

Fiduciary Focus: Active vs. Passive Investing (Part 2)

W. Scott Simon | 3-30-05 |

This month's column continues the series I began last month that explores active investing and passive investing within the context of modern prudent fiduciary investing.

There is widespread belief among investors, repeated endlessly by the investment media, that opportunities to beat the market are greater in "inefficient" markets. Skillful investors are said to have a better chance of uncovering investment "gems" by picking "inefficiently" priced stocks such as small-company stocks and emerging-markets stocks--stocks that most investors "ignore."

The media, though, doesn't tell investors about a much more important story: the critical difference between the (very consequential) fact that active investing in all financial markets is a zero sum game and the (less consequential) belief that a particular financial market is efficient or inefficient. That difference helps explain why passive investment strategies are ordinarily the most prudent for fiduciaries to use not only in efficient financial markets but, surprisingly, in inefficient markets as well.

That Active Investing in All Financial Markets Is a Zero Sum Game Is a "Fact"

A powerful argument in favor of passive investing (particularly germane to fiduciary investors) rests on the simple arithmetic of a zero sum game. It is a fundamental, yet little understood, mathematical fact (not a belief) that active investing in all financial markets such as the stock market in the United States or the bond market in South Africa is a zero sum game.

Game Theory (a branch of mathematics first developed in the 1920s) posits that there are three kinds of games: a positive sum game where, on average, people win, a negative sum game where, on average, people lose, and a zero sum game where some win and some lose but, on average, people break even. Some of the "games" studied by Game Theory are nuclear war, raising children, and investing.

Nuclear war is a negative sum game where all lose. Government think tanks used Game Theory for many years to simulate what could happen in a nuclear exchange between the U.S. and the USSR. (Fortunately, they realized that it was a very negative sum game called Mutual Assured Destruction and decided not to play.) Raising children is a positive sum game in which both parents and children win. It may not seem that way, though, when trying to get the kids to go to bed at a reasonable hour. Active investing--defined as holding any given subset of stocks other than what comprise the market portfolio--is a zero sum game where some investors will win and some will lose relative to the return of the market or a market segment.

Those that participate in a financial market consist of three groups of investors: passive investors who earn the market return, active investors who outperform it, and active investors who under-perform it. To avoid confusion, note that the zero sum is not 0 but the actual return of a financial market or market segment. For example, in 1995 the return--as well as the zero sum--of the S&P 500 index was 37.58%.

The losing active investors who under-perform a financial market may be characterized as "sacrificial lambs" for the winning active investors who outperform it. For example, suppose that there are four investors in a particular financial market--three active investors and one passive investor. Further suppose that the market return was 30% last year and that one of the active investors outperformed that return--by 20 percentage points--thereby earning a return of 50%.

The other two active investors must have collectively underperformed the market return by 20 percentage points, thereby earning a return of 10%. The reason why is simple arithmetic: the amount of gain by which any investor (or investors) exceeds the return (i.e., the zero sum) of a financial market must be balanced by the same amount of loss that another investor (or investors) incurs when he or she underperforms that return. The fourth player (the passive investor) earned the market return (i.e., the zero sum) of 30%. A passive investor is never a sacrificial lamb that loses to winning active investors.

Note that the returns in this example are before costs. After costs are taken into account, the one winning active investor actually earned less than 50% and the two losing active investors earned less than 10%. The "dead weight" of costs reduces the out-performance of the winner, just as it increases the underperformance of the losers. These facts dictate two mathematically certain outcomes.

The first outcome is that, before costs, money that is passively invested in a financial market will always outperform 50% of all money that is actively invested in that market. The other 50% of all money that is actively invested in a financial market will always outperform money that is passively invested in that market.

The second outcome is that, after costs, money that is passively invested in a market will always outperform more than 50% of all money that is actively invested in that market. The real dividing line between active investing and passive investing, then, arises from differences in costs (and taxes). This is not good news for fiduciaries that engage in active investing.

In spite of these irrefutable mathematical outcomes that govern the world of investing (demonstrated with simple arithmetic in a succinct three-page paper written by Nobel Laureate William F. Sharpe in 1991), most active investors hope that they (or someone they hire) will be superior to other investors and beat the market. The problem with this belief is that, mathematically, not everyone can be above average. That same kind of belief is held by parents living in Garrison Keillor's mythical Lake Wobegon who all think that they have above-average children.

Many times the media makes it seem as if the basic laws of arithmetic that govern active investors in all financial markets have been repealed. For example: "Stock-pickers have been able to beat the EAFE index somewhere between 95% and 98% of the time over the past 10 years." This statement can be true only if the investments held by these stock-pickers were different in kind or amount from those represented in the benchmark (i.e., the EAFE index) used to measure their performance. It could also be true if only one category of investor was counted or all active management costs weren't measured properly. Otherwise, the statement (and others like it) is simply false.

Almost all such statements in the media are, in reality, simply reporting a "mismatch" between the performances of actively managed money and its managers, and the indexes or other market benchmarks used to measure such performances. Such mismatches have nothing to do with the skill of stock-pickers. Only a true apples-to-apples comparison between an active performance and a benchmark appropriate to it is prudent.

That a Particular Financial Market Is Efficient or Inefficient Is a "Belief"

Distinctly different from the fact that active investing in all financial markets is a zero sum game is the belief that a particular financial market is "efficient" or "inefficient."

Efficient Financial Markets

An "efficient" financial market is one in which there are no widespread pricing errors in the stocks that comprise that market. In short, stocks are priced efficiently--which is why the costs of investing in efficient markets are low. It's usually conceded (even by many strong proponents of active investing) that investors in efficient markets have little chance of uncovering investment "gems." This means that less-skilled investors have the same chance of outperforming as skillful investors. In other words, out-performance of an efficient market is largely a matter of luck.

Because outperforming is a matter of luck, investment skill doesn't matter in efficient markets. It makes little sense, then, to hire an active money manager that will incur extra costs as it goes "bargain hunting" in an efficient market for under-priced stocks or "advantageous segments of the

market" (in the words of Restatement Commentary) for the simple reason that there are no bargains to be had.

That's why low-cost passive investing in efficient markets makes so much sense. Indeed, it seems difficult for fiduciaries--those who invest money for others--to justify active investment in efficient markets: "Wasting beneficiaries' money is imprudent" reads the blunt warning in commentary to section 7 of the Uniform Prudent Investor Act.

That stocks are priced efficiently, that the costs of investing in efficient markets are relatively low, and that outperforming such markets is largely a matter of luck and not skill makes low-cost passively managed mutual funds the best choice for investing in efficient financial markets.

Advantage: Passive investing over active investing in efficient financial markets.

Reason: The low costs of passive investing, plus investment skill doesn't matter in efficient markets.

Inefficient Financial Markets

An "inefficient" financial market is one in which there are pricing errors in some of the stocks that comprise that market. In short, stocks are not priced efficiently--which is why the costs of investing in inefficient markets are high. There is widespread belief, as noted, that skillful investors have a better chance of uncovering investment "gems" in inefficient markets. Outperforming an inefficient market, then, not only is a matter of luck (as in out-performance of an efficient market) but it can also be a matter of skill.

Since investment skill does matter in inefficient markets, it obviously makes sense to incur the extra cost of hiring an active money manager to go "bargain hunting" in such markets for under-priced stocks or "advantageous segments of the market." Not so fast there, cowgirl.

The real dividing line between active investing and passive investing, as noted, arises from differences in costs. This is particularly true in inefficient markets where costs are often brutal for active investors. The reason is simple: the comparatively little information available about the stocks in such markets requires active investors to spend a lot of money researching them. The same information deficit also means low trading volume for such stocks, which usually translates into large trading-related costs such as brokerage commissions, market impact costs, and bid-ask spread costs. This is precisely why most investors "ignore" such stocks.

Because active investing in all financial markets is a zero sum game, mathematically only a minority of active investors can outperform a financial market after costs. The size of this outperforming minority is determined by the costs of investing in a market. Because trading and research costs in inefficient markets are so high, the size of the outperforming minority of active investors in efficient markets is actually smaller than that in efficient markets.

This mathematically simple, yet certain, outcome challenges the conventional wisdom--often driven by the media as well as marketing departments at self-interested active investment product providers--that active money managers have a better chance to add value in inefficient markets by uncovering investment "gems." While it is one thing for investors who invest their own money to believe in such conventional wisdom, it is quite another for fiduciaries who invest other people's money to believe it. After all, fiduciaries are not paid to let emotion trump logic--nor are judges when assessing fiduciary investment conduct.

It is also a fact that some outperform with skill in inefficient markets and generate outsized gains (even on an after-cost basis). Fiduciaries contemplating active investment strategies in inefficient markets, though, must understand two other facts as well: 1) mathematically, the membership in the "Club" that comprises any skillful outperforming minority is always small and 2) that membership is ever changing.

This presents active investors with an insoluble problem: No one can accurately look into the future and know which (skillful or lucky) active money managers will outperform what (efficient or inefficient) market for what (long or short) period of time. Nor is it generally useful for active investors to look at the past--in the form of track records--since, as the Securities and Exchange Commission reminds us,

any evidence of superiority in the past has little bearing on whether that superiority will reappear in the future.

Because the high costs of investing in inefficient markets are so difficult to overcome (even with skill), low cost passively managed mutual funds are the best choice for investing in those markets. This is true despite the facts that some stocks in inefficient markets are priced inefficiently and that outperforming such markets can be done with skill.

Advantage: Passive investing over active investing even in inefficient financial markets.

Reason: The high costs of active investing usually swamp any investment skill.

Conclusion

No amount of hope and luck (if a market is efficient) or work and skill (if a market is inefficient) can change the mathematically certain fact that active investing in all financial markets--whether efficient or inefficient--is a zero sum game. This law of nature may seem unfair to active investors (tough, it was also unfair that the Giants lost the '02 Series) but it cannot be otherwise.

Investors may disagree in their beliefs about this market being efficient or that stock being inefficiently priced. There can be no room for disagreement, though, about the fact that active investing in all financial markets is a zero sum game where most active investors are condemned to under-perform after costs. Those who would disagree with this just can't do simple arithmetic.

It really is true, then, as the legendary John Bogle keeps reminding us: costs matter. Its significantly lower costs give passive investing a big edge over active investing and its significantly higher costs in both efficient and inefficient financial markets. Fiduciary investors must--and non-fiduciary investors should--take note of this and avoid engaging in investment conduct that is directly at odds with the basic facts of (lower) mathematics--facts that govern all investors and the financial markets in which they invest.

Note: This month's article was adapted from some material in my book, *The Prudent Investor Act: A Guide to Understanding*. That material relied heavily on a teaching note written by Steven R. Thorley, the H. Taylor Peery Professor of Finance at the Marriott School of Management at Brigham Young University.

W. Scott Simon is an expert on the Uniform Prudent Investor Act and the Restatement 3rd of Trusts (Prudent Investor Rule). He is the author of two books, one of which, *The Prudent Investor Act: A Guide to Understanding* is the definitive work on modern prudent fiduciary investing.

Simon provides services as a consultant and expert witness on fiduciary issues in litigation and arbitrations. He is a member of the State Bar of California, a Certified Financial Planner® and an Accredited Investment Fiduciary Auditor™. Simon's certification as an AIFA™ qualifies him to conduct independent fiduciary reviews for those concerned about their responsibilities investing the assets of endowments and foundations, ERISA retirement plans, private family trusts, public employee retirement plans as well as high net worth individuals.

For more information about Simon, please visit www.prudentinvestoract.com and www.prudentinvestoradvisors.com or you can e-mail him at wssimon@mindspring.com.

© Copyright 2003 Morningstar, Inc. All rights reserved. Please read our Privacy Policy.
If you have questions or comments please contact Morningstar.

Morningstar.com | Australia | Canada | Europe | Finland | Hong Kong | Japan | Korea | Netherlands | New Zealand | Norway | Sweden