gc_logo_small

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Advising the Affluent Client:**

**Investment Planning**

© 2016 Greene Consulting Associates, LLC INTENDED SOLELY FOR USE BY REGISTERED USERS NOT TO BE REPRODUCED OR CIRCULATED

## ABOUT GREENE CONSULTING ASSOCIATES, LLC

Greene Consulting Associates was founded in 1979 and provides consulting and training services solely to the financial services marketplace. Located in Atlanta, Georgia, Greene Consulting has worked with the top providers of investment management and wealth management in both the United States and abroad. Focused on helping firms generate incremental revenue growth through more effective sales and relationship management strategies, Greene Consulting offers customized training programs in Financial Services Sales, a Sales Management program, Presentation Training that integrates proprietary products, and a comprehensive suite of online learning courses related to investments and wealth management.

For more information about Greene Consulting or any of its products and services, write Greene Consulting at Waterstone Building, 4751 Best Road, Suite 450, Atlanta, Georgia 30337. Or, visit the company's website at www.greeneconsults.com.

## Table of Contents

1. Introduction
2. Focusing on Common Investment Planning Needs
3. Issue #1: A Clear Investment Plan
4. Step One: Understand the Client’s Objectives
5. Step Two: Identify Available Assets
6. Step Three: Define the Client’s Risk Profile
7. Inflation Risk
8. Inflation Risk and Real Rates of Return
9. Market Risk
10. Quantifying Market Risk
11. Impact of Time on Market Risk
12. Outcome Risk
13. The Impact of Time on Outcome Risk: A Key to Motivating Clients
14. Monte Carlo Sensitivity Analysis
15. Communicating the Benefits of Monte Carlo Sensitivity Analysis
16. Issue #2: Appropriate Portfolio Structure (Asset Allocation)
17. Why People Have Inappropriately-Structured Portfolios
18. The Importance of Asset Allocation
19. Getting Paid for Risk: The Efficient Frontier
20. Tactical Asset Allocation
21. Issue #3: Appropriate Diversification
22. Correlation: The Basis for Diversification
23. Correlation Between Indices
24. Issue #4: A Disciplined Process for Making Buy/Sell Decisions
25. Evidence of Investor Emotion in the Marketplace
26. Issue #5: A Tax-Efficient Approach to Managing Assets
27. Periodic Review and Measuring Success
28. Analyzing Performance: Three Important Perspectives
29. Performance Analytics: Absolute Returns Analysis
30. Performance Analytics: Relative Returns Analysis
31. Performance Analytics: Risk-Adjusted Returns Analysis
32. Conclusion

## Introduction

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| One of the more important financial issues for affluent clients is their portfolio. Consider this: When was the last time you heard someone discussing their insurance needs with a group of friends at a social event? It’s not very likely. However, it’s quite probable that you have overheard a casual conversation about how well a certain investment of theirs has performed or heard someone else pondering how high shares of Apple stock might go. Such is our preoccupation with our investments  Additionally, individuals are bombarded with information about the markets, from a quick blurb in the local newspaper, to thirty minutes of Squawk Box on CNBC, or even a Suze Orman infomercial. This unprecedented focus on the financial markets has certainly resulted in a more informed client. | **Investments and the Affluent Client**   * Their investment portfolio is one of their most important financial issues * The subject of investing is frequently on their mind, as illustrated by its presence in their discussions. * This is fueled by constant bombardment by the media. * This makes for a more informed client. |
| However, for most of these individuals, the more they learn, the more confused they become as they struggle to address key questions such as:   * Am I on track to reach my goals? * Is my portfolio appropriately structured? * What changes should I make? * What are the best mutual funds for me? * How do I know when it is time to sell? * Can I reduce my portfolio risk?   Many clients are consumed by questions such as these. | **The More They Learn, The More They Struggle**   * Am I on track to reach my goals? * Is my portfolio appropriately structured? * What changes should I make? * What are the best mutual funds for me? * How do I know when it is time to sell * Can I reduce my portfolio risk? |
| One purpose for this course is to help ***you*** help ***them***.  When you go into an investment conversation with a client, you can assume that everyone wants to maximize return and minimize risk. You can also assume that most people are reactive to the person who talked to them last.  Your task is to give them a framework to discern what they should be doing.  This course will teach you the issues and the concepts you need to understand to engage in that conversation with confidence.  A second purpose of this course is to help ***you*** help yourself. One of the best ways to learn to help others address their investment planning needs is to first learn how to address your own. So, as you go through this course, we invite you to consider these investment issues and concepts from your own personal perspective, considering what actions ***you*** might want to initiate on your own behalf. | **The Purposes of this Course**   1. To help ***you*** help your clients    * By giving clients a framework to discern what they should be doing. 2. To help ***you*** help yourself |

|  |
| --- |
| Objectives  Now more than ever, affluent clients are looking for advisors who are able to help them focus on these key issues to effectively structure and manage their portfolio, simplifying what is all too often a complex process. This course will equip you with:   * A practical understanding of the 5 key issues for investment success * A framework for helping clients discern what they should be doing in their investment planning. * An understanding of investment risks and how to measure and manage them * Tools for measuring success in meeting investment plan objectives |

## 

## Focusing on Common Investment Planning Needs

Assume for a moment that you have never made investments in the financial market and you wish to begin. What are the hardest decisions you have to make? Your list would probably include items like:

* What are my goals?
* How do I manage the risks I am willing to assume?
* How do I decide what to buy?
* How do I know when to sell?
* How will I know if I’m staying on track to achieve my goals?

These basic questions never go away. We may grow in our sophistication in addressing them, but these foundational questions remain.

We have structured such foundational concerns into 5 Key Issues for Investment Success, as listed below:

**5 Key Issues for Investment Success**

To achieve investment success, affluent clients should have:

1. A clear investment plan
2. Appropriate portfolio structure (asset allocation)
3. Appropriate diversification
4. A disciplined process for making buy/sell decisions
5. A tax-efficient approach to managing assets

Beginning with the first key issue, “Having a clear investment plan,” we will discuss each of these key issues in the pages that follow.

## Issue #1: A Clear Investment Plan

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| The first issue we want to explore is the need for a clear investment plan. So, “Why do you need an investment plan?” Essentially, you need an investment plan because we live in a risky world. Without it, you tend to be ruled by short-term emotions rather than a reasoned long-term approach, making impulse decisions and unlikely to reach your goals. | **Why Do Investors Need a Plan?**   * To better manage risk * To make rational, not emotional, investment decisions * To increase the likelihood of reaching our objectives |
| To assess for a moment your own situation, consider your own personal investments or 401(k) Plan. Ask yourself these questions?   * What are ***your*** investment objectives? Are they quantified so that you will know when you reach them? Do you have a plan for how you will get there? Do you have a way of determining if you are on track? * What investments do ***you*** currently have? Are they appropriate for your goals? How do you know if they are or are not? Could someone look at your investments and identify the goals you had in mind by the choices that you’ve made? * How do ***you*** manage the risk in your investment portfolio? * How do you avoid emotional or impulse purchases and sales?   Essentially, these are the types of questions that an investment plan is intended to address. | **Consider Your Own Investments**   * What are ***your*** investment objectives?   + Are they quantified?   + Do you have a plan for reaching them?   + How do you know if you are on track? * What investments do you currently have?   + Are they appropriate?   + How do you make that determination? * How do you manage the risk in your portfolio? * How do you avoid emotional or impulse purchases and sales? |
| So, what is a plan? Essentially, it is a “roadmap.” It sets out where you want to go and how you plan to get there.  To be more precise, a clear investment plan should address:   * Your quantified objectives and the time frames for reaching those objectives. Not just what you want to achieve, but how much money it will require and when will you need it. * To achieve these objectives, you will have to determine the rate of return you will need and decide if you are willing to assume the risk that is associated with it. All of these factors must come into balance before you can have a viable plan. * A plan should also address asset allocation and the investment management process:   + What type of assets will be utilized?   + What allocation will be made to each?   + How investment decisions will be made.   + And parameters for rebalancing the portfolio.   Only by following such a process can emotional behavior and risk be properly managed, giving you greater assurance of actually achieving your objectives. | **An Investment Plan Identifies/Addresses**   * Quantified objectives * Time frames * Required rate of return * Risk you are willing to assume * Guidelines for asset allocation and investment management:   + Types of assets   + Allocation among them   + Buy/Sell process   + Parameters for rebalancing the portfolio |

One of the most common problems you will encounter when examining an individual’s portfolio is a lack of clearly defined investment objectives. In fact, most individuals will spend more time this year planning for their next vacation than they will spend developing a plan for how their portfolio will be managed. Intuitively, individuals know they should develop such a plan and review it regularly, but most fail to act. Most often, they simply have a general idea of why they are investing (such as for retirement or their children’s education) but fail to map out a clear plan that includes:

* Quantified return objectives
* Specific time horizon for achieving each key objective
* Clear risk tolerance
* Well-defined guidelines for portfolio asset allocation
* Parameters for rebalancing the portfolio

Unfortunately, studies indicate that over 75% of all high net worth investors have either an outdated investment plan or, worse, no written plan at all. Most often you encounter individuals with 2 to 4 investment “relationships”, none of which are coordinated with the others, resulting in a disjointed portfolio with no clear objectives or purpose. The result is the equivalent of a ship without a rudder to steer it or a chart to map its course.

Recognizing the importance of having a well-defined plan and clear investment objectives, the pages that follow provide a framework for establishing an effective investment plan for clients.

## Step One: Understand the Client’s Objectives

There are essentially three steps to establishing a clear investment plan. The first step is to understand the client’s objectives and the timespan for achieving those objectives. Whether it is providing for college education expenses for their children, saving for a vacation home, or saving for their retirement, the foundation of a good investment plan and asset al location strategy is specific quantification of the required dollars needed to meet the client’s specific objectives and a time horizon for when the assets need to be available. Without this specific information, neither you nor the client can establish a truly rational investment plan.

Your role in helping quantify the investment objective is to determine the specific amount required to fund the client's objectives and to identify the number of years available to reach them. Following are two simple questions you should consistently ask your clients to begin this dialogue.

* **Objective/s -** What are your **specific** goals for these assets (retirement savings, college education, etc.)?
* **Time Horizon -** When will you need to spend the money to meet these obligations?

**Important Note**

These two basic questions are intuitive to many advisors and, therefore, tend to be posed to clients in a manner not too dissimilar from a doctor going through a litany of questions at the beginning of your annual check-up –“Have you experienced any headaches? Shortness of breath? Dizziness?

Take care not to be clinical in the way you ask these basic but enormously important questions. And more importantly, listen to your client respond to these questions. Make sure you have a true understanding of both the financial goals and the emotions associated with them.

By working with the client to understand the specific liabilities the portfolio is designed to address, you as the advisor can begin the process of structuring a portfolio with the highest probability of achieving these objectives.

Contrast this approach with one used by many advisors in the marketplace, which begins by seeking to understand the individual’s “risk tolerance.” While understanding the client’s risk tolerance is critically important, starting the conversation with “how much of this money are you comfortable losing” is not a very compelling dialogue. By first understanding the objectives of the money, you will gain insights that will help you structure the portfolio while also learning more about what is really important to your client, both financially and emotionally.

## Step Two: Identify Available Assets

The second step of the process is defining what assets the client has to offset these future liabilities. Once again, consistently asking simple questions are all an advisor needs to get this important information.

* **Current Assets**
  + What specific assets do you have to meet these goals?
* **Portfolio Structure**
  + How are these assets managed currently?
  + What specific securities do you own in each account?
* **Additions to the Portfolio**
  + On average, how much will you add your portfolio/s each year?

While these questions are enormously straightforward, the key to success lies in execution. Most often, advisors ask these (or similar) questions yet fail to get the detailed level of information they need. Consider the dialogue in the following example.

DocumentationIcon_32px**Click the icon to view an example.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Advisor**: “What specific assets do you have to meet these goals?” | | **Client**: “I have about $150,000 set aside currently.” | | **Advisor**: “Great. How are these assets managed currently?” | | **Client**: “Over the years I have really managed my accounts myself.” | | **Advisor**: “Well, you have done a commendable job, but with the assets you have amassed, I feel we can add a great deal of value in working with you to structure a more effective portfolio focused on your specific needs. How much do you anticipate you will add to this portfolio each year?” | | **Client**: “I don’t know. It will probably vary from year to year but I would guess about $25,000 a year.” |   This common exchange may seem effective at first blush, but consider the following questions:   * Are you absolutely sure the client has no other assets other than the $150,000 he discussed? * How many current investment relationships does the client have? * Who does the client rely upon for investment advice? * What specific securities does the client own? |

Most often, clients will not give you all of the information you are seeking to obtain from any one question. Take care to ensure that you get the specific information and detail you need before moving on in the conversation.

DocumentationIcon_32px**Click the icon to view the required information.**

|  |
| --- |
| * **Specific Holdings**   + “What specific securities do you own?” * **Cost Basis**   + “What is your cost basis?”, or   + “When did you purchase these securities?” * **Current Advisor**   + “Who do you rely on for investment advice?”   + “What do you value in this relationship?”   + “How do you feel they could serve your needs more effectively?” |

## Step Three: Define the Client’s Risk Profile

The final step of the process is defining the client’s risk profile. Most affluent individuals define risk as the amount of money that can be lost in an investment. However, that simplistic definition for risk is far too narrow and can lead to significant miscalculations in an investment plan.

Let’s examine the major types of risk, providing the framework for effectively addressing risk management in a more meaningful way.

**Click each type of risk to learn more.**

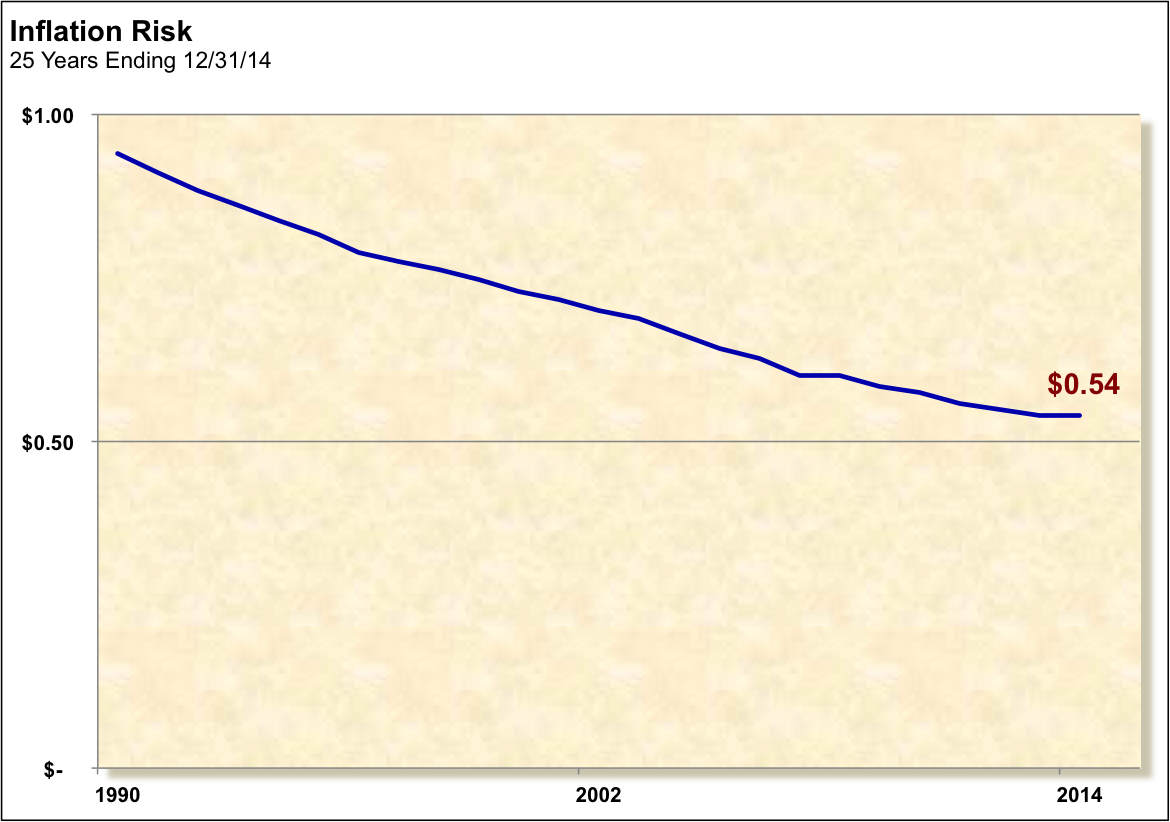
|  |
| --- |
| **Inflation Risk** |
| Because the price of goods and services in the economy continue to rise, there is a constant erosion of purchasing power for each investor’s assets. If a person fails to achieve a rate of return on capital that exceeds inflation, then the person is, in fact, losing purchasing power and lowering his or her net worth. Inflation risk is defined as the exposure to loss in purchasing power because of inflation. |
| **Market Risk** |
| This is the most commonly used definition of investment risk. Most would classify this risk as the volatility in principal value of an investment over a certain period of time. Market risk also covers the potential risk of losing value in an investment because of depreciation in price. |
| **Outcome Risk** |
| This is the most often overlooked risk, yet should be the most important when developing an investment plan. Outcome risk is defined as the risk of not achieving the desired quantitative outcome of the plan and thereby falling short of meeting a need or reaching an objective. |

Most investors understand inflation and the diminishing effect it has on investment returns. Likewise, most investors understand market risk, or volatility, and its effect on security price. To avoid market risk, investors often choose investments they believe to be "safer and more stable," such as money market securities and short-term bonds. But these “conservative” instruments historically have not produced the return needed to meet typical investment goals, like saving for retirement. Therefore, the investor, by seeking to avoid volatility or shorter-term market risk, is taking on another type of risk that often is not realized until time passes. This risk, “outcome risk,” is the risk that the results of investing will be inadequate to meet long-term goals. An effective question that will help you gauge your client’s risk tolerance while also helping you understand the type of risk most important to manage for that client is:

What is more important to you, limiting (or eliminating) potential ups and downs in your portfolio over any given year or the risk of not reaching your defined objectives (retire by the age of 65, etc.)?

We will examine each of these three types of risk in greater detail on the pages that follow.

## Inflation Risk

To fully comprehend inflation risk, it is necessary to understand what inflation is and how it affects the purchasing power of money. Simply stated, inflation is the rate at which the price of goods and services increases, thereby reducing the buying power of money.

In an inflationary environment, investing is like walking up an escalator that's going down. Climbing (or investing) increases the amount of money one can have, while inflation constantly reduces the value or the purchasing power of that money.

Investors often fail to recognize the risk associated with inflation. Two paths that make them victims of inflation are:

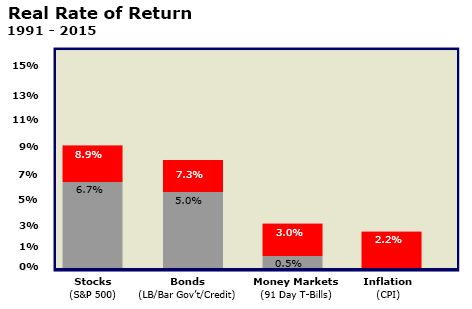
* **Do nothing** - This effectively allows inflation to nibble away at the purchasing power of their money. While they might not experience “losses” in the market price of their investments, they will have reduction in the purchasing power of their money. (Keep in mind what your grandfather said to you regarding what a movie and bag of popcorn used to cost in his day.)
* **Invest too conservatively** - Again, while conservative investing can be appropriate, one needs to make sure to understand the implications. If returns on investment are not substantial, inflation and capital gains taxes can consume much, if not all, of their purchasing power.

The graphic on this page illustrates the magnitude of inflation risk. For the last 25 years ending in December 2015, the purchasing power of one dollar has declined to just fifty-seven cents. Therefore, the total return of an investment only tells part of the story; it must be measured relative to the inflation that occurred during that period of time, if the true performance is to be observed.

## Inflation Risk and Real Rates of Return

Adjusting return for the impact of inflation is known as deriving the **real rate of return**. This is calculated as follows:

**Real Return = Total Return - Inflation**

In other words, real return takes into account the deflated growth of an investment.

The graphic on this page shows in red the annualized **"nominal"** (before adjustment for inflation) rate of return for stocks, bonds, money market securities, and inflation for the last 25 years. It shows that stocks grew at a nominal compound rate of 8.9%, bonds grew at a rate of 7.3%, and money market securities at 3.0%. But the **"real"** picture, after adjusting for inflation, is quite different.

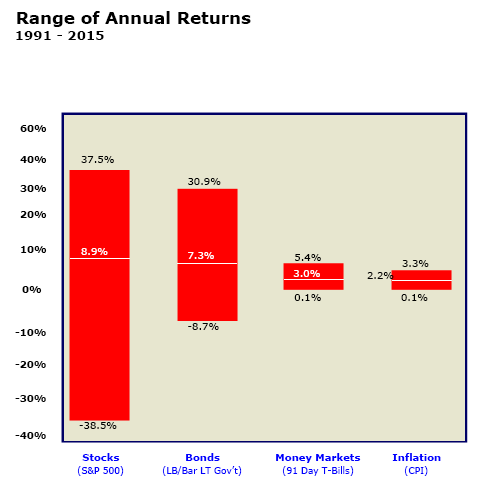
When the eroding effect of inflation is taken into account, the real return for each asset class (shown in gray) was reduced to 6.7%, 5.0%, and 0.5% respectively. These may not reduce exactly by the 2.2% inflation rate due to the effect of compounding.

## Market Risk

Almost every investor will have some understanding of ***market risk*** and will likely define it as the “chance that I will lose money.” For purposes of this course, we will refer to “***volatility” risk***. While inflation can deflate the value of the dollar substantially, the fluctuating rates of return that constitute market risk will also affect investment returns.

As shown in the chart below, market risk can be observed by considering the fluctuating annual rates of return for stocks, bonds, and money market securities that occurred during the past 25 years. The chart shows the maximum and minimum returns that were realized in any single calendar year, as well as the average annual return for the entire 25 years. Clearly, the potential risk associated with any given year is substantial; but the market risk is not the same for all asset classes, as some asset classes experience greater volatility than do others.

**Click each bar graph title for an explanation of the returns of each Asset Class.**



|  |
| --- |
| **Stocks (S&P 500)**  The maximum one-year return produced by stocks, as measured by S&P 500 during the 25-year period, was 37.5%, occurring in 1995. The worst one-year rate of return for the same period was in 2008 when stocks lost 38.5% of their value. The annualized rate of return for the same period was 8.9%. |

|  |
| --- |
| **Bonds (LB/Bar LT Govt)**  Bonds\*, for the same 25-year period of time, had a maximum one-year total rate of return of 30.9%, occurring in 1995. The worst one-year total rate of return for bonds was –8.7%, occurring in 1999. The annualized rate of return for the 25-year period of time for bonds was 7.3%.  *\*Because of the dissolution of Lehman Brothers in 2008, the bonds measurement is a combination of both the Lehman Brothers Long-term Government/Credit Bond Index and the Barclays US Long Government/Credit Index* |

|  |
| --- |
| **Money Market (91-Day T-Bills)**  Money market instruments, as measured by 91-day T-Bills, produced a maximum rate of return for any one-year period during this 25-year period of 5.4%. This occurred in 1991. The minimum rate of return was 0.1%, occurring several times, but most recently in 2015. The annualized rate of return was 3.0%. |

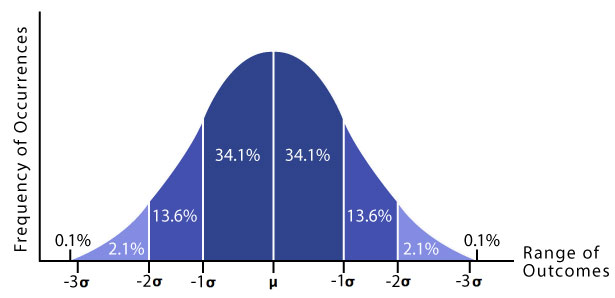
|  |
| --- |
| **Inflation (CPI)**  Inflation over the same period had a range from 0.1% in 2008 to a maximum of 3.3% in 1996 with an annualized inflation rate of 2.2% for this 25-year period. |

## Quantifying Market Risk

In quantifying Market Risk, we begin to make a transition from the basics that nearly everyone understands to the more intricate aspects of asset allocation theory and its application in today’s environment. The common way to measure market risk is through an examination of the dispersion of returns over a given time period. This can be measured in ***standard deviations (σ)***,which is a statistical measure for quantifying the dispersion of returns around the ***mean (μ)*** (also referred to as the “average”). The greater the standard deviation, the more volatile the asset is and the greater its risk.

To understand standard deviation and its application in the measurement of market risk, look at the following chart. It represents what is referred to as a normal distribution of events around the mean (μ**)**. When a series of events follow a normal distribution, we can begin to predict the future events within a given probability.

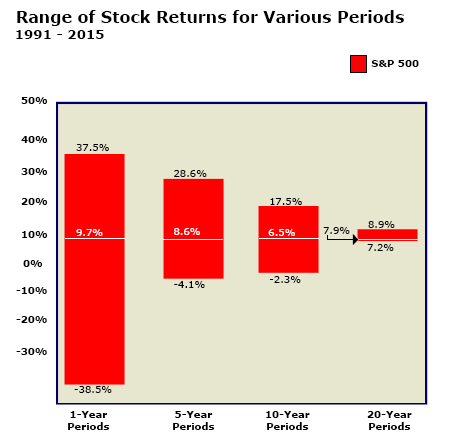
**Click the icon to view an analysis of the chart.**



|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **Actions** |
| As can be seen from this chart, a normal distribution curve assumes an equal number of occurrences on each side of the mean, as well as an equal range of returns on either side of the mean. In other words, it assumes perfect symmetry. | [*No action.]* |
| One standard deviation covers approximately 68% of the observed returns around the mean (34% on each side). | *[Highlight the dark blue sections.]* |
| Two standard deviations on either side of the mean represent approximately 95% of all observed returns and 3 standard deviations cover over 99% of the observed returns. | *[Extend the highlight out to include the medium blue section.]* |
| For example, one could predict with 95% confidence that future returns should fall within 2 standard deviations around the mean. For purposes of measuring and modeling risk, most practitioners use one standard deviation, using approximately 68% of the observed returns to predict the future returns distribution. | *[Maintain the highlight from the preceding.]* |
| As a measure of risk, the greater the standard deviation, the more volatile the asset is and the greater the risk. For example, if an investment has a mean return of 5% with a standard deviation of 2%, then 68% of returns will be within 2% to 7% (5% plus or minus 2%). | *[Graph goes away and the following statement and then the example appears:]*  The greater the standard deviation, the greater the risk.  Example 1:  **μ = 5%**  **σ = 2%**  68% of returns expected to be  from 2% to 7% (5±2%) |
| However, if the standard deviation is larger, say 8%, then 68% of returns will be within -3% to 13% (5% plus or minus 8%). Clearly, the second investment with the greater standard deviation is more volatile and therefore has more market risk. | *[The following is added to the preceding example:]*  Example 2:  **μ = 5%**  **σ = 8%**  68% of returns expected to be  from -3% to 13% (5±8%) |

## Impact of Time on Market Risk

Time has considerable impact on market risk; this is one of the reasons why it is so important to take into consideration a client’s time horizon when considering alternative investments. Referring back to the bell curve on the previous page, over time, market risk (variation around the mean) is reduced.



This positive impact of time can be illustrated by breaking the past 25 years of stock returns into different time periods. As seen in the chart, if each year is taken as an independent time period, the range of returns from year to year is very wide (from -38.5% to +37.5%), with the potential for very significant losses in any given year. But when the past 25 years are broken into time periods of 5 years each, the range narrows considerably (from -4.1 to +28.6%). Break it into 10 and 20-year periods and the range narrows further, narrowing to about a half percent around the mean for 20-year periods (with no periods of negative return). This data confirms that for longer holding periods, the probability of negative returns decreases and the gap between the maximum and minimum total return is reduced.

Therefore, on balance, time has historically served as an ally to investors by reducing risk.

## Outcome Risk

The third type of risk, ***Outcome Risk***, is the risk that is most often overlooked by investors; but it is probably the most important risk for investors to consider.

Outcome risk is the risk that the final outcome of the investment plan will fail to meet an obligation or to achieve a desired result over a specified time. If the expected return of a portfolio is below the desired outcome, then the shortfall is a measure of the outcome risk. For example, if the expected return of an investment for a child's education fails to provide enough money when it is needed, then the portfolio has significant outcome risk.

Investors normally tend to focus on the short-term volatility of market risk and often overlook outcome risk. However, outcome risk must always be kept in mind because it is the driver for taking risk in the first place. Rationally speaking, individuals are risk-averse and, therefore, would choose not to take on market risk unless that risk was less desirable than the risk of not reaching their goals.

## The Impact of Time on Outcome Risk: A Key to Motivating Clients

It is often difficult to motivate clients to plan; it can be even more difficult to motivate them to take action “today” regarding goals that may be many years in the future. While the goals are perceived as important, it is just too easy for them to allow the “urgency” of today’s needs overtake the “importance” of developing and sticking to a plan for the future.

An understanding of the impact of time upon outcome risk can be a powerful motivator in helping a client understand the importance of developing and following through on an investment plan. This impact is threefold:

**Click each impact to learn more.**

|  |
| --- |
| **1. Impact of Starting Early** |
| ***Compounding*** is the ability to get return on top of return. As with the classic example, if you begin with a penny and double your money each day, within a month you are a multi-millionaire.  Because of the power of compounding, investing “sooner” is generally more beneficial than investing “later.” The sooner you begin saving and investing for a specific outcome, the greater the likelihood that you will achieve that outcome.  **Click each scenario heading for an explanation.**  **Scenario A Scenario B**   |  |  |  | | --- | --- | --- | | **25 YEARS OLD**  **45 YEARS OLD**  **65 YEARS OLD**  **$695,039** | **The Only Difference was Time** | **25 YEARS OLD**  **45 YEARS OLD**  **65 Years Old**  **$72,052** |   **Scenario A**  Assume that an investor invested $1,000 in an IRA at the end of every year from age 25 to 45 at 12%. At the end of 20 years at age 45, the investor made no contributions or withdrawals. At the age of 65, the investor will have $695,039.  **Scenario B**  Assume that an investor invested no money from ages 25 to 45, yet began making $1,000 contributions in an IRA at the end of each year for 20 years from the age of 45 to 65 at 12%. At the age of 65, the investor will have $72,052.  In each scenario, the amount of money invested and the time period of investment are the same ($1,000 per year over 20 years, for a total investment of $20,000). **The only difference is the timing of the investment.**  As shown, the additional 20 years of compounding in "Scenario A" led to significantly higher returns. In summary, the value of time and compounding illustrates the importance starting early.  *"Compounding is mankind's greatest invention because it allows for the reliable, systematic accumulation of wealth."*  Albert Einstein |
| **2. Timespan of Data Inputs and Their Accuracy in Predicting Future Results** |
| For traditional asset allocation models to give correct results, all the inputs that go into determining the allocation must be correct. This means that values used for each asset or asset class, such as *expected return*, *correlation,* and *standard deviation,* are correct. If any one input is invalid, then the entire allocation model falls apart.   |  | | --- | | **Correlation**  ***Correlation*** is defined as the degree to which two asset classes or investments will have similar returns (or act the same) under a specific set of market or economic conditions. Stated differently, it is a measure of how the returns of two investments “co-relate” to each other. Investments producing similar results over a given timeframe have a high correlation, while investments that produce dissimilar results have a low correlation. |   Here is a recent example:  Suppose you were developing an investment plan in December 1999 designed to meet the long-term retirement needs for a client. When projecting the future returns required to develop a traditional asset allocation model, you would logically use the historical results of the previous few years. Looking just at the S&P 500, you would be using historical results of 28.34% in 1998, 33.1% in 1997, and 22.68% in 1996. Using these return patterns as your historical precedent would have resulted in overstated expected returns and understated volatility for the stock portion of the projected portfolio because actual returns that followed those years were -9.03% in 2000, -11.85% in 2001, and -21.97% in 2002. Such skewing of the data would lead to improper planning and asset allocation, evidence of the fact that simplistic, traditional asset allocation modeling alone will not provide an effective answer for clients.  This example highlights the fact that your expected return, or any other input you might choose in your modeling that is based on past history, is the average result of the historical time span you use. Depending upon when you start and end that time span, and the duration of the time span you use, the average result you derive will vary. This highlights the importance of avoiding the use of very short time spans in determining historical precedents; the outcome you derive from such inputs can be dramatically different from the reality you will achieve.  Clients also need to be aware that future results may be quite dissimilar to past performance, especially in the short term. The good news is that when longer time spans are used for deriving inputs in the asset allocation modeling, while also starting early in investing so that there are longer time spans before the investment returns will be needed, then the future will more closely resemble the past. Once again, starting early is the best way to minimize one’s outcome risk.  *"History doesn’t repeat itself, but it rhymes."*  Mark Twain |
| **3. Impact of Timing** |
| One problem with modeling with historical averages is that life doesn’t always present you with the “average.” This can be especially significant in the short run. When it comes to investments, sometimes “timing is everything.”  This following example illustrates this fact. To keep the example simple, we will only look at an investment in a diversified equity portfolio, using the S&P 500 as our benchmark.  Investor #1 was five years away from retirement on January 1, 2008. He invests $100,000 in an S&P 500 investment fund. Based upon the prior 30 years, the S&P 500 had an average return of 13.83%. Using that as his expected return, he projects an outcome of $191,110 before taxes at the end of 5 years.  Investor #2 was five years away from retirement on January 1, 2009. He also invests $100,000 in an S&P 500 investment fund. Based on the prior 30 years, the S&P 500 had an average return of 12.39%. Using that as his expected return, he projects an outcome of $179,323 at the end of 5 years.  Given the benefit of hindsight, here is what happened to each investor:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | **S&P Historical Returns** | | | | | | **Balance after 5 Years** | |  | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |  | | Investor 1 | (36.55%) | 25.94% | 14.82% | 2.10% | 15.89% | - | $128,660 | | Investor 2 | - | 25.94% | 14.82% | 2.10% | 15.89% | 32.15% | $231,223 |   Investor #1 had the misfortune of beginning in 2008, a year in which the S&P significantly underperformed its preceding 30-year average return. Thus, instead of achieving his expected outcome of $191,110, he fell short of his target by $62,450, or 32.7%  In contrast, Investor #2 not only had the good fortune of missing the poor performance of 2008 by placing his investment at the start of 2009, he also had the good fortune of ending his 5-year investment in 2013 when the S&P 500 significantly outperformed the S&P 500. Thus, Investor #2 exceeded his expected outcome by $51,900, or 28.9%. Both investors made the same investment for the same time period; the difference was purely due to timing. |

The last two examples illustrate that modeling solely on the basis of averages provides an incomplete solution. Yet that is exactly what many traditional asset allocation models do.

Clearly, more sophisticated investment planning requires a more dynamic approach than can be achieved in such static models. What is needed is an approach that will test the investment plan against different scenarios. Using our last scenario of the two investors with 5 years until retirement, what is needed is an approach that would test the investment plan against the possibility that they might be fortunate enough to have stellar investment in the first year, but they might also be unfortunate in experiencing a downward market turn in their first year. Given all the possible scenarios, what is the likelihood that their plan will succeed?

Such an approach is provided by a ***Monte Carlo Sensitivity Analysis***. Monte Carlo Sensitivity Analysis enables advisors to run literally thousands of scenarios to define the probability of any particular strategy falling short of the desired result based on the anomalies outlined above.

## Monte Carlo Sensitivity Analysis

As the previous page illustrated, no amount of modeling can totally eliminate outcome risk (the risk that the result will not be what was expected.) While a plan may appear perfectly solid when looking at historical averages, many things can go wrong in the real world that might cause the plan to fail. For example, investment returns might be lower than expected, or the timing of an investment may be wrong, or death may occur sooner (or later) than planned. To have confidence in a plan, it is important to test it against various possibilities to establish an acceptable level of confidence that unexpected events will not result in the failure of the plan.

Monte Carlo Sensitivity Analysis makes this possible. Grounded in gaming theory, where expected outcomes are modeled multiple times to establish probabilities of a single occurrence, ***Monte Carlo Sensitivity Analysis is a powerful tool available in many portfolio optimization software packages. Monte Carlo Sensitivity Analysis allows you to perform risk/probability simulations over multiple scenarios to determine a "success rate" for a given plan***.

DocumentationIcon_32px**Click the icon to view the overview of how the analysis works**

|  |
| --- |
| First, the software randomly generates numbers for uncertain variables, such as interest rates, investment volatility, and life expectancy. By running hundreds, sometimes thousands of scenarios using randomized data points for annual return that fit within the historical range of expectations, Monte Carlo Sensitivity Analysis allows you to test the estimated success of the current plan data under different scenarios. For example, let’s suppose you have a twenty-year investment time horizon. Instead of just using average historical returns from the last 20 years to test if the outcome would meet expectations, it would use a multitude of different 20-year time horizons to test expectations.  This allows you to answer such questions as: “What is the potential likelihood that I will outlive my portfolio?” or “Can I count on having enough money to fund my education needs?”  This testing will provide you with a more realistic perspective on the viability of a plan achieving the desired goals in a dynamic environment where market returns cannot be predicted, either year-to-year or over intermediate periods of time. |

## Communicating the Benefits of Monte Carlo Sensitivity Analysis

While Monte Carlo Sensitivity Analysis is a powerful planning tool with many benefits, its complexity can make it overwhelming to communicate to a client. Instead of attempting to detail the framework and details of Monte Carlo, it might be easier to communicate solely the benefits of this approach versus traditional investment plan modeling.

**Click each benefit to learn more.**

|  |
| --- |
| **Realism** |
| Most plans simply look at the averages and presume that the plan will achieve results similar to the averages found in past history. But in the real world, performance over the short-term is often very different than the average long-term performance.  By modeling a plan under more realistic market-like circumstances where returns and other factors can vary significantly from year to year, Monte Carlo Sensitivity Analysis produces a more realistic picture of what can be expected. |
| **Flexibility** |
| Monte Carlo Sensitivity Analysis makes it possible to identify and quickly model alternative solutions to a plan and to test the probability of success for each alternative. |
| **Predictability** |
| While no statistical modeling can be 100% accurate, Monte Carlo simulations do provide an added layer of accuracy to a plan’s potential viability. |
| **Comprehensiveness** |
| You can more accurately account for the variability of cash flows that are intrinsic to real life situations and also account for various tax implications throughout each plan year. |

## Issue #2: Appropriate Portfolio Structure (Asset Allocation)

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| The second issue we shall explore is having an appropriate portfolio structure or asset allocation. As we begin, take a few minutes to explore your own portfolio. If you are new to investments, you might think in terms of your retirement plan, such as a 401(k).   * What investments do you currently have? * How did you acquire those particular investments? Was their acquisition part of a deliberate, considered strategy, or did some of them come from the result of a “tip” from a friend or a hunch? * Are they appropriate for your goals? How do you know? * How do you manage the risk in your portfolio? Is it possible you are assuming too much risk? How about too little? * How do you assure that the allocation between different market sectors or types of assets is optimal? * How do you know if the portfolio you put together months or years ago is as relevant for you today as it was then?   If these issues give you any reason to “pause” before answering, then the discussion on the issue of asset allocation, as well as the issue of diversification that is to follow, may be as relevant for you as it is for your clients. | **Consider Your Own Investments**   * What investments do you have? * How did you acquire those particular investments? * Are they appropriate for your goals? * How do you manage the risk in your portfolio? Too much? Too little? * How do you assure that the allocation between different sectors or types of assets is optimal? * How do you know if your “yesterday” portfolio is still relevant “today”? |

The second issue is the need to structure the investment portfolio in a manner that is consistent with the client’s objectives, time horizon, and tolerance for risk. For example, how often do you encounter a situation similar to the one below?

**Mr. Brown**

John Brown, age 42, has a portfolio currently valued at just over $150,000. John has stated that he is setting aside this money for his future retirement some 20+ years from now, at which time he feels he will need the portfolio to be worth about $750,000. He feels he can add little to this portfolio over the next 20 years; therefore, this portfolio must generate significant growth to reach his objectives. Currently, John’s portfolio has the following allocation:

|  |  |
| --- | --- |
| **Large Cap Equities** | **25%** |
| **Short-Term Fixed Income** | **60%** |
| **Cash Equivalents** | **15%** |

Although John’s objectives are very clear, his portfolio is not properly structured relative to his objectives because it is far too conservatively invested to reach his stated objectives. Perhaps out of an abundance of caution in seeking to keep market risk low, this portfolio significantly increases John’s exposure to outcome risk.

In contrast, you may also encounter individuals who take far too much risk in their portfolios given their objectives. In either case, inappropriate asset allocation can have horrible consequences.

## Why People Have Inappropriately-Structured Portfolios

While the need for appropriate portfolio structure is a basic concept, it is worth exploring why individuals consistently make mistakes in structuring their portfolio, maintaining an asset allocation that is either too conservative or too aggressive. Here are two of the most common reasons for this phenomenon.

**Reason 1:** **Emotional Decision-Making Process**

One of the most powerful factors that often undermines effective investment decisions is emotion. To understand the impact of emotions on investment decision-making, a group of researchers at the University of Chicago conducted a very interesting study to test what has become known as ***Prospect Theory***. Prospect Theory suggests that people respond differently to equivalent situations, depending on whether it is presented in the context of a loss or a gain. Put more simply, individuals are much more distressed at the prospect of losing $1.00 than they are excited by the prospect of gaining $1.00.

DocumentationIcon_32px**Click the icon to view more about the study.**

|  |  |
| --- | --- |
| Researchers asked two groups of individuals a question.  The first group was asked the following question:  In addition to what you own, you have been given $1,000. You now have to choose one of the following options:  **A.** A sure gain of $500  **B.** A 50% chance of gaining $1,000 and a 50% chance of losing $500.  The second group was asked this question:  In addition to what you own, you have been given $1,000. You now must choose one of the following options  **A.** A sure loss of $500  **B.** A 50% chance of losing $1,000 and a 50% chance of losing nothing  How do you think each group responded? **Click** here **to view the results.**   |  | | --- | | **Results**  The first group was given the option of a sure gain with no risk, or the option of a potentially higher return by taking on extra risk. A total of 84% were not willing to take on the extra risk to get the higher gain and selected option A, "A sure gain of $500."  The second group was given the option of a sure loss with no risk, or the option of potentially avoiding the loss by taking on additional risk. Because their aversion to the sure loss was so great, 69% selected choice B and were willing to take on greater risk in the hopes of avoiding a loss (even though they might lose twice as much).  Clearly, people are more motivated to avoid losses than they are to seek gains. That is why investors are generally assumed to be "risk-averse." However, this high propensity to risk aversion can lead to irrational choices. Many individuals will construct portfolios that are far too conservative relative to their defined goals. Their fear of short-term losses will cause them to overlook the long-term risk of failing to reach their investment objectives. Their fear of short-term losses will also cause them to “sell on emotions” when there is a market downturn, even when long-term prospects are good. | |

Reason 2: Failing to Rebalance

A second issue that often drives an inappropriately structured portfolio is failing to rebalance the portfolio to ensure the portfolio remains in line with their investment objectives. Most often, individuals adopt a “buy and hold” strategy, feeling that it is the most conservative approach to investing. However, a real life example illustrates the potential impact of this “strategy” on a portfolio.

DocumentationIcon_32px**Click the icon to view a case study.**

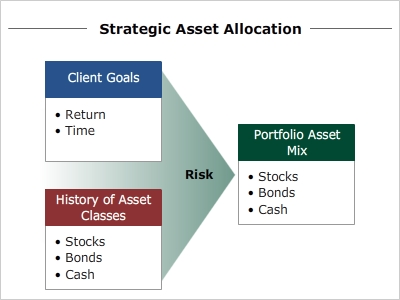
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case Study - Linda Smith  In 2010, Linda Smith worked with an Advisor to establish investment objectives for her portfolio, valued at $150,000 at the time. The Investment Plan established the following parameters for her portfolio:   |  |  |  |  | | --- | --- | --- | --- | |  | **Target** | **Min. Exposure** | **Max. Exposure** | | Equity | 50% | 40% | 60% | | Fixed Income | 35% | 25% | 15% | | International Equity | 10% | 5% | 15% | | Cash | 5% | 2% | 10% |   Based on the returns of Linda’s portfolio for the next 5 years (1/1/11 - 12/31/15), the portfolio would have dramatically changed. At the end of 2015, Linda's portfolio was valued at $173,152 with the following structure:   |  |  |  | | --- | --- | --- | |  | **Actual Allocation** | **%+/- from Target** | | Equity | 38% | -12% | | Fixed Income | 49% | +14% | | International Equity | 5% | 0% | | Cash | 8% | -2% |   As this situation clearly illustrates, failing to proactively manage the portfolio will lead to a portfolio structure that no longer falls within the established guidelines. Worse still, simple math dictates that those asset classes with the best performance will, over time, make up the greatest percentage of the portfolio. This means that failing to manage the portfolio structure will invariably result in an aggressively structured portfolio concentrated in the asset classes with the best recent performance, which are often poised to revert to the mean and pull performance down in the future. |

## The Importance of Asset Allocation

Asset allocation is the process for structuring a portfolio and managing it relative to the client’s objectives. There are two general approaches to asset allocation: Strategic Asset Allocation and Tactical Asset Allocation

**Strategic Asset Allocation** applies a long-term perspective to define how a portfolio should be diversified across asset classes. In this process, portfolios are not traded frequently, but are simply rebalanced periodically to maintain the desired asset allocation that is most likely to reach the longer-term objectives of the client. The chart below helps describe the process of strategic asset allocation.

**Click each box to learn more.**



|  |
| --- |
| **Client Goals**  The strategic asset allocation process focuses on the client's goals and long-term perspective, as well as the rebalancing of the portfolio. Before generating a mix of assets within a portfolio, there must be an understanding of the goals and expectations of the client.  Being aware of such goals as the amount of risk willing to be taken, the amount of return desired and the time frame with which these goals can be reached, is essential in the strategic asset allocation process. |

|  |
| --- |
| **History of Asset Classes**  The historical returns, volatility and future return expectations are the second primary inputs into a strategic asset allocation approach. The historical returns and volatility inputs are factual and cannot be debated.  However, the averages used here can be significantly different depending on the time period chosen to determine these data inputs. Investors should be careful to utilize rational expectations and consider the impact of a lower return environment. |

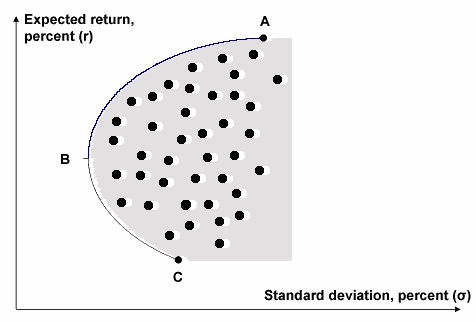
|  |
| --- |
| **Portfolio Asset Mix**  Taking into consideration the client's goals and the historical risk, return, and correlation of various asset classes, the strategic allocation process selects an asset allocation that is designed to meet the long-term objectives of the client. |

## Getting Paid for Risk: The Efficient Frontier

Every portfolio is characterized by an asset allocation structure whether it has been proactively defined or not. Most often, the affluent clients’ portfolio asset allocation is the result of a series of unrelated purchases, resulting in a poorly structured portfolio. For example, one year an individual gets a bonus, which he invests in a Large Cap Equity Mutual Fund. Later, he receives an inheritance from his grandfather made up of shares in three blue-chip companies. The following year, amidst a market decline, he decides to invest his annual bonus in a bond fund, and so on. This is most certainly a case of a not-too-strategic approach to asset allocation. However, what most affluent clients do not understand is the real impact of this type of approach. This is where understanding the “Efficient Frontier” can be helpful.

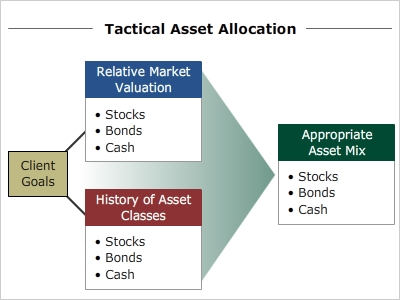
The Efficient Frontier defines the historically highest returns an investor could generate at any given level of risk (defined as standard deviation, which is often represented by the Greek letter “σ”) over a specified time frame. This concept is depicted in the graphic below.

**Click the icon to view an analysis of the chart.**



|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **Actions** |
| This chart will be used to show the risk and return expectations of various investment portfolios. The horizontal line measures standard deviation, which is our measure of risk, and the vertical line measures the expected investment return. As we move to the right along the horizontal axis, we increase risk; as we move up along the vertical axis, we increase return. | Start with the two arrows. Show the labels as they are mentioned. |
| Now let’s plot an investment portfolio on the chart. This portfolio is made up of different assets. Based off their historical performance, including their volatility and their expected returns, the combined portfolio will itself have a specific standard deviation and a specific expected investment return. | Plot a single point in the middle of what will eventually be the grayed area (to the right of “C” and the left of “A.” Draw a dotted line to the horizontal axis and another to the vertical axis as the “specific” references are made to them in the last sentence. |
| Now, let’s build another portfolio combining different assets, and let’s adjust the percentages of these assets such that the combined portfolio will again have the same standard deviation as our first portfolio. But this time, because of different expected returns of assets within the portfolio, we end up with a different expected return than in our first portfolio; in this case, the expected return happens to be higher. | Plot a second point directly above the first one, making this one a different color. In sync with “adjusting the percentages…”, draw a vertical dotted line in its color down to and connecting to the first one. When mentioning a “different expected return”, draw a dotted line in its color over to the vertical axis. |
| Now let’s plot a number of portfolios, all with the same risk or standard deviation, with some of them resulting in higher and some of them resulting in lower expected returns. | Plot 6 to 8 dots above and below the original one, with the uppermost dot being exactly where the Efficient Frontier line (A to B) will eventually be drawn. |
| If you were presented with the opportunity of investing in any of these portfolios, which would you choose?  Obviously, you would choose the portfolio at the top. It has the same risk as all the other portfolios, but offers the highest expected investment return. | Highlight the top portfolio when referenced. |
| Now let’s proceed to plot all possible portfolios, this time at all levels of risk. Based off of historical performance, we end up with a graph for all possible portfolios that looks something like this. | Remove the highlight from above and also remover the dotted lines, while proceeding to create an abundance of portfolio dots, eventually filled in with the shaded area and the line along the border (but no letters). |
| Clearly, at each level of risk, any rational investor would seek to maximize the return. This would be found in the portfolios along the curved line depicted by AB. Any asset allocation falling on this line from A to B, known as the ***Efficient Frontier***, would be the most efficient combination of assets possible for any given level of risk; for each level of risk, there is simply no portfolio that would give better return; and investors would prefer to avoid all profiles that fall inside the curve, as those combinations represent a lesser return for any given level of risk. | With the second sentence, insert the “A” and “B” with both letters in the same color while also changing that portion of the curve to the same color. With the third sentence, add the label “Efficient Frontier” using the same color. |
| They would especially avoid those profiles falling on the line depicted by BC, since these are the ***most*** inefficient profiles available for a given level of risk. | Add the letter “C” in a different color, while changing that portion BC to the same color as the letter “C” |
| The goal of proper asset allocation is to identify those portfolio mixes, based upon historical performance of the underlying assets, that are on the efficient frontier. Given that investors must assume some risk, the efficient frontier is that optimum asset allocation for any level of risk they assume that gives the investor the best chance of being adequately rewarded for assuming the risk. Very sophisticated modeling programs are often utilized to provide guidance in identifying the optimum asset allocation for the level of risk an investor is willing to assume. |  |

## Tactical Asset Allocation

**Tactical asset allocation** has a more short-term focus, seeking to capitalize on short-term market conditions and anticipated market moves. This results in active shifting of the investments within a portfolio.

As the Tactical Asset Allocation chart shows, while client goals continue to be a factor, they are replaced with relative market valuation in combination with the historical performance of asset classes as the primary considerations in determining the appropriate asset mix for a portfolio. In other words, using a tactical method, the client’s goals and objectives are given less attention than the current market conditions and short-term market projections.

### Comparing Strategic to Tactical Allocation Strategies

The following chart provides a summary of the primary differences between strategic and tactical asset allocation. Since strategic allocation is focused on client goals and is long-term oriented, it tends to result in investment activity that is oriented to rebalancing the portfolio from time to time to adjust for changes in market valuation and to keep the asset allocation in line with the investment plan. Tactical asset allocation, however, with its focus on market projections and short-term market conditions, tends to be much more trading oriented.

**Strategic vs. Tactical Allocation Strategy Comparison**

|  |  |  |
| --- | --- | --- |
|  | **Strategic** | **Tactical** |
| **Time** | Long-Term Oriented | Short-Term Oriented |
| **Investment Activity** | Portfolio Rebalancing | More Trading Oriented |
| **Focus** | Client Goals | Market Projections |

## 

## Issue #3: Appropriate Diversification

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| We are all familiar with the concept that you should never “put all your eggs in one basket.” This certainly holds true for investments. But what does it mean to be properly diversified? For example, think of your own investment portfolio or 401(k) as I ask these questions:  Do you have at least 12 to 18 different stocks in your portfolio? Some research tells us that it takes at least that number to achieve 90% of the benefit of diversification. To have fewer exposes you to risk that is otherwise diversifiable; to have significantly more can potentially begin to expose you to greater expense or complexity.  Are your stocks spread out among the various sectors? For example, Google and Apple may be good investments, but investing a sizeable portion of your portfolio in both may overweight your portfolio in a single sector.  Have you diversified among companies that are of different sizes, with different levels of capitalization? Some market conditions may favor one over the other, so it is important to diversify among them.  Have you diversified between domestic and international securities? The United States has a strong economy, but American stocks are not always the best performing.  And if you are investing in managed funds, have you diversified among different investment management styles?  As you can see, there is a lot to consider when it comes to diversification. | **Are You Diversified?**   * Do you have at least 12-18 different stocks?\* * Are you diversified among these sectors? * Basic Materials * Communication Services * Consumer Discretionary * Consumer Staples * Energy * Financials * Health Care * Technology * Utilities * Have you diversified by company size? * Large Cap Stocks * Mid Cap Stocks * Small Cap Stocks * Have you diversified between domestic and international securities? * Have you diversified by management style? |

*\*Frank Reilly and Keith Brown report one set of studies for randomly selected stocks that approximately 90% of the benefit of diversification is derived by portfolios that have from 12 to 18 stocks” in their book “Investment Analysis and Portfolio Management” (see http://news.morningstar.com/classroom2/course.asp?docId=145385&page=4&CN=)*



The third issue that must be addressed is having appropriate diversification. Though portfolio diversification is critical and most investors know that their portfolios should be diversified, most have no real concept of what constitutes appropriate diversification. The result is a portfolio that is often either **under-diversified** or **over-diversified.**

Under-Diversified Portfolio

Under-diversified portfolios are those that have high concentrations in relatively few individual stocks, sectors of the market, investment styles, and/or asset classes. The result is a portfolio with a risk profile that is much higher than warranted. Under-diversified portfolios are often the result of individuals being attracted to “hot sectors of the market.” It is also common to see large concentrations in one individual stock.

Over-Diversified Portfolio

When considering portfolio diversification, many investors fail to realize that you can have too much of a good thing. In investing, there comes a point at which owning more securities in a portfolio results in higher cost of ownership (fees), which serves only to dilute the potential return of the portfolio. Such is often the case with investors who own multiple mutual funds, each with a similar investment objective.

Maintaining a portfolio that is appropriately diversified requires a sound, systematic discipline and proactive ongoing oversight. Investors who fail to carefully manage their portfolio to ensure it is appropriately diversified have a definitive need for help.

## Correlation: The Basis for Diversification

By definition, diversification is predicated on owning a basket of securities that will perform in somewhat dissimilar ways in any given market cycle, thereby mitigating market risk. Although obvious in concept, the question is how does one identify investments that in combination will produce a diversified portfolio?

The statistical measure that defines the degree to which any two investments will perform similarly is called correlation. ***Correlation*** is defined as the degree to which two asset classes or investments will have similar returns (or act the same) under a specific set of market or economic conditions. Stated differently, it is a measure of how the returns of two investments “co-relate” to each other. Investments producing similar results over a given timeframe have a high correlation while investments that produce dissimilar results have a low correlation. In diversifying an investment portfolio, the objective is to assemble assets and asset classes that are low in correlation to each other.

To have a deeper understanding of how investments or asset classes relate to each other, it is important to understand this principle of correlation. The diagram below shows how different indices correlate to the Dow Jones Industrial Average (DJIA) over the past 25 years (beginning in 1991).

**Click the underlined indices for an explanation of how they correlate to the Dow Jones Industrial Average.**

**Correlation with DJIA**

**No**

**Correlation**

**Perfect**

**Correlation**

**Inverse**

**Correlation**

**+1**

**0**

**-1**

Gold

S&P 500

LB/Bar GC

Bond Index

|  |
| --- |
| **Gold**  Gold has been negatively correlated to the Dow Jones Industrial complex. If the Dow moves up, gold typically moves down and vice versa. |

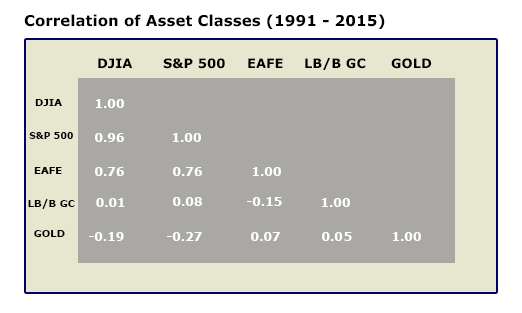
|  |
| --- |
| **LB/Bar GC**  The DJIA and LB/Bar GC (Lehman Brothers/Barclays Government/Corporate bond index), have historically had a lower correlation because stocks and bonds have historically reacted differently to economic conditions. |

|  |
| --- |
| **S&P 500**  The returns achieved by the Standard & Poor's 500 (S&P 500) and the Dow Jones Industrial Average (DJIA) have historically had a high correlation to each other. That is, when the Dow has increased 1 percent, in general, the S&P 500 has historically increased at a similar rate. |

## 

## Correlation Between Indices

To see how different indices correlate with each other, look at the chart below.



It can be easily seen that some indices have a higher degree of correlation with each other than do others. This is an important phenomenon to understand when evaluating a portfolio. Assets with a high correlation tend to act in the same manner in response to external stimuli. A portfolio of highly-correlated securities does little to add diversification.

Effective diversification should lower portfolio volatility. In other words, the benefit of diversification is that when one asset underperforms, another can compensate. Therefore, to effectively lower volatility in a portfolio, the assets, or asset classes, must have a ***low*** degree of correlation. Knowledge of how different asset classes correlate to each other is, therefore, a valuable aid in structuring a portfolio.

## Issue #4: A Disciplined Process for Making Buy/Sell Decisions

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| Think for a moment about your own buying and selling habits, independent of the financial markets.  For example, have you ever gone to an auction or signed onto eBay and bid on an item, only to find yourself increasing your bid beyond where you originally thought you would go?  Have you ever listed an item for sale at what you thought was a fair price, only to let it go for less than you thought it was truly worth because you feared that another buyer would not come along?  Have you ever been in a retail store where you bought something you hadn’t planned to purchase because you saw a sign that said the price was good “today only,” and you feared you wouldn’t get as good a deal next week?  Turning to financial investments, have you ever sold or been tempted to sell due to “fear” during a market decline, even though you had a long-term investment time horizon?  Have you ever rushed to purchase a hot stock that was rising in price out of fear that if you didn’t hurry up and make the purchase, the price would continue to move away from you?  If you have done any of these things, or anything similar, then you recognize that, like most people, many of your purchases and sells have an emotional component. | How Have *YOU* Made Buy/Sell Decisions   * Ever bid too much at an auction? * Ever sold an item for less than you thought it was truly worth? * Ever bought a “sale” item out of fear you couldn’t get as good a price at a later date? * Ever sold or been tempted to sell out of “fear” during a market decline? * Ever “rushed” to buy a rapidly rising stock? |
| That’s why it is so important to have a rational, disciplined approach to purchasing and selling financial assets. Making such decisions out of emotions, or “hunches,” or “whims” will rarely provide optimum results.  The fact that we tend to be more emotional when it comes to handling our own assets is also a powerful argument for utilizing the impartiality of a financial advisor. | * A disciplined buy/sell process helps guard against emotional decisions * Financial advisors can be less emotional in making buy/sell decisions on behalf of clients than people are when handling their own assets. |

Another problem common to many investors is the lack of a disciplined process for buying and selling securities. The importance of a “disciplined investment process” is often touted in the marketplace, yet few investors fully understand what this concept really means. Simply put, a disciplined process of investing ensures that decisions are not made on the basis of emotions. This is important because, as evidenced previously, when investors make emotional decisions, the consequences are less than optimal.

DocumentationIcon_32px**Click the icon to view a real-life example.**

|  |
| --- |
| **A True Story**  In late 1999, Jack Ross, seeking to capitalize on the Internet stock gold rush, decided to purchase a little known company that seemed poised to become a leader in the hottest new market on the Internet – the Business-to-Business auction market. This company, Ventro Corporation, (VNTR) had developed a niche in the chemicals industry as the premier B2B exchange site and its stock had soared from its IPO price in the low teens to $62. Days after Jack’s purchase, VNTR soared to $85 and continued its torrid run, up over 15 points four days in a row until finally reaching a high of $240 in February 2000 - only months after Jack’s purchase. Then, in early March, VNTR started to pull back, retreating 5 points, then 10 points, and then another 10. All the while, Jack thought, “Hold on, it is just regrouping before making another big move.”  Jack was right. VNTR did make a big move – only the move continued to be in the wrong direction. Finally the stock reached $62, the price where Jack had originally bought it. At this point, he considered buying more, rationalizing that it was a “bargain” at this price. He continued to hold on until he finally sold it when the stock hit $40 – a 35% loss.  http://www.greeneconsults.com/topclass/greene/invslsopp/images/VNTR.gif  How did Jack let this happen? How did Jack let a gain of nearly 400% turn into a 35% loss? It’s simple. He bought on emotion, simply trying to ride the Internet wave. Then, he sold on emotion, capitulating at the end and finally taking his loss.  This story is real and it is repeated by investors every day. The only method for avoiding this trap is to have a clear and disciplined approach to buying and selling securities. Simply asking well-phrased awareness questions will enable you to identify clients/prospects that have had similar experiences and open up the opportunity for you to position your solution of a more disciplined approach. |

## Evidence of Investor Emotion in the Marketplace

Tangible evidence of the impact of undisciplined decision-making is found in a study conducted by the University of California-Davis. The study tracked over 900,000 trades that were made by individuals on an unsolicited basis through a discount broker. It found that, on average, those stocks individuals sold went up relative to the market (outperformed the market) ***after*** they were sold. Likewise, the stocks individuals bought went down relative to the market (underperformed the market) ***after*** they were purchased. In summary, individuals tended to act on their emotions, buying on greed when a security was performing well and selling on fear when a stock declined.

|  |  |  |
| --- | --- | --- |
| **Performance\*** | | |
|  | **1 year** | **2 years** |
| Stocks Sold | 0.54 | 2.89 |
| Stocks Purchased | -2.68 | -0.68 |
| Difference | -3.22 | -3.57 |
| *\*Monthly performance relative to the S&P 500* | | |

Discipline ensures that emotions do not unduly impact the process for buying and selling securities. By employing discipline, individuals can be more confident in their investment decisions, relying on factual information to support their decisions when short-term fluctuations may adversely affect their portfolio. This is not to say that simply having a discipline will ensure positive results. It will, however, serve to increase the effectiveness of investment decisions over time, while also minimizing short-term emotional stress.

## Issue #5: A Tax-Efficient Approach to Managing Assets

****

|  |  |
| --- | --- |
| **Video Script** | |
| **Script** | **On Screen Text** |
| None of us like to pay taxes; but we are not always diligent in taking steps to minimize them. When it comes to investing, failure to take taxes into consideration can significantly erode our returns.  On this page, we will briefly discuss techniques that are commonly employed to reduce income taxation of investments. These include:   * Holding assets for over a year to achieve the lower tax rate of long-term gains * Managing portfolio turnover to minimize taxable events in the portfolio * Offsetting capital gains with losses in the portfolio * Favoring stocks and holding periods that result in qualified dividends * Consideration of tax-advantaged income securities, such as municipal bonds, over taxable income securities | **A Tax-Efficient Approach:**   * Favors long-term gains * Manages portfolio turnover to minimize taxable events * Offsets capital gains with losses * Favors qualified dividends * Considers the after-tax benefit of using tax-advantaged securities |

Another issue that few investors fully consider in managing their portfolio is the impact of taxes on portfolio returns. Everyone understands that taxes can, and do, have a significant impact on the return of a portfolio, yet many fail to proactively manage its impact. The result is a portfolio that is tax-inefficient.

Some income from investments is treated as ordinary income and is taxed at the individual’s marginal rate, which, in 2014, could be as high as 39.6%. Examples of this are most money market interest, corporate bond interest, short-term capital gains on the sale of appreciated assets held less than a year, and nonqualified dividends. But there are exceptions and certain situations where more favorable tax treatment can be obtained. Learning strategies to take advantage of these can significantly enhance the after-tax investment return

|  |  |
| --- | --- |
| **Overview** | There are four key areas within the income tax rules where strategies for greater tax-efficiency can be achieved.  **Click on each area to view more information.** |
| **Taxation of Capital Gains** | A ***capital gain*** is the investment return caused by appreciation in the price of the investment from the time it was purchased until it is sold; a ***capital loss*** is the investment loss due to a decline in price by the time it is sold.  Capital gains are taxed on the basis of two key factors:   * Holding period for the investment * Individual's marginal federal tax rate   Capital gains on investments held for less than a year are considered **short-term capital gains** and are taxed as ordinary income, while gains on investments held for longer than one year are considered **long-term capital gains** and are taxed at lower rates. In 2015, long-term capital gains are taxed at 20% (for those in the 39.6% tax bracket), 15% (for those in 25, 28, 33, and 35% brackets), and 0% (for those in the 10 and 15% tax bracket).  Thus, one strategy for achieving tax efficiency is to hold assets for at least a year before selling. A similar strategy is to avoid excessive trading activity in the portfolio, since rapid turnover of securities generates more short-term gains that are taxed as ordinary income. |
| **Taxation of Net Capital Gains and Losses** | Capital losses can offset capital gains with no limit in a given tax year, and up to $3,000 of net capital losses can be deducted from gross income in a given tax year. If an individual has more than $3,000 of net capital losses, any additional amounts can be carried forward and used in subsequent years.  The process of computing net capital gains is to first net your short-term gains and losses, then net your long-term capital gains, and then net the short-term and long-term to each other.  As an example, if Bill had a long-term gain of $15,000 on Stock ABC and a long -term loss of $7,000 on Stock XYZ, the loss would be subtracted from the gain for a net long-term gain of $8,000. If he also had a net short-term loss of $1,000, when he combines his net long-term gain of $8,000 with his net-short term loss of $1,000, he is left with a reportable long-term gain of $7,000 on his income tax return. On the other hand, if Bill had ended up with a loss of $8,000, he could deduct $3,000 of that loss in the current tax year and carry forward the additional $5,000 to be used in subsequent years.  Thus, a strategy for greater tax efficiency is to look for opportunities to net losses and gains in a given tax year. For example, when approaching the end of a tax year with significant capital gains, investors will often examine the portfolio for assets that have declined in value since purchase. By selling these depreciated securities to generate capital losses, these losses can be netted against capital gains to reduce the investor’s tax bill for the year.  Similarly, since net capital losses in excess of $3,000 cannot be used to reduce taxable income in the current year and must be carried forward to future tax years, investors will often look for opportunities to utilize these excess losses in the current year by selling more appreciated securities before year-end and offsetting the additional gains with the excess losses. |
| **Taxation of Qualified Dividends** | Prior to 2003, ordinary dividends were taxed as ordinary income (i.e., taxed at the same rates as those applied to wages, salaries, tips, etc.); but beginning in 2003, certain ordinary dividends are deemed to be “qualified dividends,” which are taxed at a lower tax rate (equal to the long-term capital gain rate, which will be discussed later). This rate for 2015 is:   * 20% - if the regular tax rate that would apply is 39.6% * 15% - if the regular tax rate that would apply is between 25% and 35% * 0% - if the regular tax rate that would apply is less than 25%   To qualify for this special tax rate as a qualified dividend, the following conditions must be met:   1. The dividends must have been paid by a U.S. corporation or a qualified foreign corporation. 2. The dividends are not:    1. Capital gain distributions    2. Dividends paid on deposits paid by banks and savings and loans (these amounts are reported as interest)    3. Dividends from tax-exempt organizations or a farmer’s cooperative    4. Dividends paid by a corporation on employer securities that are held through an employee stock ownership plan (ESOP) maintained by that organization 3. The taxpayer must meet the holding period described here.  |  | | --- | | **Holding Period**  As the preceding conditions show, most domestic stock dividends are potentially qualified. But before they can be designated as such, the taxpayer must meet the holding period requirement. To determine if a taxpayer meets the holding period requirement, look within the window of time 60 days before and 60 days after the ex-dividend date. If the stock was held for more than 60 days within that 121-day window, then it meets the holding period to qualify for the lower taxation.\*    *\*Note, however, that when dealing with dividends on preferred stock, you must have held the stock for more than 90 days during the 181-day period that begins 90 days before the ex-dividend date* ***if*** *the dividends are attributable to periods totaling more than 366 days.* |   Thus, by adopting strategies to have more qualified dividends vs. nonqualified dividends in the portfolio, greater tax efficiency can be achieved. |
| **Taxation of Municipal Bonds** | Income paid by municipal bonds is generally free from federal, state, and local income taxes (although taxes are paid on any capital gains that result from increases in bond prices during the investment period). Because of this tax-exempt status, municipals generally have lower coupons and corresponding yields than taxable bonds. To make an apples-to-apples comparison of yields, it is therefore necessary to compute a taxable equivalent yield.   |  | | --- | | Generally  If the purchaser of the bond lives in a state other than that of the municipality, state and local taxes will still apply. |   **Here's how taxable equivalent yields are calculated:**    The Taxable Equivalent Yield is equal to the Municipal Bond Yield divided by one minus the individual's tax rate. For an individual in the 31% tax bracket, a municipal bond yielding 5% would have a taxable equivalent yield of:    In other words, for an investor in the 31% tax bracket, this 5% yield on a municipal bond is equal to the taxable bond yielding 7.25%.  Thus, particularly for clients at higher marginal tax brackets, greater after-tax return may be achieved through investments in tax-advantaged securities such as municipal bonds.  While this tax-exempt status is of value, especially to investors in high tax brackets, clients should be aware that issuers could potentially lose their tax-exempt status. Furthermore, under some conditions (such as private activity municipal bonds), cash flows to an investor can be subject to the Alternative Minimum Tax (AMT). This potential should be explored any time someone has potential for an Alternative Minimum Tax liability.   |  | | --- | | Alternative Minimum Tax (AMT)  Some municipal bonds, based on their structure, may be subject to ***Alternative Minimum Tax (AMT)*** for clients who meet certain conditions. This tax is a separate tax computation that reduces the benefit of certain deductions and credits. The AMT was initially designed to prevent high-income taxpayers from using special tax benefits to avoid paying taxes. | |

Employing strategies such as those discussed on this page can reduce the adverse effect that taxes have on a portfolio’s performance. However, it is important that these strategies be employed in an appropriate manner, recognizing the fact that managing the impact of taxes is AN issue in the investment decision-making process, not THE issue.

## Periodic Review and Measuring Success

Now that we have discussed the five key issues for investment success, it is important to point out that investing is ***an active process***. It requires regular review to maintain alignment with the investment plan. Even the plan itself may need to be changed from time to time to allow for changing life circumstances or market conditions.

A common problem many investors face in performing regular reviews is the inability to access clear and accurate performance information on their portfolios. Many investors, when stuck for an answer, will tell you how great their performance has been, citing their purchase of the latest hot stock or an impeccably timed sale just before a security’s decline. However, very few can do more than speak in generalities about their performance, while fewer still actually review performance on a regular basis.

The reason that investors have historically failed to track and analyze the performance of their portfolios has been the lack of tools available to help them measure performance. Tracking the results of individual securities or a few mutual funds is not extremely difficult; however, investors with multiple holdings in multiple accounts spread across four or five different firms face a daunting task.

For those who do track performance, very few are effective in their analysis. For example, consider how clients typically respond when asked about their performance. When the markets are good, they will often make ***relative performance*** comparisons: “Why was my fund up only 40% this year when the market was up 42%?” However, the same client will shift to ***absolute performance*** comparisons when the markets are bad - “Why is my portfolio down 8% this year” - with no regard for the fact that the market was down 15%. The following pages provide some insight into how to translate this mindset into potential advisory opportunities with your clients.

## Analyzing Performance: Three Important Perspectives

Measuring the performance of a portfolio is a seemingly simple process - just calculate the rate of growth or the decline in value of the portfolio over any given period of time. However, it is not the process of calculating returns that is the issue - it is how the results are interpreted.

As an advisor, your ability to help your clients understand how to effectively assess the performance of their portfolio can be invaluable to helping them reach their goals. There are three perspectives clients should employ when evaluating the performance of their portfolio:

* **Absolute Returns Analysis**
* **Relative Returns Analysis**
* **Risk-Adjusted Returns Analysis**

The pages that follow provide greater detail in understanding the relevance of each of these three perspectives.

## Performance Analytics: Absolute Returns Analysis

The first and most basic level of performance analytics is ***assessing absolute portfolio returns***. The relevance of absolute returns is best summed up in the following interchange between an 82-year-old retiree and his advisor

The advisor, aware of the fact that the older gentleman would be concerned with the decline in his portfolio stated, “I know you are concerned that your portfolio has decreased in value by 10% since last year, but the market was down over 18% during this period, so we actually did very well.” To which the gentleman replied, “You may be right son, but I still have less to spend at the grocery store.”

This interchange defines the relevance of the absolute returns perspective; however, assessing absolute returns in a vacuum is ineffective in truly understanding the value an advisor is adding in the portfolio management process.

|  |
| --- |
| In 2015, a large-cap equity mutual fund posted a return of 3%. How would you rate this return?  **Click a choice below to rate this return.**  GOOD POOR |

|  |
| --- |
| **Good**  **Correct**. While a return of 3% is obviously lower than the 25-year average, and would be a low return in many individual years, in 2015 the S&P lost 0.73% to its value from year-end 2014. Therefore, the absolute return is above the appropriate benchmark, meaning that the fund actually over-performed. However, this is not the case in every year. In 2014, for example, the S&P returned 11.4%. Had this fund returned 3% in 2014, it would have “under-performed.” |

|  |
| --- |
| **Poor**  **Incorrect**. While a return of 3% is obviously lower than the 25-year average, and would be a low return in many individual years, in 2015 the S&P lost 0.73% to its value from year-end 2014. Therefore, the absolute return is above the appropriate benchmark, meaning that the fund actually over-performed. However, this is not the case in every year. In 2014, for example, the S&P returned 11.4%. Had this fund returned 3% in 2014, it would have “under-performed.” |

## Performance Analytics: Relative Returns Analysis

Most individuals are aware of the fact that portfolio performance should be measured ***relative to an appropriate benchmark***. Two valuable measures of how a portfolio/manager is performing relative to the benchmark are ***alpha*** and ***beta***. Although somewhat esoteric in their derivations, these statistics are commonly included in marketing literature; therefore, it is imperative that advisors are able to communicate the value of these metrics. **Click on each of the links below to learn more about alpha and beta.**

|  |
| --- |
| **Beta (*β*)** |
| Beta (*β*) is a measure of risk, quantifying a portfolio’s sensitivity to movements in a benchmark, such as the S&P 500. A beta greater than 1.0 means that the security or portfolio is more volatile than the benchmark, while a beta less than 1.0 means the asset or portfolio is less volatile than the benchmark. To understand more about how beta is utilized, **click the numbers for the beta coefficients in the graphic below.**  s&p_arrow   |  | | --- | | **0.5**  Beta coefficients below 1.0 indicate that the stock or portfolio is less risky than the market as a whole. Thus, the risk premium is less than that of the market. When the market rises, the stock (portfolio) will not be expected to rise as much; when the market declines, the stock (portfolio) will be expected to decline to a lesser degree.  **Example:** If the risk premium (the rate above the risk-free rate) for the market is 8%, a stock with a beta of 0.5 would have a risk premium of 0.5 x 8% = 4%. |  |  | | --- | | **1.0**  A stock or portfolio with a beta coefficient of 1.0 has the same coefficient as the market as a whole, thus it is expected to behave perfectly in sync with the market. If the market is up 8%, then the stock or portfolio is up 8% Thus, the risk premium of the stock or portfolio is equal to that of the market. |  |  | | --- | | **1.5**  Beta coefficients above 1.0 indicate that the stock or portfolio is more risky than the market as a whole. Thus, its risk premium is greater than that of the market. When the market rises, the stock (portfolio) will be expected to rise even more; when the market declines, the stock (portfolio) will be expected to decline even further.  **Example:** If the risk premium (the rate above the risk-free rate) for the market is 8%, a stock with a beta of 1.5 would have a risk premium of 1.5 x 8% = 12%. |   Another way to present beta is with a graphic chart that shows market return on one axis and the portfolio return on the other. The slope of the line is the portfolio’s beta. For example, the following chart shows a portfolio with a beta of 1.0. Since there is a one-to-one ratio of performance in the market to performance in the portfolio, then slope perfectly bisects the quadrant at a 45-degree angle. Thus, a return of 8% in the market will be mirrored by an equal portfolio return of 8%:    If, however, the beta of the stock or portfolio veers from 1.0, then the slope of the line in the graph will change accordingly. For example, if the stock or portfolio has a beta of 0.5, then there is a 1-to-2 ratio of performance (see ratio of the green lines, showing the degree of the slope), and the slope of the line drops to half of what it was previously. Now, an 8% return in the market is reflected as a 4% return in the portfolio: |
| **Alpha ()** |
| Alpha () identifies the difference in *expected return* of a portfolio, which was based on the beta of the portfolio, versus the *actual returns* that were achieved. The higher your alpha, the better your portfolio has done in achieving “excess returns.” It is generally considered to be a measure of the “value added” by the portfolio manager. The higher the alpha, the higher the “value added” by the portfolio manager, while a negative alpha indicates that the portfolio manager’s efforts were counterproductive, resulting in diminished returns.  For example, in the following chart we have again depicted our previous graph for a beta of 0.5. With a market return of 8%, we would have expected a return of 4%. But in this case, we got a return of 7% because our red line, which depicts the slope of beta, shifted up by 3%. This 3% is our alpha and is typically considered the excess return over the expected return that was provided by the portfolio manager.    Thus alpha depicts “excess returns.” Generally speaking, portfolio managers are constantly seeking to generate alpha. |

## Performance Analytics: Risk-Adjusted Returns Analysis

The final level of analysis investors should conduct to evaluate the effectiveness of their approach is examining risk-adjusted returns. For the purposes of this course, we will only examine the most common measures of risk-adjusted returns, equipping you with an effective approach to communicating how the following measures of risk-adjusted return are derived.

**Click each measure to learn more.**

|  |
| --- |
| **Sharpe Ratio** |
| The Sharpe Ratio, developed by Bill Sharpe, the father of the Capital Asset Pricing Model (CAPM), which is widely used today in portfolio analytics, is a measure that defines the degree to which an investor is rewarded for taking risk in a portfolio. More specifically, the Sharpe Ratio is calculated as follows:  **Sharpe Ratio =**  **Portfolio Return – Risk-Free Rate of Return**  **Portfolio Standard Deviation**  In other words, assuming that short-term Treasury Bills represent the “risk-free” rate, the numerator of the Sharpe Ratio asks the question: “How much return does this portfolio achieve above the return I can get without taking on risk?”  Then, using the portfolio’s standard deviation as a measure of the risk in the portfolio, the ratio asks a second question: “What is the ratio of this extra return to the risk I took on with this portfolio?”  Obviously, when comparing portfolios, the greater the ratio of extra return to the risk (standard deviation) being taken on to generate that extra return, the better the portfolio’s risk-adjusted return.  This measure is extremely useful because it allows us to compare the returns of different portfolios on a risk-adjusted basis, allowing us to compare apples-to-apples when comparing their performance. |
| **Treynor Ratio** |
| The Treynor Ratio is identical to the Sharpe Ratio except that the Treynor Ratio uses the portfolio beta as the measure of the portfolio’s risk profile. As with the Sharpe Ratio, the higher the Treynor Ratio for a given portfolio, the more an investor is rewarded for the risk they take in the portfolio. |

## Conclusion

This concludes this course in the Advising the Affluent Series. Most investors buy and sell securities on emotions. They tend to follow the pack, buying after most of the opportunity for gain is gone and selling after most of the decline has occurred. Such behavior is a recipe for poor performance, if not disaster.

You can offer a better approach. Using the knowledge you have gained from this course, you can offer a rational methodology that places emphasis on:

|  |
| --- |
| * Portfolios that are built around client needs, risk tolerances, and time horizons * Proper allocation instead of picking hot stocks * Diversification of risk * Discipline in making buy/sell decisions * Appropriate consideration of tax-efficient strategies |

And on an ongoing basis, you can provide monitoring and measurement of performance.

The end result for the client is peace of mind – greater confidence in the expected results and lower anxiety throughout the process.

Apply yourself to not only master the techniques of proper asset allocation, but to also master your ability to communicate the techniques and their advantages to clients. By helping them to become more knowledgeable themselves, they will have higher confidence in the role you play and place greater value in the services you provide.

Commit yourself to applying the principles in this course and you will see both an increase in your production and client satisfaction with the value you add.