PART I

THE ACTIVE VERSUS PASSIVE DEBATE

CHAPTER 1

Framing the Debate

I can't believe that the great mass of investors are going to be satisfied with just receiving average returns. The name of the game is to be the best.

—Edward C. Johnson III

The investment management business is built upon a simple and basic belief: Professional managers can beat the market. That premise appears to be false.

—Charles D. Ellis

The active versus passive debate has all the drama of *West Side Story*, complete with larger-than-life characters and Shakespearean tragedy. Like two rival gangs, the Jets and the Sharks, vying for control of the streets, alternating between dominance and demonization, the opposing active and passive gangs fiercely defend their ideology as they fight for the hearts and minds of all investors. The gangs grapple with each other in the media and needle one another during public speeches and at industry events. No physical brawls have broken out yet - at least that I am aware of.

The tragedy, as passive investors would explain it, comes from the seemingly utter failure of active managers to deliver on their promises of market beating results while enriching themselves with fees extracted from investors who entrust money to them. Active advocates counter that it is possible to beat the market and point to icons such as Warren Buffett as proof. They believe their own superior knowledge and intellect will also lead to above the market returns.

Who's right and who's wrong? To answer this, the opinions of educated and unbiased professionals are needed. This leads us to the halls of academia and to research institutes that study and interpret performance data. Not just any academic or institution will do, because many researchers side with one gang or the other strictly for monetary reasons. They are either paid to write reports that agree with a gang's thinking, or in some way participate in fees and services offered by one side or the other. Unbiased academic opinions are needed from people who aren't compensated by the investment industry. Rather, they exhaustively seek the truth without any preconceived conclusions and make their findings public for the world to judge.

The references to books, articles, and academic studies throughout this book are just a starting point for people interested in this area of study. Sourcing these references leads to a rich treasure chest of data, analysis, and opinion from many of the world's greatest financial minds.[*]

In the Beginning, There Were Active Funds

This book is about mutual fund investing and portfolios of mutual funds, although the arguments can be extended to portfolios of individual securities. Mutual funds are the main focus because they are the optimal investment vehicle for most people. Mutual funds offer diversification, reasonable fees, and liquidity when needed. In addition, there is ample public information available on mutual fund analytics, and that helps in analysis.

The first U.S. open-end mutual fund began operations in Boston, Massachusetts in 1924. The Massachusetts Investors' Trust was a

[*]One starting point for reviewing early mutual fund studies is *Mutual Funds: Fifty Years of Research and Findings,* 2005, Seth C. Anderson and Parvez Ahmed, New York, Springer Science and Business Media, Inc. A second source is Martin Sewell's web site at http://finance.martinsewell.com/fund-performance/.

wonderful idea. The new structure offered broad diversification of securities that individual investors couldn't obtain on their own for the same cost. The fund also offered investors full liquidity in mutual fund shares whenever they needed it. Other companies soon followed with similar fund offerings.

In the early years, mutual fund companies weren't in business to beat the market. Rather, their mission was to select superior securities that paid reasonable dividends, to secure profits without undue speculation, and to conserve principal.[1] One reason that beating the market wasn't a goal is because there were no broad based indexes available at the time. There was the 30-stock Dow Jones Industrial Average, but this was a price-only indicator that didn't reflect the entire market of securities or its economic value.

The fund industry reasoned that mutual funds existed to provide all investors the opportunity to own a diversified securities portfolio at a relatively modest cost. The commissions and other trading expenses that an individual investor would expend building the same diversification with individual securities would exceed the cost of the mutual fund shares. According to one source, to buy one share of each of the securities in the 30-stock Dow Jones Industrial Average would have cost $1,800.81 in 1951 with the commission charges on the purchase and resale of shares amounting to 11.16 percent of their purchase price.[2]

From an investor's standpoint, mutual funds were a fair deal. Most people didn't have enough money to buy several dozen stocks, and they didn't have the expertise to keep up with their portfolios. Even the United States Supreme Court agreed. Louis D. Brandeis, Associate Justice of the United States Supreme Court commented:

> . . . the number of securities on the market is very large. For the small investor to make an intelligent selection from these—indeed, to pass an intelligent judgment on a single one—is ordinarily impossible. He lacks the ability, the facilities, the training, and the time essential to a proper investigation.[3]

The mutual fund system worked for the industry and for investors for many years because it was a win-win situation. Investors bought into a diversified portfolio of securities through mutual funds, and the fund companies didn't need to be concerned about losing assets when their managers underperformed the markets because few people monitored the returns that closely.

Passive Investing Makes Its Case

The cozy relationship between Wall Street and Main Street lasted for several decades. Then, in the 1960s, a barrage of brash, young academics began to analyze mutual fund returns more closely and started asking tough questions.

These academics were smart and talented, but they weren't altruistic. Their purpose for deep analysis of fund performance wasn't to discredit active investing—quite the opposite. They were seeking a way to identify investment skill among managers so they could copy those methods and use it for profit. Like everyone else, the academics thought if they dug deep enough, their research would lead to a way to consistently beat the market without taking more risk.

Identifying profitable investment strategies proved harder than it appeared, and what the academics found was much different than what they wanted to find. The details of these early academic studies are the subject of Chapter 2. In brief, the data suggested that few active managers actually beat the markets after adjusting for risk, and that luck couldn't be separated from skill. The academics also started to theorize that most investors would be better off just buying the market itself if they could.

The academics brought their findings to the fund companies. The fund company executives were as unimpressed with the academic research as the academics were with mutual fund performance. When the academics questioned the lagging performance relative to the markets they were quickly reminded by fund company spokesmen that "you can't buy the market."[4] This was a true statement at the time. Index funds didn't exist.

Now You Can *Buy the Market*

The world changed in 1976 with the introduction of a passively managed S&P 500 index fund by the Vanguard Group. This gave mutual fund investors an option; they could continue to invest in actively managed mutual funds that tended to underperform the market by a considerable amount, or they could buy very close to the market return through the First Index Investment Trust (later renamed the Vanguard 500 Index Fund).

The introduction of index funds to the marketplace was an inflection point in mutual fund history. Not only did index funds give investors a choice, they forced active fund companies to redefine their purpose. When asked if Fidelity would follow Vanguard's lead and offer index funds, Chairman Edward C. Johnson III stated, "I can't believe that the great mass of investors are [sic] going to be satisfied with just receiving average returns. The name of the game is to be the best. "Another large fund company responded to the challenge in a flier asking, "Who wants to be operated on by an average surgeon, be advised by an average lawyer, or be an average registered representative, or do anything no better or worse than average?"[5]

These public statements by active fund companies signaled a titanic shift in industry ideology. For the first time, fund companies took the stand that it wasn't enough to simply offer diversification through a pooled basket of securities that investors couldn't achieve on their own at the same cost. The new mission was to *beat the market.*

Benefits of Passive Index Investing

In 1976, the active versus passive debate spilled over from academia onto Main Street. On the surface, the active fund industry's decision to go head-to-head on performance against index funds was noble. They were determined to beat the market, and they actually thought they could do it. Unfortunately for the active managers, the economics didn't work. The costs were too high, the competition too intense, and there was too little talent among fund managers.

Fortunately for the active managers, the general public didn't know these facts and still doesn't know these facts. Many people continue to believe that the active managers they select will win. Hard facts should have put this debate to rest a long time ago, but it continues to rage on in the battlefield of public perception.

Wise investors know that when one investment strategy can achieve a financial objective with more certainty than another investment strategy given the same risk, they should opt for the strategy with the highest probability for success. Decades of return comparisons and scores of academic studies show passive portfolio management is that strategy.

The benefits of passive management using index funds are numerous. First is the cost. The fee for passive management in a mutual fund is much lower than active management. A fund company typically licenses an index from an independent index provider for a nominal fixed fee or a portion of the assets under management in the fund. In contrast, the active funds must pay economists and analysts to figure out which asset class, which countries, which industries, and which securities to buy and sell. This difference in labor costs keeps the expense ratio for a passive fund very low compared to an active fund. A fund that tracks an index may charge only 0.2 percent in annual fees compared to an active fund with the same investment objective, which may charge 1.2 percent per year.

Bond index funds also operate at a greatly reduced cost structure over actively managed bond funds for the same reasons. The typical bond index fund is about 0.2 percent compared to the 0.9 percent annual cost of an active fund. These figures don't consider sales charges or commissions that an investor may have to pay to purchase or sell funds.

Taxes are another important cost for many investors. Capital gains are distributed to mutual fund shareholders each year based on the net gains from securities sold within each fund. Indexes tend to have low turnover, so index funds have relatively low annual distributions compared to active funds. Distributions from exchange-traded fund (ETFs) are even lower than traditional open-end index funds due to their unique structure. For detailed information on ETFs, including tax benefits, read *The ETF Book* by Richard Ferri (John Wiley & Sons, 2009).

It's interesting to note that active fund turnover was much lower in the years prior to the introduction of index funds. Turnover started rising when active funds started to compete with index funds on performance. In fact, turnover in the active fund industry is about 15 times higher today than what it was in the 1960s.

There's only a finite amount of wealth that's earned in the financial markets each year. Accordingly, the cost to invest has a direct bearing on each investor's return. Since the cost of active management is higher than passive management, after all costs, the average actively managed dollar (or euro, yen, etc.) must underperform the average passively managed dollar (or euro, yen, etc.) in a market. This is according to William Sharpe, Stanford professor and Nobel Prize recipient. It's simple arithmetic, and it's the basis for all arguments that say index funds must outperform active funds in the future.[6]

All about Indexes and Benchmarks

Not all indexes are created equal. There are many different types of indexes to choose from and the selection grows each year. Accordingly, an explanation is needed about index construction before any logical case for index funds and ETFs that follow benchmarks can be made.

An index is a generic term that describes a list of securities that are selected and weighted according to a set of rules provided by an index originator. The index company publishes the price level and the performance of their indexes daily, along with its constituents and any changes to those indexes.

Benchmarks are market tracking indexes that most people envision when they hear the word index. These are broadly based representations of market activity designed to track the value of financial markets or sectors within markets. A benchmark index is also known in the industry as a plain vanilla index and a beta seeking index.

What qualifies as an index has broadened over the years as more ETFs come to market that follow highly customized non-standard index methods. Today, it seems as though anything can be called an index. An index provider merely creates a mechanical set of rules for security selection, security weighting, and trading, and publishes their back-tested results. For example, an index may be made up of only dividend paying stocks with those stocks being weighted by dividend yield. Or, an index could include companies located west of the Mississippi that have female CEOs under the age of 50. Such an index doesn't exist, but it would if a fund company thought they could sell an index fund or ETF to enough people based on that index.

Buy the Benchmarks

Benchmarks are the only type of index that passive investors should care about because they represent market returns and all subsections of a market. Benchmark indexes are weighted by the value of securities in the index (called capitalization weighted) because this represents the total opportunity set within a market available to all investors.

All index construction methods require constant update and recalculation. This wasn't possible until technology made calculating prices and values easier. There were simple price indicators stretching back to the late 1800s; however, sophisticated market benchmarks that provided broad valuation data weren't available until the late 1950s.

The desire to create a yardstick for measuring general market information has its origins with Charles Henry Dow. His pioneering transportation average began in 1884 with a simple price average of 11 railroad stocks. Dow's average was only a price indicator and not a value measure. However, it did provide a rough barometer of stock market behavior. The indicator was published daily in the *Customer's Afternoon Letter*, forerunner of the *Wall Street Journal*.

In 1896, Dow formed the Dow Jones Industrial Average (DJIA) and renamed his original index as the Dow Jones Transportation Average. The DJIA is still the most widely quoted stock indicator in the media today, even though it still only covers 30 large companies, and those constituents are still weighted by price, not value.

By far, the most important innovation in benchmark construction was made in 1923 by the Standard Securities Corporation (now Standard & Poor's). S&P constructed the first capitalization weighted index that measured market value. There were 90 securities in the original index. This was a huge leap forward from the price-only Dow barometer of market movement.

The S&P index expanded to 500 securities during 1957, and the index level and its holdings became available to the public on a daily basis. The S&P 500 soon became a widely regarded benchmark for valuing the U.S. equities market and the one most often quoted among industry professionals. Not surprisingly, the S&P 500 was chosen as the basis for the first index fund by Vanguard in 1976 and the first exchange-traded fund by State Street Global Investors in 1993.

Starting in the 1970s, more companies entered the indexing business by collecting and tabulating market returns from around the globe and forming benchmarks. These firms included Frank Russell Company, Wilshire Associates, and Morgan Stanley Capital International (MSCI) to name a few. Most indexes created between 1970 and 2000 were intended to be used as benchmarks.

Defining Good Benchmarks

Benchmark indexes are used for many things. They are used as a yardstick to measure active management performance; they're used in economic analysis to measure the level of market activity; they're used by academics to define market behavior; and they're used by investors to set asset allocation policy. Benchmark indexes are also the basis for the low-cost passive index funds and ETFs promoted in this book.

In 1992, Nobel Laureate William Sharpe provided some criteria to be used in benchmark selection when measuring active management performance. He wrote that a proper benchmark should be (1) a viable alternative, (2) not easily beaten, (3) low in cost, and (4) identifiable before the fact.[7]

Benchmarking concepts were further advanced by Laurence Siegel in his 2003 book titled *Benchmarks and Investment Management.* Siegel describes a well constructed benchmark index as one that embodies the opportunity set that active managers have to choose from. The return on the benchmark should represent the return available from the asset class in its entirety and the return that a passive index fund would achieve before costs. The benchmark should also represent, before costs, the aggregation of all active managers who participate in the asset class.[8]

Siegel rightly defends the concept that all relevant benchmarks are capitalization weighted. A capitalization weighted index gives each company a weight in proportion to the total market value of that company's outstanding shares. This weighting method is the central organizing principle of good benchmark construction because it is the only way to represent the investable universe in dollar terms. This is the value set from which all active investors choose.

Other criteria are also included by Siegel as useful in identifying a proper benchmark. They are:

1. **Unambiguous:** The names and weights of securities constituting the benchmark are clearly delineated.
2. **Investable:** The option is available to forgo active management and simply hold the benchmark.
3. **Measurable:** The benchmark's return can be calculated on a reasonably frequent basis.
4. **Appropriate:** The benchmark is consistent with the active manager's style.
5. **Reflective of current investment options:** The active manager has current investment knowledge of the securities that make up the benchmark.
6. **Specified in advance:** the benchmark is constructed prior to the start of an evaluation period.

Passive investors should use index funds and ETFs that track benchmark indexes that reflect market returns. A benchmark may not hold all the securities listed on a market, such as the S&P 500, which holds only 500 stocks. However, as long the index holds enough securities so that it tracks a market closely and is capitalization weighted, then a product tracking that index is a viable choice for a passive portfolio.

Not All Indexes Are Passive

Passive investing as defined in this book means earning a market return in index funds and ETFs that follow benchmarks.

The Morningstar Principia database listed more than 1,100 index funds available to investors as of June 2010. This doesn't mean there are over 1,100 funds following market benchmarks. All benchmarks are indexes, but not all indexes are benchmarks. Many of the new indexes formed over the past decade are active management strategies. Strategy index products have been created and sold to fund providers to compete against index funds and ETFs that follow benchmark indexes. The fees for these newfangled products are double and triple the fees of traditional index funds.[9]

Starting around 2003, the active fund industry decided to expand the definition of an index so that they could compete against traditional index funds on more equal footing. A strategy index may use an active security selection model, or alterative security weighing model, or both. The strategy often consists of highly sophisticated quantitative models that are designed to beat a market benchmark. These strategy products aren't considered true passive investing and should be avoided in a low-cost passive portfolio.

The Portfolio Management Debate

So far we've addressed the active versus passive debate as one between actively managed mutual funds and passively managed index funds. There is another level to this debate. It's at the portfolio management level. It's a question of whether an investor, using any mutual fund type, should use an active allocation strategy or a passive one in the ongoing management of their portfolio.

Investors must make two choices: first, decide which asset allocation strategy is right for them, active or passive, and second, which type of mutual funds they'll use, active or passive. Table 1.1 outlines the four different portfolio management options along with their relative cost.

The first choice investors make is the type of asset allocation strategy they'll use. They can choose either a passive asset allocation strategy that spreads their portfolio across a different asset class using fixed weight allocations or an active strategy that tactically

Table 1.1 Portfolio Management Options

	Passive Funds (index funds and some index-based ETFs)	Active Funds (actively managed mutual funds and ETFs)
Investor maintains a fixed passive asset allocation	Passive funds Passive allocation (lowest cost)	Active funds Passive allocation (high cost)
Investor employs a tactical active asset allocation	Passive funds Active allocation (moderate cost)	Active funds Active allocation (highest cost)

weights allocations to asset classes based on perceived market valuations. For the purpose of this book, tactical asset allocation also includes market timing, which is a strategy that makes complete shifts in and out of asset classes.

The second choice an investor makes is investment selection. Once the asset allocation strategy is set, an investor decides to use index funds and ETFs that follow benchmarks or actively managed funds that attempt to outperform the benchmarks. Some investors may use a combination of both.

The portfolio management strategy recommended in this book is in the shaded box of Table 1.1. Investors should use low-cost index funds and ETFs that track market indexes inside a portfolio that follows a long-term fixed asset allocation strategy. Investments are allocated in fixed amount. When the market moves a portfolio's allocation outside its fixed limits set by the investment policy, the portfolio is rebalanced back to the allocation target. This strategy is commonly referred to as buy, hold, and rebalance.

The strategies in the other three boxes in Table 1.1 employ some type of active management. The hope for investors who choose one of the three active strategies is to generate excess return over the fully passive strategy. An investor who selects actively managed funds hopes those funds will outperform passive index funds, and an investor who chooses a tactical asset allocation hopes that their timing bets will yield higher returns than a fixed allocation to the markets.

All three active management strategies have higher costs compared to the fully passive strategy. The costs are higher due to larger active fund fees, trading costs, and perhaps taxes from higher turnover. There is also a timing cost borne by investors who attempt to time markets, which is a subject of discussion in Chapter 8.

The information in Table 1.1 will be referenced throughout this book. Several chapters will discuss active funds versus passive funds. A few chapters highlight problems that occur when employing a tactical asset allocation over a strategic asset allocation. In the long run, a passive asset allocation implemented with passively managed index funds and ETFs is the best choice.

Summary

The passive versus active debate started in the halls of academia during the 1960s and spilled over onto Main Street in 1976 with the launch of the first publicly available index fund. The active fund companies had to change their focus from providing diversification at a reasonable cost to insisting that their managers could beat the markets. The data consistently suggests that they can't.

The formation of a wide range of benchmarks in the 1970s and 1980s set the stage for an explosion of indexing products over the following decades. Passive investing through index funds and ETFs is now a viable alternative in almost all major asset classes and across styles and sectors. Each year, more market tracking indexes are created, and more of those benchmarks become investable through index funds and ETFs, providing investors with more choices.

The passive versus active debate also includes portfolio management. Investors must choose between passive strategic asset allocation and an active tactical timing method. The ideal choice for investors is a strategic asset allocation implemented with low-cost passively managed index funds and ETFs that follow market benchmarks. This approach provides the highest probability for achieving financial success.