

From asset allocation to risk allocation

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BACKGROUND

After capital market forecasts and assessing investor objectives, the current method for portfolio construction starts with the asset allocation decision, followed by investment selection. In the Australian context, it is widely accepted that the asset allocation decision is responsible for most of the portfolio performance variability, and it is (rightly or wrongly) regarded as the most important investment decision. Asset classes are then populated with investments and the portfolio is recommended to a client.

But there is one major problem with this two-step approach. The investments chosen often do not reflect the required asset allocation and the asset allocation decision becomes compromised. This is because asset allocation is a market beta decision while investment selection may introduce an alpha component - which can change the exposure to the desired asset classes. An investment manager looks to add value, loosely defined as alpha, by designing portfolios that differ from the market. The size of these non-market bets may capture certain risks that are positively rewarded, but may also introduce unintended risks into the final portfolio which then not only doesn't represent the desired asset allocation, but might actually increase risks that result in a worse-than-market outcome in stressed times.

This portfolio construction problem can be summarised by the following equation: Asset Allocation \neq Investment Selection because Beta \neq Alpha + Beta.

This problem can be solved in two ways:

1. **Remove the alpha component of investment selection.** This means the chosen investments are simply index funds that represent their respective asset classes. Many portfolio construction practitioners already do this, on the belief that markets are efficient and/or that active management does not add value, or for other reasons. This transforms the above equation to: Asset Allocation = Investment Selection because Beta = Beta
2. **Introduce a formal alpha allocation to the process** such that the portfolio construction equation changes to Alpha + Beta = Alpha + Beta with the goal then being to choose investments that specifically reflect the asset class and alpha allocation decisions.

This paper discusses the introduction of the additional step of Alpha allocation and proposes a simple framework for its implementation. Considering that today's markets (whether bonds or equities) may be regarded as expensive, with future ("Beta") returns looking increasingly low, efficient and purposeful Alpha allocation may become an essential component for adding that little bit of extra return to portfolios.

EQUITY RISK MATTERS MOST

The largest component of risk for all multi-asset portfolios comes from equity markets. It generally doesn't matter whether a portfolio is invested 25% in growth assets or 80% in growth assets, most of the portfolio's performance variability will come from equities.

Therefore, active asset allocation approaches must have greatest focus on the equity market allocation (equity market Beta).

It's often said when markets are running strongly, investors don't really care whether they're invested in index funds, benchmark-huggers, or highly active strategies. As long as they are receiving high returns, they are likely to be happy. In strong markets, Alpha (outperforming the market) matters less and it's all about capturing the market (Beta).

Of course, when markets perform badly investors don't want "Beta", they want to be protected. They want uncorrelated assets, they want diversification away from equities risk, and they definitely still want positive returns. And some clients may be more accepting than others, irrespective of their risk profile!

If equity markets are cheap – say based on simple, perhaps naïve metrics like Price/Book or PE Ratio measures – capturing equity market risk (Beta) is desirable. On the other hand, if equity markets are expensive, well, it's a lot more challenging.

But what if all asset classes have a weak return outlook and there appears little place to hide? This leads to an Alpha allocation (or non-market or specific risk allocation) decision.

EXAMPLE PORTFOLIO CONSTRUCTION FRAMEWORK

Figure 1 shows one framework that can be used for allocating between Alpha and Beta which hopefully improves process around investment selection and alignment to a formal view. In this context, Smart Beta (cheap systematic risks) are separated from pure "Skill"-based Alpha allocation.

Figure 1: Active Allocation Framework

| Risk Allocation | Equity Market Valuation | | | Stressed Equity Markets |
|-----------------------------|-------------------------|---------------------|-----------------------------------|---|
| | Cheap | Neutral | Expensive | |
| Alpha (Manager Skill) | Low Exposure | Neutral | High Exposure | "Security Selection" Market Timing" Skill |
| Smart Beta (Style, Factors) | Size? Credit? | Value? Momentum? | Low Vol? Quality? Duration? | US Dollars, Quality, Low Volatility, Duration |
| Market Beta (Asset Class) | High Exposure | Neutral | Low Exposure | Cash |

Source: Delta Research & Advisory

It should be noted that this asset allocation framework is no guarantee of success, rather it's an attempt at moving probabilities in the investor's favour. Active management success will always rely on good timing and assumptions coming true – and unfortunately there are never any guarantees in investing.

This asset allocation framework proposes the following deeper dive within each asset class, with considerations of allocation to various alpha-driving risks:

- **Increased allocation to Alpha-focused strategies when equity markets are expensive**
By definition, the Alpha component of a strategy's return is uncorrelated to the market (Beta) return so increasing Alpha potential when markets are expensive may be a simple, effective risk management strategy.
- **Increased allocation to Beta-focused strategies (i.e. index or benchmark-hugging strategies) when equity markets are cheap**
When markets are cheap, expected returns are high so diversification to markets matter less and capturing index returns can be best.
- **Smart Beta (or Style/Factor biases) have the potential for outperformance in all markets** but it should be noted that factor timing is considered very difficult and different factors will perform better at different parts of the cycle.
- If there are concerns about equity markets becoming stressed, some recent risk allocations that have provided some downside protection include:
 - **Pure Alpha strategies focused on market timing and/or security selection.** This may include Alternatives such as Hedge funds or more specifically uncorrelated Alpha strategies such as Market Neutral or some Managed Futures strategies.
 - **US Dollars** – this may be a currency hedging decision or could be a direct cash allocation using some ETFs. Often, during stressed global equity markets, funds are flowing from the riskiness of equities to the safety of US government bonds and cash. This increases the value of the US Dollar versus the Australian dollar. An unhedged Global equities position (which has a high proportion of US Dollars) can also be cushioned somewhat by this rising US Dollar.
 - **Volatility** – Volatility strategies exist and are typically available via complex hedge funds. However, equity market volatility increases during times of market stress.
 - **Momentum** – This is the factor that Managed Futures strategies generally aim to capture and it is largely about capturing the current trend. Hence, in a downturn, such as during the GFC in 2008, momentum capturing strategies can produce positive returns.
 - **Duration** – This is interest rate risk. When equity markets are under stress, interest rates will sometimes decrease as equity markets are seen as a leading indicator to the economy. Declining interest rates means higher bond prices, but this applies to only the most secure or conservative bonds (such as AAA-rated government bonds). While corporate bonds may have some duration risk, a stressed equity market often results in a declining corporate bond price, as credit risk and equity market risk are generally highly correlated just when you don't want them to be.
 - **Cash** – This is the only asset class that can provide a buffer for a stressed equity market. While alternatives and bonds can, it is only specific sub-classes of investment that may diversify the stressed equity market.

This simple active asset allocation framework provides a deeper dive into towards some of the more specific risks that may be uncorrelated at times of greater equity market risk, the most important risk of all. Allocating to risks that provide greater diversification to an existing asset allocation, although no guarantee of superior returns, may provide for more

efficient investment selection and fill a gap that has frequently created problems in the portfolio construction process - the asset allocation and investment selection mismatch!

FINAL THOUGHTS

Many today are forecasting interest rates to rise, decreasing bond prices, which may ultimately lead to decreasing equity valuations, and all-in-all, that's a recipe for lower asset class returns in the future. Many portfolios were not well prepared for the GFC, as they were focused on chasing return and contained exposures that were considered defensive but ended up correlated with the equity market risk of 2007 to 2009. The GFC showed that asset allocation can fail, particularly if investment selection is not aligned appropriately. This paper proposes an additional step that allocates to risks (non-market risks) depending upon equity market valuations. It proposes a step that provides a clearer recipe for investment selection. While this does not provide a guarantee of superior returns, it may provide greater portfolio diversification and improved ability to withstand volatility when it's most needed, capturing market returns efficiently.

It should also be noted that this framework requires the measurement of investment risks. There are increasingly more tools available for measuring and understanding the risks of investments available in Australia and they can definitely aid in building more robust portfolios. But I'll stop there given my conflict of interest on this particular point!



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