



THE CRISIS OF ASSET ALLOCATION

"If returns came out of history books, librarians would be the richest folks around"

Warren
Buffett.

The art and science of asset allocation is in crisis. It has become something of a dark art, a combination of some science, a little logic, half truths, and much blind faith. All ultimately dominated by the magic final test, 'Let's make sure it's not too different from what everybody else is doing.'

The classic steps in the asset allocation process are;

1. An assessment and forecast of likely returns of different assets over the period in question
2. An assessment of the risks inherent in those assets
3. A careful trading off of risks and returns to put together a series of model portfolios with the highest expected returns for different levels of risk taking into account transaction costs, taxes and liquidity constraints
4. A careful assessment of the risk profile of the client
5. Matching the client to one of the model portfolios
6. Coaching the client to understand, implement and maintain the resultant strategy

Traditional approaches to all of these steps have been found wanting and are in urgent need of overhaul.

Forecasting returns

The standard approach to forecasting long term returns has, for many, been based on one of the tenets of Modern Portfolio Theory, the risk premium. If an asset is riskier, then surely an efficient market will price that asset so that it's expected return will increase to reflect the extra risks involved? The higher the risk, the higher the expected return. If bonds give us 6%, then equities must be 10%.

This notion carries the convenient assumption that any price must be the right price in the long term, and so one can confidently invest at any time, at any price, and time will sort it all out.

Unfortunately, price does matter, as we all learned in the aftermath of the dot com boom. Buying a good company at \$1.00 will yield double the final capital as buying the same good company at \$2.00. Without some concept of the implications of the impact of valuations on returns, one is locked into a very dangerous strategy of loading up with risky assets just when they are offering the lowest potential returns.

We can't rely on the magical risk premium.

Estimating Risk

But in the **very long** term equities always out perform, don't they?

Of all the half truths in the investment business, the notion that in the long term, equities always outperform is probably the most dangerous. Unfortunately it is a notion that seems to be at the heart of most portfolio construction in this country. It is an idea that says that equity risk is a short term phenomenon that simply disappears over time.

This idea that equity risk disappears over time seems to be based on a century of rising Western equity markets and the notion that one standard deviation is a suitable measure of long term investment risk.

Oh, how Japanese equity investors wished equity risk really did disappear over time!

Japanese equity investors know all about long term equity risk. In the 14 years since 1989, Japanese equity investors have seen their capital retreat by over 75% while patiently waiting for the promised long term outperformance. To put that in context, if Japanese share prices double over the next six years they will have returned -50% over a twenty year period. Now that is long term equity risk.

The true believers generally dismiss the failure of Japanese equities over the past decade because 'Japan is different' and such irrational securities pricing and economic practices could never happen in sophisticated Western markets and economies, (a little voice whispers, 'Dot com, dot com!')

Furthermore, they have the theoretical support of those elegantly constructed risk funnels that show risk gently declining over time.

Risk funnels are generally constructed using one standard deviation and normal or lognormal distributions. One standard deviation captures where two thirds of results should fall, that is one third of results fall *outside* of that range. How different the funnels would look if one were to be a little more conservative and use 2, or even 3 standard deviations! For example, a normally distributed, 3 standard deviation event for Australian equities is an average return of around minus 10%pa for 10 years, or a total return over that period of minus 65%, with dividends reinvested!

How likely is that? For a normal distribution, a bad 3 standard deviation event should occur 0.5% of the time—however, the phenomenon known as fat tails in financial markets means that the probability of extreme events occurring is quite a lot higher than implied by normal distributions. As we have seen in Japan, -65% over 10 years can happen.

Yet another problem is how we measure volatility. Typically it is measured as the standard deviation of daily or monthly returns and then extrapolated to estimate longer term returns, over years and decades. For some assets this clearly is not valid. A 10 year government bond yielding 6% shows considerable day-to-day and month to month volatility, but over a 10 year period it will yield precisely 6%pa. High risk or low risk for a 10 year investor?

Probably somewhere in between. Both short term and long term uncertainty are risks that concern most investors. As are issues such as inflation, the need for liquidity and credit risk. Risk is multidimensional. One number just doesn't do it for us.

We need good ways of capturing the full spectrum of risk when we construct portfolios. We don't have it now.

Trading Off Risk and Return

Assuming we can get reasonable measures and forecasts of return and risk, how do we go about constructing portfolios? Deciding which portfolios maximise returns for a given level of risk?

The state of the art approach is, and has been for many years, the Markowitz mean variance optimiser. The only trouble is, it doesn't work very well. So much so that it has been described as an *error maximiser*. It is unstable to the extent that small changes in the input forecasts of returns, risks or even correlation coefficients (don't worry we are not going there today) can produce wild swings in asset allocation outputs. Another commentator has described mean variance optimisers as "not so much garbage, in garbage out, as molehills in, mountains out."

And in a world where forecasting returns is difficult and we don't even have a good measure for risk, let alone a good estimate of what that measure should be, formal optimisers go out the door. Construction of portfolios in practice is normally driven by gut feel, business risk considerations, and a, small, salute to Markowitz.

We need a more systematic approach.

Matching Portfolios to Clients

By one means or another we produce a bunch of model portfolios of differing risk levels. Now we have to match one of them to the client, taking into account the clients needs, risk tolerance, tax status, liquidity requirements and existing portfolio with it's attached transaction costs and unrealised capital gains.

Immediately we strike a problem. The model portfolios haven't taken account of the clients tax status, liquidity requirements or existing portfolio. But let's assume these factors don't make any difference and continue on.

There has been some good work performed on attempting to measure investor risk tolerance, lets assume it's accurate. But how do we match that tolerance to portfolios where we have a dubious, one dimensional measure of risk and a multidimensional risk environment?

We can use gap analysis where one calculates the return required by the client to meet their needs and the find the portfolio that will achieve that level of return. We then assess if the client is comfortable with the risks inherent in that portfolio. If not, we close the gap by using education to lift risk tolerance or by reducing expenditure and going with a portfolio of the level of risk with which the client is comfortable.

This is fine so long as we are comfortable that our return estimates are sound and our risk assessment has covered all the risks that concern the client. And as we have seen, these are not trivial issues.

Coaching the client

Perhaps the biggest task of all, coaching the client to understand, implement and maintain a portfolio through hell and high water.

This really is tough, after all it's humans we are dealing with, and the long term emerges one day at a time. It takes an enormous level of belief, courage and insight for an adviser to successfully navigate this part of the asset allocation process.

Without belief, courage won't last. Market bottoms and tops are made out of the bones of investors whose courage only took them so far, who capitulated at the worst possible moment. And who could have utter faith in the current approaches after what we have seen in the past few years, in fact over the past decade?

Courage without insight gave us the Charge of the Light Brigade. It is an equally dangerous combination in the investment world. Insight is built on a fact based understanding of what really drives markets, open minded analysis and a willingness to challenge all the assumptions. How many advisers understand the logic that has gone to create their asset allocation?

The crisis of asset allocation

Asset allocation will remain in crisis until we can develop practical, understandable, logical, fact based approaches to

- forecasting returns
- forecasting risks
- trading off risk and return
- matching portfolios to clients based on all the risks they face

These are some of the key investment challenge facing financial planners today. Farrelly's is dedicated to helping planners finding workable solutions to these challenges.