



A DISCUSSION OF ASSET ALLOCATION IN PRACTICE: AN ADDENDUM TO THE YALE WHITE PAPER (JULY 2007)

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INTRODUCTION

Articulating the process we employ to set asset allocation is a difficult task. Many investors would like to believe that asset allocation, manager selection, position sizing, and tactical weighting is a scientific process which, when provided specific quantitative data, is only a matter of “running the model”. We are of the faith, however, that the decisions inherent in portfolio management employ both science and art. Therefore, it requires a process which employs quantitative and qualitative information, formal financial theory and intuition, decision-rules and judgment. In the next few pages, we will further illustrate our process in using knowledge and experience to manage portfolios for our clients. The points below are an addendum to the views we explained more fully in the Yale Endowment White Paper (July 2007).

DISCUSSION

The lessons of diversification were first taught to us in the work of Harry Markowitz in 1952 and later extended by a variety of academics including William Sharpe and Harry Tobin. This body of knowledge developed into what we know today as Modern Portfolio Theory. The essence of the theory says that a portfolio is comprised of various asset classes which in turn can be defined in terms of their risk (defined here as standard deviation or volatility), expected return, and relationship to the other asset classes (defined here as correlation). Based upon the selection and weightings of the various asset classes, the risk and return of the portfolio can then be determined using equations. It is then asserted that an investor can “run the model” to arrive at a portfolio which either maximizes expected return for a certain level of risk, or minimize risk for a certain level of expected return. These portfolios are called “efficient” portfolios.

However, the world has changed much since the origin of this theory. Opportunities in the financial industry have evolved from the simple world of publicly traded stocks and bonds in 1952 to include a variety of hedge funds, private equity, private real estate, and so on. These new “asset classes” which represent an increasingly large portion of today’s portfolios do not have readily available pricing and return data, the necessary ingredient to calculate the risk, return, and relationship characteristics to define an asset class. Furthermore, each opportunity in these new “asset classes” tend to be singularly unique and whose characteristics can not be adequately captured for modeling purposes through the use of an index. In the practical world, many practitioners make simplifying assumptions about the risk and return to move ahead with the “scientific” approach put forward in Modern Portfolio Theory. Many times have we seen presentations in which a model forecasts the risk of a suggested portfolio allocation to the second decimal point. Given what we know about the assumptions imbedded, we recognize that this is only the perception of precision, and not the thing itself.

There are other challenges to employing Modern Portfolio Theory with the variety of investing opportunities available today. Does that mean that the theory has lost its usefulness? Absolutely not. The enduring lessons of the theory are still intact. Below we discuss some particularly powerful concepts which we adhere to strongly.

- 1) **Diversification increases between investments as the level of their inter-relationship decreases** – This is a lesson which we seek to achieve both quantitatively and qualitatively. When evaluating a manager, we seek to understand their process of research and decision making. When pairing a manager with another in the same asset class, we

seek to diversify the way that people think. We believe this is important to give the best chance of diversification over the future period of investment. We invest in a manager with the intent to hold a minimum of three years. Comparing today's portfolios only ensure diversification now, not necessarily later. We support our qualitative conclusion through the statistical calculation of correlations.

2) **Risk is best understood by understanding the range of potential outcomes** – Traditional Modern Portfolio Theory takes a one-dimensional approach to quantifying risk, standard deviation of returns (i.e. volatility). However, in less liquid markets fresh pricing is not consistently available. A lack of change in pricing leads to a lower standard deviation of returns, thus implying lower risk. We review risk as defined in many ways to capture not only the range of possibilities, but also to understand what may cause each outcome.

3) **The marginal improvement to diversification is less meaningful after 25-30 investment positions** – This quality is what economists call diminishing marginal returns. Setting a limit to the number of positions a portfolio can hold forces a portfolio manager to consistently re-assess. New ideas and opportunities arise daily. Assuming a portfolio is fully invested, an attractive new opportunity requires the portfolio manager to re-confirm their conviction in the current investments. We believe the benefits associated with the forced reassessment process outweigh potential losses associated with other unquantifiable risks which could be reduced by holding a significantly larger number of investments (such as fraud).

Combining the theoretic foundation above with the investment philosophy we discussed more fully in the Yale Endowment White Paper (July 2007), we have a better basis to understand our portfolio construction process.

We begin our process with a top-down approach. Each asset class is reviewed to establish our forward looking view on expected return, drivers of return, and sources of risk for each form of implementation (i.e. passive, active, long-only, long/short, etc.). For example, an equity market that we expect to trend sideways with a low level of return expected using an index approach may present a much more attractive opportunity if we believe that there will be a widening gap of performance between various sectors within the market. In this instance, we may favor certain types of long/short equity managers (as we do now). Another example may be illustrated within the commodities asset class. It has become popular in recent years to argue for an explicit allocation to the commodity indices given the low correlation to equity markets (over a long time horizon) and the recent strong performance. Given a view on commodities, it could be implemented using a passive long exposure (by rolling futures), trend-following CTAs, or buying commodity-price sensitive, publicly-traded equities. Each has its own unique characteristics, return possibilities, and risk profiles that should be reviewed in order to find a "best fit" for our views.

Armed with expectations for each available opportunity, we can now construct a portfolio. Portfolio allocations to each asset class (and its implementation form) are based upon the specifics of client circumstances (risk tolerance, return goals, liquidity needs, etc.). Portfolio risk controls are set by grouping various types of risk into "equity-like" and "diversifying" and setting position limits. The "equity-like" bucket contains assets which have a range of potential outcomes and similar expected returns to the traditional equity indices with the main drivers of risk and return also derived from similar sources. "Diversifying" asset classes are investments that are expected to have a low correlation to the equity bucket both qualitatively and quantitatively. We have back-tested portfolios constructed using this process (using actual manager data rather than indices) and compared them to the traditional stock/bond reference portfolios. In each instance, we have found that portfolios exhibit more favorable profiles as defined using "Modern Portfolio Theory" factors. Some of the positive outcome is surely attributed to the use of manager track records which are favorable versus indices, but we believe the comparison of risk levels to be instructive.

While our process of practical asset allocation begins with a top-down approach, its actual implementation would not be complete without a discussion of opportunity sourcing from the bottom-up. While we may identify what appear to be attractive investments when reviewing macro data, we may find difficulty finding an implementation vehicle which adequately captures our thesis. For example, we believe that portions of the healthcare industry to be well-positioned to generate profit growth due to favorable age demographics in the US and Western Europe. It is our assertion that the best implementation (taking into account risk and return) would be in small-mid cap stocks focused on industries that are “pick axes for miners” such as diagnostics, medical devices, pain management, hospice, etc. However, we have so far been unable to find an active manager that matches our view and outperforms passive index exposure on an after-tax basis.

In addition, an investment manager with a unique skill set and demonstrated ability to create return may be found operating in an asset class which we otherwise do not identify as being particularly attractive. However, real excess-return generating talent is difficult to find and should be welcomed when discovered.

Our process is not one-directional. Our work is to evaluate the portfolio and its investments from as many angles as possible. It reminds us of the old adage of the four blind men in a room with an elephant. Each is asked to reach out, touch the animal, and describe it from what they feel. Each grabs a different part – the trunk, the side, the ear, and the tail. If asked individually, the descriptions of what an elephant looks like will be dramatically different. It is only when you put all the perspectives together that you get a clearer picture of what is in the room with you.

CONCLUSION

As our discussion above illustrates, the practical process of asset allocation is not a linear process that can be described solely by the application of equations. As the world and its investment opportunities evolve, so must our approach. What stays constant is the fundamental understanding of the benefits of diversification and the application of seasoned judgment to seek it.

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SOURCES

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Markowitz, Harry M. (1952). “Portfolio Selection”, *Journal of Finance*, 7 (1), 77-91.

Sharpe, William F. (1964). “Capital asset prices: A theory of market equilibrium under conditions of risk”, *Journal of Finance*, 19(3), 425-442.

Tobin, James (1958). “Liquidity preference as behavior towards risk”, *The Review of Economic Studies*, 25, 65-86.

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