Super Outcomes

July 2021

The risk of YFYS underperformance

In the second of a series of articles on the impact of the landmark Your Future, Your Super legislation on the industry, Tim Unger examines the probability that funds will fall foul of the performance test.

Our previous article outlined the significant impact that failing the Your Future, Your Super (YFYS) performance test will have on superannuation funds. The obvious next question is "how likely are funds to fail the performance test?".

APRA's December 2020 MySuper Product Heatmap gives some indication of what might be in store for the first iteration of the performance test. Eleven single strategies, and a similar number of lifecycle strategies, were more than 0.5% p.a. behind the Listed SAA Benchmark over the six years to 31 December 2020. However, it's important to note that the YFYS performance test differs from this benchmark and what the past six years shows may not be representative of the forward-looking distribution of potential outcomes.

At the time of writing, the regulations accompanying the YFYS legislation had not yet been finalised. This is important to note because the regulations contain the details of how the performance test will be calculated, including what index is to be used as the benchmark for each of the different asset classes. Any changes to the draft regulations will impact fund outcomes.

Assessing the risk of future underperformance

To assess the risk of underperforming the YFYS benchmark, it is necessary to use forward-looking modelling, using assumptions about asset class returns as well as the distribution of a manager's active returns, relative to their benchmark.

The performance test is effectively checking the efficacy of a fund's implementation (i.e. returns relative to the YFYS benchmark), making details of the modelling assumptions used very important – arguably even more so than for portfolio construction purposes, where total portfolio risk and return outcomes are the main focus.

The limitations of any forward-looking analysis must therefore be considered when assessing a fund's outcomes relative to its SAA benchmark. There is a range of factors that make this a challenging exercise, including:

- Complex asset classes, such as hedge funds, alternative risk premia, credit and private markets have return distributions that are very challenging to model accurately
- A manager's active returns do not always follow the "normal distribution" that is typically used in modelling, adding to the likelihood of misestimating future outcomes
- The probability of underperforming the YFYS test can vary quite significantly with small changes to assumptions for the larger portfolio exposures, e.g. the tracking error assumption used for actively managed Australian and global equities
- Benchmark relative risk can vary significantly, even within asset classes. As an example, the benchmark used for unlisted infrastructure is based on a small set of actual infrastructure funds. Investing in those funds would lead to much lower tracking error than investing in infrastructure funds not included in the benchmark
- The impact of deviations away from a fund's strategic asset allocation is also challenging to model, with factors such as dynamic asset allocation, rebalancing ranges and the amount of illiquid assets (which are harder to rebalance) all impacting actual fund returns, and therefore on the returns relative to the YFYS benchmark.

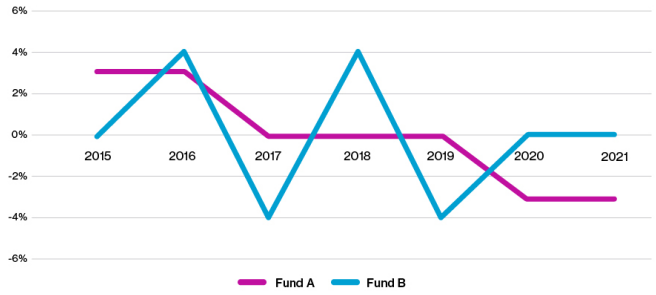
Timing and sequencing

A further nuance in assessing the forward-looking probability of failing the performance test is that the periods over which the risk of future underperformance are highest will vary by fund and product, depending on their past performance and the sequencing of returns relative to the YFYS benchmark.

For products that have consistently outperformed the YFYS benchmark, any analysis is likely to focus primarily on forward-looking modelling to assess the probability of underperformance.

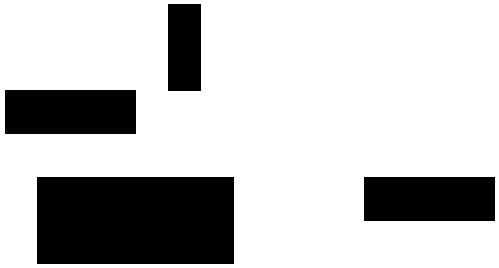
However, a year-by year approach which blends past performance with forward-looking modelling will be required for products that have experienced underperformance in the past eight years. We illustrate this using two examples below.

Chart 1: Benchmark relative returns, year by year



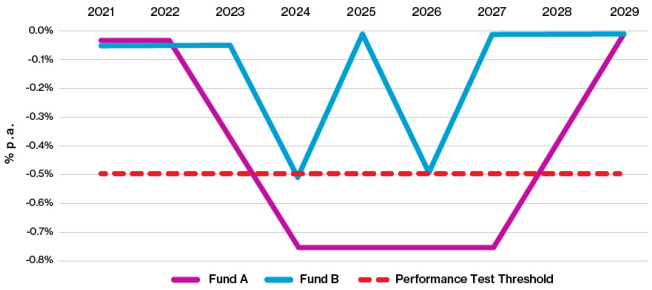
Both Fund A and Fund B have performed broadly in line with the YFYS benchmark over the cumulative seven-year period to 2021, but with very different pathways of returns, as shown in Chart 1. We then show their projected outcomes relative to the YFYS test in Chart 2, assuming they perform in line with the benchmark in future years.

Fund A outperformed the benchmark in 2015 and 2016, but had poor recent performance. As a result, when the strong returns from the earlier years drop out of the rolling eight-year period in 2023 and 2024, Fund A will have a heightened risk of failing the performance test – until the poor returns of 2020 and 2021 also drop out.



Fund B's relative performance has bounced around, with outperformance in 2016 and 2018 and underperformance in 2017 and 2019. As a result, its risk of failing the performance test spikes in 2024 and 2026, the two years when the strong 2016 and 2018 returns drop out of the rolling eight-year period.

Chart 2: Projected performance test outcomes*



*Assumes future returns are in line with the YFYS benchmark.

Taking a longer term view

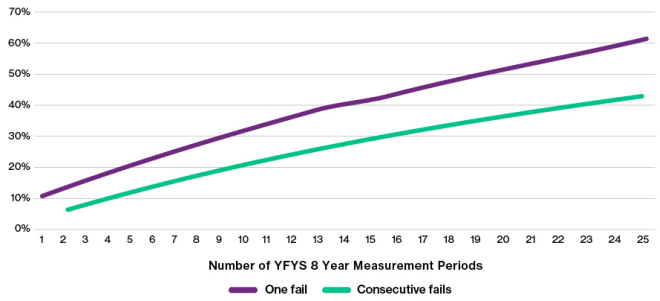
Our initial analysis of a subset of MySuper options suggests a typical forward-looking probability of failing the performance test over a single eight-year period falls in the range of 10-15%. This is based on current strategic asset allocations and assumes administration and advice fees are in line with the MySuper median fee[1]. There is obviously some variability between products, with estimated tracking errors relative to the YFYS benchmark ranging from 2-4% per annum and probabilities of failing the performance test over a single eight-year period ranging from 6-16%.

While the likelihood of failing the test over a single eight-year period is a useful starting point, it doesn't accurately represent the likely prospect of the fund failing the performance test over a longer time period. Part of the challenge of assessing this risk is the rolling annual nature of the test - as a product's performance in any one year forms a portion of eight different performance test periods.

We have therefore also examined the cumulative probability of failure – i.e. how likely is it that a fund fails the test at some stage over a much longer period? Given the significant consequences of failing the performance test, we have also examined the probability of two consecutive annual failures (at which point the product would not be allowed to accept new members). Chart 3 demonstrates this.

[1] Based on Willis Towers Watson's asset class and active return assumptions.

Chart 3: Cumulative probability of failing the performance test
(10% likelihood of failing the test over a single eight year period)



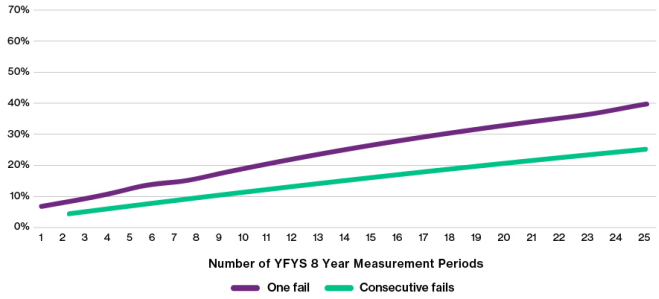
If we look at 10 consecutive performance tests, which cover a total of 17 years of fund performance (i.e. the first test covers years 1-8, the second covers years 2-9, while the 10th test covers years 10-17), a product with a 10% probability of underperformance in any given eight-year period has a cumulative probability of underperformance over the 17 years of around 35%. If we extend this to 20 measurement periods, then the cumulative probability increases to a little over 50%.

In other words, a fund with a one in 10 chance of failing the performance test over a single eight-year measurement period, is more likely than not to fail the test when extended to 20 measurement periods.

We estimate that a product with a 10% probability of failing the test over a single eight-year period has around a 7% probability of failing it over any two consecutive such periods. However, once again if we extend the assessment period to include 25 measurement periods, the likelihood of failing the test in two consecutive years is over 40%, which is clearly a very significant risk for a fund.

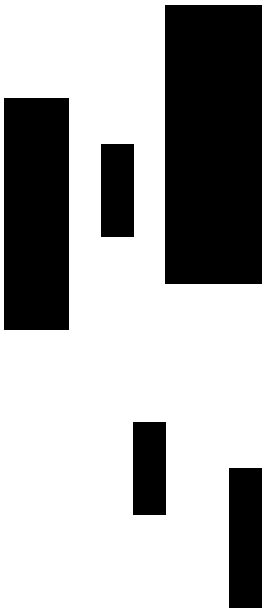
Even a fund with a 5% probability of underperformance in a single eight-year period has around a 40% chance of underperforming over 25 periods and around a one in four chance of consecutive failures over this same time period, as shown in Chart 4.

Chart 4: Cumulative probability of failing the performance test
(5% likelihood of failing the test over a single eight year period)



All of this suggests that funds will need to pay a lot of attention to how much risk they are taking relative to the YFYS benchmark.

The next article in this series will explore the potential impact of the performance test on portfolio construction and outline a framework for integrating the test in a way that balances this measure with other components of portfolio quality.



For further information please contact:

Tim Unger

Senior Director, Investments

T +61 2 9253 3815

E timothy.unger@willistowerswatson.com

About Willis Towers Watson

Willis Towers Watson (NASDAQ: WLTW) is a leading global advisory, broking and solutions company that helps clients around the world turn risk into a path for growth. With roots dating to 1828, Willis Towers Watson has 45,000 employees serving more than 140 countries and markets. We design and deliver solutions that manage risk, optimise benefits, cultivate talent, and expand the power of capital to protect and strengthen institutions and individuals. Our unique perspective allows us to see the critical intersections between talent, assets and ideas – the dynamic formula that drives business performance. Together, we unlock potential.

willistowerswatson.com/social-media

The information in this publication is general information only and does not take into account your particular objectives, financial circumstances or needs. It is not personal advice. You should consider obtaining professional advice about your particular circumstances before making any financial or investment decisions based on the information contained in this document.

Towers Watson Australia Pty Ltd (ABN 45 002 415 349, AFSL 229921)
Copyright © 2021 Willis Towers Watson. All rights reserved.

WTW756AU

willistowerswatson.com

Willis Towers Watson