



# TRADITION CAPITAL MANAGEMENT, LLC

## *A Wiser, Safer and Better way to Build Diversified Global Portfolios*

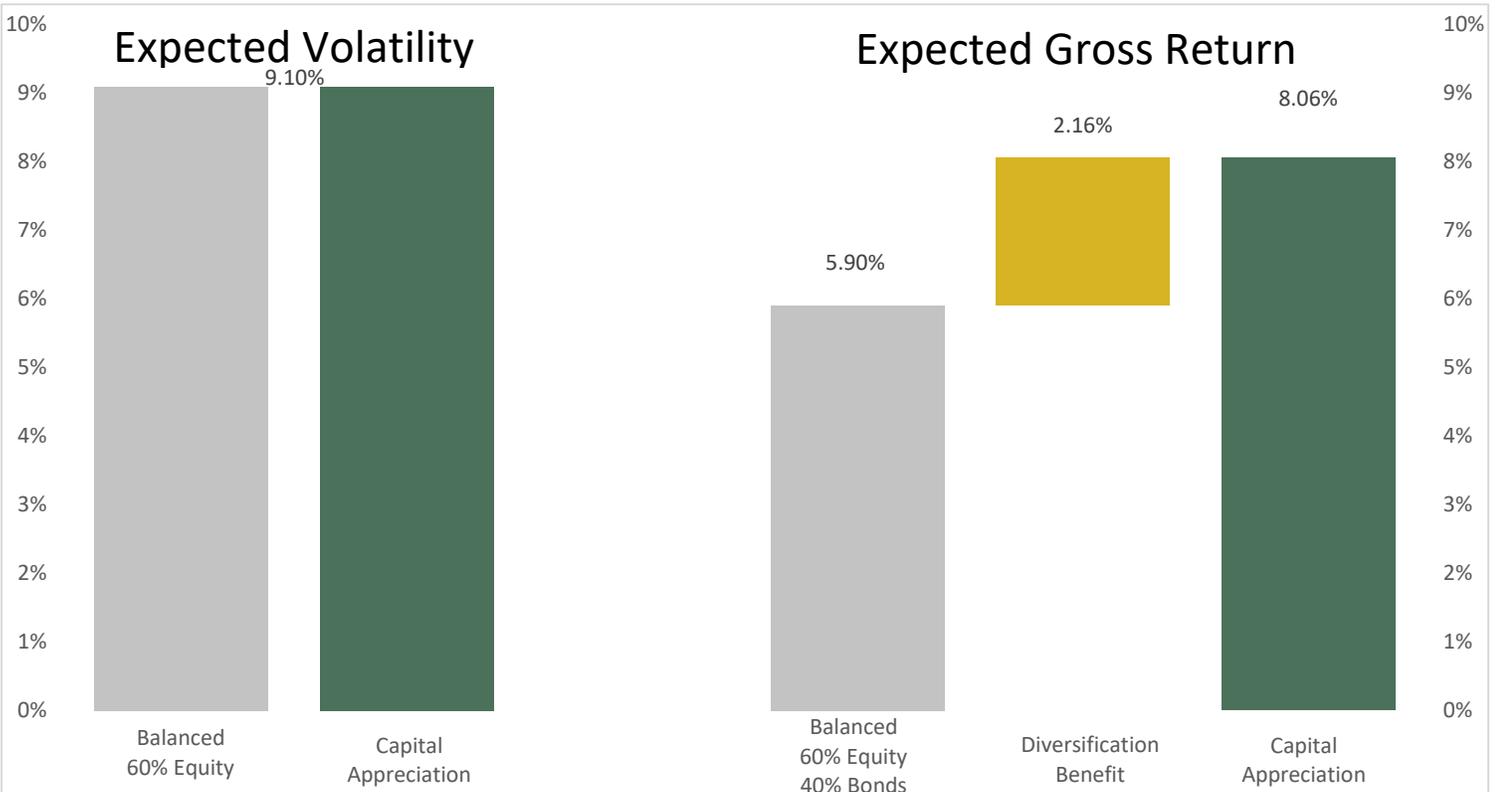
November 1, 2018

Reducing portfolio drawdowns (losses) is key to building long-term wealth. Proponents of the Efficient Market Hypothesis discovered that negative equity returns are correlated with higher standard deviations (i.e. volatility, a typical measurement of investment risk) during the 2008-09 financial crises. This fact was often overlooked (or ignored) previously. These proponents generally modeled average volatility, a typical measure of risk, across both up and down markets; however, negative equity returns generally increase volatility (risk). Most models failed to account for the increased portfolio volatility (risk) that occurs during falling markets; and this falling market environment is the precise moment when risk measurement and risk control matter the most. Volatility is generally lower in rising markets, thus lowering the overall measured volatility across an extended period that includes both up and down markets; however, investors really only care about risk (or volatility) in down markets. Down volatility or losses are the true risks to the investor.

In addition, negative equity returns generally drive up correlations among stocks in global equity markets across sectors, capitalization, styles, and geographies. All equity markets tend to have higher cross-correlations when the markets are down significantly as seen in 2008-09. Moreover, these increases in correlation during down equity markets spill over into risk based fixed income markets such as high yield, asset-backed securities (ABS) and emerging market debt, all of which generally suffer during equity market selloffs. Even the U.S. investment grade fixed income market sometimes experiences higher correlations and can be impacted negatively during severe equity market drawdowns. Thus, the typical approach to Efficient Market diversification fails in down markets as volatility spikes and cross-correlations increase towards 1.0 or perfect correlation. The result (as demonstrated in the 2008-09 Global Financial Crisis) was that many globally diversified portfolios were riskier than most investors estimated and losses were significantly larger than anticipated.

Wiser diversification requires the use of asset classes that have low correlation both between each other and with stocks. Including low or non-correlated assets that maintain low correlations in down equity markets is essential for building a less volatile or safer Diversified Global Portfolio Strategy.

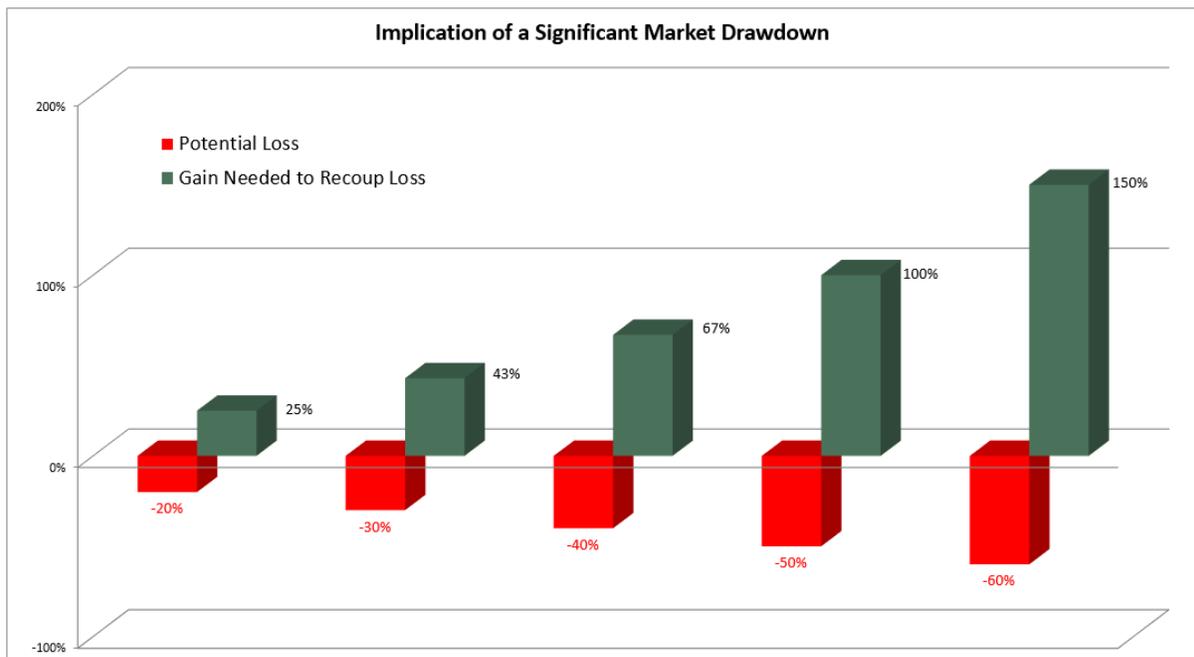
As you can see in the graph below, building a properly diversified portfolio can help you achieve significantly higher expected returns for a given level of expected volatility (risk). We show the typical balanced portfolio of 60% equity and 40% bonds. We also show one of our Tradition strategies, Capital Appreciation, which has the same risk or expected volatility as the balanced 60%/40% portfolio. The two portfolios have the same expected risk; however, the expected return for the Capital Appreciation portfolio is higher. This diversification benefit is the extra expected return from wiser diversification. We will explain how this works in this white paper. Diversification sounds too good to be true but is often referred to as the only "Free Lunch" in investing.



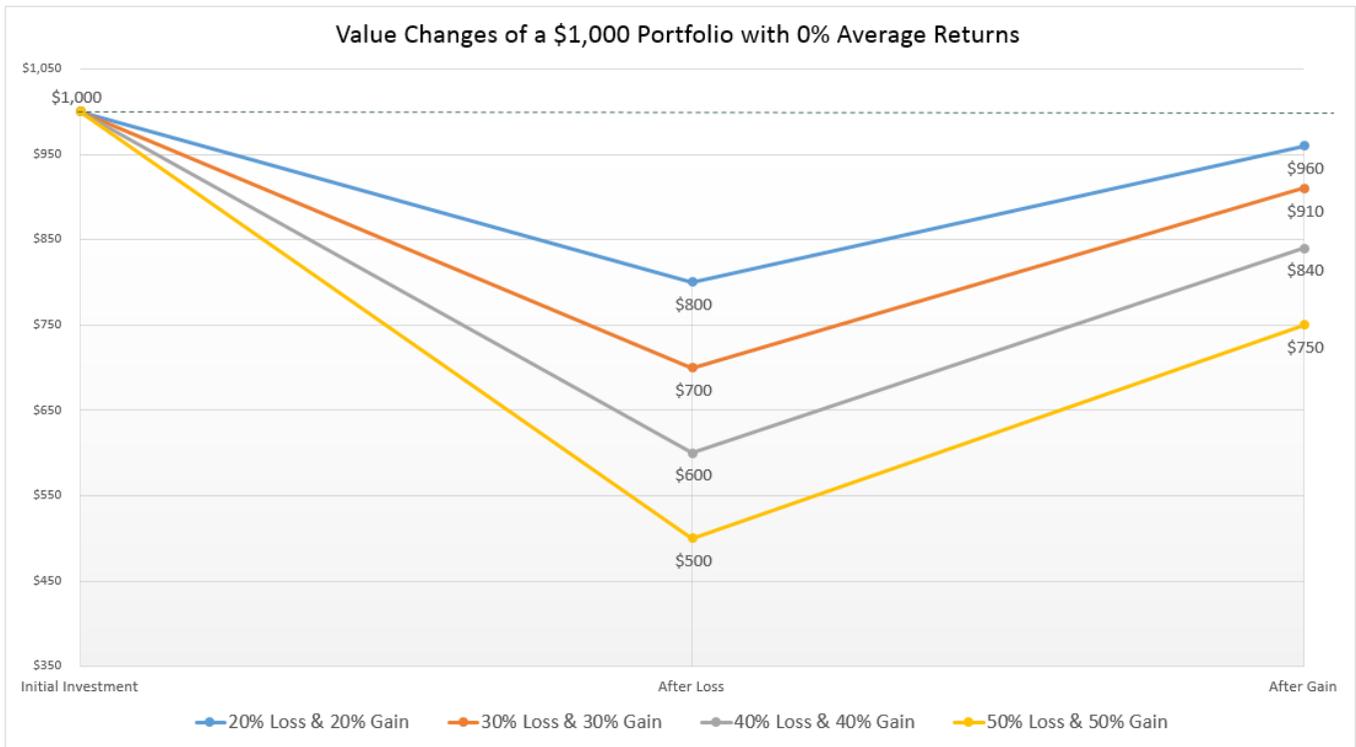
Investing in stocks, bonds, and other assets which present various forms of risk to investors could result in losses and positive returns are not guaranteed. Diversification only reduces risk of capital loss but does not eliminate this risk. Measures of expected return and/or expected risk are not forecasts of returns or risks but are only statistical definitions for modeling purposes based upon financial and statistical analyses. Past performance is no indication of future results, and all investments or assets could lose value in the future due to a variety of financial factors. Due to volatility exhibited in various markets, including but not limited to stocks, bonds and other forms of investable assets these markets may not perform in a similar manner in the future. Among risks which can affect value, financial assets are also exposed to potential inflation and liquidity risks. Investors may experience different results in any chosen investment strategy or portfolio depending on the time and placement of capital into any assets associated thereto. The performance of a specific individual client account may vary substantially from the performance results reflected above. This Absolute Income strategy is constructed to diversify from an all-bond portfolio, directed toward investment among assets that may largely, though not necessarily completely, be non-bond alternatives. Clients are cautioned that they should carefully consider fully diversifying their total personal investment allocations to incorporate a variety of investment assets which also may include stocks, stock mutual

**Concept 1: Volatility Drag**

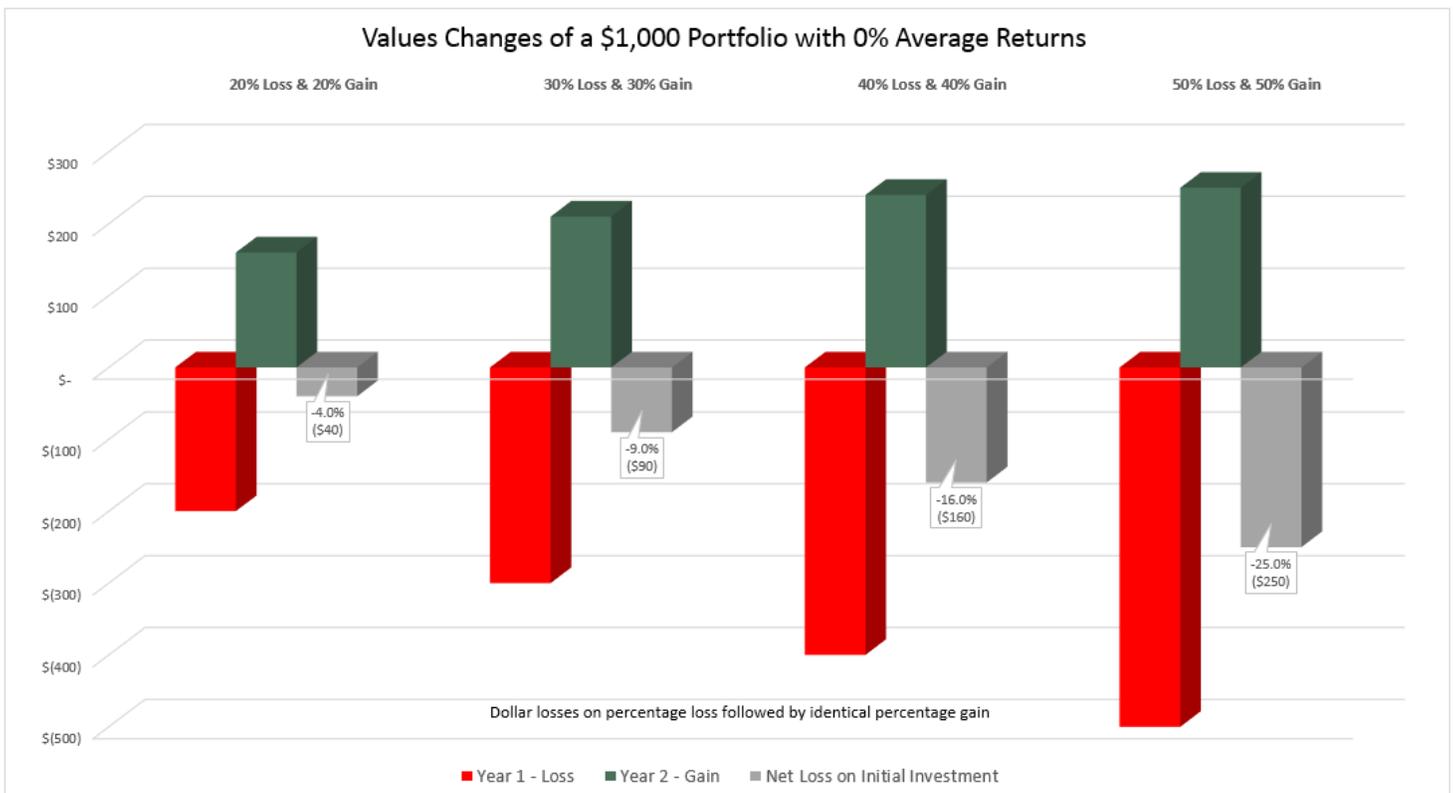
Our focus is on the preservation of capital. The bar chart below shows why this capital protection is so important and illustrates the necessary gain (green bar) needed to recover from a possible investment loss (red bar) to get back to breaking even. At every loss level the necessary recovery gain to get back to breakeven is significantly larger on a percentage basis. Please see disclosures at the end of this document.



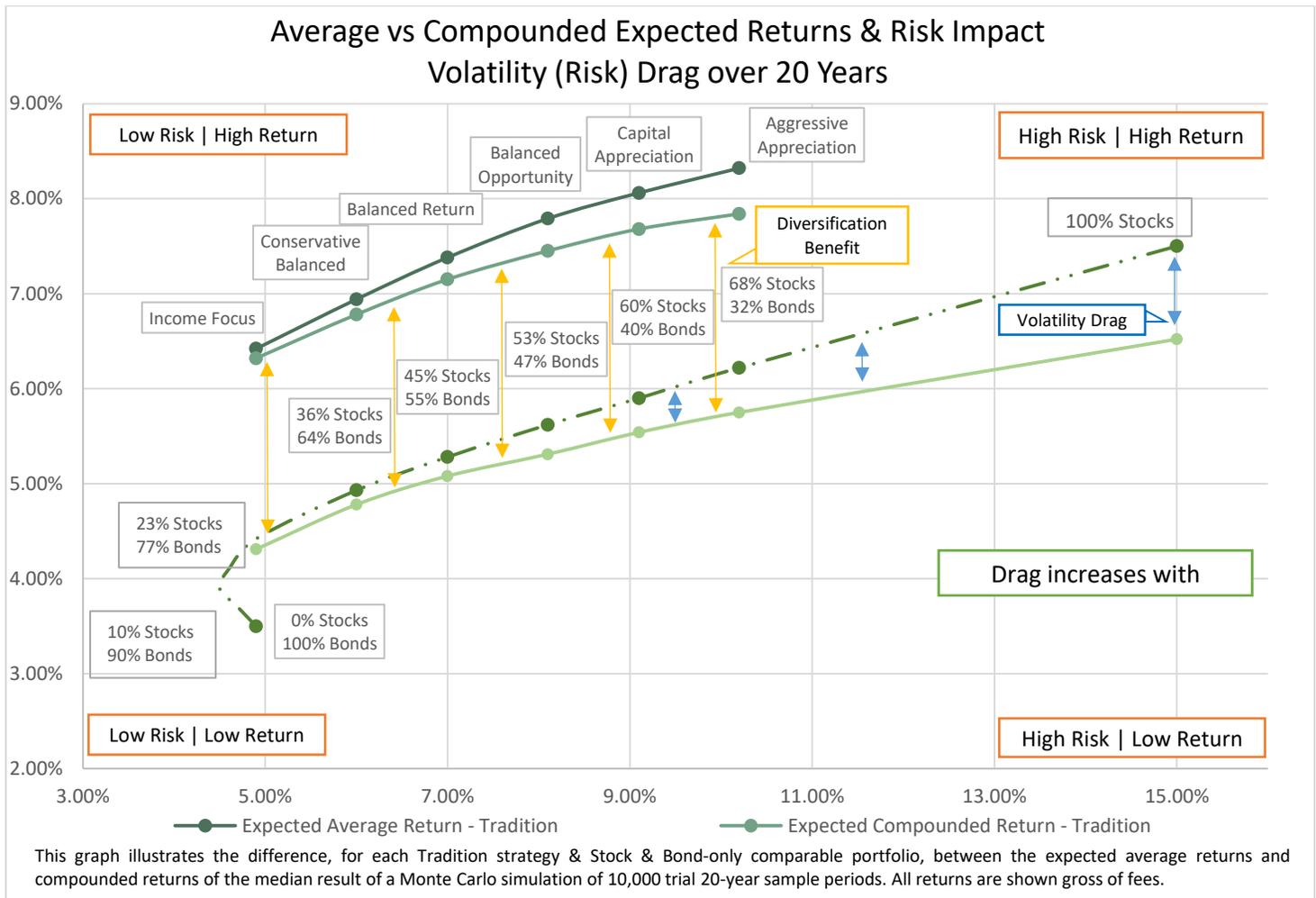
Another way of looking at volatility drag is to examine an arithmetic average return of 0% over a two year period. The graph below shows four hypothetical \$1,000 portfolios each with a loss in the first year and an equal percentage gain in the second year – generating a simple arithmetic average return of 0% over two years. The third point shows the value that the portfolio ends with after these two years – the difference between these ending values and the \$1,000 beginning value is due to volatility drag.



To visualize the same concept in a different way, the bar chart below shows the dollar loss, gain, and net loss on initial investment for the same four hypothetical down then up identical percentage changes on a \$1,000 portfolio.



There is a big difference in arithmetic average return and compounded return at different levels of portfolio volatility (or risk). The higher risk portfolio has a lower compounded annual return at the same arithmetic average return. Volatility reduces compounded returns and the higher the volatility the greater the volatility drag. As shown below, the portfolios utilizing wiser diversification has lower expected volatility at each level of return, or viewed from the other axis higher expected return at every level of risk. The difference between the two curves is the diversification benefit.



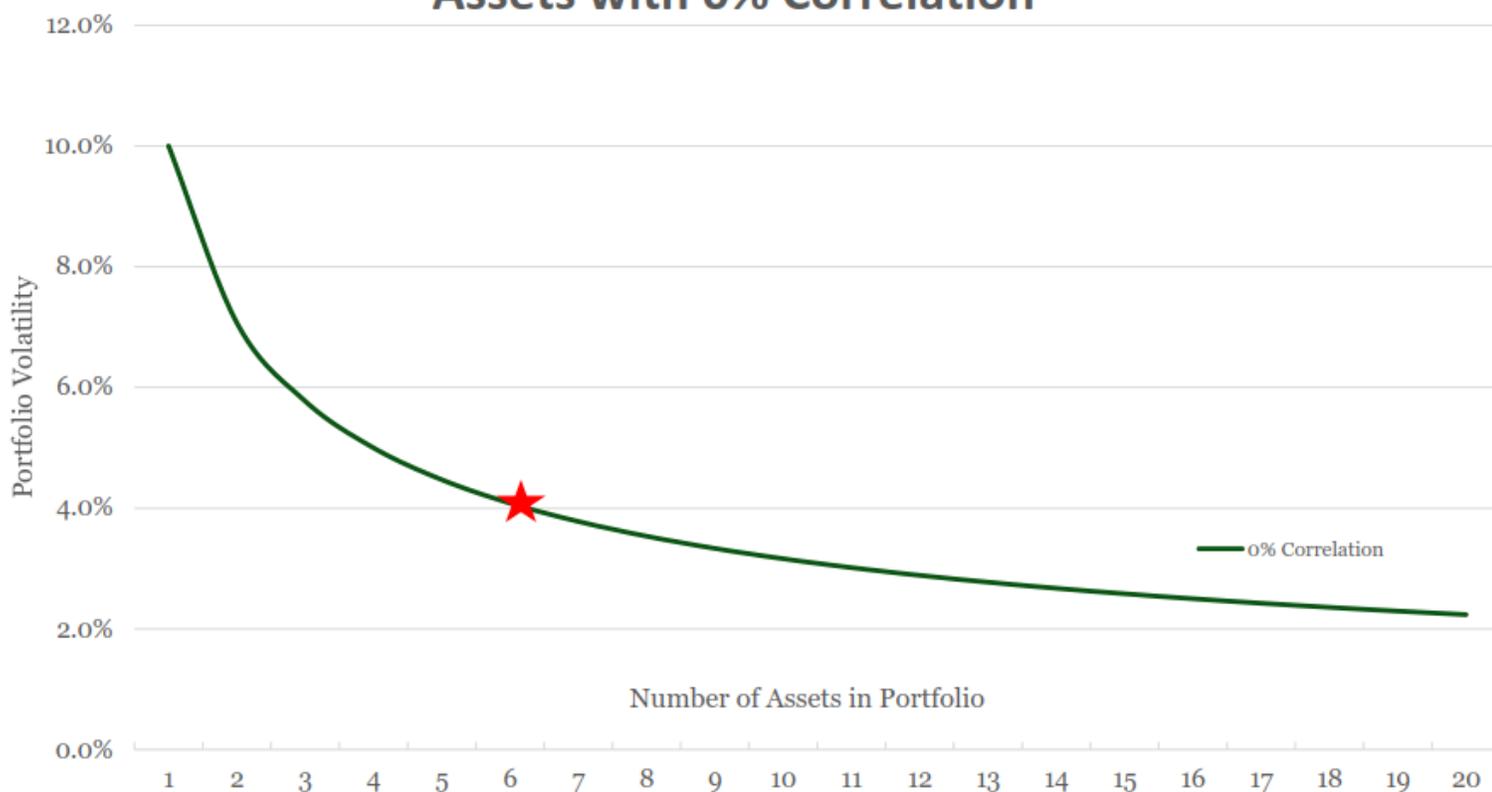
Volatility drag, at its simplest, is the amplified reduction in performance over time caused by higher volatility. Two investments with the same average annual return could end up with significantly different ending values after a period of time due to the negative pull of higher volatility. Volatility drag is present in any investments that have any degree of volatility, but the magnitude of the negative effect increases with increases in volatility. Take, for example, a portfolio worth \$100,000 with a -10% return in the first month followed by a 10% return in the second month. Simple arithmetic reveals an average return of zero, however the average compounded return is actually less. At the end of the second month you wind up with only \$99,000, as the other \$1,000 was lost to volatility drag. Due to continual fluctuations and movement in assets, the difference between the average rate of return and the rate at which your money actually compounds grows larger. The result is that you can lose significant amounts of money to volatility drag.

Volatility drag can be controlled and kept in check by creating a diverse portfolio with lower volatility. As shown in the graphs above, the higher the volatility in a given portfolio, the greater the expected loss due to volatility drag. The higher the volatility of a portfolio, the more frequent and sizeable fluctuations will be, resulting in more losses to drag. One of the many advantages of our portfolios is that they contain many unique asset classes that exhibit low correlations with each other. This diversification results in lower volatility for the portfolio overall, which keeps our expected compounded returns high and the volatility drag low.

## Concept 2: Using Diversification to Reduce Risk

Modern Portfolio Theory (MPT) is the center of our portfolio strategy modeling. Where we differ from most of our competition is our utilization of low or non-correlated asset classes. We utilize proprietary estimates of return and risk as inputs into a Bloomberg Portfolio Optimizer. MPT is the most widely accepted framework for managing diversified investment portfolios. MPT has its limitations around correlations and volatility in down markets as these tend to behave in an adverse way as discussed above. Wiser diversification through additional asset classes tends improve the portfolios' risk-adjusted expected return profile.

### Portfolio Risk Reduction from Adding Additional Assets with 0% Correlation



The line graph above shows the volatility or risk of a portfolio declining as more uncorrelated assets are added. The assets in most investors' portfolios are relatively highly correlated to each other. These type of portfolios are quite common and consist mainly of stocks. As you add more highly correlated assets to this portfolio such as other stocks, the risk begins to decrease. However, as you add more and more stocks to the portfolio, the line flattens out showing how the risk plateaus, remaining at a high rate. Even a portfolio of hundreds of U.S. and international stocks has a high volatility because of the high correlation between its assets. Consequently, if there is a major downturn, these portfolios with highly correlated assets can experience large losses, as all their assets will tend to move downward together.

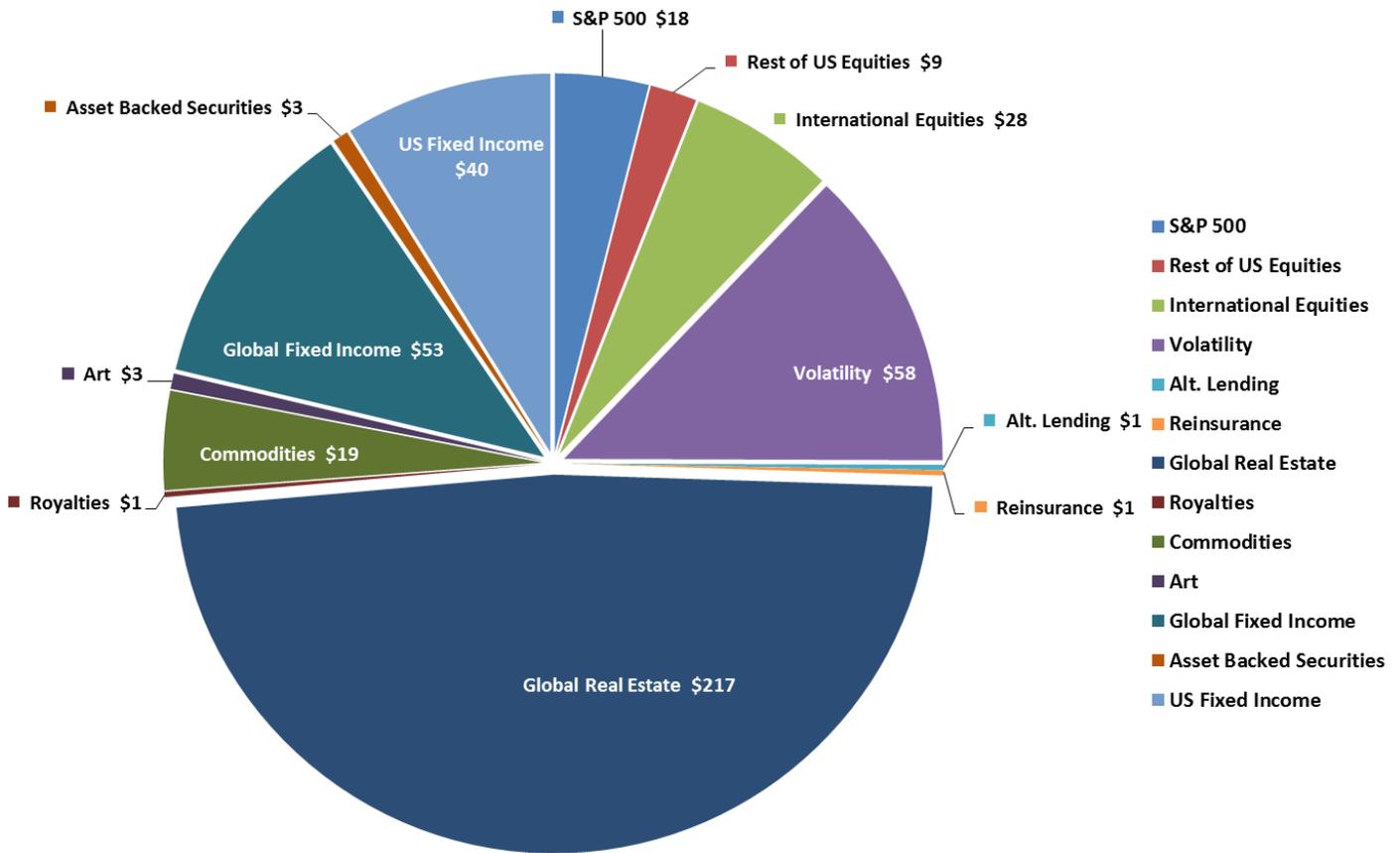
Our portfolios, on the other hand, contain more diversifying assets that for the most part have low correlations with each other. As you can see from the graph above, the addition of low correlation, or in this graph 0% correlation, assets decreases the overall risk; thus lowering overall portfolio risk more than a portfolio with highly correlated assets. A key difference from most other investment firms is that we go a step further for our clients and use unique asset classes that often have no correlation with each other. For example, an asset class we employ in conjunction with stocks, is reinsurance. The reinsurance market, whose returns are mainly impacted by accidents and natural disasters, has minimal correlation with the stock market. So if there is a downturn in the reinsurance market, your stocks will likely be unaffected and vice versa. Therefore, we can create a portfolio where the typical stock and bond portfolio is enhanced

with low correlation assets such as reinsurance, timberland, infrastructure, agriculture properties, alternative lending, real estate and variance risk premium harvesting, and others. The overall portfolio risk decreases as shown by the green line. Overall, we fill our portfolios with many asset classes that have small correlations with each other, and in turn, your risk is mitigated and controlled. This does not mean each asset class is low risk, but it does mean that mixing high or modest risk asset classes together that have low correlations lowers total overall portfolio risk.

### Asset Class Correlation Matrix

	Cash	Bonds	Alternative Lending	U.S. Stocks	U.S. Small Cap Stocks	Developed Intl Stocks	Emerging Markets Stocks	All Asset Variance Premium	Alternatives Other	Equity Variance Risk Premium	Reinsurance	Real Estate and Real Assets
Cash	1.000											
Bonds	0.106	1.000										
Alternative Lending	-0.183	0.207	1.000									
U.S. Stocks	-0.163	-0.084	0.600	1.000								
U.S. Small Cap Stocks	-0.148	-0.133	0.500	0.915	1.000							
Developed International Stocks	-0.089	0.038	0.600	0.878	0.780	1.000						
Emerging Markets Stocks	-0.058	0.034	0.500	0.776	0.703	0.848	1.000					
All Asset Variance Premium	-0.027	-0.055	0.100	0.120	0.150	0.200	0.250	1.000				
Alternatives Other	-0.117	0.017	0.400	0.711	0.658	0.766	0.767	0.100	1.000			
Equity Variance Risk Premium	-0.120	-0.009	0.550	0.958	0.852	0.971	0.874	0.180	0.776	1.000		
Reinsurance	0.052	0.175	0.200	0.134	0.077	0.145	0.137	0.100	0.242	0.147	1.000	
Real Estate and Real Assets	0.002	0.260	0.300	0.350	0.430	0.400	0.450	0.050	0.200	0.400	0.120	1.000

# Global Asset Classes



All dollar amounts in Trillions

## Concept 3: Diversification Across Global Asset Classes

Research has consistently found the best way to maximize returns across every level of risk is to combine asset classes rather than individual securities (Markowitz, 1952; Sharpe, 1964; Brinson, Hood & Beebower, 1986; Brinson, Singer & Beebower, 1991; Ibbotson & Kaplan, 2000). Therefore, the first step in our methodology is to identify a broad set of diversified asset classes to serve as the building blocks for our portfolios. We analyze each potential asset class's long-term historical behavior across different economic scenarios and provide reasonable go-forward estimates for characteristics of each asset class such as correlations to other asset classes, expected returns and expected risk.

The pie chart above shows specific asset classes and depicts how much of the global marketplace they occupy. While many investors and advisors act like the S&P 500 is the end all be all, as you can see here it is merely a fraction of the global asset classes. Even when you add the U.S. Fixed Income market, which contains instruments such as bonds, these two asset classes add up to just under \$60 trillion which again is just scraping the surface of the massive global market totaling about \$450 trillion. Therefore, a portfolio consisting of only U.S. stocks, international stocks, and U.S. bonds is missing out on many global asset classes that could further diversify and improve the portfolio. Many of these alternative assets classes were not accessible to non-institutional investors until recently. Now that these markets are available for more investors, it makes sense to take advantage of the portfolio diversifying benefits that these assets can provide. At Tradition, we make use of the wide range of global asset classes ranging from reinsurance to real estate to international equities and many more, to create a truly diverse portfolio. In doing this we utilize more opportunities in the global market rather than just a fraction of them, so you can build a portfolio with higher expected returns at the same level of expected risk – stronger portfolios for both good and bad economic times.

Asset classes fall under four broad categories: cash, bonds, stocks and alternatives. Cash is usually known for safety but in the current interest rate environment it does not really provide a significant return; hence, is only used tactically for short periods or for liquidity needs. Bonds and bond-like securities are the most important income-producing asset classes for income-seeking investors. Although bonds have lower return expectations than stocks, they provide a cushion and potential reserve for redeployment to stocks or other higher expected return investments during periodic financial market sell-offs. Bonds show modest volatility and low correlation with global stock markets. Stocks have higher long-term expected returns but have higher risk and will have periods of significant losses. Stocks, however, do have some long-run inflation protection as stocks represent ownership in real businesses that will grow in nominal terms within an inflationary environment. Individual stocks are tax advantaged investments in their own right, as long-term capital gains and dividends receive preferential tax treatment, and capital gain taxes are deferred until the stock is sold. ETFs (Exchange Traded Funds) and mutual funds enjoy some of this benefit although individual stocks are more tax advantaged. Alternatives, as we use the term, are assets that have not been typically available to most investors. Our alternatives will have at least one if not all of the following attributes compared to stocks, bonds, or cash: low correlation, low volatility, or low risk/return profile.

**Table 1: Asset classes and their functions**

<b>Asset Class</b>	<b>Benefits</b>
<b>Cash</b>	Safety
<b>Bonds</b>	Yield, diversification and safety
<b>Alternative Lending</b>	High Yield, low Interest rate risk
<b>U.S. Stocks</b>	Capital growth, long-run inflation protection, tax efficiency
<b>U.S. Small Cap Stocks</b>	Capital growth, long-run inflation protection, tax efficiency
<b>Developed Countries International Stocks</b>	Capital growth, long-run inflation protection, tax efficiency
<b>Emerging Countries International Stocks</b>	Capital growth, long-run inflation protection
<b>All Asset Variance Risk Premium</b>	Diversification and high expected return
<b>Alternatives Other</b>	Diversification and modest expected return
<b>Equity Variance Risk Premium</b>	High return with lower than stock market volatility
<b>Reinsurance</b>	Diversification and high expected yield
<b>Real Estate and Real Assets</b>	Income, diversification, inflation protection

More detailed asset class descriptions are available at the end of the document. The asset classes we deploy may evolve somewhat over time, depending on long-term macroeconomic factors and their availability in an ETF or mutual fund.

### **Asset Class Assumptions**

Nominal Expected Long-term Average Returns. Long-term being 10 to 20 years.

### **Asset Class Assumptions**

Asset Class	Long-term Expected Return	Expected Risk
Cash	2.65%	0.10%
Bonds	3.50%	4.90%
Alternative Lending	6.50%	5.00%
US Stocks	7.50%	15.00%
US Small Cap Stocks	8.50%	18.00%
Developed International Stocks	8.25%	17.00%
Emerging Markets Stocks	11.00%	23.00%
All Asset Variance Risk Premium	8.50%	10.00%
Alternatives Other	8.25%	10.00%
Equity Variance Risk Premium	8.00%	12.00%
Reinsurance	8.70%	9.00%
Real Estate & Real Assets	8.00%	6.50%

### **Concept 4: Our Strategy**

We review and update our estimates quarterly as market levels and yields change. This could result in modest changes in our recommended Strategic Target Allocations (see table below). The Strategic Target Allocation ranges, its corresponding asset class allocations, and the holdings recommended by Tradition are subject to change at any time and without notice. Moreover, the Strategic Target Allocation will be different than the actual current tactical allocation of your portfolio as we try to optimize transaction costs against model divergence risk and occasionally make tactical decisions to deviate from the long-term Strategic Target Allocation based on the selected strategy. The actual tactical allocations will change without notice depending on our view of market conditions, risks and opportunities.

Rebalancing and Ongoing Monitoring of your portfolio is part of our management process. As market conditions change, our view of the opportunities and risks will evolve, and these shifts could result in changes to our Strategic Target Allocations. In addition, changes in market values will cause your actual portfolio allocations to vary from the initial targets. We will review for possible rebalancing at a minimum of every 6 months and more frequently if we deem appropriate or if cash flows in or out of the portfolio demand. We will execute trades to move towards the current Tactical Target Allocation where model divergence and trading costs warrant based on our judgement of this trade-off between divergence and transaction costs.

## Model Strategies

### Strategic Allocation Ranges

	Income Focus	Conservative Balanced	Balanced Return	Balanced Opportunity	Capital Appreciation	Aggressive Appreciation
<b><u>Cash</u></b>						
Cash & Money Market	0-20	0-15	0-15	0-15	0-15	0-15
<b><u>Fixed Income</u></b>						
Short Term	0-25	0-20	0-15	0-15	0-10	0-10
Int. under 10 year	0-75	0-50	0-40	0-20	0-20	0-20
Long over 10 year	0-30	0-20	0-20	0-20	0-20	0-20
High Yield	0-20	0-20	0-30	0-30	0-30	0-30
International	0-20	0-20	0-20	0-20	0-20	0-20
Other & Alternative	0-25	0-25	0-25	0-25	0-25	0-25
<b><u>Equity</u></b>						
Domestic - All Cap	0-40	15-50	15-65	20-70	20-80	20-80
Small and Microcap	None	None	0-10	0-20	0-20	0-20
Convertible Securities	0-20	0-20	0-20	0-20	0-20	0-20
Developed						
International	0-10	0-20	0-20	0-25	0-30	0-30
Emerging Markets	None	0-10	0-15	0-20	0-25	0-25
<b><u>Miscellaneous</u></b>						
Commodities	0-10	0-10	0-15	0-15	0-20	0-20
Alternatives - Equity	0-15	0-15	0-15	0-15	0-20	0-20
Alternatives - Other	0-30	0-30	0-30	0-30	0-40	0-40
Real Assets	0-25	0-25	0-25	0-25	0-25	0-25

Given the long-term orientation of our strategies and limited liquidity in our some of our investments, funds allocated to Tradition's strategies should have a minimum one year time horizon. If you expect to need the funds in less than a year these strategies are not the appropriate investment. If you are expecting to make withdrawals please let us know at least 3 months in advance so we can attempt to obtain the needed liquidity, but we can make no guarantee that it will be completely available. Some of the funds in your Strategic Target Allocation may have limited liquidity on both the buy and the sell transactions; therefore, we may not be able to execute buys or sales until the next purchase or sale window opens. This could result in being unable to sell a position even during periods of significant drawdown. Depending on timing and circumstances, the entirety of your portfolio may not be available for purchase for 3 months or more, and on the sale side, may not be available as cash for 3 months or more. On the buy side, we may substitute a liquid security to enhance possible returns if we are forced to wait for a window to open in order to execute the buy of a targeted fund.

Given these liquidity issues, Tradition requires a minimum investment of \$1,000,000 and a minimum one year time horizon. Some of our initial investments will have both limited windows of availability and transaction costs, further emphasizing the need for a long-term horizon. We are not opposed to liquidity, but are more than happy to participate in lower liquidity investments as a tradeoff for having a superior targeted risk/reward profile. Limited liquidity often

provides extra expected return, and daily liquidity has a cost of lower expected returns. A portion of your portfolio will be in stocks, bonds and daily liquidity ETFs and available immediately.

Tradition utilizes individual stocks and bonds when cost-effective, or low cost ETFs that trade commission free and low cost funds whenever possible; however, we recognize certain asset classes require higher fund fees to either access or obtain specific desired asset class exposure. Most of our alternatives fall into this higher fund fee category; we do analyze this cost and develop our expected returns for our models on net returns, after fund fees. These higher cost funds give us exposure to assets that may not be available in a low cost ETF or index fund. Tradition does not participate in these fees, and the only fees that Tradition collects from our clients are for our advice and services. Since Tradition is a Registered Investment Adviser (RIA) with fiduciary responsibility, we always put your interests first.

### **Conclusion**

Tradition combines the judgment of our experienced and knowledgeable investment team, Bloomberg portfolio optimization, individual stocks and bonds, low cost ETFs and unique diversifying assets to build an efficient portfolio for you. Our goal is to provide a superior risk-adjusted, net-of-fee, expected investment return for each client's risk tolerance. Minimizing drawdowns and risk is, in our opinion, the best way to achieve expected long-term returns.

## **DISCLOSURE AND DISCLAIMER:**

*Tradition Capital Management, LLC (Tradition) is an SEC (Securities and Exchange Commission) Registered Investment Adviser under the Federal Investment Advisers Act and provides portfolio management and related services for a fee.*

*Investing in stocks, bonds, and other assets which present various forms of risk to investors could result in losses and positive returns are not guaranteed. Diversification only reduces risk of capital loss but does not eliminate this risk. Measures of expected return and/or expected risk are not forecasts of returns or risks but are only statistical definitions for modeling purposes based upon financial and statistical analyses. Past performance is no indication of future results, and all investments or assets could lose value in the future due to a variety of financial factors. Due to volatility exhibited in various markets, including but not limited to stocks, bonds and other forms of investable assets, these markets may not perform in a similar manner in the future. Among risks which can affect value, financial assets are also exposed to potential inflation and liquidity risks. Investors may experience different results in any chosen investment strategy or portfolio depending on the time and placement of capital into any assets associated thereto. The performance of a specific individual client account may vary substantially from the performance results reflected above. Clients are cautioned that they should carefully consider fully diversifying their total personal investment allocations to incorporate a variety of investment assets which also may include stocks, stock mutual funds and ETFs, international assets, bonds and fixed income instruments (where appropriate), and other non-stock/bond investments (e.g., without limitation, Real Estate and other assets).*

*The above graphs are for illustrative purposes only to show possible return profiles of various asset classes. These illustrations are not historical returns nor is it a projection of future returns. Past performance is not indicative of future results. Investing involves risk and may result in losses. At a given time, any risk asset class or asset may lose money and result in substantial losses. Inflation risk is an additional risk for financial assets. These illustrations are not GIPS compliant and are shown only for illustrative purposes. Tradition does not make any assertions, estimates or guarantees about future results. Future results are unpredictable and could result in losses. Targeted Long-term Returns are not forecasts nor guarantees, but are merely reasonable long-term goals for strategies. Actual results could vary materially from these Targeted Long-term Returns and could result in losses.*

*Tradition claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS Standards. Tradition has been independently verified for the periods October 17, 2000 through December 31, 2015. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards through December 31, 2015. Verification does not ensure the accuracy of any specific composite presentation. A copy of the verification reports are available upon request. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are also available upon request by contacting Tradition through their website at [www.traditioncm.com](http://www.traditioncm.com).*

*In March 2009 and August 2015 respectively, Haven Capital Management LLC ("Haven") and Candor Wealth Advisors LLC joined Tradition Capital Management LLC. Tradition's investment management annual base fee schedule, as detailed in Form ADV Part 2A, is as follows: 1.0% on the first \$5MM, 0.8% over \$5MM. Actual investment advisory fees incurred by clients may vary. Copies of the ADV and Privacy policy are available upon request by contacting Tradition through their website at [www.traditioncm.com](http://www.traditioncm.com).*

### **Monte Carlo Simulations**

*The "Average vs Compounded Expected Returns & Risk Impact" graph illustrates the difference, for each Tradition strategy & Stock & Bond only comparable, between the expected average returns and compounded returns of the median result of a Monte Carlo simulation of 5,000 trial 20 year periods. Median means half the results should be above and half below the median over 5,000 random trials over 20 years. This is not a forecast or prediction.*

## Bibliography

- Bernstein, W.J. (2000). *The Intelligent Asset Allocator: How to Build Your Portfolio to Maximize Returns and Minimize Risk*
- Black, F., & Litterman, R. (1992). Global Portfolio Optimization. *Financial Analysts Journal*.
- Brinson, G. P., Hood, L. R., & Beebower, G. L. (1986). Determinants of Portfolio Performance. *Financial Analyst Journal*.
- Brinson, G. P., Singer, B. D., & Beebower, G. L. (1991). Determinants of Portfolio Performance II: An Update. *Financial Analyst Journal*.
- Fernandez, P., Carelli, J.P., Ortiz, A. (2016). The Market Portfolio is not efficient: Evidences, consequences and easy to avoid errors.
- Ibbotson, R.G. & Kaplan, P.D. (2000). Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance? *Financial Analyst Journal*.
- Mandelbrot, B. B., & Hudson, R. L. (2008). *The (mis)behavior of markets: A fractal view of risk, ruin, and reward*. London: Profile.
- Markowitz, H. (1952). Portfolio Selection. *Journal of Finances*.
- Sharpe, W. (1964). Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risks. *Journal of Finance*.
- Swensen, D. (2000). *Pioneering Portfolio Management: An Unconventional Approach to Institutional Investment*. Free Press.
- Swensen, D. (2005). *Unconventional Success: A Fundamental Approach to Personal Investment*

## **Appendix Asset Class Descriptions**

**Cash** – Cash and Equivalents are investment securities that are short-term, have high credit quality and are highly liquid. These securities have a low-risk, low-return profile. Cash equivalents include U.S. government Treasury bills, bank certificates of deposit, bankers' acceptances, corporate commercial paper and other money market instruments.

**Bonds** – Bonds are debt issued by governments or corporations to fund various spending programs or business activities. They can vary in credit quality from very highly rated investment-grade government or corporate bonds, which offer lower yields in exchange for greater safety, down to significantly lower-rated speculative or “junk” bonds, which provide much higher yields but with a much higher risk of default. U.S. Government bonds currently offer yields that are at or near historical lows and may produce returns that barely keep up with inflation (or even fall behind and fail to produce positive real returns).

**Alternative Lending** – Alternative Lending is a relatively new asset class available for investment which is made up of loans made to consumers or businesses, by investors, outside of a traditional bank loan – they are also sometimes referred to as P2P or Peer-to-Peer lending. Alternative Lending currently offers yields that are attractive relative to corporate or government bonds while also providing lower interest rate risk due to shorter maturities.

**U.S. Stocks** – Domestic or U.S. Stocks represent ownership in U.S.-based corporations. As businesses, we expect U.S. stocks to grow with the economy while being impacted by investor sentiment, liquidity and valuation.

**U.S. Small Cap Stocks** – Domestic or U.S. Stocks are ownership shares of U.S.-based corporations with smaller market capitalizations. The definition of a small market cap can vary but is generally defined as between \$200 million and \$2 billion. Small cap stocks traditionally exhibit greater volatility than large cap stocks.

**Developed International Stocks** – International stocks from developed countries refer to equity shares of corporations based in foreign (outside the U.S.) but developed nations. The list of “developed” nations can vary but generally includes much of Europe, as well as Japan, Canada and Australia. Developed nations stocks are generally assumed to have somewhat higher levels of risk than U.S. Stocks.

**Emerging Markets Stocks** – International stocks from emerging countries refer to equity shares of corporations based in foreign (outside the U.S.) nations that are on their way to reaching developed status. They are often referred to as developing countries or emerging markets. The list of “emerging” nations can vary but generally includes China, much of South East Asia, South America, Russia, India, parts of Africa and Asia, the Middle East and Eastern Europe. Emerging markets stocks are generally assumed to have higher levels of risk than U.S. or Developed International Stocks.

**Variance Risk Premium Harvesting** – Variance Risk Premium Harvesting refers to the “Variance Risk Premium” that can be harvested across a wide variety of asset classes. The Variance Risk Premium is a phenomenon seen in options markets where the implied volatility is greater than the realized volatility, on average and over time. This means that the writers or sellers of options (or “insurance” against unwanted moves in the price of an asset), on average and over time, realize a positive return, as buyers of options or “insurance” are willing to pay a premium for that protection. By systematically writing puts and calls (options that protect against drops or gains in an asset price) across a great variety of assets classes such as: equities, interest rates, foreign currencies, commodities, and agricultural products – one can expect to generate a positive return over time that has a very low to zero correlation to the equity or bond markets.

**Alternatives** – Alternatives are a broad category that is used to describe investments that do not fall into the three traditional asset types (stocks, bonds and cash). Alternative investments can include: hedge funds, managed futures, real estate, commodities, long/short funds, and other complex strategies. Alternatives have traditionally been held by institutional investors and high-net-worth individuals but the advent of new products and vehicles are beginning to allow more investors to participate in this space.

**Equity Variance Risk Premium** – Equity Variance Risk Premium is a subset of the Variance Risk Premium discussed above, but just focused on variance risk premiums harvested from the equities markets. We also include in this asset class

strategies that have both an Equity Variance Risk Premium component and participate in equity market returns as well, these assets participate in the returns of the stock market. A covered call strategy is the most common example of a strategy that would fit this asset class.

Reinsurance – Reinsurance, broadly, is the practice of insurers transferring portions of risk from their portfolios of policies to other parties by some form of agreement in order to reduce their risk exposure from an insurance claim. Reinsurance as an asset class refers to investors providing capital to insurers, through investments with reinsurers and other vehicles including catastrophe or “Cat” bonds, in exchange for a return or share in the premiums generated. The insurance is tied to a variety of possible events such as hurricanes, earthquakes, aviation or maritime disasters, losses related to crops or livestock, flooding, and so on. By their nature, natural disasters are uncorrelated with movements in investment markets – a crash in the stock markets cannot cause an earthquake, and an earthquake would generally not cause the stock market to crash. Furthermore, these natural disasters are internally uncorrelated – an airplane crashing will not cause an earthquake or vice versa. This lack of correlation with other investments allows reinsurance and other low correlation investments to act as diversifiers in a portfolio, meaning that when the stock market is down these investments move independently and may be up, the same, or even down as well – but not in concert with moves in the stock market. This diversification effect lowers the overall risk of a portfolio.

Real Estate and Real Assets – Real Estate and Real Assets in this case refer to investments in physical or tangible assets such as: property, buildings, timberland, agriculture properties, infrastructure, equipment, pipelines, precious metals, commodities, land and oil. These investments typically exhibit a lower correlation with stocks and bonds and are generally well-suited for inflationary times, as they have a tendency to outperform financial assets during such periods.