when the model would call for us to sell." Miller estimates that the model portfolio return would be roughly ten basis points higher than the composite number.

## **Return conditions**

Finally, and perhaps most significantly, Miller freely admits that he doesn't know exactly what's going on "under the hood" of his fund mixes.

"I've tried to go back and figure out what asset classes I'm getting the added value from, mathematically, but I haven't been able to do it yet," he concedes. "For instance, our more conservative portfolios have produced roughly the same added value as our more aggressive portfolios, which seems odd."

Miller has, however, noticed other patterns. "Earlier this year, we had a mediocre 'no added value from managers' pretty much across the board," he says. "But the last three months, with all this crazy stuff going on in the markets, we've added 300 basis points, simply from our managers. The same in 2008," he continues. "The first eight months, when we were in a normal bear market, our managers didn't help. But the last three or four months of that year, the managers helped a lot.

"That suggests to me that it's during wacky times that the active managers shine," says Miller. "It would be interesting to find those time periods where our performance has been noticeably better, and see if that correlates to daily volatility in the markets."

When he looks more deeply under the hood, Miller has found hints that this may be so. During periods when value stocks were outperforming growth stocks, his managers, in aggregate, had been overweighting on the value side. When growth was outperforming, they had been overweight growth. "They were adjusting to market conditions in ways that we could not have identified," says Miller. He concedes that he didn't know about these shifts until he looked back at the data.

## **Real money**

But the question remains: is this really adding value? If you add up the 11-30 basis points that Frontier charges to the advisor's 1% asset management fee, then the 1.27% alpha goes away. Doesn't it?

Miller says no. He believes that that wealth managers shouldn't be including their entire fee in these calculations. "They do

it because that makes their total fee tax-deductible,” he says. “But most of what they do for their clients is financial planning and calculations. Twenty-five basis points is probably more appropriate to assign to the investment management work they do.”

The real calculation: 11-30 basis points plus 25 basis points, compared with 1.27% alpha from the funds and some number for Frontier’s asset allocation modifications each month or quarter.

Even so, are these small incremental differences in return worth the effort? “I have never seen anybody with numbers as good as ours, with proper comparisons over long periods of time,” says Miller. “But,” he acknowledges, “the numbers look really small compared with the nominal total returns [7-9% in stocks, historically] that you can get directly from the markets.”

Do they make a difference? Over time, yes. “If you can find a way to add 1 percentage point a year, for 20 years of accumulation before retirement, you’d end up with about 25% more money,” says Miller. “That’s the difference between \$1 million and \$1.25 million, or at 4% distributions, the lifestyle difference between \$40,000 a year and \$50,000.” If the portfolio can continue to generate an extra percentage point return in retirement, then the client would be able to take a 5% distribution rather than 4%, and raise the lifestyle funding to \$62,000 a year. “At that point, you’re talking real money,” adds Miller.

In the conversation on APViewpoint associated with this article, people are going to argue that Miller’s trillion-portfolio horse race process for building portfolios is unlikely to catch on in the retail marketplace – and I can concede that it’s unique. But for the purposes of determining whether it’s “impossible” to create above-average fund portfolios, I would argue that it’s fair game to include the Gary Miller/Frontier evidence. It may not be definitive, but Miller’s track record certainly suggests that fund management talent exists, and that with a more precise and sophisticated toolkit, individuals can find it.

What do you think?

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