



SECTION 2

Developing investment strategies with an eye on the prize

Going back to first principles

The passive versus active debate endures, year after year. And even as this debate continues to rage, a new tension has emerged over which passive strategy is better– the passive versus passive debate.

But all these debates have become a smokescreen, obscuring the most important questions: What does a good passive investment strategy look like? For that matter, what does a good active strategy look like? How do we go about identifying these ideals?

The answers to these questions are remarkably similar. They hinge on questions of how well the strategy has been built to meet its objective, rather than on questions of absolute performance. Are fees important? Of course they are, but if the investment strategy has not been designed to meet the desired outcome, and if the target is missed, then the issue of fees pales in comparison.

Comparing active strategies is hugely compromised by the fact that one is very rarely comparing apples with apples. Active manager strategies might have different strategic asset allocation benchmarks, employ different indices, have different risk profiles and different investment styles. But the surprise is that comparing passive strategies can be just as complex and riddled with inappropriate comparisons. Not all passive strategies are created equal. So when comparing them, it isn't sufficient to say that the one with the lowest fees is the winner. There's more to it than that.

This article goes back to first principles to provide you with a framework to navigate the complexities of choosing an investment strategy. We've used life stage strategies as our point of comparison as these are perhaps the most complex. By the end of this article, you should be able to get to the essence of any strategy comparison, whether active or passive.

Steps to evaluating an investment strategy

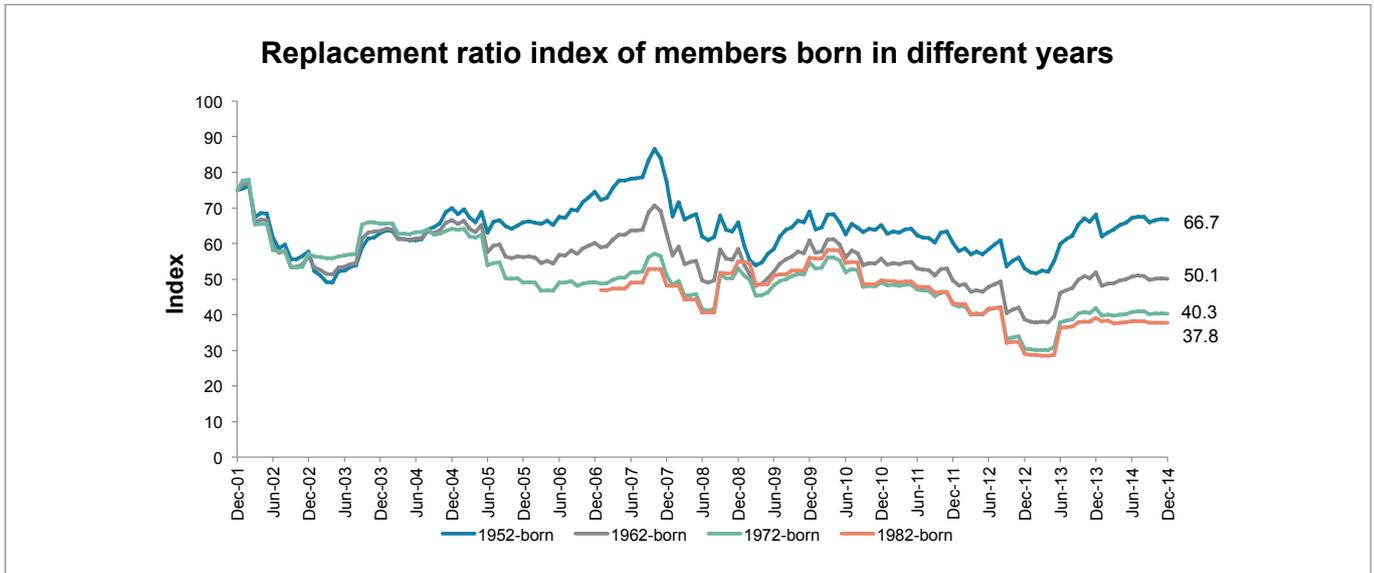
Step one | Understand your objective

Life stage portfolios were designed to ensure that retirement fund members could adequately and sustainably replace a portion (often in the range of 60–75%) of their final pensionable income on retirement. It is against this standard that any investment strategy – passive or otherwise – must be measured.

Note that the goal is not to maximise the wealth of members at the point of retirement. It is to ensure that there will be sustainable income replacement post-retirement. This distinction is critical and has become even starker given recent returns in the market. Recently, investment returns have been excellent and yet members' ability to replace income has been far from adequate. What's happening here?

Not all passive strategies are created equal.

The *Alexander Forbes Pension Index* illustrates this best in the following graph.



Source: Alexander Forbes Research & Product Development

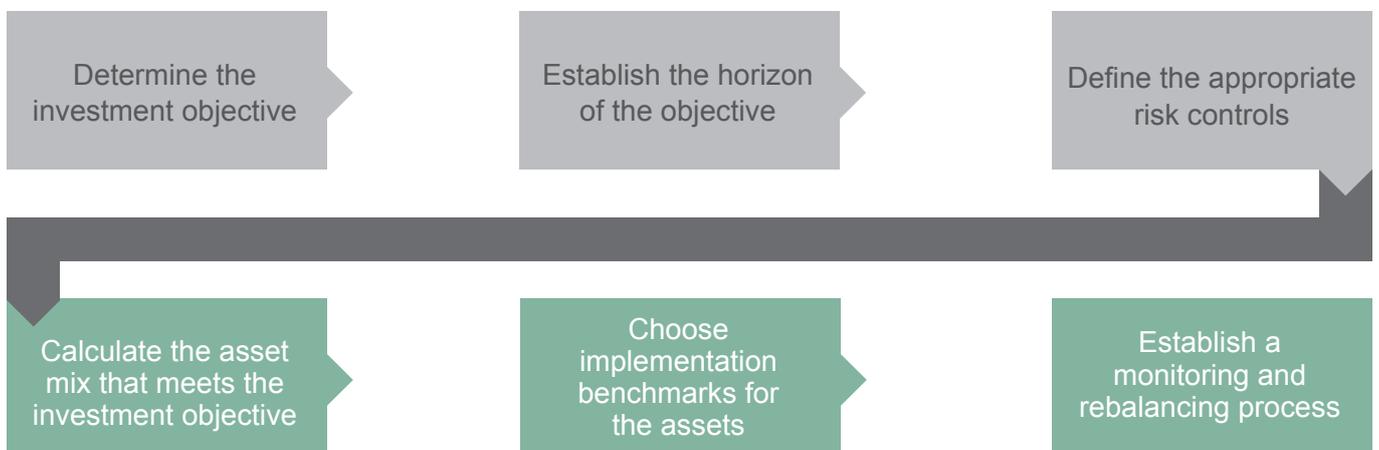
The index tracks the projected retirement incomes of several defined contribution fund members, of differing ages, over time, showing how they were on track to replace 75% of their income in 2002 and how their retirement prospects are changing over time. What it illustrates is that while investment returns have been excellent, the cost of buying that income stream has been rising. Absolute wealth might be increasing, but the purchasing power of that wealth has been declining faster.

This is where risk management becomes critical. A robust methodology for translating risk, returns and objectives into a compatible mix for an individual investor is through a risk budget.

The reality is that the optimal strategy for one objective, maximising asset growth, is not necessarily the optimal strategy for another, matching the fluctuating cost of securing an income stream. Consider if you wanted to win a sprint, you'd go to Usain Bolt. But if you wanted to win a marathon, you definitely wouldn't!

Step two | Understand the process

To evaluate an investment strategy, it's important to understand how it's created. A generic investment product design process would go through the following steps:



Flow chart 1: Generic investment strategy design

The single most important factor in any investment strategy is in setting its objective. Common investment objectives are:

- **Capital growth.** Maximising performance within a given risk tolerance.
- **Capital protection.** Protecting capital from losses over a specified time period.
- **Liability matching.** Being able to meet liability payments as they arise in the future.
- **Income targeting.** Growing capital to create a steady income stream.

Portfolios can have single or multiple objectives. Portfolios with multiple objectives would generally make it less likely that any of the individual objectives would be optimally met. But the key point is that comparing portfolios with different objectives is a meaningless exercise.

Life stage portfolios typically have two objectives:

1. To create as much asset growth as prudence allows over the course of a member's employment
2. To replace as much of that member's pre-retirement income as possible. Most life stage strategies will split these objectives into two components:
 - a. An accumulation phase
 - b. A de-risking phase.

This means that the life stage strategy needs at least two portfolios with two different strategic asset allocations, as well as a process for moving from the accumulation portfolio to the final portfolio. Sometimes, this process will consist of intermediate portfolios in which case the strategy will include more portfolios. A key point is that each of the fund's objectives can be assessed in their own right as to whether they have achieved those ends. Invariably, though, trustees only focus on whether the accumulation goal has been met.

Determining your strategic asset allocation is your most important decision, not your decision to use active or passive.

Understanding the strategic asset allocation

Setting the strategic asset allocation combines the investment objective, the horizon for that objective and the appropriate risk controls. Asset-liability modelling or other similarly rigorous processes should be used in this step.

In 1986, Brinson, Hood and Beebower published the article 'Determinants of portfolio performance' and popularised the insight that over 90% of the variation in returns of a portfolio is attributable to its asset allocation. This has been confirmed by numerous studies since then.

Determining your strategic asset allocation is your most important decision, not your decision to use active or passive.

The strategic asset allocation decision for a retirement fund needs to cover three aspects:

1. **The accumulation portfolio.** Although growth assets tend to have the highest returns through time, this portfolio also needs to manage diversification and find the most efficient ways to extract the benefits from different asset classes through time. This requires the right balance of risk.
2. **The final portfolio.** This portfolio is what the member will be holding when they retire and will determine what kind of income they can retire on. For this reason, it can't focus only on returns. Furthermore, the member is likely to only be in this portfolio for a short period of time, so the strategic asset allocation needs to be robust even in stressed conditions.

3. **The de-risking process.** This is the process whereby the member moves from the accumulation portfolio to the final portfolio and is often a dangerously neglected piece of the puzzle. It affects the accumulated wealth more than the entire accumulation phase as the process of trading from one portfolio to the other can undermine all that has come before.

In the same way that setting the strategic asset allocation for the accumulation and final portfolios should be done using robust methods, so too should the de-risking process. For instance, complex simulation techniques can be used to compare two different processes to determine which is structurally superior.

It's important to understand how the two investment strategies relate to each other. If the strategies are closely aligned you can use shorter periods with higher frequency of switching to achieve the optimal efficiency in reaching your objective.

For example, when de-risking from the accumulation growth strategy into an income-targeting objective, you can achieve this in different ways. Two main questions will need to be answered:

1. Over what period?
2. At what frequency?

An optimisation exercise can simulate expected future outcomes. In one of our trials we tested a seven-year annual framework against a five-year quarterly framework for two objective-based portfolios and established that you can add at least 20 basis points per year over the de-risking period with shorter term re-balancing. However, trustees should also consider the operational costs of implementing high-frequency structures.

What this stresses is the importance of robust decision making at every step. It can't simply be based on historical returns and intuitive guesses. It requires methods that take into account the wide range of possible outcomes using proper statistical forecasting methods. Because it is a challenging exercise, it's usually done with the help of a consultant who understands the nature of the liabilities.

Understanding the benchmark

Once the strategic asset allocation has been determined, the benchmark for each asset class needs to be set. This choice needs to be carefully considered – especially in the case of passive investment where the benchmark ultimately becomes the investment.

Key factors that need to be considered before selecting a benchmark:

- The structure of the benchmark
- Public and independent benchmark construction
- Availability of investment portfolios
- Costs
- Liquidity

Market cap indices are typically chosen because they are the most widely accepted as being representative of the economic reality of the market. They are also the most publicly available.

Risk-efficient benchmarks such as minimum variance and equally weighted indices can create liquidity and trading issues. Fundamental indices such as RAFI are vendor-specific with built-in biases and may cost more.

In many cases, practical constraints are dominant factors in choosing a benchmark. The choice of benchmark is an active decision that can materially affect the short-term performance outcomes.

A perfect example of this is the deviation between two of South Africa's major equity benchmarks, the ALSI and the SWIX. They consist of the same shares and they are both market cap weighted indices. But their risk structures are dramatically different. In fact, over the last few years, their performance has diverged significantly, as illustrated in the following graph:

Rolling 1-year performance

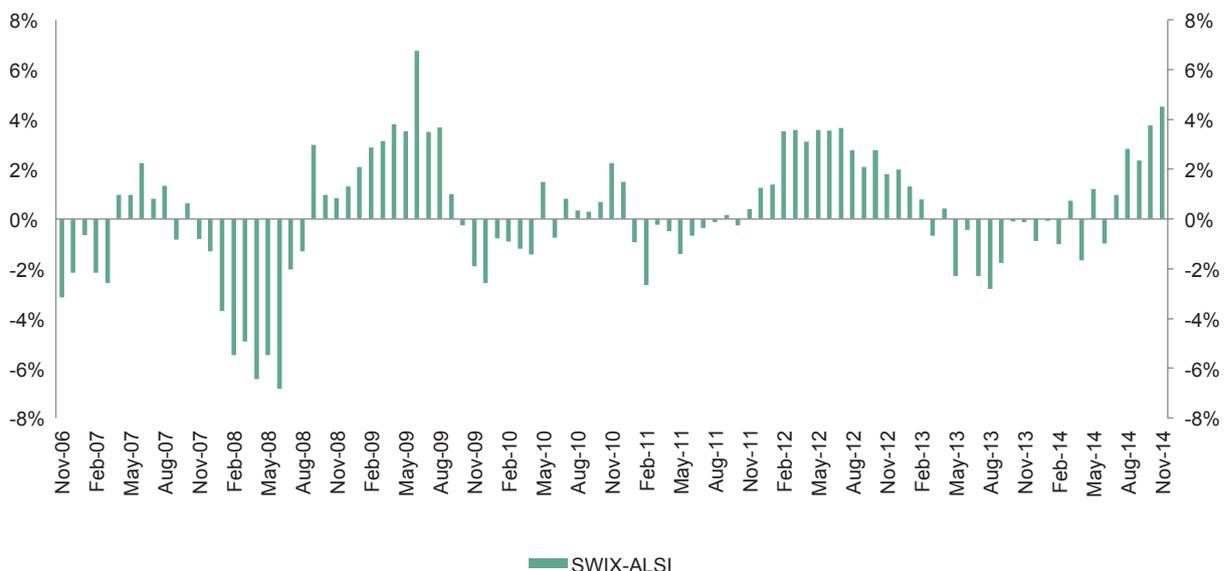


Figure 1: Comparing the FTSE JSE SWIX All Share against the FTSE JSE Free Float All Share

As most accumulation portfolios will hold more than 50% of their portfolio in local equity, choosing between the ALSI and the SWIX could have resulted in at least a 2% performance difference over one year at the end of 2014. The view is that these divergences should converge over time, but the timing of a member's retirement date is not usually something we can control.

Similarly, in global equity, benchmarks vary greatly in their exposure to developed versus emerging markets. The misleadingly-named MSCI World Index only provides exposure to developed markets, while the MSCI All Countries Index covers both emerging and developed markets. Clearly, given the divergence between performance in developed and emerging markets, and their varying risk profiles and return premiums, the choice of a global benchmark can also make a big difference.

Bottom line: comparing passive portfolio performances can be hugely problematic if the underlying solutions are not applying the same benchmarks. Performance differentials in indices can far outweigh performance differentials from fee structures.

Only once a strategic asset allocation is set and the benchmark chosen does the choice of active versus passive come into the picture. Both active and passive are simply an implementation method for an investment strategy.

Neither choice can save a member who has been invested with a bad strategic asset allocation or a poorly chosen benchmark.

Understanding monitoring and rebalancing

This final step in the process can materially affect the outcomes if executed poorly. It becomes even more material in the case of a passive investment strategy. If the main selling point of passive is its low costs, badly managed operational elements can have a material impact on costs.

How an investor's cash moves in and out of a passive portfolio can produce significant tracking error outcomes if not managed fluidly.

Similarly, every time a portfolio strays from its strategic asset allocation, a decision needs to be made on when to rebalance. But rebalancing costs money. Rebalancing too often can be costly, while rebalancing too infrequently will cause the portfolio to start deviating from its objective.

Box 1: Questions to ask about the design of a life stage

- 1 What is the objective of the **accumulation** strategy?
 - a. How does the asset allocation achieve the objectives?
 - b. Why are the underlying benchmarks selected?
- 2 What is the objective of the **final** portfolio?
 - a. What risks are managed explicitly? And what are not?
 - b. How long is the member in this strategy?
 - c. How does the asset allocation achieve the objectives?
 - d. Why are the underlying benchmarks selected?
 - e. How effective is the strategy under stressed conditions? Probability of failure?
Note: Back-testing based on historical conditions is not sufficient.
- 3 How does the **de-risking** process work?
 - a. When does the de-risking process start?
 - b. How do all the portfolios interact during the de-risking process?
 - c. How robust is the process behind setting the process?
- 4 How robust is the **technology** and **operational processes** supporting the solution?

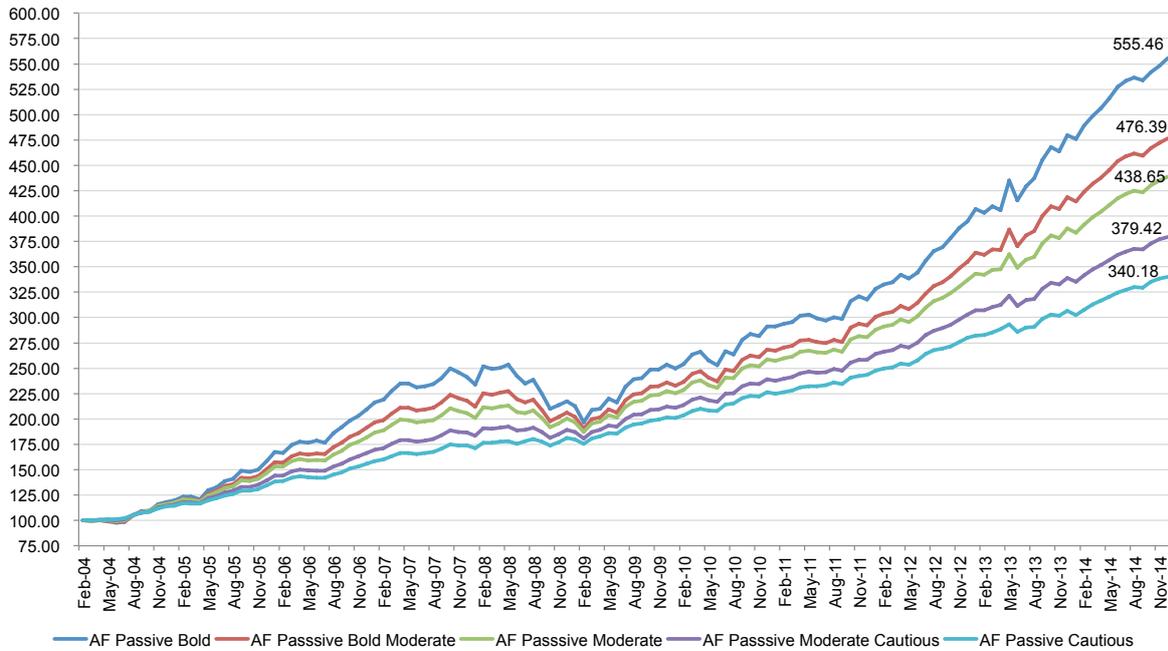
Step three | Understand the output

Whatever type of investment strategy one is evaluating, the temptation is to go straight to performance numbers even though all such strategies come with their standard warning: "past performance is no indicator of future performance".

Despite their ubiquity, this critical warning often goes ignored. It is warning that historical and back-tested performances, as well as any other historically calculated metrics, are insufficient to draw robust conclusions. The past may look nothing like the future, so a much wider range of scenarios

needs to be tested – this is exactly the point underscored by the financial crisis where many financial models had neglected the full range of outcomes. Trustees need to be wary of basing investment strategy decisions purely on graphs like those in Figure 2:

Cumulative performance (Based on R100 investment)



Historical returns

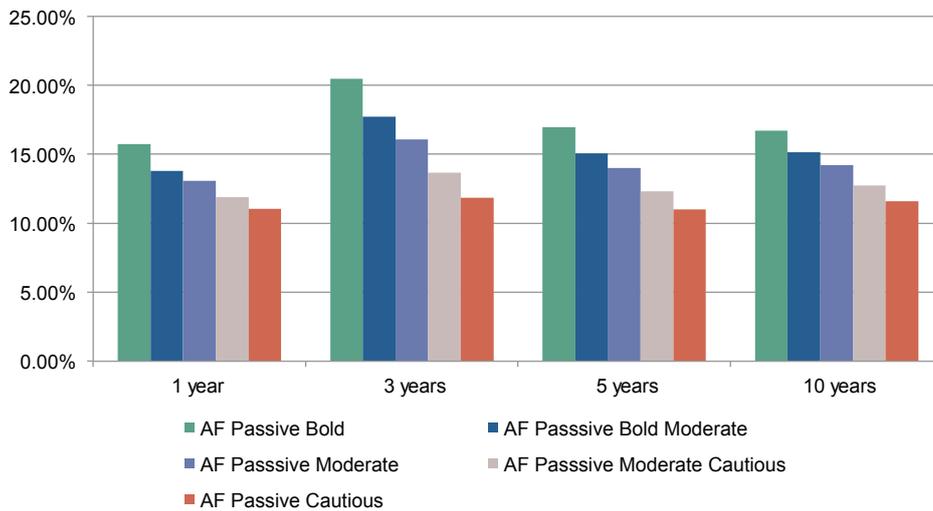


Figure 2: Returns of the Alexander Forbes passive portfolios to December 2014

Be careful of basing your decisions purely on graphs like these.

Comparing any two investment strategies, irrespective of whether they are passive, active or smart beta strategies, **is flawed when looked at solely from the perspective of historical returns**. It gets even more complicated when looking at life stage solutions.

The success or failure of a life stage solution is only clear over a very long time period. Additionally, most members will change funds and strategies through their lives, so establishing the best way to build such a strategy cannot

be based on historical or idealised conditions. Importantly, the life stage design that had the highest probability of success at the outset may not in the fullness of time actually have provided the best outcome in terms of performance, but remember at the outset it still gave you the highest probability of reaching your goal, which is what you are aiming for.

Evaluating a passive strategy rests on the process, not on historical returns.

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Box 2: The four primary dangers of focusing on historical returns

- 1** Historical returns are based on a **very small sample set**. Historical returns represent one of an infinite set of outcomes that could have transpired. Even with 50 years of data, the proof is not significant.
- 2** Historical returns **ignore investment horizons**. It is easier to analyse funds over long timelines, but depending on how many portfolios are used in a life stage process, a member may be in a specific portfolio only for a short period. This means that the design needs to be robust over shorter time horizons, which is often a much more challenging task.
- 3** Historical returns are **not related to objectives**. Remember our example earlier of Usain Bolt – good in sprints, poor in marathons. Instead of using annualised risk or returns, tests need to be done to determine the likely success of meeting specific objectives. The historical probability of failure is only one indicator. Much more needs to be done.
- 4** Historical returns do **not effectively capture the portfolio's prospective risk**. There have been significant advances in risk management over the last decade, particularly for South African assets. Modern risk systems provide insight into how much risk the portfolio is exposed to any given point, given prevailing market conditions.

Everything should be made as simple as possible but no simpler

The great challenge in assessing investment strategies is to recognise that sometimes the simplest way of assessing the value of a strategy is not necessarily the best – in fact, it can be decidedly misleading.

Performance comparisons are our natural default mode – but the true test of whether one strategy is better than another requires that we first assess the likelihood that a given strategy can actually meet its intended goal. It takes a bit of extra effort to make this analysis but essentially there is no alternative.

In the final assessment, some passive strategies will be more dependably structured than others for meeting a particular funding target. The same can be said of active strategies. In our 2012 Hot Topics investment seminar, we spoke at length about the continuum of performance certainty that can be drawn around investment strategies. That continuum took us from passive through to active specialist and finally on to active balanced strategies as a way of illustrating the likelihood of an increase around performance

variability to our required outcomes. In this Hot Topics, we continue the debate by adding a methodology that allows us to forecast the outcome variability that can come from how the solutions' asset strategies and asset classes have been structured in reference to that target.

Our advice: When faced with a plethora of marketing material, make life simpler. Avoid performance comparisons – and most importantly ask the **questions in Box 1!**

In the case of our passive versus active debate, ensure that you are comfortable with the process behind a passive strategy. Simply because it is passive does not mean it is better, or simpler, or cheaper. Interrogate the process to make sure it has been built rigorously to provide your members with the greatest chance of meeting the fund's objective.

Whatever proponents of active or passive may say, the suitability of a strategy to your own member requirements lies in how it is constructed, and this needs to be where the focus for evaluation lies.

