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# Investment Basics

### **What is Asset Allocation?**

“Asset allocation” is the analysis that investors apply in deciding how to distribute investments among various classes of investment vehicles (e.g., stocks, bonds, commodities, real estate, alternatives, etc).

The choice of asset class weightings has a major impact on returns in times when the different assets classes have significantly different results.

Asset allocation is based on the idea that different asset classes will perform differently in different periods and that it is impossible to identify the best and worst asset classes reliably ahead of time. Diversifying assets among several asset classes according to a consistent allocation plan helps protect investors to avoid disastrous performance through over-concentration. Diversification has been described as "the only free lunch you will find in the investment game."

Long term (strategic) asset allocation involves setting asset class targets, and re-balancing to those targets periodically.

Short term “tactical” allocation – sometimes referred to as market timing – attempts to move allocation to asset classes up or down depending on predictions of short term asset class returns. While short term allocation has its proponents, attempts to time the markets short term can easily lead to worse results over a given period than the results achieved by investors who consistently adhere to their predetermined asset allocation plan over the same period.

### **Long-Term Asset Allocation**

The following discussion involves long term asset allocation.

Long term asset allocation is typically practiced using the quantitative tools of “mean variance optimization”, which is an application of “Modern Portfolio Theory” or MPT. Those who consistently practice strategic asset allocation believe that by carefully choosing a portfolio of different assets, an investor may be able to maximize return while minimizing risk.

Because different asset classes returns over any given investment period are not perfectly correlated with each other, diversifying assets among different asset classes should help reduce the overall risk in the portfolio (expressed as the variability, or volatility, of returns) for a given level of expected overall return. Having a mixture of different asset classes in a portfolio may help investors meet returns goals while also keeping portfolio risk within the parameters of their investment policy guidelines.

**Long-Term Asset Allocation**

The “Markowitz mean-variance optimization model” is the technical name for this asset allocation approach. It involves making assumptions about expected total return for asset classes, risk (standard deviation around the expected return) of each asset class, and correlations between the various asset classes (how much they move together) The outcome of the model is a series of possible asset mix choices, each of which has the highest expected return for its projected risk. (This series of possible mixes is known as the “efficient frontier”.)

There can be no guarantee that past relationships will continue in the future; therefore, the above aspect of the model is generally considered one of the "weak links" in traditional asset allocation strategies that have been derived from MPT.

Another issue with the model is that seemingly minor errors in forecasting may lead to recommended allocations that are impractical and may violate "common sense". This may result in a certain amount of tweaking of assumptions to obtain reasonable results.

### How Important is Asset Allocation?

Academic research has painstakingly examined the importance of asset allocation.

In 1986, Brinson, Hood, and Beebower (BHB) published a study about the asset allocation of 91 large pension funds measured from 1974 to 1983. The authors replaced the pension funds' stock, bond, and cash selections with corresponding market indexes. The indexed quarterly returns were found to be higher than the pension plans' aggregate actual quarterly returns. The two quarterly return series' linear correlation was measured at 96.7%, with shared variance of 93.6%. A 1991 follow-up study by Brinson, Singer, and Beebower measured a variance of 91.5%.

The key lesson of these studies taken together was that, for the period studied, the choice of which asset classes to invest in had a bigger impact on the volatility of the funds than did the choice of any particular investment manager. Some also read the studies to mean that more time should be spent on asset allocation compared to seeking active management (and that replacing active investment management choices with index funds might make sense.)

Later papers pointed out that it wasn't necessarily the effect on volatility that investors cared about, but rather the effect on returns. While asset allocation may drive the market sensitivity of returns, excess returns (plus or minus) delivered by investment managers still have a major impact on total returns achieved. In 2000, Ibbotson and Kaplan used 5 asset classes in their study "Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?" Their conclusion was that Asset Allocation determines 90% of risk but 40% of the difference in returns.

**Predictability of Manager Out-and Under-Performance based on Historic Results**

McGuigan described an examination of funds that were in the top quartile of performance during 1983 to 1993. During the second measurement period of 1993 to 2003, only 28.57% of the funds remained in the top quartile. 33.33% of the funds dropped to the second quartile. The rest of the funds dropped to the third or fourth quartile. In fact, data suggested that low cost was a more reliable indicator of performance.

### **Using Fees to Predict Manager Performance**

Jack Bogle of Vanguard noted that an examination of 5 year performance data of large-cap blend funds revealed that funds in the lowest quartile of cost had the best performance, and that funds in the highest quartile of cost had the worst performance.

## References

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- ^ William Jahnke, The Asset Allocation Hoax, *Journal of Financial Planning*, February 1997
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- ^ Thomas P. McGuigan, The Difficulty of Selecting Superior Mutual Fund Performance, *Journal of Financial Planning*, February 2006
- ^ James Dean Brown, The coefficient of determination, *Shiken: JALT Testing & Evaluation SIG Newsletter*, Volume 7, No. 1, March 2003
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- ^ Bekkers Niels, Doeswijk Ronald Q. and Lam Trevin W., [[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1368689](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1368689) Strategic Asset Allocation: Determining the Optimal Portfolio with Ten Asset Classes], Working Paper Series, March 2009>



### **Investment Policy Statement**

The one investment that can minimize the potential liability that a fiduciary faces is the development of a coherent, comprehensive and realistic investment policy statement. Fiduciaries must assume that their investment decisions will be examined in detail in the future. Without proper documentation, it is easy for the "Monday morning quarterback" to criticize the fiduciaries' decision and judgment, particularly if investment performance is not favorable.

**Investment Policy Statement**

In preparing the investment policy statement, the Board should solicit input regarding items that will affect the plan from Staff and Consultant.

Items that will affect the plan include:

- (a) Time horizon of commitment to investment alternatives
- (b) Amount of expected future contributions and withdrawals,
- (c) Growth of participants,
- (d) Vesting schedule,
- (e) Forfeitures,
- (f) Similar details that will affect the investment decisions and commitments.

**Investment Policy Statement Components (1-5) of 10**

1. The type of plan (defined benefit, defined contribution, profit sharing, etc.), date of adoption, and number of employees covered.
2. The current dollar value of the assets to be managed and assumptions as to the projected cash inflows (from contributions) and projected outflows (from withdrawals) over the ensuing years (e.g., 3, 5 and 10 years).
3. The accrued and projected liabilities of the plan which may change the funding status (over or underfunded) as the plan's assumptions and/or investment performance and participant demographics change.
4. The stability of earnings by the plan sponsor and the ability of the sponsor to sustain contributions.
5. The investment objectives the plan must attain in order to meet funding objectives and/or the overall return objective for plan assets (e.g., 3% over Consumer Price Index).

**Investment Policy Statement Components (6-10) of 10**

6. Asset classes appropriate for the plan (based on risk tolerances, correlations, and time horizon) and permitted by, regulations.
  
7. The plan's tolerance for risk and volatility of returns consistent with the plan's funding policy.
  
8. The percentage mix of asset classes that will yield the highest probability of meeting long-term investment objectives without exceeding tolerances for short-term volatility.
  
9. How investment decisions will be made, and if money managers will be hired, how they will be selected.
  
10. How the plan's portfolio performance will be monitored and how money managers will be supervised, including appropriate benchmark indices (e.g. S&P 500 Index for domestic equity managers).