

Modern Portfolio Theory

The variety of alternative investment vehicles, and today's volatile markets, require the use of analytical mathematical tools to understand investment relationships and the optimality of efficient portfolios.

The Four tenants of MPT

(1) Risk Aversion

Investors are inherently risk-averse and especially under the current market and economic circumstances. Therefore, they are not willing to accept risk except where the level of returns generated will fairly compensate for that risk. It's reasonable to assume that investors are more concerned with risk than they are with rewards. The problem historically has been to quantify risk and its relation to any "reasonable" return. Establishing a client's risk profile and measuring a portfolio's degree of riskiness requires quantitative analytical tools. One only has to look at the volatility of the markets from 2000 through 2012 to see why investors are more risk averse than they were in the 1980's or 1990's.

Quantifying your client's tolerance for downside risk is a first step in gaining the client's confidence in you and your ability to understand their particular concerns.

(2) Efficient Markets

Most academic and industry research supports the concept that markets, at least in the broadest sense, are reasonably efficient. Asset classes such as growth equities, intermediate bonds, real estate, commodities, etc. are generically efficient. The nature of an efficient market is such that all participants have the same information regarding the markets in general, and specific issues in particular, at the same time, although they may come to opposite conclusions as to an appropriate price for individual securities. It is, perhaps, ironic that the sophistication of money managers and their virtually instantaneous access to information today creates greater efficiency in the marketplace, thereby making above-average returns extremely difficult to achieve.

With the advance in information technology and more sophisticated investors the markets are likely to become even more efficient.

(3) The Portfolio As The Determining Factor

The third premise is that the focus of attention should be shifted away from individual securities analysis to consideration of portfolios as a whole predicated on explicit risk-reward parameters and on the identification and quantification of portfolio objectives.

Several studies have demonstrated that it is more likely that the efficient allocation of capital to specific asset classes will be far more important than selecting the "right" components of any asset class. In simple terms, the performance of any single security (investment) is largely determined by the performance of the broader asset class (i.e. Microsoft and the Large Capital Growth Index).

In the "Determinants of Portfolio Performance II; An Update 1994" by Brinson, Beebower and Singer, the importance of asset allocation was demonstrated in their study of 91 large pension plans. The study sought to attribute the variation of total returns among the plans to three factors:

- Asset allocation policy
- Market timing
- Security selection

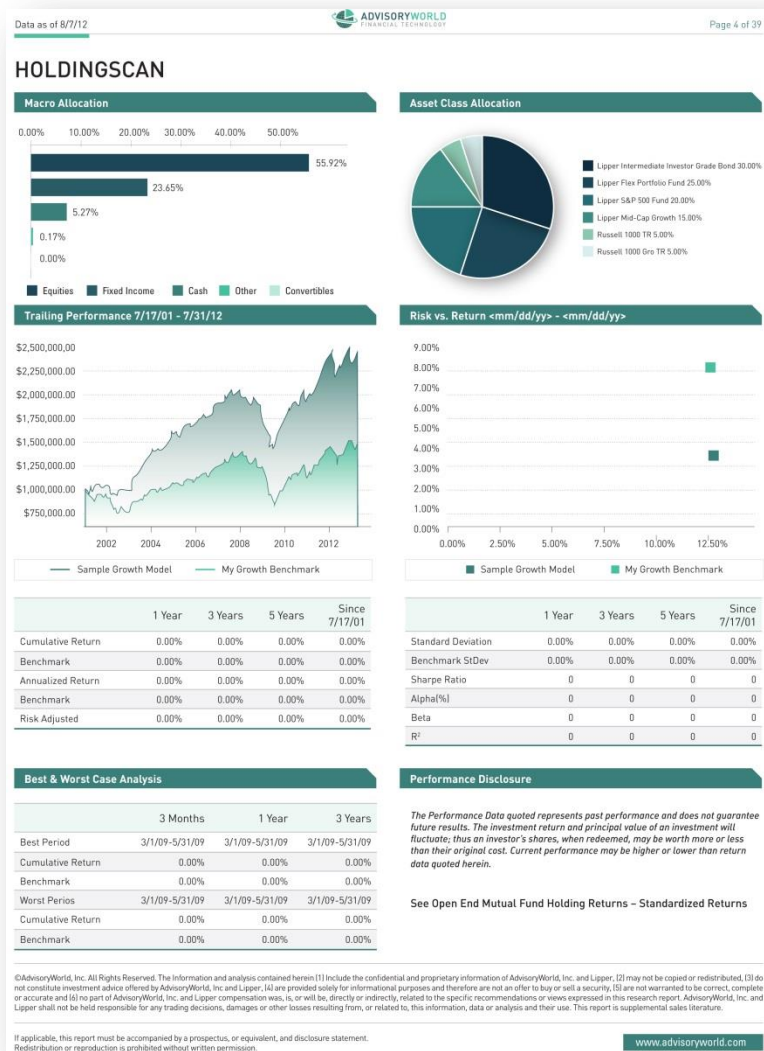
The conclusion was that 91.5% of the performance could be attributed to the asset allocation and only 4.6% could be attributed to security selection.

(4) Portfolios Can Be Quantitatively Optimized

The fourth premise for Modern Portfolio Theory is the optimality of portfolio returns vis-à-vis portfolio risk. In other words, Portfolio diversification is not so much a function of how many issues are involved, as it is of the relationships of each asset to each other asset and the proportionality of those assets in the portfolio. The extent to which knowledge of one asset return provides information regarding the behavior of another asset is measured by the correlation of returns.

40 years ago it would have been nearly impossible to calculate such efficient portfolios. With the advances in computer and internet technology, tools like AdvisoryWorld's SCANalytics can provide quantitative methods used for measuring risk and diversification, making it possible to create efficient and theoretically optimal portfolios.

The true measurement of diversification includes calculations of returns, standard deviations, correlations and the covariance of assets. Advisors can review a wide spectrum of alternative portfolio solutions by using multi-factor quadratic algorithms such as that employed in AdvisoryWorld's SCANalytics tool, in conjunction with the advisor's own constraints and assumptions (including forward as well as backward estimates).



Many advisors have made the mistake of assuming that MPT and optimization is a limited, backward looking exercise. It is not. It is best to remember that finding the appropriate investment solution for any client is as much art as it is science. It is also good to understand that making investment decisions without a sound methodology and scientific basis can result in unexpected and unnecessary liability.

The conceptual basis of MPT is as valid today as it was when Harry Markowitz promulgated it in the mid-50s. It is a method of assisting those concerned with investment analysis, portfolio design, and performance evaluation in expressing quantitatively their views regarding risk and its relationship to investment return. It focuses attention on the overall composition of the portfolio rather than the traditional method of analyzing and evaluating the individual components. The investment manager is therefore able to examine and design portfolios predicated on explicit risk-reward parameters and on the identification and quantification of portfolio objectives.

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