

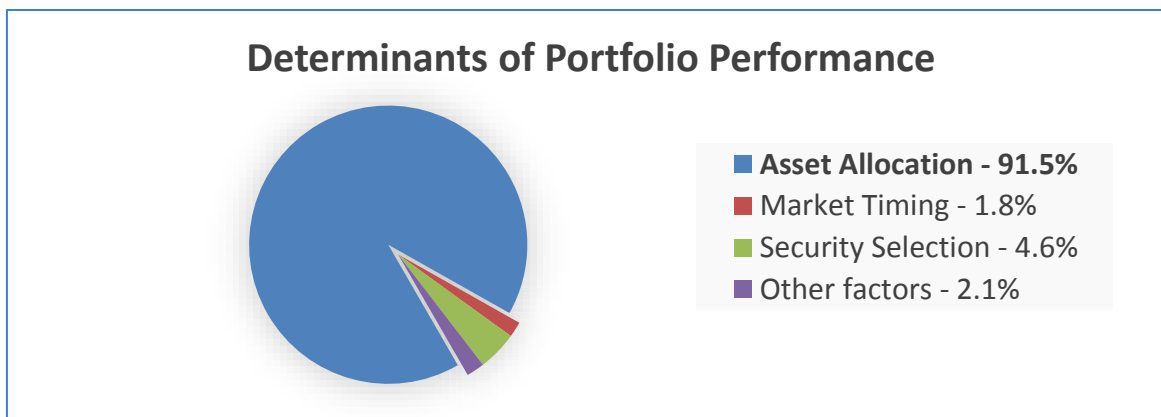
## Our Approach to Portfolio Management

Over the years, we have developed a particular approach to portfolio management that incorporates several different academic-based ideals, including asset allocation, asset dedication, tax allocation, and cost efficiency. The logical sequence of these ideals, as discussed below, forms the basis of our proprietary method of portfolio management, called Common Sense Asset Management.

### Asset Allocation

Asset allocation is not only the first step in our approach, but the most important as well. The theory behind asset allocation strategy was developed in 1952 by Dr. Harry Markowitz. He discovered that overall portfolio risk could be diminished by combining various asset classes whose returns are not perfectly correlated. This theory became known as Modern Portfolio Theory ("MPT"), for which Markowitz received a Nobel Prize. What was revolutionary about Markowitz's discovery is that by combining different asset classes an investor could actually reduce the volatility of a portfolio while providing for the potential of an increase in return.

In furtherance of Markowitz's theory, Gary P. Brinson, Randolph L. Hood, and Gilbert L. Beebower (known collectively as "BHB") studied the effects of asset allocation, where a diverse mix of non-correlated assets were combined in a portfolio, and verified its tremendous value. In fact, their research showed that asset allocation is responsible for over 90% of the variability in a portfolio's returns.



Brinson, Beebower and Singer, *Determinants of Portfolio Performance II: An Update*, The Financial Analysts Journal, 47, 3 (1991).

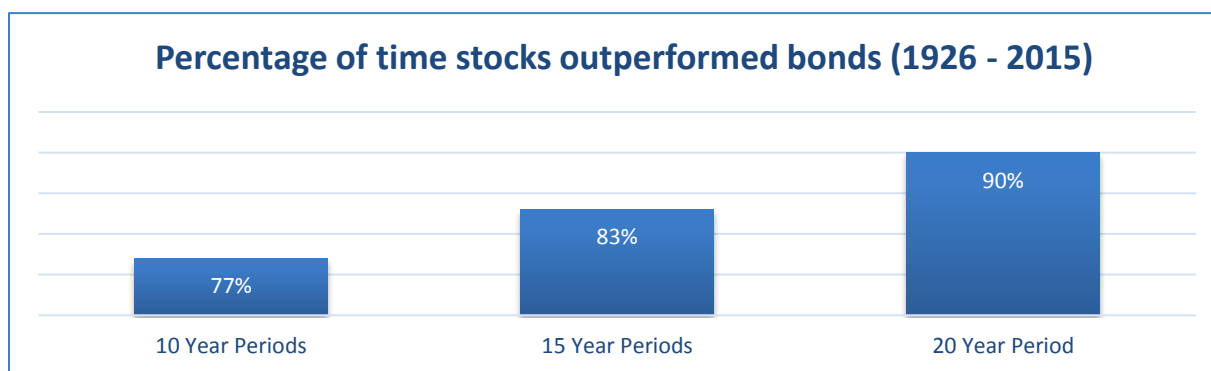
### Asset Dedication

When considering the three primary asset classes (stocks, bonds, and cash) that can be implemented within your asset allocation plan (before getting into sub-classes, such as domestic large cap value equities, etc), you must first understand each asset class's potential return and risk profile.

Summary of Returns (1926-2015)	Average Compound Annual Return	Average Annual Standard Deviation	Cumulative Index Value
S&P 500 Stocks	10%	20%	\$5,390
Long Term Corp Bonds	6%	8%	\$189
Long Term US Govt Bonds	6%	10%	\$134
Treasury Bills	3%	3%	\$21
Inflation	3%	4%	\$13

Source: Ibbotson Associates. Figures are for illustrative purposes only. Past performance is no guarantee of future results. Hypothetical value of \$1 invested at beginning of 1926. Assumes reinvestment of income and no transaction costs. This is for illustrative purposes only and not indicative of any investment. An index is not managed and you cannot invest directly in an index. Standard deviation is a historical measure of the variability of returns. If a portfolio has a high standard deviation, its returns have been volatile. A low standard deviation indicates returns have been less volatile.

As you can see, the asset class with the highest return also has the highest standard deviation, a common definition of risk. In turn, the asset class with the lowest return has the least amount of risk. So, when seeking the highest potential return, you must also be willing to accept the highest level of risk. In our experience, the only mitigating factor to that risk is time; only by retaining a riskier asset class such as stock for a longer period of time may you potentially increase the odds of outperforming other asset classes such as bonds (please remember, past performance is no guarantee of future results).



Source: Morningstar. Figures are for illustrative purposes only; see descriptions and disclaimers at bottom of page.

Given the historically high variability of stock returns in any given year, we believe you must devote a minimum of ten years or more to stocks and, if needed, use cash and bonds during that minimum waiting period. Thus, we first dedicate cash to your short term time period or "bucket", typically six to twelve months. Next, we dedicate enough bonds to take care of your mid-term time period, typically one to ten years (or longer, depending on your risk tolerance). Last, we dedicate stocks to your long-term time bucket, allowing them ten years or more for growth potential. By taking this approach, and having your short and mid-term buckets address your income and capital preservation needs, you may be better able to tolerate the short-term volatility of the stock market and seek to achieve their higher historical returns. But if you don't have the time, or patience or risk tolerance, then you shouldn't own stocks – it's that simple.

Past performance is no guarantee of future results. During the applicable time period, from January 1, 1926, through December, 2015, there were 81 ten year calendar periods, 76 fifteen year calendar periods, and 71 twenty year calendar periods. An index is not managed and you cannot invest directly in an index. Stocks represented by the Standard & Poor's 500 Stock Composite Index (S&P 500) 1957-2015, and the S&P 90 1926-1956; bonds by the Citigroup long-term, high-grade corporate bond total return index; cash by US Treasury Bills, measured by rolling over each month a one-bill portfolio containing, at the beginning of each month, the bill having the shortest maturity not less than one month. Inflation measured by the Consumer Price Index for all urban consumers, not seasonally adjusted. Treasury bills and government bonds, unlike stocks and corporate bonds, are guaranteed by the U.S. government and if held to maturity offer a fixed rate of return and fixed principal. Yield and market value of bonds will fluctuate prior to maturity. The principal value of an investment in stocks fluctuates with changes in market conditions. Dividends are not guaranteed and are subject to change or elimination. Standard deviation measures the dispersion of a set of data from its mean; the more spread apart the data, the higher the deviation.

## Tax Allocation

After creating your asset allocation and asset dedication plan, the next step we take is to allocate the different asset classes to the appropriate account, understanding that not all accounts are created equal. Some accounts allow you to defer pre-tax money and grow tax-deferred for a period of time, while others accept after-tax contributions and grow tax-free if certain criteria are met. Beyond those two types of accounts are still others with different potential tax implications that may justify holding different asset classes. For instance, municipal bonds may be more appropriate for a taxable account, whereas stocks may be more appropriately held in a Roth IRA versus a traditional IRA.

The most important consideration, however, when making tax allocation decisions and deciding which accounts to use for certain asset classes is your personal circumstance and assumptions. Just as no two people are alike, most people may not have the same tax allocation requirements. Thus, we strive to not only tailor your asset allocation and asset dedication plan to your specific needs, but seek to utilize the most appropriate accounts for certain asset classes so as to hopefully create a more tax efficient portfolio.

## Cost Considerations

Now that the asset allocation, asset dedication and tax allocation plan have been determined, the final consideration when implementing the plan is cost. John Bogle, founder of Vanguard Funds, verbalized our thoughts perfectly when he stated that “asset allocation is critically important; but cost is also critically important. When compared to these two issues, all the other factors that go into investing in a diversified portfolio of high grade stocks and bonds pale into insignificance.” There are two basic costs involved with investing: advisory and product. Advisory costs, although we admittedly have a bias, are the more important of the two. An advisor can act as an essential coordinator of your comprehensive plan, offering portfolio management services, as well as advice on tax, insurance, estate, and other considerations that affect your overall plan and investment strategy.

Further, an advisor may have the ability to help control the potential failure associated with self-management. Witness DALBAR’s 2016 *Quantitative Analysis of Investor Behavior* study, which found that over a twenty year period ending 12/31/15 the S&P 500 index had an average annualized return of 8.19%, yet the average equity fund investor only gained 4.67%.\* Two pertinent explanations for this discrepancy may be emotionally-induced changes within an investor’s portfolio and costs.

When it comes to product cost there seems to be a lack of attention. Though some realize the importance of asset allocation, many do not seek cost containment in implementation; instead, they rely on active managers (who seek to beat a given benchmark, whereas passive managers only seek to replicate a given benchmark). However, due *in part* to higher associated costs incurred by active managers, historical performance shows that the small number of managers able to outperform their benchmark in most asset classes is never greater than one would expect by chance.

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\*Source: Dalbar 2016 Quantitative Analysis of Investor Behavior Study. Average equity fund investor results are calculated using data from the Investment Company Institute. Investor returns are represented by the change in total fund assets after fees, redemptions and exchanges; this method captures unrealized and realized capital gains, dividends, interest, trading costs, sales charges, fees, expenses and other costs. After calculating investor returns in dollar terms, two percentages are calculated for the period examined: total investor return rate and annualized investor return rate. Total return is determined by calculating investor return dollars as a percentage of the net of the sales, redemptions and exchanges for each period. Indices are unmanaged and cannot be invested into directly. Past performance is not a guarantee of future results.

Active stock managers who underperformed their benchmark over a 15 yr time period ending 12/31/15:

	Large Cap	Mid Cap	Small Cap
U.S. Value	82%	83%	58%
U.S. Blend	87%	80%	71%
U.S. Growth	83%	87%	78%
Developed (non-U.S.)	77%	* results adjusted for "survivorship bias"	

\* Results of existing funds in analysis may be bolstered by the merging or discontinuation of underperforming funds by lowering the number of surviving funds for the applicable period, thus increasing the success rate of the surviving funds. See further disclosures and data below.

We believe these results confirm the existence of an efficient market whereby the price of any one security reflects all current information available. And though the information may be false, and pricing irrational, this efficiency makes it nearly impossible to preemptively exploit any discrepancy. Thus, in our opinion it's irrational to use an active manager; instead, it makes more sense to focus on the controllable variables, such as cost, allocation, etc, etc.

## Summary

TWC Wealth Management specializes in comprehensive financial planning and asset management. Our approach pulls from simple, academic-based concepts that logically flow to and from each other. First, understand that according to the BHB study asset allocation accounts for over 90% of your portfolio's variability. Second, consider using asset dedication to match the appropriate primary asset class to your different required time periods. Third, consider different account types to potentially increase your overall portfolio's tax efficiency. Finally, seek to control your product-related costs when implementing your plan. By taking these steps, you may create a more efficient portfolio.

The last piece of the puzzle is proactive and consistent management of the controllable variables, whether they relate to your portfolio or other aspects of your financial life such as cash flow, insurance, or estate and tax planning. At TWC Wealth Management, we pride ourselves on a high level of personal service, seeking to provide not only professional asset management and financial planning advice, but comfort and understanding as well.

For further information, please contact R. Timothy Curran, JD, CFP® at 704-499-9703 or [tcurran@lpl.com](mailto:tcurran@lpl.com).

Sources: Vanguard calculations using data and fund classifications from Morningstar, MSCI, CRSP, Standard & Poor's and Barclays. 15 years as of December 31, 2015. Benchmarks represented by: indexes—Large blend: MSCI US Prime Market 750 Index through January 30, 2013, CRSP US Large Cap Index thereafter; Large growth: S&P 500/Barra Growth Index through May 16, 2003, MSCI US Prime Market Growth Index through April 16, 2013, CRSP US Large Cap Growth Index thereafter; Large value: S&P 500/Barra Value Index through May 16, 2003, MSCI US Prime Market Value Index through April 16, 2013, CRSP US Large Cap Value Index thereafter; Mid blend: S&P MidCap 400 Index through May 16, 2003, MSCI US Mid Cap 450 Index through January 30, 2013, CRSP US Mid Cap Index thereafter; Mid growth: MSCI US Mid Cap Growth Index through April 16, 2013, CRSP US Mid Cap Growth Index thereafter; Mid value: MSCI US Mid Cap Value Index through April 16, 2013, CRSP US Mid Cap Value Index thereafter; Small blend: Russell 2000 Index through May 16, 2003, MSCI US Small Cap 1750 Index through January 30, 2013, CRSP US Small Cap Index thereafter; Small growth: S&P SmallCap 600/Barra Growth Index through May 16, 2003, MSCI US Small Cap Growth Index through April 16, 2013, CRSP US Small Cap Growth Index thereafter; Small value: S&P SmallCap 600/Barra Value Index through May 16, 2003, MSCI US Small Cap Value Index through April 16, 2013, CRSP US Small Cap Value Index thereafter. International and global benchmarks are represented by the following indexes: Global—Total International Composite Index through August 31, 2006, MSCI EAFE + Emerging Markets Index through December 15, 2010, MSCI ACWI ex USA IMI Index through June 2, 2013, FTSE Global All Cap ex US Index thereafter; Developed—MSCI World ex USA Index; Emerging markets: MSCI Emerging Markets Index.

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