# Active vs. Passive Equity Investing

Hotchkis & Wiley

**March 2015**

**"Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally"**

*John Maynard Keynes (1883-1946), from The General Theory of Employment, Interest, and Money*

The debate over active versus passive investing has spurred numerous studies, which in turn, have produced many thought-provoking theories on the subject. Despite countless data, sophisticated statistical techniques, and brilliant researchers tackling the issue, there are few palpable and universal conclusions one can draw from these studies. This is somewhat predictable given that these studies use unique data sources, evaluate different periods, and employ diverse statistical methods—not to mention are subject to human biases. As such, we are not brash enough to claim that we could conduct a better study as we would be subject to these same shortcomings, including our own biases. Rather than recreate analysis that has been recreated many times over already, we are going to focus on the few common findings from these studies that appear to be largely undisputed. We will first describe these conclusions, illustrate why they exist, and then explain why we believe markets are inefficient and why active management can add value net of fees.

## I. The Three Findings

After reviewing innumerable research papers that dissect the benefits and drawbacks of active and passive investment management, we have identified three results that appear to be widely acknowledged as fact:

**Fact 1**: *The average active manager* has underperformed the passive benchmark after fees
**Fact 2**: *Some active managers* have demonstrated ability to outperform the passive benchmark after fees
**Fact 3**: *High conviction* is a common characteristic among active managers that have outperformed

**Fact 1**: William Sharpe's 1991 article in the *Financial Analysts Journal* asserts:

> "…it follows (as the night from the day) that the return on the average actively managed dollar *must* equal the market return. Why? Because the market return must equal a weighted average of the returns on the passive and active segments of the market. If the first two returns are the same, the third must be also".

After fees, therefore, the average active manager should underperform the passive index due to those higher fees. Empirical evidence from the studies we reviewed supported Mr. Sharpe's proclamation.

**Fact 2**: Here is another passage from the same 1991 article:

> "It is perfectly possible for *some* active managers to beat their passive brethren, even after costs."…"It is also possible for an investor (such as a pension fund) to choose a set of active managers that, collectively, provides a total return better than that of a passive alternative, even after costs."

Again, empirical evidence from the studies we reviewed supported Mr. Sharpe's contention. The magnitude of that outperformance, however, and its statistical significance are factors without universal and conclusive acceptance. The important takeaway is that while it is true that the average manager underperforms after fees, *not all managers are average*.

**Fact 3**: Table 1 summarizes several of the interesting studies we reviewed, each with findings that support Fact 3.

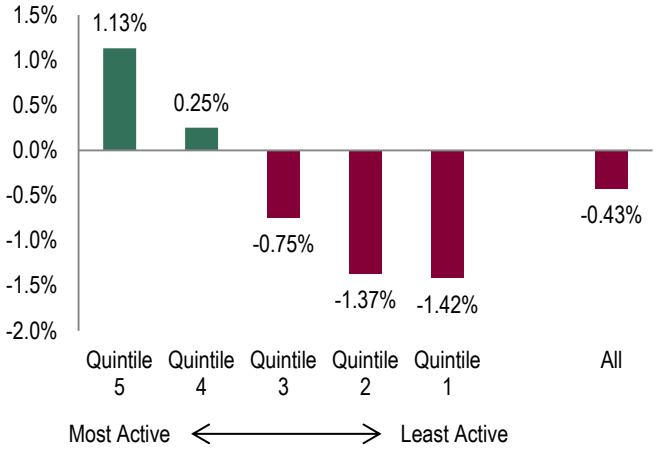
**Table 1: Academic Studies and Results**

| Author(s) | Notable Findings |
|---|---|
| Amihud/Goyenko (2012) | Funds with low $R^2$ outperform |
| Baks/Busse/Green (2006) | Concentrated funds outperform |
| Brands/Brown/ Gallagher (2004) | Concentrated funds outperform |
| Cremers/Ferreira/ Matos/Starks (2011) | Closet indexers underperform |
| Cremers/Petajisto (2009) | Funds with high active share outperform |
| Jian/Verbeek/Wang (2011) | Funds' highest conviction stocks outperform |
| Kacperczyk/Sialm/ Zheng (2004) | Concentrated funds outperform, risk-adjusted |
| Massa/Zhang (2009) | Funds with flat organizations outperform |
| Petajisto (2010) | The most active stock pickers outperform |

Each of the studies in Table 1 concludes what we view as the same general theme: high conviction managers outperform. The definition of "conviction" varies—low $R^2$, high concentration, high active share—but the general spirit of what they are capturing is the same. The findings are quite intuitive. To outperform a benchmark, one must be different from the benchmark; to outperform by a lot, one must be considerably different.

The Active Share research paper by Cremers and Petajisto (2009) has received a lot of well-deserved attention. Chart 1 highlights some of their findings and helps quantify the outperformance of high conviction managers. It shows that mutual funds with the highest active share outperformed after fees, while those with the lowest active share underperformed after fees. The most active did best.

**Chart 1: Net of Fee Excess Return by Active Share Quintile**




## II. Are Equity Markets Efficient?

Who is the greatest investor of all time? Perhaps Benjamin Graham or Warren Buffett? Maybe Peter Lynch, John Templeton, George Soros, or Julian Robertson? It would be difficult to argue against any of these icons (and many others not mentioned), but that is what you would be doing if you claim that equity markets are perfectly efficient. If perfect market efficiency truly exists, Warren Buffett's chances of beating the market on a risk-adjusted basis would be no different than Jimmy Buffett's, so all of us investment professionals might as well set sail to Margaritaville. Arguing that these investors do/did not possess superior skill that translated into above-average performance seems preposterous—especially given their track records—and should be reason enough to discredit the concept of perfectly efficient markets.

Perhaps the argument is that these investing icons *did* possess skill that enabled them to generate superior returns, but the market has since changed in a manner that has eliminated such advantages. Technological advancements, the proliferation of hedge funds, and high-frequency trading are often cited as reasons that the current market is efficient whereas in the past it may not have been. Let us counter this argument by borrowing a concept described by Columbia Professor Joel Greenblatt in *The Little Book That Still Beats The Market* (an excellent read!).

Consider Table 2, which lists the ten largest S&P 500 companies by market capitalization as of December 31, 2014. The table shows the company name, its highest share price during the year, its lowest share price during the year, and the corresponding change in the total value of the company's equity. Apple shares, for example, traded at $119.00 at one point during 2014 and $71.40 at another point during 2014. Thus, at one point during the year the total value of all Apple shares was worth $252 billion *more* than the total value off all Apple shares at another point during that same year. To put this in perspective, $252 billion is more than the 12/31/14 equity value of Ford, General Motors, Caterpillar, Target, and General Mills…combined!

**Table 2: S&P 500 Largest Companies (12/31/14)**

| | 2014 | | |
|---|---|---|---|
| | High Share Price | Low Share Price | Change in Mkt Cap ($B) |
| Apple | 119.00 | 71.40 | **252.1** |
| Exxon Mobil | 104.38 | 86.41 | **82.3** |
| Microsoft | 49.61 | 34.98 | **116.9** |
| Johnson & Johnson | 109.07 | 86.62 | **62.0** |
| Berkshire Hathaway | 152.67 | 108.78 | **107.5** |
| Wells Fargo | 55.71 | 44.23 | **56.5** |
| General Electric | 28.03 | 23.95 | **43.3** |
| Procter & Gamble | 93.46 | 75.70 | **47.3** |
| JP Morgan | 63.15 | 53.31 | **34.3** |
| Chevron | 134.85 | 100.86 | **66.0** |
| | | **Average** | **86.8** |

Source: Bloomberg

The efficient market hypothesis states that at any given time and in a liquid market, security prices fully reflect all available information[1]. The Apple example, and many, many others, should produce skepticism that at any given time security prices ***accurately*** reflect all available information. How could the

[1]www.morningstar.com/InvGlossary/efficient_market_hypothesis_definition

market have been right when Apple traded at $119/share *and* when Apple traded at $71/share? Undoubtedly there was new information throughout the year, but was there $252 billion worth of new information? We are skeptical.

What then, do we believe causes markets to be inefficient? First, let us digress for a moment and consider the following question: Was Gandhi older or younger than 114 years when he died? Give it some thought, and then go ahead and answer to yourself. Ok, now make your best guess as to what Gandhi's actual age was when he died.

Psychologists/economists Daniel Kahneman and Amos Tversky presented this question to a large sample group during one of their research studies, as described in the former's book, *Thinking, Fast and Slow* (another excellent read!). Most guessed that Gandhi was younger than 114 when he died, and the average guess for his age at death was 85. Kahneman and Tversky then ran a second experiment, posing the following question to their research subjects: Was Gandhi older or younger than 35 years when he died? Then they asked the second group to guess his age at the time of death. The average guess was 65. Why does the arbitrary age mentioned in the first question have such a considerable influence on responses to the second question? Their answer was that it was a psychological effect, or heuristic, that they coined "anchoring and adjustment", often referred to today as simply "anchoring".

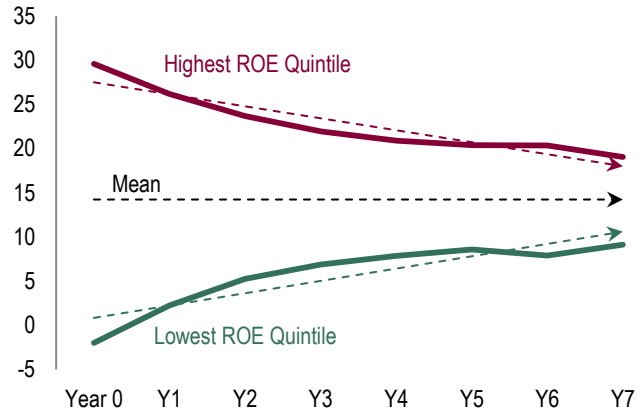
*(For those that haven't already Googled it…Mahatma Gandhi was born October 2nd, 1869 and died January 30th, 1948 at the age of 78)*

## III. Human Behaviors Lead to Inefficiencies

Anchoring is one of several behaviors that we believe contribute to market *in*efficiencies. In Kahneman and Tversky's Gandhi experiment, the subjects anchored their guesses to the arbitrary age mentioned in the first question. Most of us resist deviating too far from this anchor, even if it is clearly arbitrary. The two ran several similar experiments using other questions and each yielded similar results. Advertisers have been exploiting this concept for decades; this is why infomercials initially propose an absurdly high price for the product they are selling and why real estate agents list houses for prices considerably higher than what they expect to receive.

In investing, we believe that the recent past serves as the "anchor". Investors project recent results into the future, and then extrapolate a valuation from these projections. Companies that have faced recent difficulties often exhibit valuations that are too low because the market assumes these difficulties will persist indefinitely. In reality, companies that have recently earned low returns typically revert upward (toward the mean) and companies that have recently earned high returns typically revert downward (also toward the mean). This occurs due to natural competitive forces: capital leaves depressed areas allowing profitability to revert up and capital is reallocated to high returning areas forcing profitability down. Chart 2 shows empirical evidence of this mean-reverting tendency using the Russell 1000 as a proxy.

**Chart 2: ROE Reversion – Russell 1000**




Source: FactSet, 20 Year Study (2011)

Another important behavior that we believe contributes to market inefficiencies is "myopic loss aversion", which was coined by Shlomo Benartzi and Richard Thaler in their 1993 paper for the National Bureau of Economic Research. Myopic loss aversion can be best summarized as the combination of two observations:

1) investors dislike losses more than they like gains
2) investors' evaluation period is much shorter than their actual investing time horizon

An excerpt from the Benartzi/Thaler paper describes the first point best: "Empirical estimates of loss aversion are typically in the neighborhood of 2, meaning the disutility of giving something up is twice as great as the utility of acquiring it (Tversky and Kahneman, 1992; Kahneman, Knetsch and Thaler, 1990)." The second point is basically that even for an investor with a long time horizon, like a pension plan or endowment, performance is often measured over short periods. If the investment committee or board of directors for an endowment is critiqued on a quarterly basis, an annual basis, or even over a three year period, then portfolio volatility tolerance and career/reputational tolerance are misaligned. The portfolio has an infinite time horizon and should be able to withstand temporary volatility; unfortunately, the reputations of those in charge of the portfolio are too often judged over a much shorter timeframe than "forever". We believe this conflict has resulted in the popularity of benchmark-

hugging investment styles that define risk as tracking error. This results in herding behavior that can be exploited with a contrarian mindset. As we saw in Table 1, low conviction/closet indexers have underperformed net of fees. Instead, we believe risk should be defined as the permanent loss of capital and one should invest with conviction when this risk can be confidently minimalized. We believe this contrarian mentality has helped facilitate our outperformance in the long run, net of fees.

Other behavioral factors contribute to the market's inefficiency (e.g. frame dependence, overconfidence) though we believe anchoring, myopic loss aversion, and herding are among the most powerful and most exploitable for disciplined investors.

## IV. The Importance of Investment Culture

Common sense tells us that stock portfolios must be different than the market in order to beat the market, and academic research confirms that the best performers are those that are the most different. Given this simple truth, why do so many professionally managed stock portfolios look like their benchmarks? If the manager's investment thesis is wrong, the ensuing ridicule, embarrassment, and client defections are powerful incentives to stick with the herd. Additionally, many investment firms are accountable to not only their clients, but also to an outside parent company and/or public shareholders—the interests of these two groups are often in direct conflict. The parent company or public shareholders may pressure management to perform similarly to the benchmark in order to prevent large short-term deviations from the benchmark, which could lead to client defections. This deters high conviction, which as we have observed is a prerequisite to long term outperformance. Consequently, non-consensus thinking is hard to find and rarer yet is a portfolio that reflects such non-consensus thinking.

The investment culture should promote independent thinking, non-consensus views, and a long term perspective. It should be supported by experienced, disciplined, and thoughtful research. It should not be subjected to exogenous pressures. While many investment firms possess some of these traits, few possess them all.

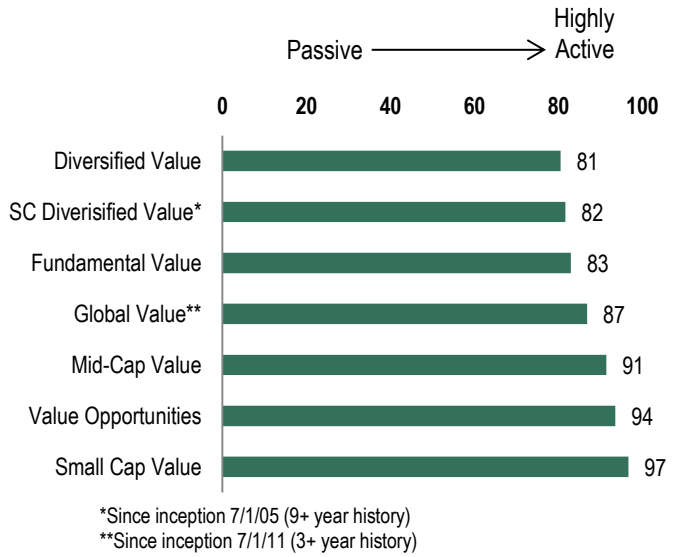
At employee-owned Hotchkis & Wiley, the investment staff averages 20 years of industry experience and has spent two-thirds of their investment career at H&W. Working together for a long period produces a level of trust that permits non-consensus thinking without the ridicule that so often inhibits investment conviction—not to mention the shared experiences of numerous market cycles.

## V. Conviction and Results

Active Share, as proposed by Cremers and Petajisto in their 2009 research paper, is a measure that quantifies how different a portfolio is from its benchmark. An active share of 0 indicates that the portfolio is exactly the same as the benchmark—it has the exact same positions in the exact same weights. An active share of 100 indicates that the portfolio is entirely different from the benchmark—there are no common holdings. A score of 50 indicates that 50% of the portfolio is different than the benchmark; a score of 60 indicates that 60% of the portfolio is different than the benchmark; and so forth.

Chart 3 depicts that Active Share for each of the Hotchkis & Wiley equity strategies (representative accounts) relative to the respective benchmark. The portfolios range from 81% different than the benchmark to 97% different than the benchmark using the 10 year average, which we believe exemplifies high conviction.

**Chart 3: Active Share – 10 Year Average 12/31/14**




*Since inception 7/1/05 (9+ year history)
**Since inception 7/1/11 (3+ year history)

The most compelling justification for active management should be tangible evidence that high conviction has translated into long-term outperformance after fees. Hotchkis & Wiley has established 7 long-only equity strategies, all of which leverage the same research platform and same value-focused investment philosophy centered on exploiting market inefficiencies. As shown in Table 3, all 7 strategies have outperformed the passive benchmark (annualized) since inception through December 31 2014, net of fees. This includes the two large cap strategies (boxed in Table 3), where most active management critics argue market efficiency is highest.

Past performance is not a guarantee or a reliable indicator of future results.

**Table 3: Hotchkis & Wiley Composite Performance (12/31/14)**

| | Since Incept. (Annualized) | Since Incept. (Cumulative) | Growth of $10,000 | Inception Date |
|---|---|---|---|---|
| LC Fundamental Value - NET | 13.2% | 7171% | 717,117 | 7/1/1980 |
| Rus 1000 Value Index | 12.2% | 5269% | 526,940 | |
| **Excess Return After Fees** | **1.0%** | **1902%** | **190,177** | |
| Small Cap Value - NET | 12.5% | 3050% | 304,983 | 10/1/1985 |
| Rus 2000 Value Index | 11.4% | 2238% | 223,795 | |
| **Excess Return After Fees** | **1.1%** | **812%** | **81,188** | |
| Mid-Cap Value - NET | 14.0% | 962% | 96,201 | 1/1/1997 |
| Rus Midcap Value Index | 11.0% | 554% | 55,386 | |
| **Excess Return After Fees** | **3.0%** | **408%** | **40,815** | |
| LC Diversified Value - NET | 8.7% | 244% | 24,394 | 4/1/2000 |
| Rus 1000 Value Index | 6.7% | 160% | 16,042 | |
| **Excess Return After Fees** | **2.0%** | **84%** | **8,351** | |
| Value Opportunities - NET | 14.6% | 427% | 42,700 | 11/1/2002 |
| S&P 500 Index | 9.4% | 198% | 19,817 | |
| **Excess Return After Fees** | **5.2%** | **229%** | **22,884** | |
| Small Cap Diversified Value - NET | 8.0% | 107% | 10,694 | 7/1/2005 |
| Rus 2000 Value Index | 7.2% | 93% | 9,298 | |
| **Excess Return After Fees** | **0.8%** | **14%** | **1,396** | |
| Global Value - NET | 13.5% | 56% | 5,604 | 7/1/2011 |
| Russell Developed Index | 10.3% | 41% | 4,099 | |
| **Excess Return After Fees** | **3.2%** | **15%** | **1,505** | |

Total return net of fees on an annualized and/or cumulative basis for other periods not shown may result in underperformance or differ significantly. Refer to the firm's ***GIPS compliant presentations*** for important performance disclosures. Growth of $10,000 reflects a hypothetical investment using composite performance net of fees and assumes reinvestment of dividends and capital gains.

## VI. Bringing It All Together

Numerous studies on the value of active management after fees have yielded mixed results. The three conclusions that appear largely undisputed are: 1) the *average* active manager underperforms after fees; 2) *some* active managers do outperform after fees; and 3) *high conviction* (e.g. high active share) is a common trait among active managers that have outperformed after fees. Empirical evidence suggests that skilled active managers exist and can add value for their clients. We believe there are three key ingredients necessary to outperform a passive benchmark after fees:

1) An investment opinion that is contrary to consensus (and correct)
2) The investment opinion needs to be backed by conviction
3) Patience

So why don't all active managers employ these three traits? First, the ability to be different requires an investment culture that can withstand short term ridicule, and the ability to be correct requires high quality independent research. Second, high conviction can lead to short term underperformance, which can translate into client defections. Third, the manager and the client need to exert patience, which is particularly difficult in trying times.

Identifying the right manager can be a challenging task; focusing on high conviction managers that understand why markets are inefficient and implement a consistent philosophy and disciplined process to exploit those inefficiencies is the key to selecting the right active manager. Once the right manager is selected, it is equally important to invest in that manager with the same conviction and discipline for which they were selected.

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