

Effective investing: The importance of asset allocation in portfolio construction

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Preview

For too many investors, too much attention is devoted to fund manager selection, security selection and market timing within a single asset class. Yet research suggests that the biggest determinant of variance in investment returns is asset allocation. This aspect of investment is often neglected.

Aims

This article will examine:

- The fundamentals of asset allocation
- The importance of an asset allocation strategy
- The benefits of asset allocation to the investor
- Setting an asset allocation strategy
- Reviewing an asset allocation strategy – strategic and tactical reviews.

The fundamentals of asset allocation

In the world of professional investment, it is well known that the real opportunity to achieve superior results lies not in scrambling to outperform the market quarter by quarter, but instead comes from establishing **and adhering to** appropriate investment strategies over the long term. These strategies can position a portfolio to benefit from the main long-term forces in the market.

The basis of such a strategy is asset allocation. Asset allocation is the process of dividing an investor's capital across a range of different kinds of assets, such as equities, fixed interest, property and cash.

This is not simply a matter of diversification, although the spreading of risk between different types of investment is clearly one important aspect of this. Investors have long realised that a failure to diversify portfolios can lead to greater volatility, due to the reliance of a portfolio on the returns from a few investments – or even from many investments within a single asset class, where high levels of correlation in performance may mean that diversification is somewhat illusory. Too many investors in the UK have learnt to their cost that diversification should mean much more than simply holding a range of different UK equities or equity funds.

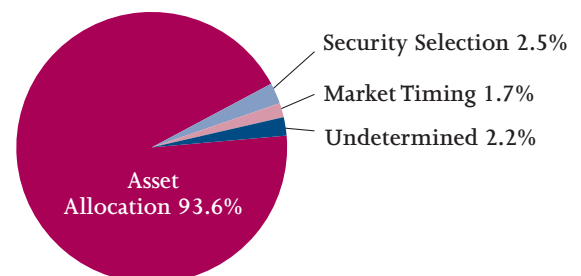
The theory of asset allocation develops the idea of diversification further, by analysing the varying risk and return profiles of

different asset classes over long historical periods, considering these in the light of future expected economic conditions, and examining how these assets can be combined in different proportions within a portfolio to provide a particular level of return with less risk. The theory (Modern Portfolio Theory) was outlined in 1952 in the *Journal of Finance*, and was a factor in the award of a Nobel Prize to its author Harry Markowitz.

The importance of an asset allocation strategy

Asset allocation theory has been developed considerably since the early work in the 1950s. Several studies have concluded that the combination of asset classes in a portfolio is the single most important factor in determining the investment performance of that portfolio.

A paper published in the *Financial Analysts Journal* in 1986 suggested that well over 90% of the variation in investment performance of US pension plans could be explained by differences in asset allocation (see graph below). Other studies, including that by Ibbotson et al as recent as 1990, have reached similar conclusions. Yet many investors, including professional investors, agonise instead over the selection of individual securities or funds for their portfolios, or over “timing the market”. Very few devote the attention to asset allocation that it would seem to deserve. Indeed, equity strategists at Citigroup Smith Barney, the investment bank, in a research note published in September 2002 have argued that the investment analysis industry now direct the majority of their resources at relative stock and sector decisions, leaving much of the asset allocation decision-making in the hands of actuaries and consultants.



Source: Financial Analysts Journal, July-Aug 1986

Similarly, retail investors often make asset allocation decisions themselves, without necessarily realising it, when they decide how much to save into a particular fund. Too often, retail investors' asset allocation may be determined by momentum themes, chasing the latest bandwagon and quite frequently do not properly take into account their full array of current assets and liabilities.



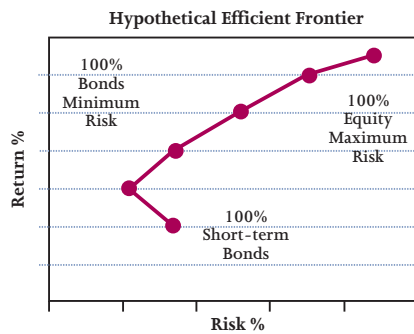
Perhaps it is time for the industry in this country to devote more attention to this crucial element of investment management. In the US it has long been the norm for both institutional investors and retail advisers to asset allocate rigorously ahead of portfolio construction.

The benefits of asset allocation to the investor

Asset allocation aims to provide investors with an optimal combination of investments, with the potential to give the return they require with the lowest possible risk, or volatility. This should appeal to rational investors.

For any set of assets there is a given maximum return available for each level of risk. Investors are used to expecting a higher level of reward for a given level of risk – in general, then, we should expect the curve to slope upward and to the right. However, the benefits of diversification, as long as it is true diversification – in the sense of combining assets with a low correlation in a portfolio – can lead to a “bulge in the curve”. This means that the lowest risk portfolio (i.e. the point on the curve furthest to the left) is not necessarily the lowest return.

The differing combinations of risk and return outcomes make up what is known as ‘The Efficient Frontier’. Taking the expected returns for various asset categories and plotting them against the risk level for that return gives rise to a specific elliptical curve. A pictorial representation of this is shown below.



Most of the academic work done to back up this theory has been done on US capital markets, which are recognised as the most efficient markets globally. The data from the UK market, for various reasons, does not give quite such a perfect fit, particularly because of the extreme performance range in the UK Gilt market, as that came about when inflation in the 1970’s was squeezed out of the economy.

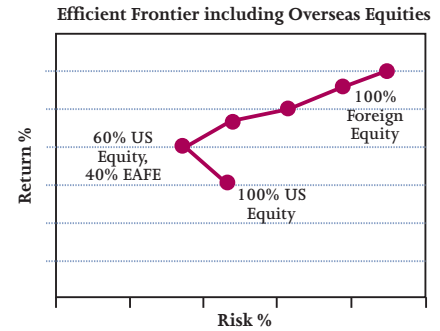
Using asset allocation to structure an efficient portfolio can be refined with a further layer of diversification. The same theory holds true for the same assets in different countries. Investors should not be cut off from overseas opportunities in the global marketplace. The reasons for a geographic spread can be summarised as follows:

- Investors can increase the number of available investment opportunities.
- Global competition means that domestic assets operate in a wider marketplace and compete globally.
- Investors gain access to regional performance differences, as countries experience differing levels of growth and cycles.

For a sterling based investor the natural investing environment tends to be in the UK. However, in order to both diversify risk and achieve better returns, investors may seek returns outside of the currency area in which their liabilities are denominated.

The ‘Efficient Frontier’ model can also be used to describe the risk/return levels for different assets classes by geography.

Essentially it shows that diversification into foreign investments can spread risk in a portfolio, just as you can by holding different kinds of assets in that portfolio.



*EAFE = Europe, Africa, Far East

Some asset allocation strategies are implemented using passive, indexation strategies. Others use a range of active management strategies, in an attempt to add further value, both by outperforming the index and by adding a further layer of diversification. Arguably, combining different fund managers and complementary investment philosophies within the allocation to any given asset class in a portfolio can improve the risk/reward profile of that portfolio further and may justify the extra costs and resources involved.

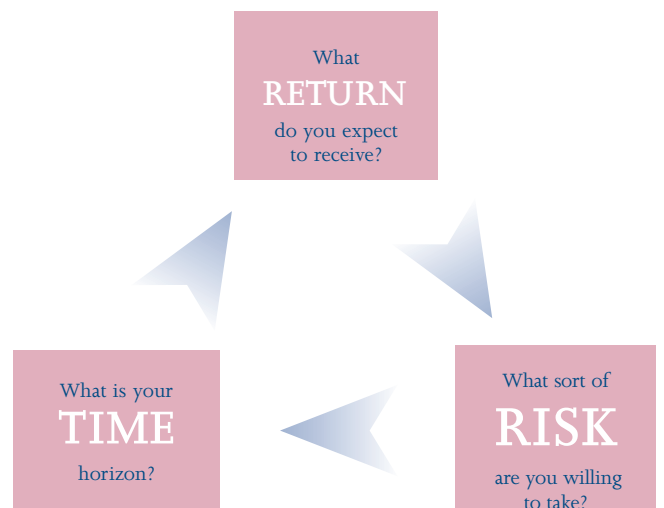
The current popularity of hedge funds in portfolio construction is based on this perception. Diversification is properly achieved by combining assets with relatively low correlations in a single portfolio. Hedge funds are run to generate absolute, rather than relative, returns, and many are designed to have low (or zero) correlations to mainstream bond and equity markets.

Other asset classes, like property, private equity or commodities, may have relatively low correlations with core assets like bonds, cash and equity, and this could give them a role in portfolio construction too.

Setting an asset allocation strategy

While we would all like to have the certainty of high returns for minimal risk, the reality is that there is usually a close relationship between risk and return. Over time, financial markets have tended to reward investors who are willing to take higher risks with their capital with higher returns, but over shorter periods risky assets like shares or bonds can experience considerable volatility.

A sound asset allocation process should therefore be based on finding a balance between three critical variables and how they relate to each investor. These variables are **return**, **risk** and **time horizon**. In order to develop a consistent, long-term approach, we need to consider the following questions:



In looking for the answers to these questions, we can start with an analysis of the past. In general, analysing very long-term returns and risks on financial assets is desirable, in order to build a picture of the relative qualities of different asset classes. The table below presents the variations in risk and return* observed in UK equities and government bonds over the last 22 years.

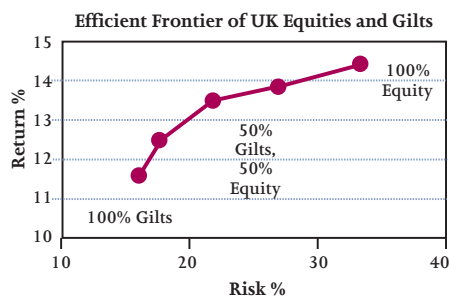
Risk and Return Observed on UK Asset Classes, 1980 - 2002*

	RISK	RETURN
100% Gilts	15.7%	11.7%
75% Gilts, 25% Equity	17.1%	12.6%
50% Gilts, 50% Equity	21.0%	13.3%
25% Gilts, 75% Equity	26.5%	13.8%
100% Equity	32.6%	14.3%

Source: Bloomberg

* Return is defined as the observed compound annual growth rates of UK Gilt and Equity, Total Return Indices, from 1980 to 2002. Risk is defined as twice the observed standard deviation on the rolling twelve month returns of the five asset class combinations.

These observed data can be represented graphically as below; the five points represent the plots of observed data, with the line joining them representing a theoretical efficient frontier.



This provides a starting point for an asset allocator. In essence, this line represents the possible strategic asset allocations an investor might select, if basing a portfolio on historical returns and variances from these two asset classes. Of course, there is no reason to suspect that future returns will mirror those in the past. Expectations of future asset returns and volatility need to be considered in the light not only of past experience, but also of the likely medium- to long-term outlook for growth, inflation and interest rates, and structural factors affecting demand for various asset classes. Research and analysis of these issues can help an investment manager develop long-range expectations for average returns on asset classes, and the possible volatility of these returns. These expectations can then be fed into the portfolio asset allocation process, developing different portfolios for different investor profiles.

The levels of return an investor seeks may be defined; they may simply be “as much as possible”. The levels of risk that an investor can tolerate need to be probed more deeply, and might be understood in terms of the levels of loss that an investor can bear in a given period. Likely maximum losses can be modelled and projected from the forecast returns and risk levels. These issues can help match an investor to an appropriate portfolio asset allocation strategy.

The possibilities range from a very defensive fixed interest only strategy, through a balanced strategy combining bonds and

equity in equal proportions, to the most volatile, an aggressive growth strategy based only on equities. The efficient frontier above represents the relationship between the returns an investor might have expected to receive from such a strategy in the past, and the level of risk (i.e. volatility) associated with these returns. An investor’s acceptance of this volatility – which can rise substantially in an equity-oriented portfolio – may be a deciding factor in setting a strategic asset allocation profile for that investor. The “bulge” in the curve, which implies a lower level of risk for any given return than would be the case if the 100% Gilt and 100% Equity portfolios were simply joined by a straight line, may be regarded as an illustration of the benefits of diversification.

The investment time horizon is clearly an important factor. Over longer periods of investment it is fair to expect that returns from the various asset classes will approximate to the mean expected return. Over a twenty or thirty year time horizon, there is less risk that a short period of unusually high or low returns will have a disproportionate effect on overall portfolio returns. Longer time periods also allow the power of compounding to become apparent on a portfolio, assuming that dividends and other income are reinvested. The importance of compounding in driving long-term returns is well known, and is not the subject of this paper. Suffice to say, however, that in a world of low inflation and low nominal investment returns, reinvested income could play an even greater than usual role in overall investment returns.

Of course, where the equation of return, time and risk does not provide the solution that an investor is seeking, and there can be no compromise on any of these elements, there may be no alternative for that individual other than to invest a greater sum to ensure that their long-term needs can be met. Far better than unrealistic expectations of what can be achieved, or investors taking on more risk than they can comfortably bear.

Reviewing an asset allocation strategy

In many cases, retail investors’ asset allocation is not only haphazard, lacking clarity and ill-suited to their investment needs; it is also rarely reviewed and adjusted. Even investors who have structured an initial portfolio using a sensible asset allocation strategy may neglect to review it. But asset allocation cannot be a “fire and forget” exercise; it needs regular monitoring and, on occasion, adjustment in its aims.

There are two levels of the review process on any asset allocation framework. The first relates to the investors’ long-term strategic framework and is the prime key to the process for the individual. The strategic asset allocation is set to reflect an investor’s needs and objectives over a defined time horizon, and reflecting that investor’s attitude towards risk, and other personal circumstances. This strategic asset array should be reviewed at least once a year. Have the investor’s objectives changed? Have changes in personal circumstances led to a shortening or lengthening of the investment time horizon? Have differences in performance between the underlying investments moved the asset allocation away from the desired strategy? Is the investor still happy with the level of risk implied by the portfolio?

Important changes of this nature may need to be reflected by changes to the investor’s strategic asset allocation.

The strategic asset allocation is firmly based on each client’s individual objectives and attitudes, and is designed for a long-term perspective. It is driven by the long-term average rates of return and levels of volatility associated with each asset type. It should not take into account a short-term view of market movements. But these shorter-term market movements can create threats or opportunities for an investment portfolio, and a flexible asset allocation framework should be able to react.

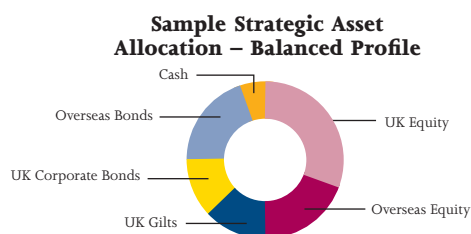
This is the “tactical” approach to asset allocation. This is a refinement to a strategic asset allocation process, in which an investment manager will assess the short- to medium-term outlook for different asset classes and markets. This may be based on macro-economic conditions, analysis of asset valuations and company performance, political and social factors and market sentiment. Developing a view of the shorter-term outlook can allow a manager to implement tactical variations around the strategic asset array.

These tactical variations may be regarded as temporary departures from a strategic norm, aiming to improve overall returns from the long-term average expectation by taking advantage of anomalies in asset pricing to maximise gains, or minimise losses, in the portfolio. In general, these should not be dramatic shifts in the asset split of a portfolio, except in extraordinary circumstances. Overly dramatic moves between asset classes and sub-sectors could increase the riskiness of an investment strategy. However, the flexibility to implement more moderate adjustments around a long-term strategy could be especially valuable.

Investment managers should define tolerance bands within which tactical asset allocation may be applied. A maximum variation of 10% or 15% either side of the strategic equity and bond allocations may be appropriate; perhaps a smaller 5% or 10% maximum tolerance for tilts in the regional or sub-sector allocation.

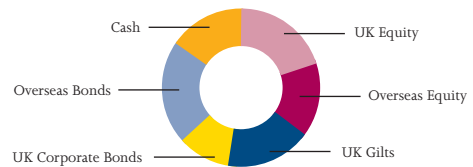
Under such a regime, a strategic asset allocation defined for an investor with a moderate appetite for risk, and requiring a blend of capital growth and income for a portfolio to be invested for the long-term, might be based on a balance between bonds and equities, each at 50% of the portfolio. In this example, an investment manager applying a tactical asset allocation tilt to this portfolio would have the flexibility to increase equities up to 65% vs bonds at 35% if attractive valuations and an improving economic outlook justified a bullish stance; in the reverse situation, bonds could be increased to 65% and equities cut to 35% to protect capital in more difficult times. Similarly, on a regional basis, if 30% of the 50% held in equities were held in UK securities under the strategic asset allocation, 10% tolerance bands would allow a manager to vary this between 20% and 40% depending on the outlook for that particular market relative to other equity markets – whilst remaining, of course, within the tolerance bands for the asset class as a whole.

The series of charts below help to illustrate the concept of tactical asset allocation ranges. Taking as an example an investor seeking a balance of income and capital growth over the longer-term, and with a moderate appetite for risk, the first chart outlines a sample strategic asset allocation profile. **These charts should be regarded as hypothetical illustrations only, not as recommendations.**



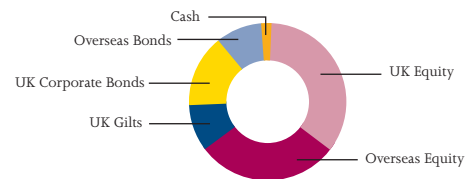
The investment manager monitoring and adjusting the tactical asset allocation framework on this portfolio may take a cautious view of the world economy. In such a scenario, expectations of economic growth may be cut, and inflation and interest rates may be expected to fall. The manager may regard equities as expensive relative to bonds. The asset array below represents a possible extreme variation of the portfolio structure, given such a view of the economic and market outlook.

**Balanced Profile
Tactical Allocation no. 1**



We may consider the tilts applied to the same portfolio in a more positive scenario. If the manager expected stronger economic growth, and regarded equities as good value in comparison to bonds and cash, then a more bullish tactical allocation might be appropriate, as outlined in the next chart.

**Balanced Profile
Tactical Allocation no. 2**



In all likelihood, it would be rare for an investment manager to take such an extreme view, applying a tactical asset allocation that approached the tolerance limits as in the hypothetical examples above. It is more reasonable to expect that levels of conviction in all but the most unusual circumstances would dictate much smaller tilts and variances from the strategic asset allocation framework. The necessary research and analysis of macro-economic developments, market valuations, political and social issues, corporate profitability and other factors that can affect short-term market movements is extensive and time consuming. However, the ability to seek to add value – or minimise losses – to a portfolio through applying such a flexible tactical structure, is a valuable additional feature of an effective asset allocation process.

Conclusion

There are a series of crucial decisions to be made in setting up and managing a portfolio for any investor. These centre around an analysis of the investor's needs and objectives, in conjunction with an understanding of the likely risk and reward profile of the available asset classes, and how they work in combination in a truly diversified portfolio. This can enable the construction of an appropriate strategic asset allocation, designed to meet an investor's long-term requirements. This should be reviewed for continued suitability at least annually. Portfolio asset allocation accounts for the majority of variation in investment returns – research efforts should be focussed therefore on monitoring and adjusting asset allocation, rather than market timing or security selection. There is an opportunity for an effective tactical asset allocation process to add value over the longer-term by applying temporary tilts and changes of emphasis to the portfolio's strategic asset array within agreed boundaries.

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Sources: Bloomberg, Citibank Smith Barney, Financial Analysts Journal, FTSE, Global Financial Data, Reuters.