A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART I: *Measuring Aggregate Risk*

In the 1950s, Professor Harry Markowitz of the City University of New York developed an approach to investment analysis that has become known as Modern Portfolio Theory (MPT). Instead of traditional asset management using just fundamental or technical analysis, his system looks at the performance of a portfolio of assets based on the combination of its components' risk and return. His hypothesis and subsequent work were so revolutionary that Markowitz was a joint Nobel Laureate for economics in 1990. Markowitz' "Efficiency Frontier" - and the resulting Capital Asset Pricing Model (CAPM) - made it possible to determine whether or not a portfolio is optimal in terms of its risk/reward characteristics. Markowitz referred to this determination as Mean Variance Optimization (MVO).

Covariance and MVO

The objective for MVO is clear, however the method of measuring MVO is yet undeveloped. The purpose of this series on MVO is to offer dialogue about how portfolio-level ("aggregate") variance can be managed, optimized, and ultimately measured. First, it is essential to understand the meaning of aggregate as: *the entirety of a household or an institution's investable asset base*. Second, the role of covariance among asset classes (e.g., emerging market stocks, domestic high-quality bonds, U.S. small cap stocks) in any potential portfolio must be a first priority so the investor can better achieve lower covariance between holdings – that is, hold low or negatively-correlated asset classes that "offset" the variance (i.e., total risk) in other asset classes. Whatever the method of determining the desired covariance among asset classes, including this step is essential prior to beginning portfolio construction.

Portfolio Construction and MVO

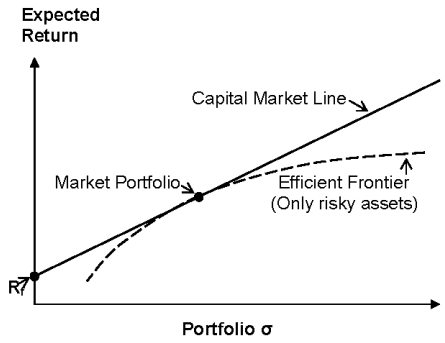
If the overriding goal of portfolio construction is to carry out the proper allocation to meet the risk/reward expectations of the investor, and the proper asset classes have been predetermined, then only 2 questions remain: 1) should the investor generally index, or pursue an actively-managed approach to each asset class?, and 2) if actively managed, who should manage those assets? These questions will receive added attention in the months ahead. For now, we know anecdotally that a well-constructed portfolio (with relatively low covariance among asset classes), should render a risk-adjusted result that is preferable to the alternative: an asset base that is *not* built with optimization in mind. A primary example of this simple truth is visible in a review of a portfolio's *aggregate* Sharpe Ratio. Developed by William Sharpe in 1966, a low (or negative) Sharpe Ratio – net of fees - indicates that a portfolio is performing below expectations on a risk-adjusted basis, while a positive Sharpe Ratio – net of fees – indicates outperformance.

$$\text{Sharpe} = \frac{mean(R_{0..n} - B)}{std(R_{0..n} - B)}$$

Where:

$R_{0..n}$ Annualized returns over the period
B Risk-free rate of return

Recognizing the value of *aggregate* Sharpe Ratio as the first step to developing an MVO measurement model. A Sharpe Ratio does not compare to an index and therefore does not risk irrelevance when comparing two sets of holdings. It simply answers the question: *did the investor receive any excess reward for the risk taken?* To develop a MVO scoring mechanism from Sharpe Ratio analysis involves two points: 1) recognizing that William Sharpe did not create his formula for portfolio-level analysis, but for security-level analysis, and 2) that Sharpe Ratios can serve to measure whether an investor may perform better or worse than the relevant marketplace(s) involved. This "market return" can be measured according to the Capital Market Line (CML) as follows:



And how would the possibility of risk-adjusted outperformance according to Sharpe Ratios be determined? By comparing the Sharpe Ratio of the portfolio to that of the market!

Measuring Aggregate MVO

It follows from a portfolio-to-market Sharpe Ratio comparison, that any formula for measuring Aggregate MVO should quantify the success or failure of achieving this risk-adjusted (net of fees) outperformance. Further, the MVO measurement should attribute any outperformance to the asset classes involved. Finally, the measurement should attribute any outperformance to the holdings within each asset class. This final point is the crux of long-standing debate regarding active vs. passive (index) investing and a major component of this series on Mean Variance Optimization.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART II & III:

Part II: A Tale of Two Portfolios
Part III: Getting the Score

To revisit Part I of this series on Mean Variance Optimization (MVO), recall that using Sharpe Ratios can provide a complete view of total risk/reward for a portfolio – that is risk/reward measurement encompassing diversifiable (aka "business" or "unsystematic") risk, and non-diversifiable (aka "market" or "systematic") risk/reward, the latter of which is often measured against a relevant benchmark, using Beta/Alpha. The distinction between total risk/reward measurement and market risk/reward measurement is especially clear when asset prices fall (1973-1974, 1987, 1991, 2000-2002, 2007-2009, etc.), with entire asset classes (and their benchmarks) in flux. Therefore, using market-based measurements of risk/reward – particularly when discussing aggregate portfolios – is at best a volatile proposition. By contrast, Part I of this series also established that employing Sharpe Ratio to measure an aggregate portfolio can be effective when comparing to the Sharpe Ratio of a relevant (strongly and positively correlated) benchmark. Importantly, the comparison between two Sharpe Ratios does *not* mean comparing the portfolio to the benchmark directly. In short, remember the goals of MVO stated in Part I of this series: "[a] formula for measuring Aggregate MVO should quantify the success or failure of achieving this risk-adjusted (net of fees) outperformance." Probably the best way to apply these points is through the use of real examples – stories of those who have undergone an MVO process, and their results.

A Tale of Two Portfolios

Portfolio #1 –Tom and Sally: During one recent engagement, our firm provided analysis for approximately $3MM of investable assets. The investors involved were convinced their holdings were strong, having generated consistent double-digit returns over the recent 5-year period measured. They were right. Based upon a rolling 5-year history, of June 30, 2015, their portfolio results according to Morningstar were as follows:

Risk and Return Statistics	5 Yr	
As of Date 6/30/2015	Portfolio	Benchmark
Standard Deviation	10.04	5.42
Mean Return	11.42	7.04
Sharpe Ratio	1.12	1.27

What do we know from this analysis? We know that Tom and Sally's 5-year historical Mean Return reported is substantially higher than the relevant benchmark return (using a benchmark with a correlation co-efficient of 85.14 over the same period). We also know that the portfolio variance (i.e., total risk) was substantially higher, based upon its Standard Deviation. The combination of these two points provides a return premium (or discount) for total risk taken – the Sharpe Ratio. Clearly, the risk premium achieved by Tom and Sally was inadequate compared to the Sharpe Ratio available to them in relevant areas of the marketplace. This is all helpful information for Sally and Tom, and provides evidence that risk is too high for the return achieved, when compared to other relevant options available to them. The argument for indexing stops here, and asserts that Tom and Sally should "buy the relevant index(es)" through low-cost investing and achieve the same total risk/reward as the benchmark itself. This method of improvement is both accurate and viable for Sally and Tom. However, it does little to explain the efficiency of their portfolio. Enter MVO scoring. Using a proprietary scoring method to measure portfolio efficiency can establish whether or not the aggregate portfolio (measured above) offers a more efficient risk-adjusted result versus the benchmark or other relevant alternatives. Specifically, Sally and Tom can know whether or not their portfolio achieved better or worse than an aggregated portfolio risk/reward continuum known as the "Capital Market Line" (CML), and what adjustments they can make to optimize their overall investable assets.

In this example, Tom and Sally's MVO Score was: (1.62) or -1.62. This score indicates the investors' portfolio was less efficient when compared to the CML. Note that the CML represents the intersection of risk and reward, so itself is perfectly efficient (it cannot be more or less efficient than itself). We therefore assign the CML score an MVO score of zero. As such, a relevant indexing strategy would carry a portfolio MVO score of zero, less the internal costs of the vehicle used (Mutual fund, ETF, etc.). In Sally and Tom's case, a negative MVO score

indicates either excess risk, insufficient reward, or both. Other than investing their entire portfolio in an indexed fashion, what else can Sally and Tom do to achieve a more optimal aggregate portfolio? Let's look at another example.

Portfolio #2 – Mark and Sara: Another recent engagement our firm accepted included an MVO analysis for a family with approximately $4.5MM of investable assets, approximately $1.5MM of which was highly-concentrated stock in a U.S. blue-chip company. For comparison purposes, we will set aside this stock position, and focus on the other $3MM in assets. Similar to the previous case, the investors were proud of the results of their holdings over the 5-year rolling period, as follows (according to Morningstar):

Risk and Return Statistics	5 Yr	
As of Date 6/30/2015	Portfolio	Benchmark
Standard Deviation	7.45	5.42
Mean Return	10.47	7.04
Sharpe Ratio	1.37	1.27

In this case, the benchmark correlation coefficient was 89.11 over the period measured, indicating a strong positive correlation, and therefore a relevant comparison point. Once again, when the index itself is inserted into the CML formula will again render an MVO score of zero, being neither less efficient nor more efficient than itself. Sara and Mark's portfolio MVO score was the focus of this project and was: .79 or +.79. This score indicates the portfolio measured was superior over the period measured, when compared to the CML (previously defined as the intersection between risk and reward for the entire portfolio). What does this mean for Mark and Sara? It means they received reward in excess of the risk taken – at the aggregate level. How did they achieve this? The interactions between portfolio holdings (i.e., covariance) allowed them to "elevate" their results beyond that of the index or any individual holding.

Not unlike a competent college basketball coach identifying which player(s) contribute to and detract from overall results (when viewing the overall team on the court), a competent portfolio manager can create a portfolio MVO attribution analysis, which measures the contribution of each asset class (and even each holding) to the overall MVO score and can thereby isolate and remove poor MVO contribution.

Getting the Score

In conclusion, no matter how your assets are managed (or by whom), and no matter how you feel about the results, an MVO analysis can provide necessary insight into the assets in the portfolio mix, their interplay, and their combined efficiency. In the two cases discussed, both couples held different types of vehicles with different levels of underlying fees (advisory fees were not applied). Also, both couples felt confident with their results, and were generally comfortable with the direction of their asset base.

The MVO scoring process gave both households an added dimension of clarity, and necessarily, a starting point from which to work with their advisors on the underlying cause of any inefficiency identified. Whether or not FIDERE handles part or all of your portfolio, whether or not you choose to index with your assets, and whether or not you have the ideal underlying fee structure, consider measuring the efficiency of the aggregate *first*. If you have an MVO score, you can better decide how to proceed with any remaining analysis.

In the next editions of A STEWARD'S VIEW, additional attention will be given to the MVO scoring process, the relative unimportance of indexing vs. active management of portfolio holdings, and the point at which fees matter.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

Fidere Advisors, LLC is a privately-owned, full-service life planning firm, offering financial planning and portfolio optimization. Portfolio optimization systems are designed to align assets across accounts into a single, globally optimized, tax-sensitive investment plan. FIDERE maintains liquidity of client capital at major custodians and utilizes asset managers that have shown consistent historical performance through excellent risk management. For more information, visit www.fidereadvice.com/models

Not an offer to transact securities. Not a financial planning engagement.

A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART IV: *Take the Day off and Aggregate*

To appreciate the value of aggregate Mean Variance Optimization (MVO), the investor must first recognize that the vast majority of portfolio theory achievements relate to security-level analysis, not portfolio-level analysis. These achievements include work by talented researchers and investors such as Benjamin Graham, Sir John Templeton, Warren Buffet, Kenneth French and Eugene Fama – all of whom focused their work on the analysis of individual holdings. One notable contrast to this group is the "Wizard of Wharton" – renowned professor Jeremy Siegel – who inches closer to measuring aggregate portfolios with a focus on asset class behavior. Siegel's work is primarily focused on areas of the marketplace compared to each other in terms of their risk/reward characteristics (e.g., stocks versus bonds versus gold). Despite the many achievements of all the aforementioned individuals, there remains a shortage of information and practice around portfolio-level analysis. Importantly, this "aggregate" analysis is requisite to any portfolio supporting a family's financial plan or a company's strategic plan. Any technically-drafted financial or strategic plan relies on aggregate portfolio assumptions, in order for the plan to function as intended. Therefore, more precise assumptions mean greater predictability during the planning process, and often, better long-term funding for the plan.

During this series on MVO, we have intentionally bypassed portfolio diversification techniques, and treated portfolios as sufficiently diversified. That is, diversifiable (non-market) risk was assumed to be managed. Also, we assumed the portfolio was sufficiently correlated to its relevant indices (aka the "blended benchmark") and was therefore exhibiting risk/reward characteristics reflective of the blended benchmark. Further, we have implied (and will continue to assume) that the portfolio's *total* risks (i.e., non-market and market) are sufficiently managed. Recall that Parts II and III of this series suggested 1) using the standard deviation-based Sharpe Ratio to measure aggregate risk/reward, and 2) comparing the portfolio's Sharpe Ratio to that of the blended benchmark – different from the *direct* portfolio-to-market comparison made with Alphas and Betas, related only to market risk.

The reason for assuming the portfolio is healthy overall? Good portfolio advice is readily available from technical advisors doing the hard work of portfolio construction, asset allocation, and asset *location*. After this work is complete, aggregate MVO can begin. The purpose of this edition of A STEWARD'S VIEW is to provide a process for aggregate portfolio MVO, *after* traditional portfolio management techniques have been executed.

To illustrate this optimization process, consider a recent case study that explains how aggregate MVO works.

Carrie was recently introduced to our firm, through her accounting office. Carrie is a wife, mother, and successful realtor in her early 50's. Throughout her career, Carrie has built a total portfolio of approximately $1MM across 7 total accounts. To begin the project, Carrie's portfolio was aggregated: the 7 accounts were combined, then measured against a relevant, blended benchmark for moderate investors. Next, the aggregate results were compared to an optimized model for moderate investors.

NOTE: Advisory fees for the current portfolio were not available at the onset of the project. All data are shown without the impact of advisory fees.

For Carrie's current portfolio, the aggregated risk/reward data were as follows:

Risk and Return Statistics	5 Yr.	
As of Date 09/30/2015	Portfolio	Benchmark
Standard Deviation	7.72	7.57
Mean Return	6.84	6.52
Sharpe Ratio	0.89	0.87

All data provided by Morningstar, Inc.

For an optimized moderate model, the aggregated risk/reward data were as follows:

Risk and Return Statistics	5 Yr.	
As of Date 09/30/2015	Portfolio	Benchmark
Standard Deviation	6.62	7.57
Mean Return	7.66	6.52
Sharpe Ratio	1.14	0.87

All data provided by Morningstar, Inc.

Aggregate Risk/Reward Findings: we can observe from these data an Alpha of 1.27 and Beta of .85 (on an R-squared of 70.14) meaning Carrie's portfolio was well-diversified, and actually achieved *superior* results when compared directly with the relevant, blended benchmark. Her 6.84%/year return versus the 6.52%/year return for the benchmark clearly demonstrates this reality, and suggests that traditional portfolio management techniques have been implemented (either per account or on the aggregate, or both).

Optimization Findings: comparing the aggregate portfolio to an optimized model for the 5-year rolling period through 09/30/15, a different theme emerged. During the period, risk could have been slightly lower, and return slightly higher. Consequently, the Sharpe Ratio of .89 could have been 1.14, for a moderate investor. Further, comparing the aggregate with an optimized model from a pure return standpoint, the portfolio lagged .82% per year. That's .82% per year – every year for 5 years - or 4.1% cumulative. For Carrie, this 4.1% on $1MM invested (assuming a constant value) totaled approximately $41,000 in lost opportunity.

Unfortunately, many investors will continue to miss the opportunity to optimize their portfolios, often unknowingly impacting their overall financial or strategic plans. For those who pursue portfolio optimization, the process is very straightforward, but requires an initial time commitment ranging from a few hours to a full day. To create focused time, many investors choose to *Take the Day Off and Aggregate*.

Aggregation means pulling the portfolio into a common view for analysis as "one" investment plan. Aggregation involves 4 steps:

1. Gathering statements showing holdings and quantities (shares or units) of holdings
2. Integrating the holdings and quantities
3. Evaluating the correlation among holdings
4. Comparing the aggregate data to a relevant, blended benchmark

Once aggregation is complete, the portfolio can be optimized. Optimization can happen in just two steps:

1. Measuring aggregate risk/reward against optimized models
2. Adjusting the portfolio accordingly

Part I of this series demonstrated that a consistent portfolio-level measurement methodology is the centerpiece of *aggregate* Mean Variance Optimization (MVO). The opening paragraph of this current edition articulated a lack of research in portfolio-level MVO, meaning a lack of available measurement techniques. From a theoretical standpoint, this void represents an important opportunity for academic research. As a practical matter, the only interim answer to optimizing an entire portfolio is to approach the measurement process consistently. To begin, the investor and/or professional advisor(s) need to aggregate. Then the aggregate portfolio can be optimized and adjusted as needed. Without aggregation and optimization, the investor may be completely unaware of the substantial missed opportunity to add value to the overall plan. Far worse, the overall plan may suffer from invalid assumptions, a lack of long-term funding, or both.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART V.I: *Killing Active vs. Passive*

Much has been made of the difference in approach between a passively-managed portfolio and an actively-managed portfolio. A related discussion focuses on the fees associated with investing in passive versus active strategies. This and the next edition of A STEWARD'S VIEW rewrite this discussion to reduce the conversation about vehicles and fees, and promote a dialogue about aggregate results. After all, if attaining an optimal overall result (net of all fees) is the primary consideration, investors should concern themselves more with the investment process and less with the vehicles involved.

In Part IV of this extended series on Mean Variance Optimization (MVO), an emphasis was placed on portfolio aggregation, encouraging investors to: 1) view their household investable assets as a single investment plan, and 2) choose to set aside the decision to invest in certain holdings until after the global allocation is considered. In a global allocation, two tiers of asset classes are considered. The first tier of asset classes are: stocks, bonds, cash, real estate, and commodities. The second tier of asset classes are more specific, subsections of the first tier: large-cap stocks, emerging market stocks, short-term government bonds, CDOs, Gold, etc.

A global allocation process answers questions such as:

- What are all of the available asset classes for the overall portfolio?
- Which of them offer attractive risk/return characteristics?
- What is the correlation (co-variance) between them?

A vehicle(s)-based allocation process answers questions such as:

- What was the risk/return of the vehicle(s)?
- What benchmark should I use to measure that vehicle(s)?
- How did my vehicle(s) compare to that benchmark?

The latter set of questions is the focus of financial institutions that manufacture and/or distribute products (mutual fund companies, asset management firms, etc.) because doing so largely gives investors a point of reference to make a decision (often not an aggregate portfolio decision). In the next Edition of A STEWARD'S VIEW, we will contrast two investors: Phil and Janet. Phil chooses indexed funds only, focuses on fees, and invests one asset class at a time, treating each account separately. Alternatively, Janet does not consider vehicles first (index or active holdings), does not focus on fees, and begins building a single strategy across accounts. Their processes are different and their results are different. Both Phil and Janet end up adequately diversified, but Janet's portfolio is optimized with respect to aggregate risk/return – net of all fees. Her portfolio is therefore better equipped to weather major downward price moves in her chosen areas of the global marketplace. Most importantly, she is better able to consistently fund her financial plans over the long run.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART V.II: *Optimize Beyond the Index*

Portfolios fund financial plans, therefore an optimal investment model is critical. Indexing is optimal by default: it offers investors the full risk and full return of the relevant marketplace. Headlines are made when a portfolio manager beats market (index) returns for a period of time (for example, there was a dearth of headlines in the second-longest-running bull market in U.S. history, which began March 6, 2009). Unfortunately, few (if any) headlines are made with more consistency than the relevant marketplace. After all, it is not exciting to say "investors were rewarded with a similar result to the marketplace, but with less overall risk." Nonetheless, active management can be the answer to optimizing beyond the index. Consider the following data, which illustrate a global, multi-asset-class investment model and index.

	3-Year			5-Year			10-Year		
	Bmark	Passive	Active	Bmark	Passive	Active	Bmark	Passive	Active
Standard Deviation	10.81	10.81	7.75	10.28	10.28	7.34	16.91	16.91	12.59
Mean	8.61	8.61	8.60	10.38	10.38	8.99	7.36	7.36	8.95
Sharpe Ratio	0.79	0.79	1.02	1.02	1.02	1.15	0.51	0.51	0.72

All data from Morningstar, Inc. (through 06/14/18)
Benchmark: DJ Aggressive TR USD

Observations

The passive investor receives the index risk/return, while the active investor does not. In our example, the active investor instead received a nearly identical return on a 3-year historical basis, a lower return on a 5-year basis, and a greater return on a 10-year basis. Total risk (measured by Standard Deviation) was lower across the board. The combination of risk and return – the Sharpe Ratio – was superior across the board, for the active investor. The greatest contributor to this increase in Sharpe Ratio was substantially lower risk in each time period.

Conclusion

In summary, the passive investor whose holdings mirror the index, will be optimized in terms of what the market bears for risk and return – no better, no worse. The active investor can either 1) beat the index on returns, or 2) beat the index on risk-adjusted returns. If portfolio managers can offer a superior Sharpe Ratio, their services should be seriously considered. If not, an indexed approach may be preferable. Either way, the portfolio plays a supporting role to a comprehensive plan – a plan dependent upon consistency of investment results. The next edition of A STEWARD'S VIEW examines the effect of advisory fees on this optimization analysis, to aid investor decision-making after fees, not because of fees.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

Fidere Advisors, LLC is a privately-owned, full-service life planning firm, offering financial planning and portfolio optimization. Portfolio optimization systems are designed to align assets across accounts into a single, globally optimized, tax-sensitive investment plan. FIDERE maintains liquidity of client capital at major custodians and utilizes asset managers that have shown consistent historical performance through excellent risk management. For more information, visit www.fidereadvice.com/models

A STEWARD'S VIEW

Advanced Thought Leadership for Your Money®

Aaron Kolkman, MSF, CFP®, CKA®
READ MY BIO

MEAN VARIANCE OPTIMIZATION - PART V.III: *Optimize Beyond the Index – After Fees*

As mentioned in the previous edition of A STEWARD'S VIEW, index/passive investing is optimal by default: it offers investors the full risk and full return of the relevant marketplace. Active management, however, can be the answer to optimizing beyond the index. Consider the following data, which illustrate a global, multi-asset-class investment model and index.

	3-Yr				5-Yr				10-Yr			
	Bmark	Passive	Active GOF	Active NOF	Bmark	Passive	Active GOF	Active NOF	Bmark	Passive	Active GOF	Active NOF
Standard Deviation	10.81	10.81	7.75	7.67	10.28	10.28	7.34	7.20	16.91	16.91	12.59	12.31
Mean	8.61	8.61	8.60	7.09	10.38	10.38	8.99	7.50	7.36	7.36	9.02	7.66
Sharpe Ratio	0.79	0.79	1.02	0.87	1.02	1.02	1.15	1.02	0.51	0.51	0.72	0.66

Benchmark: DJ Aggressive TR USD (R-squared = 95.09-96.09)
All data from Morningstar, Inc. (through 05/31/2018)

Fee Analysis

The passive investor shown pays no management or advisory fee, identical to the index/benchmark. The active investor pays a management fee of .84% and advisory fees of 1.25%. Advisory fees include asset allocation and optimization, as well as quarterly re-balancing.

Observations

The passive investor receives the index risk/return, while the active investor does not. In our example, the active investor instead received a lower return on a 3 and 5-year historical basis, and a greater return on a 10-year basis (a full market cycle) – after fees. Total risk (measured by Standard Deviation) was lower across the board. The combination of risk and return – the Sharpe Ratio– was superior across the board, for the active investor. The greatest contributor to this increase in Sharpe Ratio was substantially lower risk in each time period.

Conclusion

In summary, the passive investor will be optimized in terms of what the market bears for risk and return – no better, no worse. The active investor can either 1) beat the index on returns, or 2) beat the index on risk-adjusted returns. If the advisory firm can achieve a superior Sharpe Ratio, their services should be seriously considered. If not, an indexed approach may be preferable. Either way, the portfolio plays a supporting role to a comprehensive plan – a plan dependent upon consistent investment results.

For an overview of the FIDERE portfolio optimization system, please schedule at www.fidereadvice.com, call (833) 2-FIDERE or email team@fidereadv.com.

Fidere Advisors, LLC is a privately-owned, full-service life planning firm, offering financial planning and portfolio optimization. Portfolio optimization systems are designed to align assets across accounts into a single, globally optimized, tax-sensitive investment plan. FIDERE maintains liquidity of client capital at major custodians and utilizes asset managers that have shown consistent historical performance through excellent risk management. For more information, visit www.fidereadvice.com/models