WILLIS INVESTMENT COUNSEL
Principled Investing

April 27, 2016

The Drivers of Portfolio Outcomes

Out of intense complexities, intense simplifications emerge - Churchill

PURPOSE OF MEMO

This memo explains the primary determinants of portfolio outcomes. Herein, we explain what drives long-term portfolio success or failure. We conclude with a discussion of which factors to emphasize, and which to avoid, to increase the odds of long-term portfolio success.

CONCLUSION

We generally believe the long-standing academic studies that indicate 50-90% of the ultimate outcome of securities portfolios is determined by *asset allocation*. For approximately 30 years, academia has studied what most determines long-term returns. It is widely believed *asset allocation* – the mixture of major asset classes such as stocks, bonds and cash – is the main driver. These studies have been published in peer review academic journals for decades. The main debate is about exactly how much asset allocation controls long-term returns (most studies conclude between 50-90%).

Add the *market timing* factor and academia generally believes you have 90% +/- of the puzzle. It is by staying invested throughout market cycles that one actually realizes a given market's long-term returns. That is, one comes closest to realizing long-term portfolio success by not attempting futile market timing (attempting to be in the market at the "right time", and out of the market at the "wrong time").

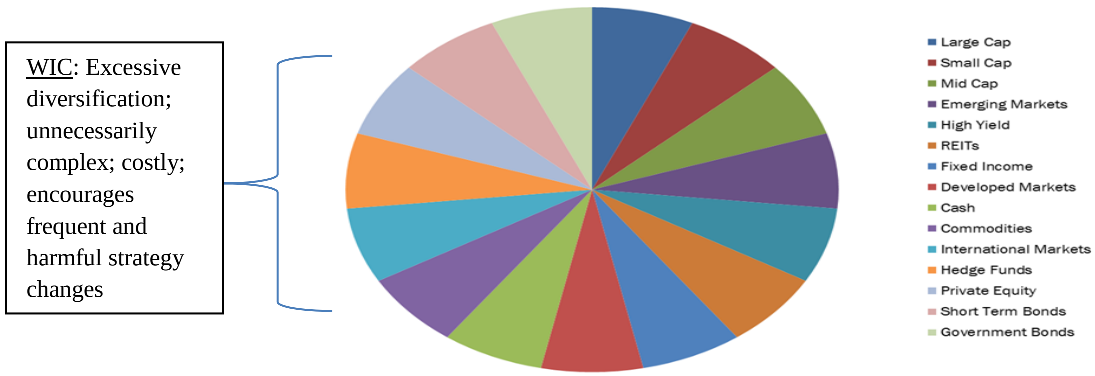
To summarize, there is abundant academic research that holds approximately 80-90% of long-term portfolio return is driven by two principles:

- Asset allocation – the weighting of asset classes and strategies
- Persistence and patience – remaining invested throughout market cycles

What about which stocks are owned? How much does stock selection contribute to long-term portfolio success? Generally, academia believes stock selection contributes only 10% +/-.[1]

DISCUSSION

Conventional wisdom. Because of the prominence of the above studies, and because they are the mainstay of finance and graduate school curriculums, most firms employ a broadly diversified portfolio structure that builds on these principles. Conventional wisdom holds risk can be best managed by utilizing a portfolio composition similar to the following:



On the surface, this pie chart makes sense and squares with the old adage to *not put all your eggs in one basket.* Academia has also been successful in convincing practitioners (again through decades of curriculum content) that risk can be reduced without reducing return by adding asset classes (thus the broad diversification that most employ).

WIC's approach does **not** follow conventional wisdom. We believe the way most firms design portfolios is excessively complex, often unnecessarily expensive, and promotes extremely harmful market timing in the guise of tactical re-allocation.

WIC believes risk is increased when:

- Complexity is increased
- The number of strategies and layers is increased
- Understandability of what is owned and why it's owned is decreased
- The temptation to change strategies is increased (e.g., tactical "optimization")

[1] *Ibbotson SBBI 2015 Classic Yearbook*, page 93; Davis, Kinniry, and Sheay; *Vanguard's* "The Asset Allocation Debate: Provocative Questions, Enduring Realities; David Larrabee, CFA, *CFA Institute's Enterprising Investor* "Setting the Record Straight on Asset Allocation"; Roger Ibbotson, *Financial Analysts Journal*; "Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?"

Therefore, we believe the above pie chart – again it is representative of what is commonly used by most firms – is not the only way to design portfolios. Moreover, we believe it is not the best way to design portfolios.

Asset allocation. Nonetheless, we embrace the academic studies that indicate the weighting of asset classes and strategies drive returns far more than stock selection. Over a long period of time (e.g., 10+ years), what matters most is how much one's portfolio is invested in the U.S. stock market vs. foreign markets vs. real estate vs. bonds vs. alternatives vs. cash, etc. In fact, this asset allocation decision – where to invest and equally important where not to invest – is arguably where a firm adds the most value. **Without a doubt, WIC's asset allocation decisions for our clients have been among the primary ways we have added value, especially since 2008.** What exactly does this mean?

Generally, it is WIC's responsibility to decide at any point in time how much of our client's portfolio to invest in:

- Stocks
  - U.S. stocks
  - Well-established foreign markets
  - Less-established or emerging markets
- Bonds
  - U.S. bonds, including agencies
  - Tax-free bonds
  - Foreign bonds
  - Investment-grade bonds
  - Below-investment grade or high-yield bonds
- Alternatives and less conventional asset classes/strategies
  - Commodities
  - Venture capital/private equity
  - Hedge funds
- Cash
  - As a defensive tactic
  - As part of market timing

The decision not to invest in an asset class or strategy (e.g., emerging markets or hedge funds), especially when it is much in vogue, is a critical decision. Looking back over our entire 35 years, with the benefit of hindsight we can see where we were successful with our asset allocation decisions, and where we weren't. Over the last 35 years, we successfully chose to over-weight U.S. stocks vis-à-vis bonds and cash (U.S. stocks out-performed bonds and cash), and to under-weight small cap stocks. WIC's decision to underweight foreign stocks was neutral.

Looking at the 16 years that included the dot.com and *Great Recession* bear markets (2000-2015), our clients could have benefitted from a greater allocation to bonds and to small cap stocks. During this same period, our relatively low allocation to foreign stocks (indirectly) was not dilutive. More recently, coming out of the 2008 bear market, we made some good asset allocation decisions. [2]

Since 2008, U.S. stocks (which we over-weighted) have been among the best performing asset classes. But what we chose not to invest in, or to under-weight, was even more important and additive:

- We allocated relatively little to cash and bonds
- We allocated zero to hedge funds and emerging markets

For years, Vanguard has published studies comparing the wildly popular endowment model (another overly-complicated pie chart with an excessive number of "sophisticated" strategies that has almost become the standard methodology) to a simple mixture of Vanguard index funds with only a few basic strategies – U.S. stocks and U.S. investment-grade bonds. These studies make a compelling case that less is more, simpler is better.[3] We recently asked them to run a similar study for WIC for the following three time periods:

- WIC's entire history (1982-2015)
- A particularly difficult period that included two bear markets (2000-2015)
- Post-housing crisis/Great Recession bear market (2008-2015)

For each of these periods, Vanguard illustrated the returns for a portfolio comprised of three Vanguard index funds:

- 40% in Total Market U.S. Equities (VTI)
- 20% in Total International Market Equities (VXUS)
- 40% in Total Bond Market (BND)

[2] Post-2008, WIC's decision to not become defensive was the main driver of effective asset allocation decisions; and especially the decision to employ our *managed volatility and income strategy* as a complement to bonds (and reduce bonds).
[3] Wallick, Wimmer and Balsamo; *Vanguard's* "Assessing endowment performance", September, 2014.

This study suggested the returns with this approach – which is far simpler than most – compared well to many more complex, more expensive strategies. This Vanguard study also confirmed excessive complexity with the usual multi-colored pie charts, and associated high fees, were not necessary to generate competitive returns. WIC has likewise found that its less complex, straight-forward approach that remains skeptical of unnecessary complexity has been effective. Throughout WIC's 34 years, our asset allocation decisions have been effective, especially since 2008.

Persistence and patience. This is where we believe the biggest difference is made. This is also where we believe WIC has excelled. We have often written about the difference between what we refer to as *theoretical returns* and *realized returns.* We discussed this at length and cited numerous supporting studies in The Chapters.[4] *Theoretical returns* refer to the concept that a market's historical return according to an index (e.g., the Dow Jones or S&P 500) is not the same as the investor's actual return. One could initially get an asset or strategy allocation decision right, but lose patience before the return is realized, and bail out when the strategy temporary falters. It is one's actual return, or *realized return,* that counts.

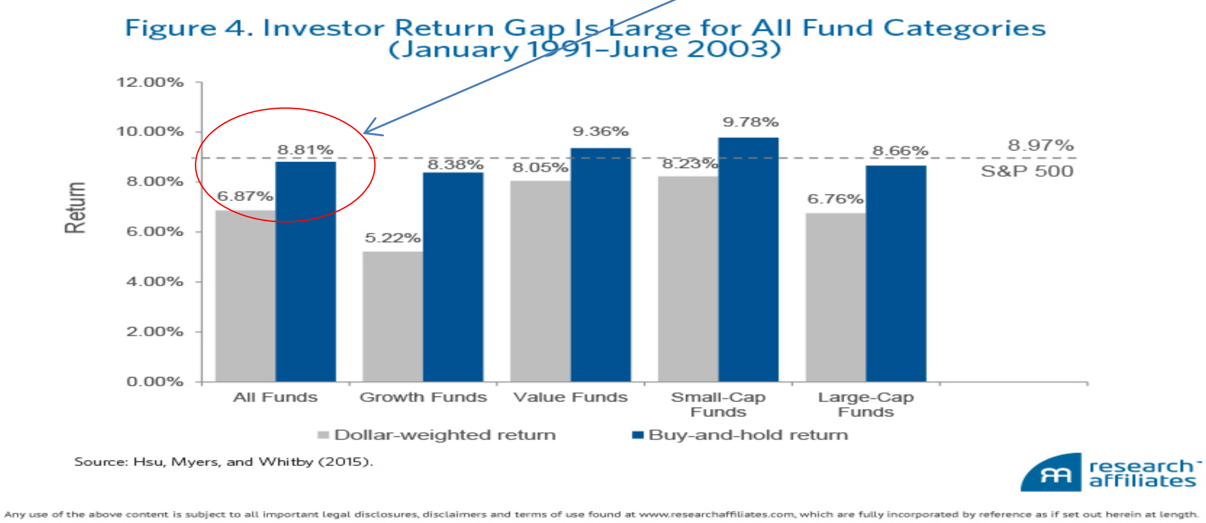
Most of the time, an investor's realized return is substantially less than the index's theoretical return. The difference, or return leakage, is what persistence and patience are about. There are academic studies that address this leakage and estimate it at approximately 1-2% per year (with the Dalbar studies suggesting investors often realize only 50-60% of the market's return).[5]

Referring to page one and two hereof, we summarized academic research that holds asset allocation **and** remaining invested throughout market cycles account for some 90% of return outcomes. There is also abundant academic research that holds most investors do not remain invested throughout market and strategy cycles. Thus they fail the all-important **and** requirement. We believe this failure is the root cause of many portfolios performing poorly.

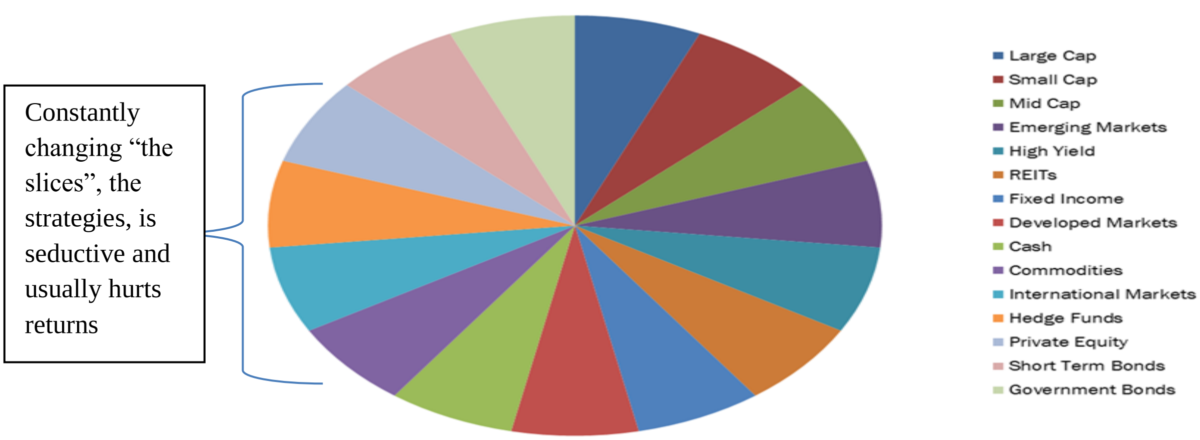
[4] See pages 14-21 of WIC's *The Chapters* for details and sources. *The Chapters* is available on request.

[5] Charlie D. Ellis, "The Rise and Fall of Performance Investing", July/August 2014, Financial Analysts Journal; Jason Zweig, "Just How Dumb Are Investors?", WSJ, May 9, 2014; and see Dalbar.com for summary of these studies; Ben Carlson, *A Wealth of Common Sense*, page 114, Hoboken: John Wiley & Sons, Inc., 2015; Ilia D. Dichev, *What are stock investors' actual historical returns? Evidence from dollar-weighted returns*, December 2004

The below graph from a November 2015 article in Research Affiliates' *Fundamentals* series, by Dr. Jason Hsu, documents an annual **return leakage of ~ 2.00%/year** across commonly used investment strategies (light grey bar is "actual" investor return).



<u>Ironically, we believe a major reason there is so much chronic return leakage (realized returns often being less than theoretical index returns) is the popular use of multiple asset classes and frequent, ineffective changing of strategies (frequently switching the "slices")</u>. Again, the following portfolio composition that is widely used is <u>not</u> embraced by WIC because it results in unnecessary complexity and return leakage:



We believe the above structure encourages and promotes the often harmful practice of excessive tactical re-allocation trading. It is widely believed changing the weights of all those pie slices adds value. It is widely believed that increasing the weight of the slices (strategies) forecasted to outperform or to reduce portfolio risk is the way to add value.

Likewise, when the forecast indicates a given slice is likely to be a laggard in the coming year or two, then it is eliminated or reduced. For all this this to work, the forecasts and timing have to be accurate and reliable. Forecasting and timing are unreliable – notoriously so. Forecasting and attempts at timing increase risk. Therefore, we believe the more slices there are the greater the temptation to forecast and time and fall into leakage traps. [6] Unfortunately, the complexity and "sophistication" of all this tactical reallocation/rebalancing is seductive and "everyone does it" thus it is widely practiced.

INCREASING THE ODDS OF LONG-TERM SUCCESS

The solution is so simple it will likely be dismissed. One greatly increases the odds of above-average long-term returns with less risk by emphasizing these principles:

- Allocate as much to U.S. and multi-national equities as possible/appropriate
- Emphasize *value* stocks and strategies
- Minimize market timing; remain invested throughout market cycles
- Be fee and tax conscious

To drive home these enduring, academic-based principles, one should avoid, or at least minimize, portfolio strategies and approaches that:

- Employ multiple layers of advisers, funds, and strategies
- Rely on forecasting, including historical correlations
- Utilize frequent re-allocating in and out of multiple strategies
- Embrace market timing

Willis Investment Counsel believes the best portfolio design is like the best engineering design – make it only as complicated as necessary to achieve the objective, and no more so.

Simplicity is the ultimate sophistication – Leonardo Da Vinci

[6] Davis, Kinniry, and Sheay; *Vanguard's* "The Asset Allocation Debate: Provocative Questions, Enduring Realities

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