Alpha or Wealth?

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Pervasive among investors is the view that selecting managers or mutual funds capable of beating the market is the most important part of their investment program. The investment industry spends billions of dollars to reinforce that belief. But the rise in popularity of Exchange Traded Funds (ETFs) has mutual funds worried more than any other passive threat so far. It is widely accepted that ETFs offer significant advantages over mutual funds, especially lower costs and taxes. But the mutual fund industry may be all the more concerned that increasing numbers of investors are accepting the view that ETFs, and passive strategies in general, are better for wealth accumulation than active management – even if one assumes active strategies can generate positive alpha over extended periods of time.

Indeed, there are managers who have provided "alpha" or market outperformance relative to the market over extended periods of time. But do they actually provide value? Investors are often so enthralled with the possibility of outperforming the markets that they ignore an important warning, just as addicted smokers ignore the Surgeon General's warning on cigarettes. This warning is printed clearly on every investment circular: "Past results do not guarantee future performance." The issue is less whether your fund manager will beat the market – a few will; but rather the uncertainty of *when* that outperformance will occur relative to the real-life requirements on an investor's portfolio.

The misguided quest for mutual fund alpha

American Funds, the nation's second largest fund company, recently published an article promoting the benefits of active management over passive. In it, they showcased their New Perspective, Capital World Growth and Income, and Euro Pacific funds. The piece is well done, as are all American Funds' publications. My purpose is not to debate (or concede) their ability to outperform markets on average over long cycles, but rather to use their brochure to demonstrate how often real life results can vary from their published performance.

I selected the New Perspective fund for this example because it has the longest track record and can be accurately compared to a single index, the MSCI EAFE index. Over

the last ten years, the New Perspective Fund has outperformed the EAFE index five of the ten years by 8.7% annually. The fund underperformed for the other five years by 3.3% annually, for an average overall outperformance of 2.7% annually pre-tax. This is their ”brochure number.”

For our first example, let’s take an IRA investor who contributes $2,000 a year (adjusted for inflation) to the New Perspective (NP) fund starting in 1999. By the end of 2008, she would have $24,200. By contrast, if she had invested in the EAFE index, she would have $22,000 – $2,200 less.

Now let’s examine a period of saving and spending with the impact of taxes. Suppose a grandparent sets up a college fund for his grandchild who plans to start college in eight years. In 1999 he begins investing $2,000 (adjusted for inflation) each year into the NP fund in a taxable account starting in 1999. In years 2007 and 2008, the student takes $5,000 and $5,150 to help with college expenses. Under this scenario, the college fund in NP would be worth $10,900 in 2008, while the EAFE index would be worth $11,700. The timing of cash flows and taxes adversely impacted this individual’s *wealth* performance, while the performance reported by NP did not change. The timing of when over and under-performance occurs has significant impact on real world situations; whether that impact is positive or negative is simply a matter of luck.

An example of bad luck is what happened to investors of the Legg Mason Value Trust over the last three years. Bill Miller grew famous by besting the S&P’s performance for 17 consecutive years. He accomplished this feat by concentrating his stock selections in companies and industries he felt would outperform the broader market – the S&P 500. Unfortunately for him and his investors, his string was interrupted starting in 2006 by three years of significant underperformance – 10%, 12%, then 18%. His outsized bets on the US financial sector worked against him. What impact would these results have under our earlier lifelike scenarios?

In the case of our saver, an investor starting in 1999 saving $2,000 each year for ten years (increased each year to keep pace with inflation) would have $42,000 in Miller’s fund at the end of 2008. Our index investor would have $51,300. Under our save-and-spend example, the Legg Mason Value investor would have $19,200 in 2008, well short of the index investor’s $24,100. That’s an avoidable 20% reduction in lifestyle.

What’s going on when a fund can outperform the market, yet in many cases fail to deliver superior results for real investors?

As stated earlier, the uncertainty associated with the timing of a fund’s relative performance can have beneficial or detrimental impact on an individual’s investment plan, depending upon how his or her cash flows (saving, spending, or holding) line up with the fund’s results. It is this degree of risk that an active manager adds beyond market performance that often goes unconsidered.

Monte Carlo simulations and the cost of alpha

David Loeper, the CEO of WealthCare Capital Management, is a pioneer in exposing the myths and risks of Wall Street's performance game. He has written several books and white papers (referenced below), which are packed with data to make his case that the average investor is being under- and even ill-served by our industry.

Loeper's work highlights the largely ignored danger of market-relative performance, or alpha. In his study, Loeper assumes that managers of active funds beat the market by an average of 2% annually over a period of 30 years. To calculate the variance in active approaches relative to the market, he bases his data on Ron Surz' highly regarded Pipods universe of potential manager results. For his study, Loeper uses a simple case: A client has $2 million to invest and wants to generate $118,000 annually, adjusted for inflation, over 30 years without eroding his principal in real terms. Loeper's Wealthcare Monte Carlo model shows that his 2% alpha assumption in a tax-efficient portfolio provides a 78% chance or degree of confidence that he can exceed his client's required goal. That's a fine portfolio.

But here's the problem. Alpha, or market-relative performance, is not predictable. There is no way of knowing when a fund is going to outperform or by how much. This problem is known as timing risk. In his study, Loeper assumes that his portfolio will outperform the market by 2% annually on average (the implied promise of many actively managed funds). But to keep his model realistic, he does not force a constant 2% out-performance every single year. That feat cannot be realistically accomplished. The reality is that the extent and frequency of out-performance will vary each year, just as market returns do. Instead, Loeper selects only those theoretical managers from Surz' data that beat the market by 2%, while recognizing that the timing of their relative out-performance is unpredictable.

What happens to the 78% confidence we saw earlier when timing risk is introduced into the model? Understanding that variability reduces confidence, one would correctly assume that confidence declines. In fact, confidence falls to 57% that our investor will be able to take $118,000 annually from his portfolio without violating his principal.

How would a passive S&P 500 index model do in comparison? To make it fair, Loeper assumes his index model will cost money to implement, so he assumes a negative alpha (or management cost) of .49%. He further handicaps his passive strategy by recognizing that there is some small tracking error even in an indexed portfolio. Under the same $2 million scenario as before, the passive portfolio provides a confidence of 54%, three points below our 2% alpha example.

Too many investors would walk out the door happy with the promise of 2% alpha and $118,000 to spend annually from their $2 million, unaware of the hidden dangers lurking

in their uncertain future. Confidence of 57% is barely better than a coin flip. Would the client be better served if he understood that he faces an almost 50/50 chance of running out of money, even with a 2% market outperformance?

Let's say our sample client was aware of the risks and therefore demands a higher confidence in his plan. He is also is willing to accept a lower level of income to keep his principal at $2 million. By reducing his income to $60,000 annually, he could achieve a confidence of 86% in a passive index model (burdened as before with costs and small tracking error) and a confidence of 84% in the 2% alpha portfolio.

Surprised by the difference? The smaller market relative variability of the passive portfolio (in any one year the index fund is unlikely to vary from the market return by more than 1%) provides a slightly higher confidence when compared to the alpha portfolio (which is likely to vary from the market by far more than 1% in any one year). By including the reality that the *2% certain average* outperformance will not occur in the form of *exactly 2% each and every single year* but instead will vary from year to year, we expose the effect of market relative timing risk in the odds of exceeding our client's goals.[1]

Before getting too comfortable with these conclusions, remember that the study period covers 30 years. Do you really think it reasonable to assume an alpha or outperformance average of 2% annually over a near-lifetime of investing?

Loeper answers this question in a practical manner by building a portfolio of ten funds with the same criteria as before, each providing alpha of 2% annually. But most will agree that the odds of picking 10 of 10 stellar funds (2% alpha) over a 30-year period are incredibly small. Take a look at what happens to confidence as the odds become more reasonable – say 4 or 5 out of 10.

[1] The study used an 8% market relative variance which means that in 68% of all simulated years, the active fund's market relative performance will range from underperforming by 5.01% to outperforming by 10.36% while being certain of outperforming on average by 2%.

Simulations based on $2 million starting balance and 30-year time horizon

Number of Funds Selected That will Generate 2% Alpha over 30 Years	Confidence (Probability of Producing $60,000 in Annual Inflation-Adjusted Income)	Annual Inflation-Adjusted Income at 86% Confidence
10 for 10	84%	$52,000
9 for 10	81%	$47,000
8 for 10	78%	$40,000
7 for 10	75%	$34,000
6 for 10	72%	$31,000
5 for 10	69%	$30,000
4 for 10	65%	$23,000

The far right column shows how much (or how little) income the alpha portfolios would generate if they were forced to the same level of confidence as the passive model – 86%, which you will recall generated $60,000 in annual income. The price of alpha is risk, and the risk is to your lifestyle!

Don't miss the main point. You cannot spend odds or confidence, only wealth. Wealth is what actually affects people's lives.

There are controllables in the investing process and there are uncontrollables. Market risk is uncontrollable – uncertain as to its timing and degree. Monte Carlo simulations allow us to help plan for market risk. The rest of the variables – costs, taxes, and market-relative performance risk – are controllable. ETFs are very low cost, highly tax-efficient, and can deliver exceptional index tracking. When efficient ETF portfolios are combined with the ongoing oversight necessary to provide high confidence in an ever-changing world, we provide our clients with the best means of harnessing the power of the capital markets to meet their important life goals.

For additional reading of David Loeper's work:
~~*Stop the Retirement Rip-off*~~, ~~*Stop the Investing Rip-off*~~ and ~~*The Four Pillars of Retirement Plans*~~) released in 2009 by John Wiley & Sons and numerous whitepapers.

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