

# ASSET ALLOCATION: THE NEW FRONTIER

For the investment management industry generally, and for superannuation funds in particular, the need to reduce downside risk in portfolios and ensure adequate retirement incomes through better asset allocation is a pressing one.

As some of the more innovative operators in the field make clear, there is a diversity of opinion about how to define the problem as well as how to solve it.

BY ROGER HOGAN

**O**n the face of it, two notable dates looming in the investment industry's calendar this year – the introduction of MySuper on July 1 and, on September 15, the fifth anniversary of Lehman Brothers (Lehman)'s filing for Chapter 11 bankruptcy protection – may appear to have little in common. But, while distant from each other in time and place, the events are related by a common theme: the profound changes taking place in how professional investors and their clients are thinking about asset allocation.

Lehman's collapse was the biggest in US corporate history and marked a tipping point in what became the global financial crisis. The result has been to alter investors' views about the real purpose of investment and to create a research industry dedicated to the management of downside risk.

Closer to home, the requirement to provide low-cost default funds under the MySuper regime has focused the minds of superannuation trustees on the importance of asset allocation in ensuring that fund members' portfolios are appropriately structured. That includes both the accumulation phase and up to, and beyond, retirement.

"The focus on relative returns that had become predominant prior to the global financial crisis has shifted quite dramatically in financial advisers' conversations with clients," says Ross Kent, Sydney-based chief executive officer at AllianceBernstein Australia. "It's moving to a focus on giving clients an outcome that meets their needs. And that's starting to change what is happening at the product development and design end of the value chain."

The debate is primarily a buy-side concern, but it is relevant to the sell side, too. And particularly so to those who

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ROSS KENT ALLIANCEBERNSTEIN



have seized on the Australian superannuation sector's under-exposure to fixed-income securities – relative to superannuation systems in other countries – as grounds to argue for greater allocation to the asset class.

In fact the asset allocation debate generally, as well as with regard to specifics such as fixed income, is a little more nuanced than that. While there is broad agreement that a focus on beating benchmarks and peer performance should no longer be the main game for investment managers, there is a diversity of opinion about how to define, as well as deliver, the best outcome for investors.

A number of solutions being canvassed in Australia and elsewhere focus on risk management. “Up until 2008, everything was earning double-digit returns so people forgot about risk management,” says Bhanu Singh, portfolio manager at Dimensional Fund Advisors (Dimensional) in Sydney. “Now we are seeing a lot of risk parity, low volatility and minimum variance strategies. All they're essentially trying to do is shift from a framework of risk and return to a framework where investors are effectively ignoring return and just forming portfolios based on risk.”

#### RISK PARITY QUESTIONED

**S**ingh singles out risk parity as one of the more widely-promoted concepts. This involves capital being allocated so each asset class contributes equally to



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**BHANU SINGH** DIMENSIONAL FUND ADVISORS

overall portfolio volatility, with the goal of ensuring the more volatile equity component does not dominate risk.

The concept marks a step beyond the classic fixed strategic asset allocation (SAA) model, in which portfolios, depending on investor risk profile, are typically weighted along the lines of 60/40 or 70/30 in favour of equities over bonds. Such weightings were standard in 2008, and SAA has been blamed for much of the poor portfolio performance many investors suffered during the crisis. However, risk parity may not be the answer either.

“Risk parity has nothing to say about the expected returns on bonds and stocks – it just says that it wants to equalise the contribution of risk from each asset class,” says Singh. “But there's nothing in financial theory that says you will get an efficient portfolio if you equalise risk from all asset classes or from all assets in your portfolio.”

Singh questions much of the research in the field for, in his view, unwarranted assumptions about what has caused the

apparently strong performance of risk parity portfolios during the last 40-50 years as derived from simulations based on historical data. Risk parity strategies focus on the Sharpe ratio – a measure of excess return per unit of volatility in a portfolio which also serves as a measure for the trade-off between volatility risk and returns.

The goal of risk parity is to achieve a higher Sharpe ratio than a standard 60/40 portfolio. Once volatility across asset classes within a risk parity portfolio has been equalised, overall volatility can be controlled through leverage. A typical risk parity strategy, reflecting a traditional focus on relative returns and peer comparisons, is to leverage volatility in line with that of a 60/40 portfolio.

According to Singh, however, there is a conceptual gap between the use of historical data to equalise volatility across portfolio asset classes and the assumptions necessarily made about the expected volatility of a 60/40 portfolio.

He explains: “Say, for example, a risk parity manager looks at the last three years' worth of correlation between stocks and bonds and at the volatility of those two asset classes. The manager inverse weights these, taking an underweight to equities if they have been really volatile and an overweight to bonds if they have had really low volatility. Then the manager adjusts to equate the volatility to a typical 60/40 portfolio, assuming he or she knows what the volatility of a 60/40 portfolio is. In real life, you can't do this.”

Proponents of risk parity point to what Singh describes as the “supposed” performance premium achieved by such strategies over the last several decades, during which bond yields have fallen dramatically.

As Singh points out: “A typical risk parity strategy has something like 30 per cent in equities and 70 per cent in bonds levered up to equal what is assumed to be the volatility of a 60/40 strategy. When you do this you're taking on a big bond bet. And if you look at the last 40 years, bond yields have dropped everywhere in the world. It makes you look like a genius.”

Dimensional positions itself as a scientific manager, constantly reviewing and dissecting new third-party investment ideas – including those focused on asset allocation. “A number of these strategies offering the ‘magic pill’ of lower volatility, managing downside risks and yet giving a market-like return have popped up to fill the vacuum for investors looking for such solutions,” Singh comments. “For us, these ideas should

make sense from a theoretical perspective. They should be backed up by data and they should perform robustly in our sample tests. If a product satisfies us on all these counts and makes sense to us, we'll offer it. But none of them to date has really passed muster."

### CHALLENGING SAA ASSUMPTIONS

**F**or Simon Doyle, Sydney-based head of fixed income and multi-asset at Schroder Investment Management (Schroder), the key to meeting investors' objectives lies in addressing what he sees as the "questionable series of assumptions" inherent in SAA. "These are," he says, "that SAA will meet investor objectives over time, valuations don't matter in the long run, volatility is a good indicator of risk and the order of returns doesn't matter."

Doyle picks them off one by one. With regard to meeting investor objectives over time, he says the SAA model implicitly assumes equities will outperform bonds over the medium term, and that the difference in risk between asset classes' returns is sufficient to warrant holding a substantial exposure to equities at all times.

His own research shows this assumption was severely tested over the 10- and 20-year periods to June 2010 when bonds outperformed global equities. During this time Australian equities outperformed, but the gap between Australian equity and bond returns was relatively small when overlaid with the

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**SIMON DOYLE** SCHRODER INVESTMENT MANAGEMENT AUSTRALIA



additional risk. "The end result was that investors held both too much equity and too few bonds, leading to substantial underperformance against objectives," says Doyle.

He challenges the view that the large gap between expected and realised returns for global equities during the decade to June 2010 can be attributed to the unpredictability of returns. Instead, Doyle blames a willingness to ignore valuations.

As he points out, the Shiller P/E – a metric that uses the inflation-adjusted average from the previous 10 years to calculate the market's P/E ratio – accurately foreshadowed a decade of very weak average global equity returns from the late 1990s. "Risk premia and therefore prospective returns can and do change, often markedly," comments Doyle. "This has been particularly apparent in credit and equity markets over recent years. Clearly though, this point has been ignored by investors who, by and large, made very little change to their asset allocation, persisting with their belief that equities would deliver for them."

Far from being a good indicator of risk, volatility – in Doyle's view – is misaligned with the increasingly accepted idea that investors are focused on real rather than relative returns.

"The concept of volatility or standard deviation as the market's default risk metric assumes that short-term variation in returns matters," says Doyle. "For most investors risk can be better described as the risk of losing money, either permanently or over a time frame relevant to the investor's time horizon."

From this perspective, volatility looks almost like a contra-indicator of risk. As Doyle explains: "Volatility typically declines as the price of 'risky' assets such as equities rises. It is often at its lowest in the later phases of a bull market, which usually coincides with extremes of valuation. Expensive markets expose investors to substantial downside price risk. This means that, despite low volatility, the risk of losing money either temporarily or permanently is highest."

Conversely, high volatility is typically associated with falling markets which, all else being equal, improve valuations and so reduce the risk of loss over the medium term. "In other words," says Doyle, "there is a strong correlation between market valuation and returns – both positive and negative – and a stronger correlation to risk than volatility."

Last but not least on Doyle's list is the notion that volatility of returns is a price an investor must pay to receive any return at all, and that the order of returns generated by the SAA model does not matter so long as the investor has a sufficiently

long time horizon that the eventually-realised returns will be roughly in line with their expectations.

Doyle cites the hypothetical example of an employee who joins a superannuation fund in July 1994 and contributes 9 per cent of salary a year with a performance objective of the consumer price index plus 5 per cent. The employee's balance is naturally low at the start of the period and rises on the basis of the accumulated contributions over time. The portfolio is assumed to match the median manager return.

During the period July 1994 to December 1999, the portfolio's average return performance would have undershot the investment objective by 6.9 per cent. But the actual or money-weighted performance – that is, the measure of real interest to the investor as opposed to the statistical measure usually associated with the SAA model – would have undershot by 14.5 per cent.

"Large returns, plus or minus, have a much more substantial impact on outcomes if they occur towards the end of an

## SCHRODER **REAL RETURN** FUND STANDARD CLASS

Schroder Investment Management Australia (Schroder) launched its Real Return Fund in October 2008. This was just after Lehman Brothers (Lehman) had filed for Chapter 11 bankruptcy protection, sending shockwaves through the global finance industry and escalating the financial crisis.

"When we set up the fund, we were more focused on the medium term and initially we got hit by the Lehman collapse," says Simon Doyle, head of fixed income and multi-asset at Schroder. "But since then we've become much more focused on tail risk."

The aim of the fund is to achieve an inflation-plus, or real, return – Australian inflation plus 5 per cent before fees over rolling three-year periods – by creating a portfolio with the highest probability of achieving the objective, and the least variability around it.

The fund does this through an objective-based asset allocation framework in which both the asset market-risk premium and, consequently, the asset allocation of the portfolio are constantly reviewed.

The fund's asset allocation universe includes cash, mortgages and subordinated debt, international fixed income, market-neutral strategies, high-yield credit, Australian equities, domestic property trusts, inflation-linked bonds, Australian fixed income, absolute return strategies and global equities (see pie chart in this box).

"We manage the strategy – and I think this is critical to the whole idea of objective-based asset allocation – around achieving a consistent rate of return as opposed to trying to maximise the return in any given environment. Part of that consistency is about not allowing, or trying to minimise, big drawdowns," says Doyle.

Hence the increased focus, post Lehman, on tail risk. The strategy has weathered some recent drawdown periods, as it is designed to do.

"One case that stands out is May 2012, when there were concerns about China and the mining boom in Australia and equity markets fell quite dramatically," says Doyle. "Our market was down 7 per cent and the Real Return Fund actually produced a positive return in that month – only slightly positive, but positive nonetheless."

A year prior to that, between March and September 2011, when the Australian equity market fell 18 per cent, the fund's performance was broadly flat. The same applied during the volatility of 2010. "I'd say during the last three big risk-off events we've been able to preserve capital and not actually see big drawdowns

occurring in returns," says Doyle.

A point in the fund's literature about the portfolio reflecting "those assets that in combination are most closely aligned to the delivery of the objective" gains weight when Doyle explains how the fund responded during the May 2012 drawdown.

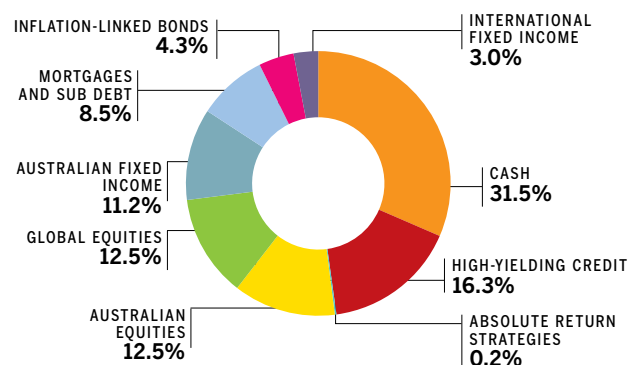
"When we build a portfolio we ask ourselves what our return expectations are for the next three years, and that drives the overall asset allocation. Then we stand back and ask what the risks around that are, and how we protect those risks without paying away all the upside."

Doyle explains that during the risk-off period in May 2012 Schroder had exposure to equities and credit, which obviously got hit. "But we were also unhedged on our global equity exposure and we'd taken the view that, if there were concerns about Australian growth being affected by the commodities outlook in China, the currency would get hit," he says.

In the end, according to Doyle, the Australian dollar fell by 10 per cent through that period, which he says was quite a significant positive contribution to return.

Doyle concludes: "We had some duration in the portfolio – even though we didn't particularly like government bond yields we felt that having duration was important to protect the portfolio. That helped to offset equities and credit. So there were a number of things – including still having about 25 per cent of our portfolio in cash at the time – that helped."

### SCHRODER REAL RETURN FUND STANDARD CLASS ASSET ALLOCATION MARCH 2013



SOURCE: SCHRODER INVESTMENT MANAGEMENT AUSTRALIA APRIL 2013

investment horizon rather than towards the start when the account balance is low," says Doyle. "Clearly, statistics based on averages are largely irrelevant to investors whose circumstances, objectives and investment horizons vary substantially."

Schroder's response has been to advocate 'objective-based' asset allocation which invests in areas where the risk premium

is appropriate, and where the expected return matches or exceeds the investor's real objective. The approach involves a continuous reassessment of risk premia and prospective returns, and a continual allocation of the risk budget to the most promising assets. This compares with the SAA model which, in Doyle's words, is "based around the development of

long-run risk and return assumptions which are often backward looking". These returns rarely change much and rarely change the SAA of the portfolio significantly, because portfolio positions tend to be "anchored by convention" or because the underlying returns themselves tend to be fairly static.

While the financial crisis brought home to many investors the shortcomings of the SAA model, Schroder had already begun thinking about objective-based asset allocation before the event began. In October 2008 the firm launched the Schroder Real Return Fund which invests in a broad range of equity and fixed-income sectors, including cash, and looks past market benchmarks and peer returns (see box on facing page).

Instead, it targets what Schroder considers to be most people's idea of an investment objective: a return of 5 per cent a year above Australian inflation over a rolling three-year period. Far from talking the fund up as the solution to everyone's problems, Doyle takes a more measured view of it as a foil to the problems inherent in the SAA model.

"Our approach to the market is not to say 'buy our strategy'. It's more about us pointing out the problems that exist within the current model and the fact that we're trying to deal with them. The Real Return Fund happens to be us putting our money where our mouth is, trying to find a solution and trying to implement that solution."

#### REFINING RISK PARITY

Yet another approach to managing downside risk comes from AllianceBernstein, which revisits the risk parity concept but refines it in two important ways. The first is by rejecting risk parity's definition of risk as volatility – interestingly, but unintentionally, echoing Doyle. The second is by basing key assumptions about risk on forward-looking data derived from options markets, rather than on historical data.

The firm's tail risk parity (TRP) strategy takes tail risk, not volatility, as its key measure of risk. In a normal bell curve the most probable returns are grouped near the centre with more extreme returns tapering away towards the left- and right-hand ends of the curve. When the probability of large losses increases, the bell curve shape changes so that the centre becomes leaner and the tails representing extreme outcomes become fatter.

"Volatility assumes that returns are normally distributed and relies on ordinary correlation for diversification benefits," says AllianceBernstein's Kent. "But ordinary correlations may not hold for asset classes that have fat-tailed return distributions or in stress scenarios where correlations spike. Moreover, volatility does not distinguish between large gains and large losses, and investors fear large losses most of all. To address these shortcomings, TRP focuses on a portfolio's risk of experiencing outsized drawdowns or tail losses."

To underscore the point that AllianceBernstein's strategy is far removed from the risk parity solutions questioned by Dimensional's Singh, it is worth noting that a key collaborator in TRP's development – working in his academic capacity – was

Myron Scholes, one of Dimensional's board members whom Dimensional also describes as its "resident scientist".

The involvement of Scholes helps to account for the second of AllianceBernstein's innovative takes on risk parity: calculating the risk of large drawdowns through the use of a proprietary technique that distils information from options markets.

As Kent points out, the strategy is not only about risk management. "Using tail losses as its focal point, TRP attempts to protect the portfolio at times of economic crisis when correlations spike. But it also attempts to capture growth in non-crisis conditions by diversifying a portfolio's sources of drawdown risk, and to reduce the cost of protection in normal environments," he explains. "So it's not about being purely focused on the risk of a negative capital drawdown. It's also allowing risk to be taken in a more informed way."

#### SUPER BEYOND ONE SIZE FITS ALL

From a superannuation perspective, the asset allocation debate is not just about managing the downside risk of a portfolio, but also focusing as closely as possible on individual investors' needs, both during the accumulation phase and after retirement. The debate has intensified ahead of the introduction of the MySuper default fund scheme in July 2013.

"What superannuation schemes have traditionally done – and this is really no fault of the superannuation industry – is receive a pile of money that they had to put into a certain asset allocation," says Tony McFadyen, Sydney-based regional director of Dimensional SmartNest, the division within Dimensional responsible for the firm's defined-contribution offering.

"From all sorts of traditional economic theories, everybody ended up at around the same point, in 70/30 growth or defensive default funds," comments McFadyen. He adds that scale was important to superannuation funds when they were starting up in the late 1980s and early 1990s because administration and fund management were expensive at the time. Funds built scale to bring down their costs.

"But the result, unfortunately, was to lose focus on the provision of income in retirement. If you are providing for an income for some period many years from now, you should manage assets differently from the way you would if you were just trying to maximise the wealth of an individual's portfolio," he says.

The industry is already changing. For example, QSuper, Queensland's public-sector superannuation fund, has announced it will introduce optional defensive strategies for its members aged over 58. The fund has for some time questioned the relevance of peer-related performance surveys and has declared its intention to focus on members' income needs and not just asset growth.

The investment solutions most commonly discussed in this context are lifecycle and target-date funds, which typically market themselves as superior asset-allocation alternatives



to the SAA model. Traditionally, such concepts have been characterised by a single variable – asset allocation according to the member’s age, for example, or according to the plan member’s desired retirement date.

Such models have their limitations. For example, a number of target-date fund investors in the US who were close to retirement had relatively high equity allocations when the financial crisis struck. Consequently, the debate has moved more in the direction of how to develop more sophisticated and flexible variants which are better able to achieve investors’ objectives.

Last August, Dimensional launched its Managed DC solution in Australia – a lifecycle strategy that draws on the intellectual property of its other Nobel laureate board member, Robert Merton. Instead of basing its asset allocation



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TONY MCFADYEN DIMENSIONAL SMARTNEST

on just one variable, the strategy takes into account each member’s goals, life situation, current assets, expected future contributions and desired outcomes.

One of the ideas it applies is that of “human capital,” or a plan member’s future earnings and savings capacity throughout the accumulation period. “There’s a high degree of certainty that the plan member will work and earn an income during the life of the plan and in this country we have mandated superannuation contributions. This arrangement functions like a fixed-income asset, because it consists of a stream of income or contribution flows until the member retires,” says McFadyen.

He continues: “Let’s assume a 30-year-old has A\$35,000 (US\$36,000) contributed into a superannuation account and has a human capital value of A\$400,000 – that is, is making contributions equivalent to the principal and interest stream on a fixed-income asset of that size. In this country, we would currently put that A\$35,000 into the 70/30 fund.”

However, according to McFadyen the real question here, from an asset allocation point of view, is why 30 per cent of that A\$35,000 should be put into fixed interest at all when this person has a huge exposure to fixed interest through their human capital. What this means from Dimensional’s perspective is that this particular person should be taking a reasonably high level of portfolio risk with their financial assets in a super fund.

“This could mean a lot of local and global equities and perhaps some real estate securities, but virtually nothing in fixed-interest securities,” says McFadyen. “And that’s

a completely different asset allocation approach from a superannuation fund which tells you that you have to have so much in fixed interest or so much in alternative securities.”

#### DARING TO BE DIFFERENT

There is a slight irony in the fact these discussions are taking place in an improving market environment. As Brian Parker, investment strategist and head of portfolio specialists at MLC Investment Management (MLC) in Sydney, points out: “The future returns from the traditional diversified fund model arguably don’t look too bad from here.”

While this, in his view, might support a case for “not throwing the baby out with the bathwater”, and for continuing to see the merits of the traditional diversification model in market environments where it performs well, Parker agrees

that the industry should be doing a better job of building diversified portfolios.

But, he adds, there is a catch. “A lot of the strategies needed to manage these funds better do not come cheap. If you look at some of the more successful hedge fund strategies, for example, you can’t index them and you can’t buy them through an exchange-traded fund,” Parker explains. “And if you want a strategy that will deliver more reliable returns for investors over the long term, by smoothing the path of returns, you have to accept it will perform very differently from other funds from time to time. That is especially relevant in an industry that still insists on judging how different funds are performing over one, three or five years.”

According to Parker, the downside is that in very strong markets innovative-approach funds may well lag performance. The flipside is if markets go pear-shaped again investors can expect these portfolios to do very well relative to the rest of the market. “But there’s a price to be paid for that: if you want investment managers to be successful you need to accept they’re going to have to dare to be different,” Parker concludes.

MLC did just this in 2005 when it launched its Long Term Absolute Return Fund, which was benchmark agnostic and unconstrained in terms of asset allocation. It is more expensive and active than MLC’s traditional funds but, says Parker, it has delivered “positive returns over the last five or six years, helped by the fact that we took some risk off the table in the years leading up to the crisis”.

The firm has also innovated in more conservative ways by, for example, introducing into its traditional diversified

funds strategies tested in the Long Term Absolute Return Fund. These include the Bridgewater Pure Alpha strategy and insurance-linked securities, including catastrophe bonds. Both have very low correlations to equity markets.

#### THE COST ELEMENT

**J**ust how much more costly and complicated it will be for fund managers to run asset allocation strategies that are more dynamic than SAA is another aspect of the broader debate. According to Schroder's Doyle, management of the firm's Real Return Fund does not involve frenetically higher levels of activity.

"I'd distinguish an objective-based strategy from a tactical asset allocation strategy in that we're not making frequent and rapid changes to asset allocation and swinging the portfolio

portfolio managers work out are which markets they want to be exposed to and how to get those exposures right – because that's what drives return. Once this is done, they look at the best way to implement it. "Is it through an internal strategy, for example? Our internal platform allows us to very easily shift exposures across asset classes. It may be, however, that we don't have an internal strategy we're comfortable using, in which case we might use derivatives to achieve our aim," says Doyle.

Very occasionally Schroder will look at third-party or external managers. "But that's typically in areas where there isn't a decent derivatives market or we don't have a capability," stresses Doyle.

According to AllianceBernstein's Kent, the cost to a manager of implementing the firm's TRP strategy could vary according to the way the relationship is structured. In other

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**BRIAN PARKER** MLC INVESTMENT MANAGEMENT



around. We're just trying to make sure that we're in the right broad assets to achieve our returns over rolling three-year time horizons. Sometimes things will evolve quickly, but more often they evolve slowly. Yes, asset allocation has changed, but the change has tended to be more evolutionary than revolutionary."

Doyle points out that, whatever the level of turnover in the portfolio, efficiency of execution remains critical. "It's one thing to work out what equity and debt markets are likely to return, how we should be positioned, what we should do with currency and so on. It's another thing to actually do it, and you do need a solid execution platform for that."

As a result, Doyle says Schroder uses a combination of ways to implement its strategy. The first things the firm's

words, it could be implemented without necessarily following the traditional approach of an institutional client allocating capital to a particular manager.

He explains: "In an environment where the risk of tail loss – and the need for capital to be allocated against it – is small an institutional investor might prefer the relationship to be an advisory one, where TRP is implemented as an overlay. But in an environment where the pricing is telling you there is a higher likelihood of tail loss, the institutional client may indeed want to make an allocation of capital to protect against it. So the relationship becomes much more dynamic and potentially lends itself to a more advisory relationship rather than a traditional strategy." •

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