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The Your Future, Your Super Performance Test

Summary of Conexus Institute research - 22 April 2021

David Bell

Introduction

- The Your Future, Your Super (YFYS) superannuation reforms were announced as part of last year's Budget
- Much of our focus has been on the YFYS performance test
- We explain the test and explore its impacts
- We have strong concerns that the YFYS performance test will, on a net basis, be detrimental to consumers

- All our YFYS research (including models) has been made open-source and is available here

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Collaboration

- Researchers from five consulting firms joined our working group which explored the YFYS performance test
- To preserve independence, I was lead author. Working group members provided advice and review
- I'd like to acknowledge the contribution of working group members: Emily Barlow, Andrew Boal, Kim Bowater, Nick Callil, David Carruthers, Matthew Griffith, Clayton Sills, and Timothy Unger
- The views shared in this presentation are mine and those of The Conexus Institute

Agenda

1. Overview of the YFYS performance test
2. Concerns
3. Research #1: will the test be effective at distinguishing between 'good' and 'poor' funds?
4. Research # 2: will the test constrain super funds from acting in members' best interests?
5. Possible improvement
6. Conclusion

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1. Overview of the YFYS performance test ────────

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The YFYS Reform Package

Your Future,
Your Super

Reforms to make your super work harder for you

October 2020

treasury.gov.au

What is the super system costing you?

$30 billion
was paid last year in super fees, more than the $27 billion on energy, and $12 billion on water bills

$121 billion
is contributed by Australians each year into the superannuation system

6 million
multiple accounts held by 4.4 million people

$100 billion
of Australians' money is in underperforming super products

13.6% increase
in the **average** MySuper fee on a $50,000 balance since 2014

3 million accounts
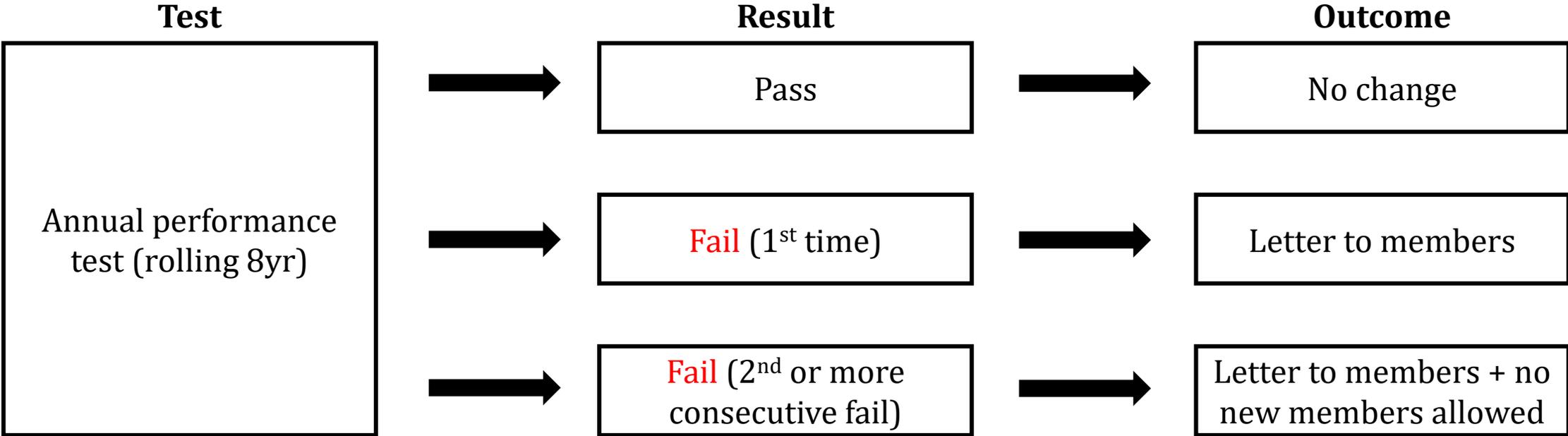are in underperforming super products

The Government paints a picture of a system which is inefficient.

Your Future, Your Super will deliver substantial savings for members

Holding funds to account for underperformance

Your super follows you

+$17.9 billion over 10 years

More engagement

Less waste

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How will the YFYS Performance Test work?

Process

Test		Result		Outcome
	→	Pass	→	No change
Annual performance test (rolling 8yr)	→	Fail (1st time)	→	Letter to members
	→	Fail (2nd or more consecutive fail)	→	Letter to members + no new members allowed

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How will the YFYS Performance Test work?

Calculation

Step 1 – Determine tailored performance test benchmark

| Strategic asset allocation (SAA) | ⟶ | Map to a set of public market benchmarks | ⟶ | Fund-specific SAA benchmark for the year |
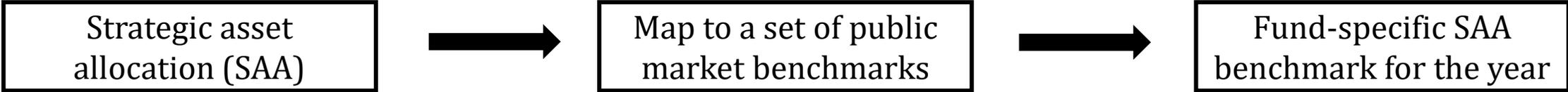
Step 2 – Calculate annual relative performance

| Fund performance | minus | Performance of fund-specific SAA benchmark | equals | Annual relative performance for fund |

Step 3 – 8yr rolling performance outcome

| Compound of 8 years of annual results |

Additional notes:
- Test will be administered by APRA
- Pass mark is >-50bp pa

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How will the YFYS Performance Test work?

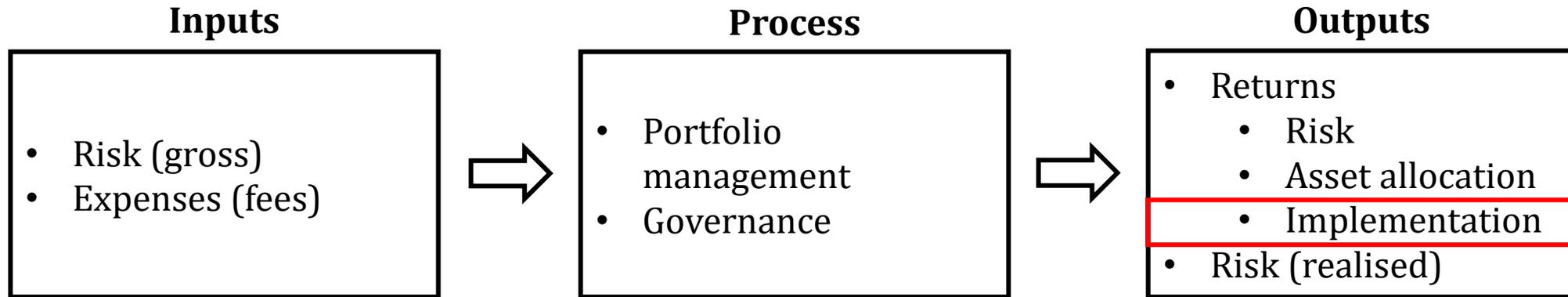| Asset class	Index
Australian Equity	S&P/ASX 300
International Equity (hedged)	MSCI All Country World Ex-Australia Equities Index with Special Tax (100% hedged to AUD)
International Equity (unhedged)	MSCI All Country World Ex-Australia Equities Index with Special Tax (unhedged in AUD)
Australian Property	S&P/ASX 300 A-REIT Index
International Property	FTSE EPRA/NAREIT developed ex Australia rental hedged to AUD
Australian Infrastructure	FTSE Developed Core Infrastructure Index hedged to AUD
International Infrastructure	FTSE Developed Core Infrastructure Index hedged to AUD
Australian Fixed Interest	Bloomberg Ausbond Composite 0+ Index
International Fixed Interest	Bloomberg Barclays Global Aggregate Index (hedged in AUD)
Australian Cash	Bloomberg Ausbond Bank Bill Index
International Cash	Bloomberg Ausbond Bank Bill Index
Other	25% International Equity (hedged), 25% International Equity (unhedged), 50% International Fixed Interest

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Reflections

Initial reflections

- Good intent, but is the policy well-designed?
- Performance is notoriously difficult to assess…
- "Bright lines" test: no qualitative assessment
- Retrospective nature of the test
- Past sins vs. forward-looking prospects
- Focuses on implementation performance only
- Benchmarking concerns
- Does it align with investing for members' best interests?
- Include administration fees?

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Reflections

The investment performance 'process'

Inputs		Process		Outputs

Inputs	Process	Outputs

• Risk (gross)
• Expenses (fees)
	• Portfolio management
	• Governance
		• Returns
		  • Risk
		  • Asset allocation
		  • Implementation
		• Risk (realised)

The YFYS performance test only focuses on implementation performance.

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Reflections

Components of investment performance

Investment Risk – Strategic Risk Target (SRT)	**X**
Investment Risk – Tactical Risk Target (TRT)	→
Asset Allocation – Strategic AA (SAA)	**X**
Asset Allocation – Tactical AA (TAA)	→
Implementation Alpha (IA)	→

YFYS Performance Test
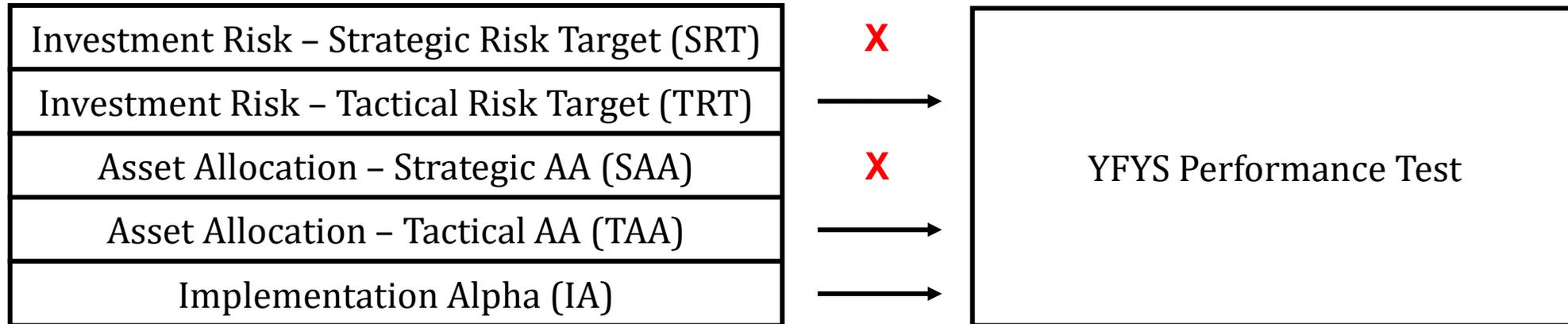
Accordingly, the performance test does not account for important strategic decisions.

Reflections

Which fund did better?

(assuming they took similar degrees of risk exposure)

Performance component	Fund A	Fund B
Risk / asset allocation	7.5%	6.5%
Implementation	-0.5% pa	0% pa
Total performance	7.0% pa	6.5% pa

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2. Concerns

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Concerns

Long-dated backwards-looking test applied retrospectively, and on a bright-line basis

Fund A (Historical Underperformer)	Fund B (Solid Performer)

Review:
- Improved governance structures
- Improved investment capability
- Portfolio changes
- Improved cost efficiency

Review:
- Little change
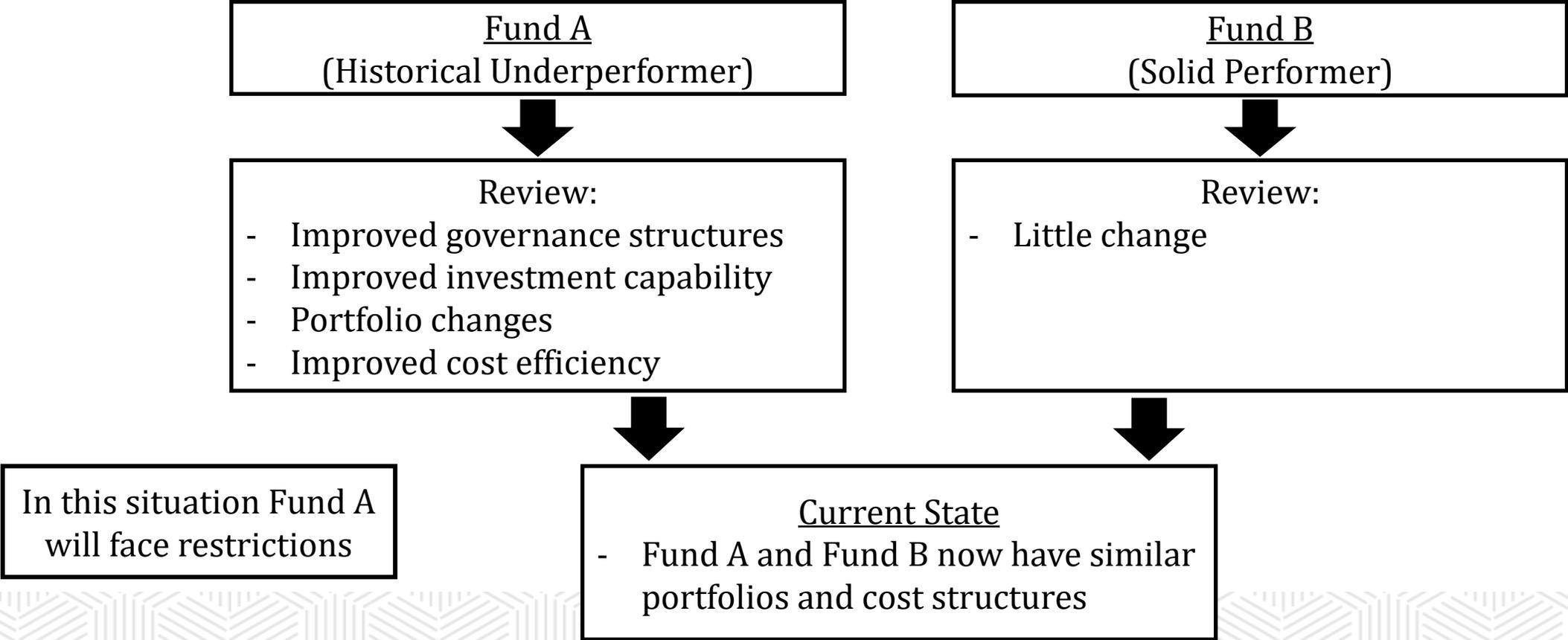
In this situation Fund A will face restrictions

Current State
- Fund A and Fund B now have similar portfolios and cost structures

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Concerns

Benchmarking process creates distorted concept of tracking error

- Tracking error is a statistical measure of a portfolio's volatility relative to a benchmark
- The test only uses a limited number of public market benchmarks
- This creates a distorted version of tracking error
- Beyond active management and decisions, performance test tracking error is generated by:

Investing in the following public market sectors:	Investing in the following unlisted sectors:	The following activities:
- Australian small cap equities - International small cap equities - Emerging market equities - Corporate bonds - High yield bonds - Emerging market debt - Inflation-linked bonds - Low or high duration bonds	- Private equity - Unlisted property - Unlisted infrastructure - Direct loans	- Portfolio hedging (e.g. put options) - Some foreign currency exposure - Overlay strategies (e.g. volatility targeting) - Managing ESG risk or any risk which requires active management

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Concerns

Concerns relating to how funds will invest

- Dangerous incentive for funds which are well behind on the performance test to 'swing for home runs' and take high tracking error relative to benchmark
- Actively managing (in the worst case, gaming) the performance test by taking advantage of benchmark shortcomings
- Poor alignment with portfolio management approaches such as total portfolio approach (TPA)
- Deterrent to strategies which reduce risk and provide diversification
- Features of the YFYS performance test do not match up well with future portfolio management challenges

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Concerns

Concerns relating to impact on consumers

- Super funds may 'contest' the result with their members, creating confusion
- The YFYS performance test result may create confusion for consumers when placed alongside total performance on the YFYS Comparison Tool
- Potential for a large cohort of funds to fail the YFYS test concurrently (due to benchmarking noise), reducing system confidence
- Does not remove consumers from investment products with assessed high administration fees. Can consumers make informed decisions balancing multiple criteria?
- Penalises the heavily disengaged who may remain in a fund which becomes more impaired

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Concerns

Concerns relating to impact on industry structure

- A deterrent to consolidation as funds will be hesitant to merge with other funds which may dilute their portfolio quality, impair their inflow profile, or distract management focus
- Potential for 'zombie' funds which are impaired (partly due to the performance test) making them an unattractive merger partner

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3. Research #1: will the test be effective at distinguishing between 'good' and 'poor' funds? _____

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Research undertaken
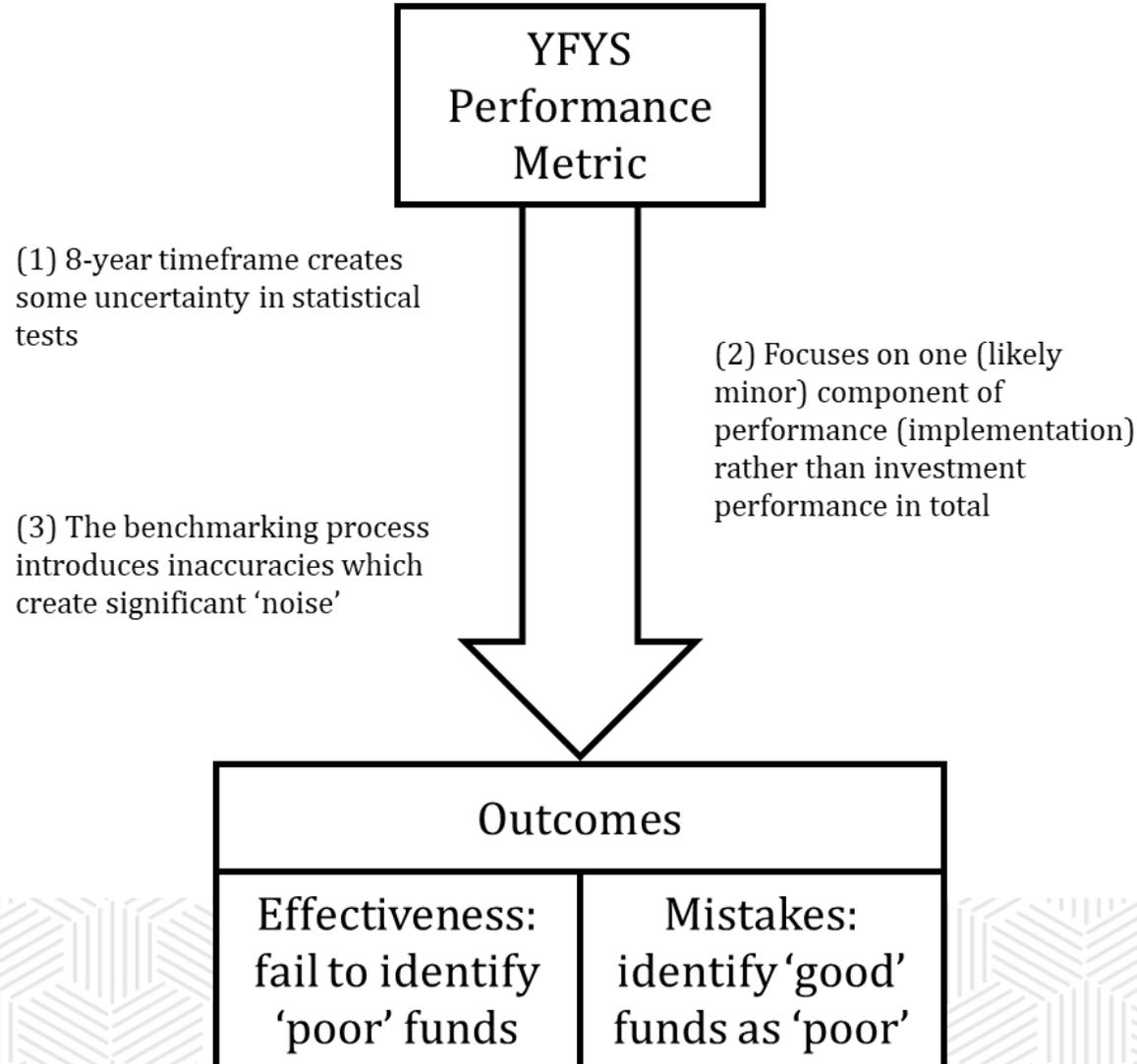
Assessing test effectiveness

- Effectiveness: likelihood of identifying 'poor' funds (Type I style of error)
- Mistakes: likelihood of identifying a 'good' fund as 'poor' (Type II style error)

Assumptions

- Expected returns (outperformance):
  - Good funds: 0%
  - Poor funds: -0.75% pa
  - Considered different combination of return components (implementation and SAA)
  - Tracking error (true active risk): 0.7% ann.
  - Tracking error (benchmarking noise): 3.6% ann.

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Research undertaken

YFYS
Performance
Metric

(1) 8-year timeframe creates some uncertainty in statistical tests

(2) Focuses on one (likely minor) component of performance (implementation) rather than investment performance in total

(3) The benchmarking process introduces inaccuracies which create significant 'noise'

Outcomes

Effectiveness: fail to identify 'poor' funds	Mistakes: identify 'good' funds as 'poor'

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Research undertaken

Assessing test effectiveness

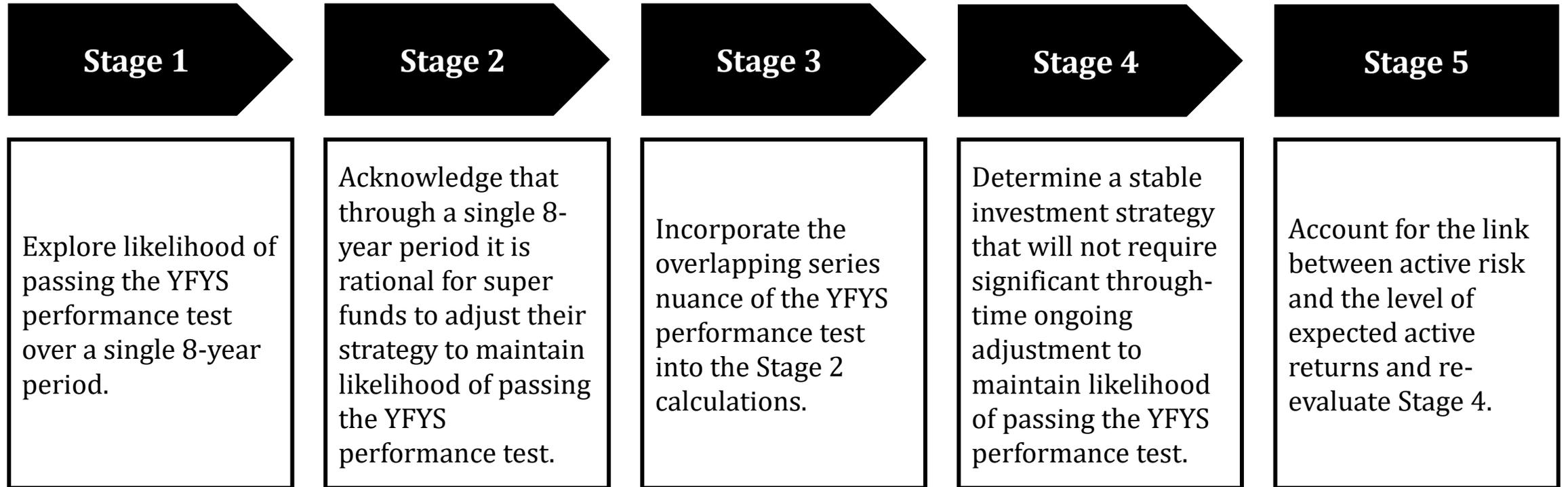| Test	Likelihood
Effectiveness: likelihood of failing to identify a 'poor' fund as 'poor'	42% - 65%
Mistakes: likelihood of identifying a 'good' fund as 'poor'	35%

- Timeframe proved to be only a minor issue, with the other two issues (total investment performance and benchmarking noise) having significant impact
- For egregious cases (large underperformance) the test will perform effectively but it will struggle in cases which are likely to be common in the future

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4. Research # 2: will the test constrain super funds from acting in members' best interests?

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Degree of constraint

Overview of the analysis

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Explore likelihood of passing the YFYS performance test over a single 8-year period.	Acknowledge that through a single 8-year period it is rational for super funds to adjust their strategy to maintain likelihood of passing the YFYS performance test.	Incorporate the overlapping series nuance of the YFYS performance test into the Stage 2 calculations.	Determine a stable investment strategy that will not require significant through-time ongoing adjustment to maintain likelihood of passing the YFYS performance test.	Account for the link between active risk and the level of expected active returns and re-evaluate Stage 4.

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Degree of constraint

Simulated Start-of-Year Tracking Error Target

Top left: simulating the portfolio reassessment required to maintain likelihood of passing test.
Right: illustrating the overlapping nature of the test and the yearly creation of new performance series.

End of Year 1 for new series. Reassess investment strategy.

End of Year 2 for another series. Reassess investment strategy.

End of Year 8 for another series. Performance series complete.

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Degree of constraint

Reflection

- Let's use 1% tracking error as a reasonable estimate of a stable investment strategy

"Current" Super Fund	"Stable" Super Fund
3.6% ann. Tracking Error	**1% ann. Tracking Error**

Example of a current super fund: - 10% invested in each of unlisted property, unlisted infrastructure and high yield - Active management across most asset classes - ESG risk actively integrated into portfolio management - These activities equate to around 3.6% annualised tracking error	Example of a super fund designed to have a stable investment strategy with a high likelihood of passing the YFYS performance test and a high likelihood of not having to alter the investment strategy through time: - 3% invested in each of unlisted property, unlisted infrastructure and high yield - All other sectors managed passively - Inability to incorporate ESG risk into portfolio management - These activities equate to around 1% annualised tracking error

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Degree of constraint

Reflection

- If the "Current" strategy is considered by the trustee to be better than the "Stable" strategy then the constraint of the YFYS performance test starts to crystallize

"Current" Super Fund	"Stable" Super Fund
3.6% ann. Tracking Error	1% ann. Tracking Error
- 22% likely to fail the performance test - >80% likely to have to re-set the investment strategy over an 8-year window (we use 60% likelihood of passing as the rebalancing criteria)	- <1% likely to fail the performance test - 10% likely to have to re-set the investment strategy over an 8-year window

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Degree of constraint

Opportunity cost

- The YFYS performance test will adversely impact consumers because it constrains super funds from constructing portfolios in members' best interests
- If funds were to focus strongly on the performance test, then a stable investment strategy would entail 1% tracking error
- This creates two sources of opportunity cost:
    1. Less effective risk management
    2. Less investment in opportunities expected to generate outperformance over time
- Our research (Appendix 1) estimates the expected opportunity cost to be around $3b pa

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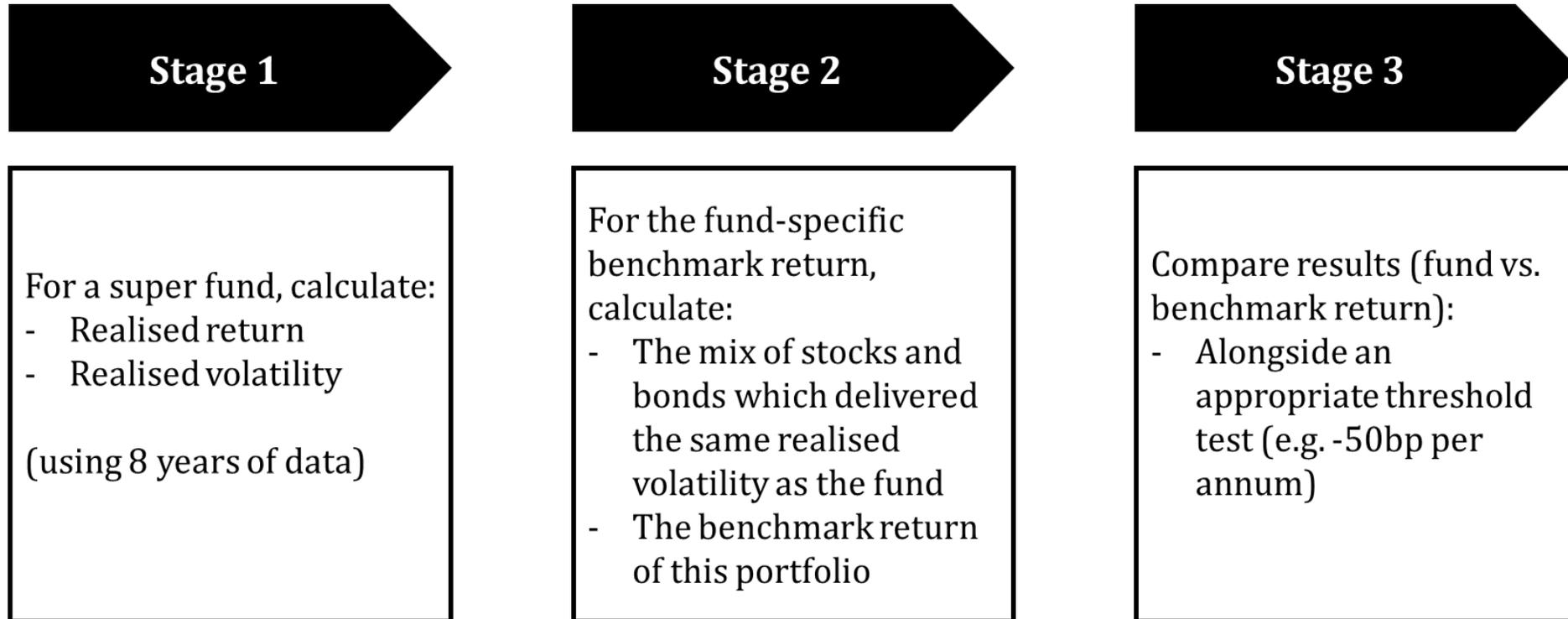
5. Possible Improvement

Possible improvement

The pragmatic approach: one simple additional metric

- We propose that one additional metric is included
- If you fail both tests you fail the performance test

- The additional metric focuses on risk-adjusted returns and is based on realized returns. This is compared to the return for risk achieved by a mix of stocks and bonds
  - It accounts for all sources of return
  - It accounts for diversification benefits
  - It does not involve any of the benchmarking issues

- But there are shortcomings:
  - Treatment of unlisted assets (realized volatility potentially understates risk)
 - Risk-adjusted returns normalizes for the risk decision

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Possible improvement

A simple additional metric

Stage 1	Stage 2	Stage 3
For a super fund, calculate: - Realised return - Realised volatility (using 8 years of data)	For the fund-specific benchmark return, calculate: - The mix of stocks and bonds which delivered the same realised volatility as the fund - The benchmark return of this portfolio	Compare results (fund vs. benchmark return): - Alongside an appropriate threshold test (e.g. -50bp per annum)

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Possible improvement

A simple additional metric

A – Fund return (ann.)

B – Fund realized volatility (ann.)

C – Reference portfolio: volatility matching return

D – C adjusted for performance test margin

Return (ann.)

Reference portfolio return frontier

A

C

D

B

Volatility (ann.)

6. Conclusion

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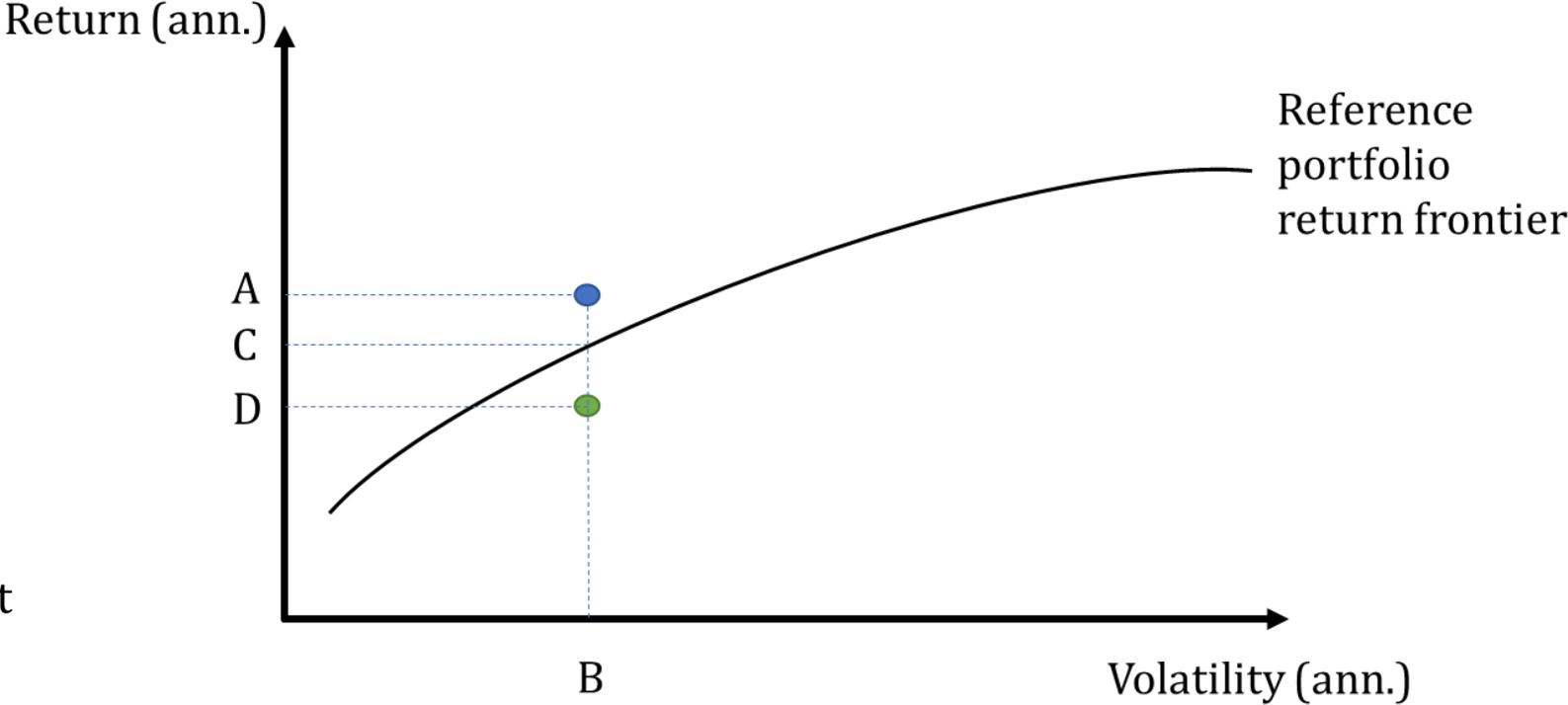
Conclusion

- YFYS performance test is well-intended but we believe the design is flawed
- We predict a large range of undesirable outcomes which will adversely impact consumers
- We have outlined concerns relating to super funds, consumers and industry structure
- Our research highlights:
  - Low effectiveness of the designed test
  - Heavy constraint of portfolio management
  - Large opportunity cost to consumers
- An additional metric may partly offset many of the identified shortcomings

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Welcome your questions and feedback ———————

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Appendix 1: Degree of constraint

Opportunity cost

- We expect the YFYS performance test will adversely impact consumers because it constrains super funds from best constructing portfolios in members' best interests
- If funds were to focus strongly on the performance test, then a stable investment strategy would entail 1% tracking error
- This creates two sources of opportunity cost:
    1. Less effective risk management
    2. Less investment in opportunities expected to generate outperformance over time

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Appendix 1: Degree of constraint

Opportunity cost (return-based)

- Active return expectations are generally linked to the amount of tracking error through the information ratio
- The information ratio is a measure of the degree to which active risk has been converted into active returns
    - It can be measured on an ex-post basis
    - On an ex-ante basis we can only make assumptions (which can be informed by the past)

- The relationship between active risk and expected active returns can be represented by:
    Expected (active returns) = Expected (information ratio) x targeted (tracking error)

- Hence the opportunity costs to consumers of portfolio constraints can be approximated by:
    Expected (opportunity costs) = Expected (information ratio) x reduction in targeted (tracking error)

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Appendix 1: Degree of constraint _____

- Aggregating these assumptions, we can estimate a total cost to consumers

	Assets ($b)	Assets in DC (assumed)	DC Assets ($b)	Assumed Current Tracking Error	Constrained Tracking Error	Opportunity Cost ($b, per annum)
Retail	600	90%	540	1.5%	1.0%	0.54
Corporate	60	50%	30	2.0%	1.0%	0.06
Industry	760	90%	684	3.0%	1.0%	2.74
					Total	3.34

- Sensitivities:
  - IR = 0: opportunity cost to consumers equals zero (but larger issues then come into play)
  - IR = 0.4: opportunity cost = $6.7b pa

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