ACTIVE OR PASSIVE INVESTING?

Original Version – Harbor Financial Group, Inc. February 2009
Updates – Kevin McCulley October 2013

INTRODUCTION

Consider the great intellectual economic debates. Smith versus Marx. Friedman versus Keynes. Perfect versus imperfect information. Active versus passive investing. Each debate draws raised voices and self-sure dialogue with a number of convincing arguments raised by both sides. For an individual investor looking for the best possible investment choices, the debate between active investing and passive investing is crucial. This paper will attempt to break down the standard arguments for and against each alternative and draw a pragmatic conclusion. For the purposes of this paper, we will define active investing as a mutual fund and passive investing as an indexed fund, commonly seen today as an exchange traded fund (ETF). In order to properly frame this fundamental debate, a brief history is helpful.

HISTORY

Rising from humble roots in bustling market places, stock markets allow shareholders to buy and sell portions of companies. The Dutch East India Company was the first to issue shares on an exchange, which occurred on the Amsterdam Stock Exchange in 1602. Ever since, investors have tried to find the best strategy for managing their assets and the financial industry has exploded in size in response.

The first mutual fund started in 1924 as the Massachusetts Investors Trust. This radical new design allowed investors to pool funds together and invest in securities under one entity. The Crash of 1929 and the subsequent Great Depression led to a number of regulatory laws that have created the mutual fund structures we know today. These laws include the Securities Act of 1933, the Securities Exchange Act of 1934 and the Investment Company Act of 1940. Today, mutual funds remain the single largest investment vehicle for individual investors, comprising almost $15 trillion in assets in the United States alone at the end of 2012[1].

The first indexed fund for individual investors was created in 1976 by John Bogle and is now known as the Vanguard 500 Index Fund. By owning a representative share of the companies that make up an index, the fund can approximately mimic the index's performance. Building on this idea, the first ETF was the Standard & Poor's depository receipt (SPDR) in 1993, allowing investors access to intra-day trading of a fund via a basket of securities that mimic an index rather than waiting until the end of the day for a trade to be filled. This liquidity is a major reason for the rapid growth of the ETF universe. As of December 2012, ETFs now hold $1.3 trillion in US assets.

---

[1] Investment Company Institute, *2013 Investment Company Fact Book, 53th Edition*, http://www.ici.org/pdf/2013_factbook.pdf (2013).

With this aperitif of history fresh on the palate, we are now prepared to dive straight in.

PERFECT VERSUS IMPERFECT INFORMATION

At the core of the issue, there is a theoretical schism between active and passive acolytes, namely, in debate of how efficiently the market disseminates information. This touches on a previously mentioned debate: perfect versus imperfect information. On one hand, there are the proponents of the efficient market. Friedrich Hayek, the 1974 Nobel Memorial Prize in Economics recipient, argued that the price mechanism of the market allows for the exchange of information[2]. In this day and age, information flows freely across borders and time zones in the blink of an eye. The strong form of the efficient market hypothesis holds that no one investor can repeatedly gain higher returns through access to information freely available to the rest of the market. By the time information can be processed and acted upon, it is already reflected into the price of a security. The weaker form of the efficient market hypothesis states that some information might allow for market outperformance, but the costs to do so eliminate any possible gains. The implication of this hypothesis strongly favors the passive investing style[3].

Those ascribing to mutual funds point to the ability of smart fund managers to pick individual securities that will provide the best returns. In order for this to be possible, the efficient market hypothesis must be false or something else must be at work. Focusing on the former, the relatively new field of behavioral economics focuses on the *irrational* side of human nature. Suppose someone offers you the following bet: using a fair penny (equally likely to land on heads or tails), he will pay you $51 for each head and you must pay $49 to him for each tail. Would you accept? What about at $60/$40? Perhaps $75/$25? A rational actor would accept the original bet because of its positive expected value. As long as you have enough capital to ride out the inevitable strings of tails, you stand to make money in the long run. This is the same principle that built Las Vegas on millions of spins of roulette wheels. In spite of the positive expected value, most people will not act as traditional economic theory predicts in this situation. We can say that they are risk averse. By focusing on what happens when these standard assumptions break down, behavioral economics has created an exciting new field of research with many applications, including to financial markets. What becomes of the efficient market hypothesis, and thus passive investing, knowing that humans are not always rational all the time? Somewhat ironically, the answer depends on how rational you can be.

Humans are not robots; emotion often clouds our better judgment. This creates inefficiencies in the market, particularly in a bubble or its aftermath. The hedge funds that bet against the housing market in 2007 made handsome profits by recognizing the euphoria that had overtaken the broad market[4]: "irrational exuberance," in the words of former Federal Reserve Board Chairman Alan Greenspan. Passive investing is extremely vulnerable to this irrational fever

[2] Friedrich Hayek, "The Use of Knowledge in Society," *American Economic Review* XXXV No. 4 (September 1945): 519-30.

[3] Burton G. Malkiel, *A Random Walk Down Wall Street* (New York: W.W. Norton & Company, 2008).

[4] "Trader Made Billions on Subprime," *Wall Street Journal*, January 15, 2008, p. A1.

because it is impacted solely by the actions of all the actors in a particular market without the benefit of critical oversight. This is not to say that active investors can always avoid market pitfalls, but at least the structure of an active fund allows a manager to avoid the herd mentality of an irrational market.

SURVIVOR BIAS AND BLACK SWANS

Theory aside, arguably the most contentious aspect of evaluating active versus passive investing lies in the real-world performance: the tale of the tape. Passive investing performance is rather simple to determine; it is supposed to provide the returns of a targeted market. Active investing is slightly more difficult to judge due to human involvement in choosing securities.

Consider a theoretical pool of 10,000 investment managers. Half decide to short the market and half go long, leaving 5,000 who will "correctly" predict the market regardless of which way it goes. In the next iteration, of these correct managers, half decide to short the market and half go long. This leaves 2,500 managers who have correctly predicted what the market would do. Continuing this experiment, we end up with 10 managers who will have 100% accuracy after ten periods have passed. A similar analogy involves monkeys and typewriters. Touting their success in all the financial papers and receiving massive investment inflows, these 10 managers succeeded due to sheer random luck[5]. Meanwhile, the overwhelming majority of the other 9,990 managers have faded into oblivion. Just as we have 10 managers with 100% records, we also have 10 batting 0.000 at the plate. There are few investors who would stomach 10 straight years of losses, and odds are the funds closed before reaching the full 10 years. In statistics, this trend of reporting on only the winning funds is known as survivor bias.

What hope does an investor have of determining who is lucky and who is a legitimately talented manager? Admittedly, this is a difficult pill to swallow. Their past performance may look identical and the future performance is unknown. Is Warren Buffet, the Oracle of Omaha, the Midwest Magician, really just the pinnacle of a large enough base of investors and Lady Luck? Sadly, there is no way to definitively solve this question; it is the problem of inductive reasoning. We cannot rely on past observations because what we know is limited. Next year's events could cause a fund manager with a sterling track record to fall back to mediocrity. The danger lies in assuming that what we know is complete, which risks us falling victim to an unanticipated event or "Black Swan", as Nassim Taleb calls it. By acknowledging what one does not know, it is at least possible to look at investment options with a critical eye. A long successful track record can be somewhat helpful in narrowing the field of possible fund managers in that it becomes increasingly difficult to consistently best the market as the length of time increases, but it is certainly no guarantee.

MARKET PERFORMANCE

As we have recently passed the fifth year anniversary of the 2008 credit crisis, it is crucial to assess how active and passive investment styles fare in both up and down markets. Due to their

---

[5] Nassim Nicholas Taleb, *Fooled by Randomness: The Hidden Role of Chance in the Markets and in Life* (New York: W.W. Norton & Company, 2001).

nature, passive investments are fated to follow the rules set by the underlying index. Good or bad, they should mimic the performance of their index. On the other hand, active managers are free to choose any investment that matches the style requirements in the prospectus. In the hands of a savvy manager, this can allow for outperformance in up and down markets. Conversely, bad choices can lead to utter collapse. As another point to consider, active managers are rarely fully invested. Many keep a supply of cash for buying opportunities and investor redemptions. This flexibility comes with a trade-off. On days when the market goes up, the war chest of cash drags returns down. An ETF does not have this problem, but the extra cash also acts as a dampener in down markets, helping active funds avoid full exposure. Advocates for passive investing point to the staggering underperformance of active managers over the past ten years. It is estimated that only 25% of active managers have outperformed their benchmark over this timeframe.

THE SECRET LIFE OF FEES

Perhaps the greatest, and simplest, argument favoring a passive investment style is the significantly lower fees these funds must charge to cover costs. By tracking a known index and not paying for a fund manager or frequent trading fees, a passive fund allows investors to keep more of their gross returns. Over time and with the effects of compounding, saving on fees can add up to a significant amount. For example, a difference of 1% in fees adds up to 16% over 10 years. As Albert Einstein supposedly said, "The most powerful force in the universe is compound interest." Fees are an often-overlooked aspect of a portfolio and should be minimized whenever possible, regardless of the choice of investment styles. Thankfully, for investors expense ratios have been on the decline over the past decade for both passive and actively managed strategies.

CONCLUSIONS

We have neatly skirted the issue of which style is best until now. In this case, we believe the best style is a compromise. More important than if a portfolio consists of only passive or active investments, proper asset allocation through diversification and risk management is the key consideration. For large, broad exposure to a market or sector, we believe a barbell approach using a mix of mutual funds and ETFs is the best strategy. It reduces the overall fee when compared to an active only manager, reduces the risk for benchmark underperformance and creates the opportunity for excess return as compared to a pure ETF portfolio. Concentrated, less liquid, or harder to research sectors lend themselves well to mutual funds and the knowledge of an active manager who can take advantage of market inefficiencies. Careful manager selection and recognition of inherent limitations can allow for returns above the benchmark.

The old "buy and hold" strategy favored by many individual investors clearly cannot cope with another 40% drop that many markets saw in 2008. This is a new and unchartered investment environment and warrants careful and prudent decision-making. The active versus passive investment decision will continue to inspire heated debate, but we are satisfied to let the argument rage while we at Harbor continue to focus on providing the best portfolio management services possible.