# Managing portfolios through the windscreen - not the rear vision mirror

Anthony Golowenko, MLC

MLC ASSET MANAGEMENT

# Asset Allocation

## Managing portfolios through the windscreen not the rear view

March 2022

Anthony Golowenko
Portfolio Manger

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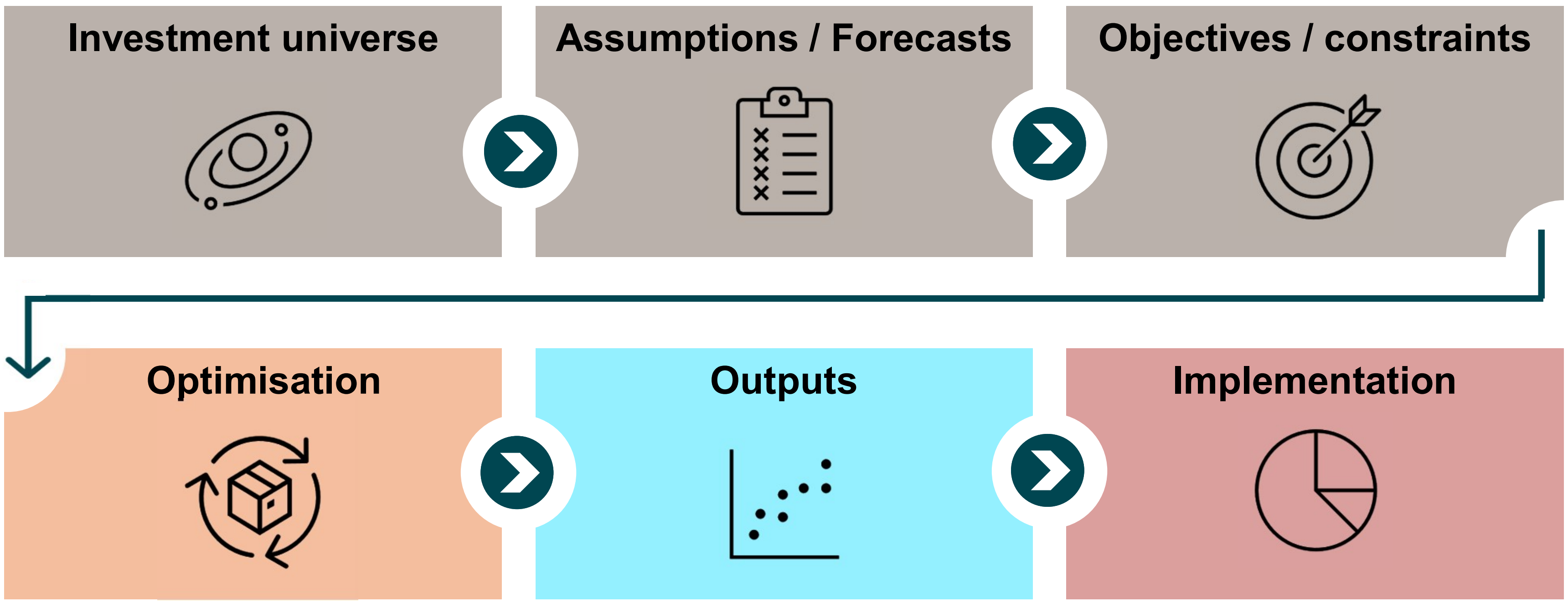
# Agenda

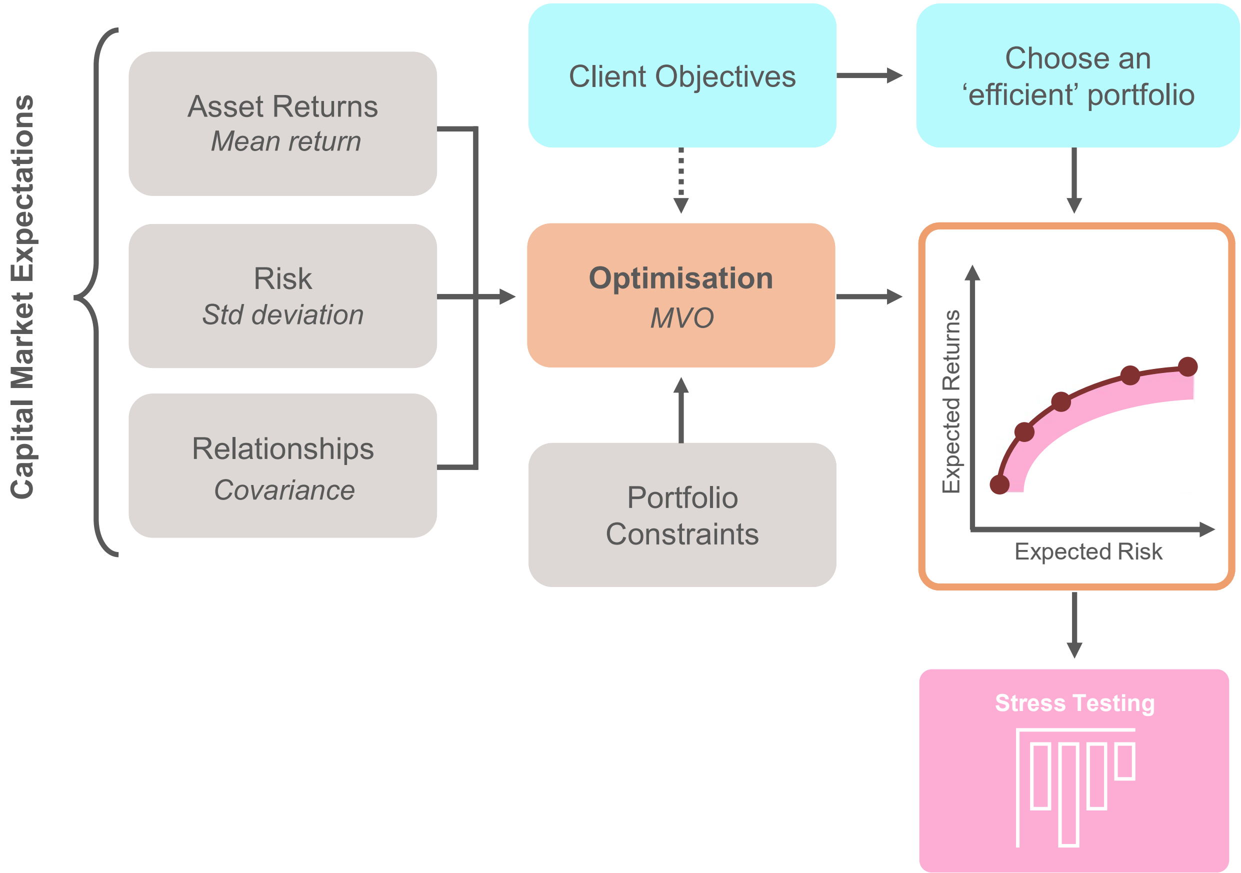
# Asset allocation frameworks

## All share common building blocks



# Asset allocation frameworks

## A classic approach




**Improvements and variations**

- *Forward forecasts*
- *Downside deviation, VaR, CVaR, non-normal distributions*
- Optimisation
  - *Robust vs Efficient frontier*
  - *Stress testing – inputs, time period or historical scenarios*

**Alternative models**

- Asset relative
  - *Factor based*
  - *Risk parity*
  - ***Scenario based***
- Liability relative
  - *ALM*
  - *Goals based*

# The futures framework

## A summary of MLC's scenario based approach to asset allocation

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**1**

### Scenario Model and Inputs

- Core variables, assumptions and relationships that underpin the scenario models
- Economic and market variables
- Parameterised to ensure consistency across scenarios

**2**

### Define the Scenarios

- Define and characterise distinct scenarios, including unlikely-but-impactful ones
- Currently 40 scenarios including pandemic, global conflict and other 'tail risk' events

**3**

### Model Capital Market Assumptions

- Assign scenario probabilities
- Generate scenario dependant asset class returns, risks and correlations
- Focused on distribution of outcomes not point estimates

**4**

### Model Potential Asset Allocations

- Iterative process to review potential asset mixes against scenario(s)
- Identify key risks, required trade-offs and asymmetric opportunities
- Identify opportunities for diversification and those requiring alternative implementation approaches.

**5**

### Final Asset Allocations

- Apply specific portfolio objectives and constraints
- Consider existing allocations – does scope exist to improve risk/return trade-off?
- Focus on portfolios robustness across a range of potential future outcomes

**6**

### Quarterly Review Cycle

# The futures framework

## How it's different and why it matters

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**Market assumptions and potential portfolios derived by 40+ individually constructed scenarios**

*Potential risk, returns and correlations are model outputs not inputs.*

*These variables are scenario dependant and not fixed.*

**Stress testing drives assumptions and allocations**

*Our process is constructed across a wide range of potential future outcomes – a robust stress test by design.*

*Rather than tacking it onto the end of the portfolio construction process.*

**Scenarios consider economic variables, market drivers and investor behaviour**

*Even perfect economic foresight is not enough, our process also considers the potential impact of investor behaviour on market outcomes.*

***We don't anchor the process to a 'base case' or most likely scenario***

*This embeds an upfront bias and limits the understanding of the potential distribution of outcomes.*

**Targeted approach to uncertainty**

*We model uncertainty within key market and economic variables based on fundamental economic relationships and observed investor behaviours.*

*We don't measure uncertainty (normally distributed or otherwise) by applying it arbitrarily to inputs or outputs.*

**Recognition and exploration of the many potential return paths**

*Our process requires not just recognition of uncertainty but a reconciliation of it (understanding the distribution of outcomes).*

*Traditional frameworks that distil complexity into single point estimates or consider possibilities without their probabilities may achieve the former but not the latter.*

**A multi-dimensional view of portfolio risk and return**

*Traditional approaches are two dimensional by design. 'What's my forecast' and 'what's the distribution around it?'*

*Our process derives additional insights on the nature of risk and opportunity across a wide range of potential investment environments.*

**Seeking 'robust' rather than 'efficient' portfolios**

*What is optimal portfolio? Is it the least variability of outcomes under multiple conditions and the least susceptible to right tails (robust) or the best performing under a single set of conditions (efficient)?*

**Avoiding black boxes and potential bias**

*We recognise the considerable uncertainty and inherently wide margin of error in forecasting. Therefore despite the sophistication of our process, it is not a black box, requiring constant qualitative review and team based input.*

*This approach seeks to mitigate overreliance on the model as well as common behavioural pitfalls.*

# The futures framework in action

## Global conflict scenario

### General Scenario Parameters

**Growth:**
- Reduced consumption ↓
- Loss of productive capacity

**Inflation:**
- Supply side disruption ↑

**Real Rates:**
- Lower ↓

**Valuations:**
- Negative sentiment ↓

### Tailored Scenario: Russia / Ukraine conflict

- Not a global conflict – Europe most at risk
- Short term outcomes at the mercy of 'unknown' Putin agenda
- Medium term consider implications of 'new cold war'

**Growth:**
- Earnings risks to larger industrial economies – energy key

**Inflation:**
- On the back of a pandemic, inflation pressures already acute
- EU Harmonised Indices of Consumer Prices (HICP) at 5.1%; highest on record (1997)

**Real Rates:**
- 'War has clouded outlook' – ECB may slow tightening but need to strike balance between negative sentiment and inflation

**Valuations:**
- Euro equities already cheap – uncertainty on earnings mean avoid at this stage

### Portfolio Impacts

- Asset allocation?
- Currency exposure?
- Strategy selection?

**Model Capital Market Assumptions**

# The futures framework in action

## Strong growth and resources boom scenario

### General Scenario Parameters

**Growth:**
- Increased consumption
- Strong AUD

**Inflation:**
- Elevated but manageable

**Real Rates:**
- Mildly positive

**Valuations:**
- Positive sentiment

### Tailored Scenario: Strong global growth and commodities boom

- Global economies firing (Aust, US, UK, China)
- Strong nominal growth supporting elevated inflation, positive real rates
- Constructive earnings growth (Aust, US, China), strong AUD

**Growth:**
- Robust earnings across major markets, solid margins

**Inflation:**
- Elevated but manageable due to booming global growth

**Real Rates:**
- Real cash rate mildly positive, gently upward-sloping yield curve

**Valuations:**
- Full valuations, strong earnings, and solid margins – 'let the good times roll'

### Portfolio Impacts

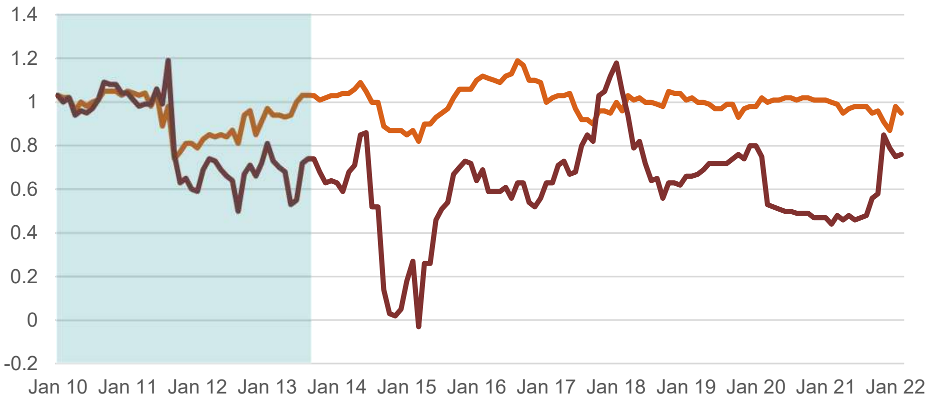
- **Asset allocation?**
- **Currency exposure?**
- **Strategy selection?**

**Model Capital Market Assumptions**

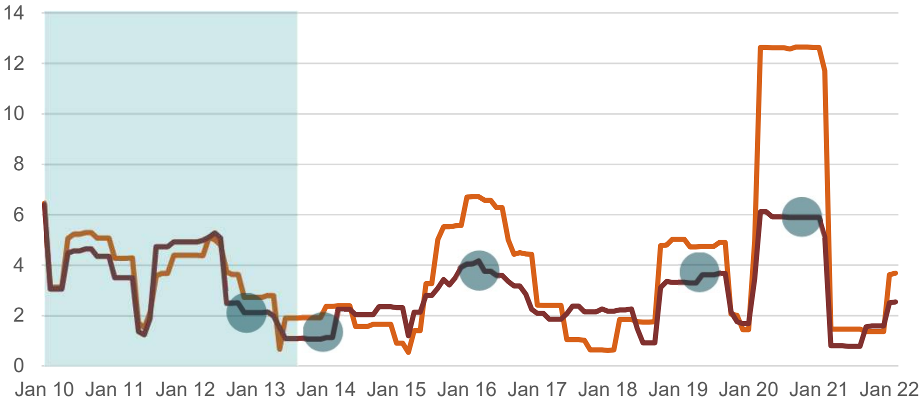
# The futures framework in action

## Outcomes through time

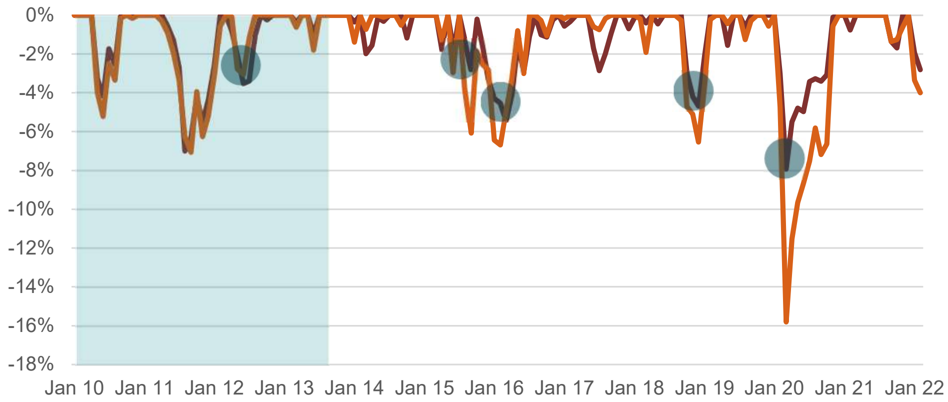
Beta (vs FE PG Multi-asset Growth)



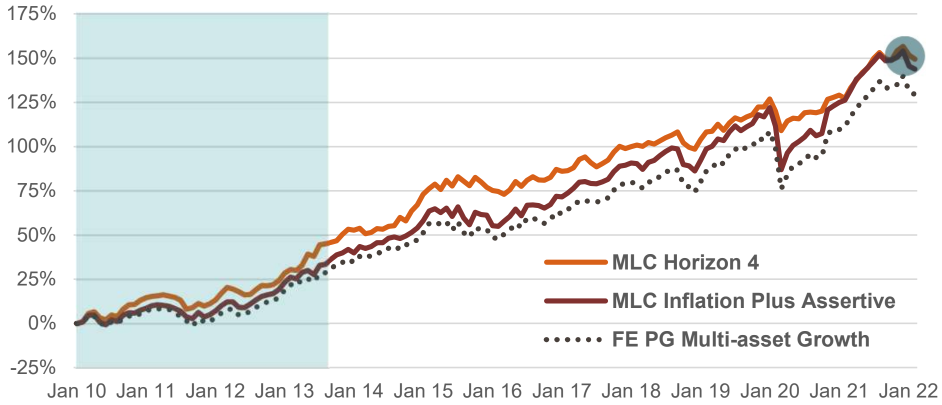

Downside deviation




Drawdowns




Cumulative returns




*# MLC Inflation Plus Assertive formally commenced in Oct 2013. Prior to this the strategy was managed as the MLC Long Term Absolute Return fund. This fund began a transition from a long time horizon, return focused strategy to a risk managed strategy in January 2010. This period between January 2010 to October 2013 is highlighted as the 'transition period'.*

# Asset allocation frameworks

## Summary points

### How well do you understand your asset allocation process?

- What is the model?
- What assumptions are made?
- What is it forecasting?
- What is the forecast error?

### What objective(s) are you trying to solve?

- Does your AA represent the ‘optimal’ asset mix for a single base case, or a more robust asset mix for a wide range of future outcomes?
- Is your AA goals based or just your advice process?

### How does your asset allocation process deal with uncertainty?

- Quick, run the stress test!
- Do measures of uncertainty or stress tests drive constructive decision making, insightful debate, or are they just another FYI portfolio stat?

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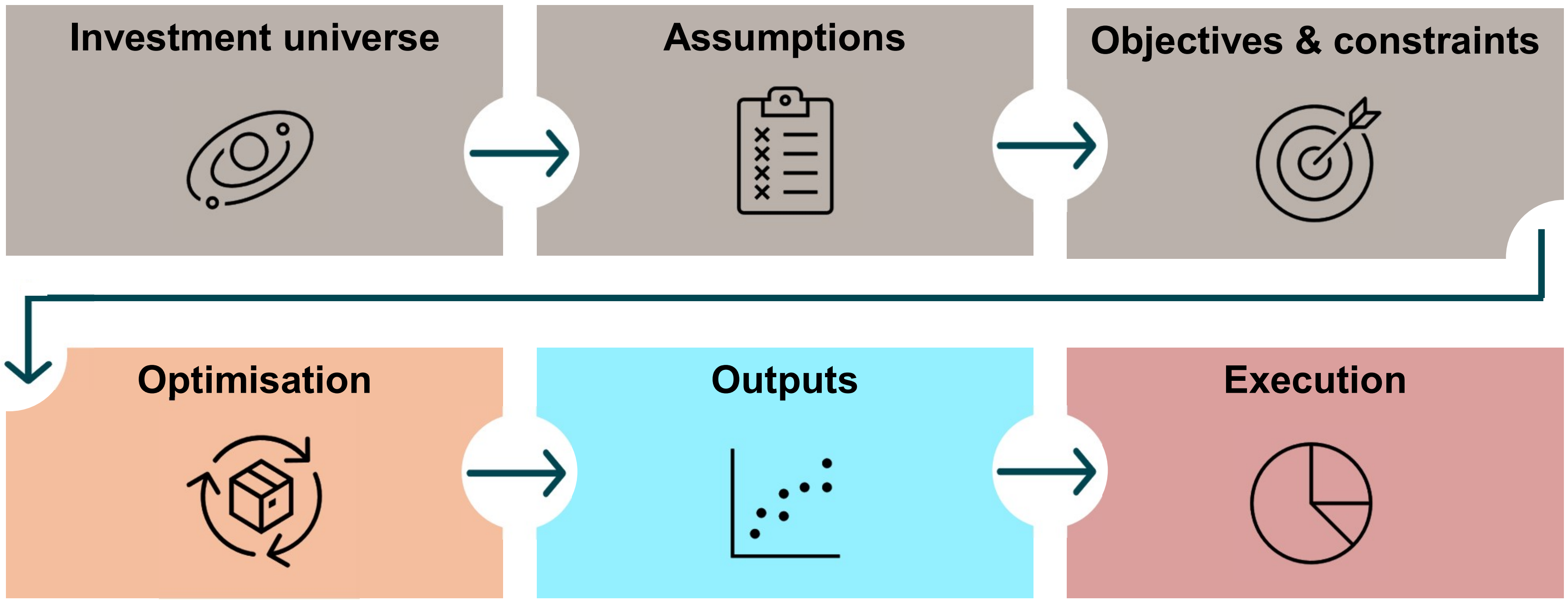
# Questions

# Thank you

# Asset allocation frameworks

## Common building blocks

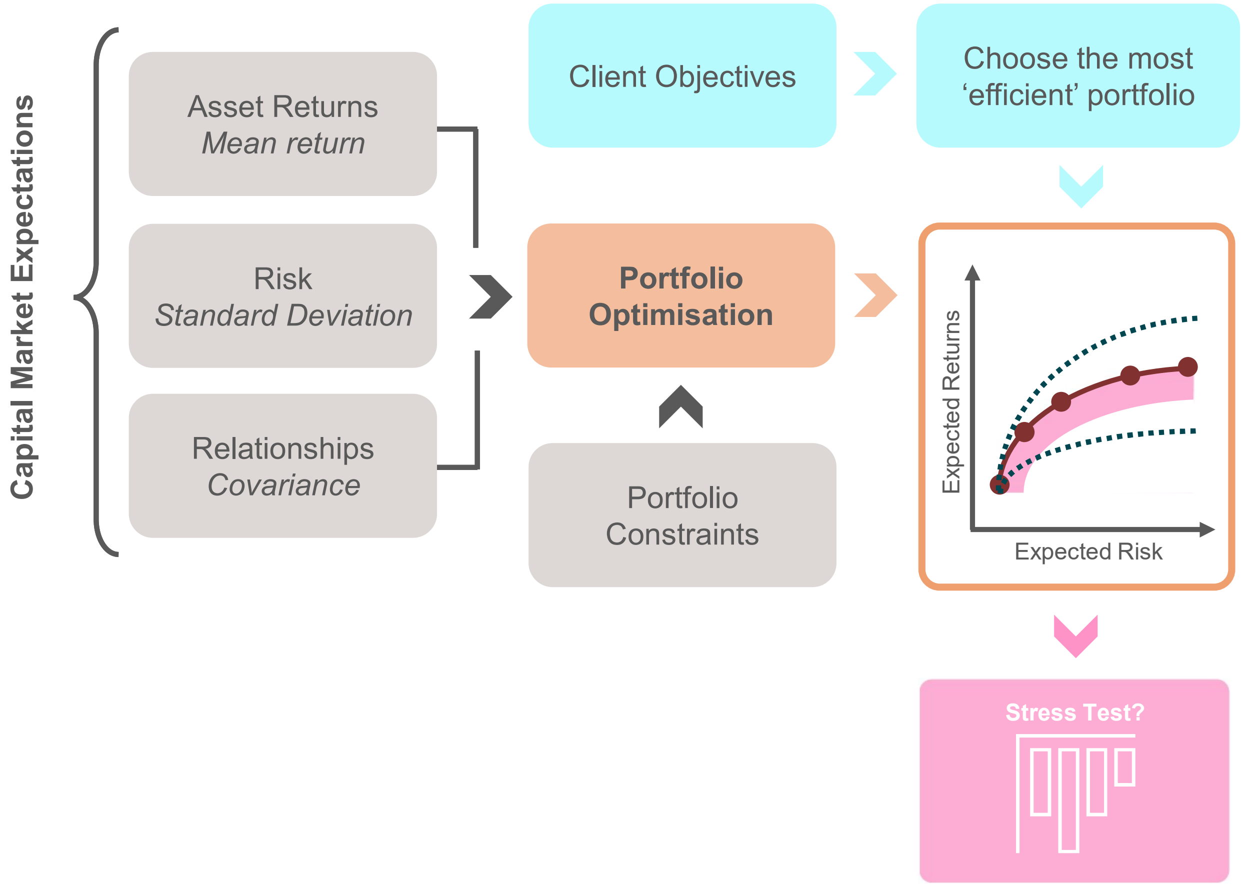


# The futures framework in action

## Outcomes through time

# Asset allocation frameworks

## The classic approach




**Improvements & variations**

- Returns
  - *Forward forecast*
- Risk
  - *Downside vol, VaR, CVaR?*
- Optimisation
  - *Robust vs Efficient frontier*
  - *Stress test or Monte Carlo*

**Alternative models**

- Asset relative
  - *Factor based*
  - *Risk parity*
  - ***Scenario based***
- Liability relative
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# The futures framework in action

## Outcomes through time

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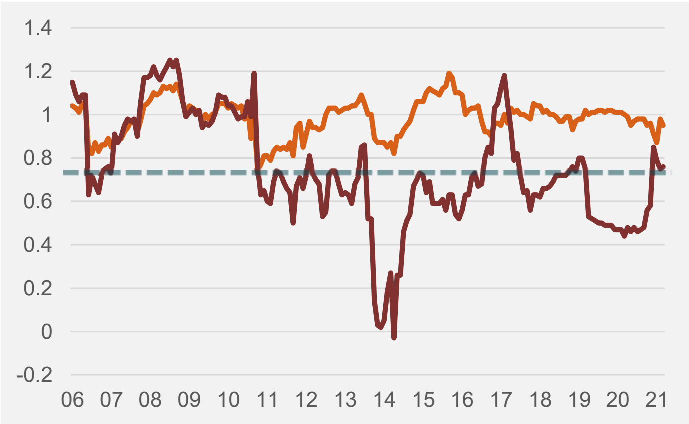
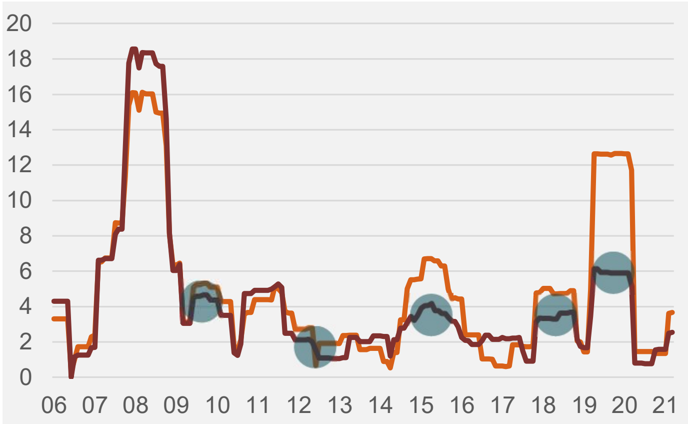
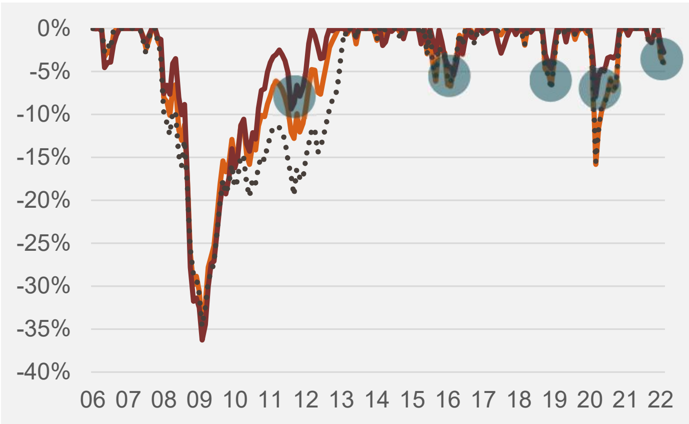
Beta (FE PG Multi-asset Growth)



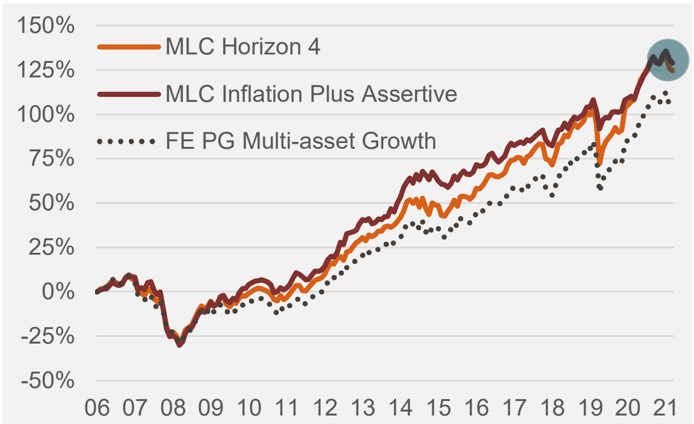

Downside deviation




Drawdowns




Cumulative returns




- Beta averaged just 74% of traditional 80/20 fund
- With consistently lower downside volatility; and
- Consistently lower drawdowns
- While still delivering comparable total returns over a 15 year horizon

# Handling illiquid assets in Managed Accounts

Brad Matthews, BMIS

Dale Holmes, Spire Capital

Shane Hawke, Oreana Portfolio Advisory

SPIRE CAPITAL

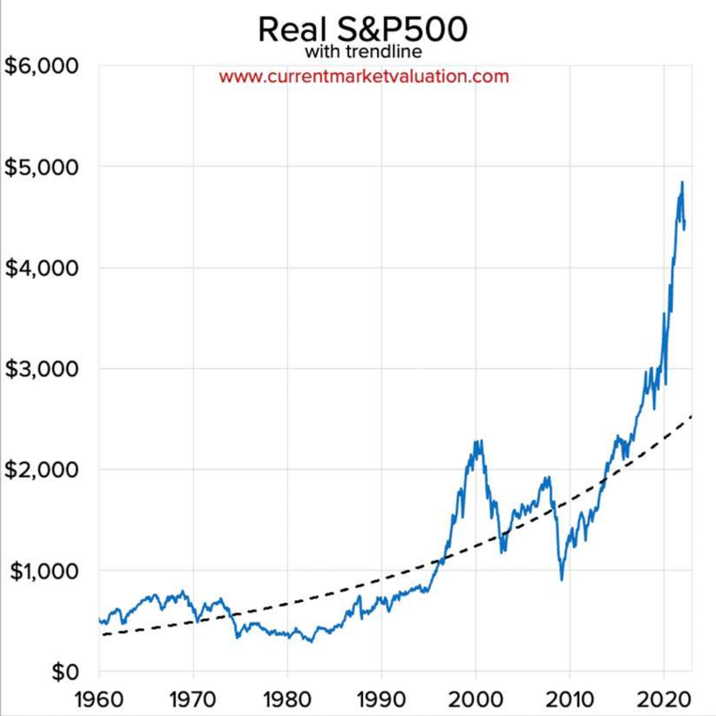
# 2022 IMAP Melbourne Portfolio Management Conference

*Portfolio Management under Uncertainty*

# The Party is Over - 30 Year Bond Market Rally Provides False Economy

**Figure 2A**


**Figure 2B**



# Diversification Across Private Markets and Public Markets Essential for Future Real Returns – Inflation + 2%, 4%, 6%, 8%

***Display 2***

***A Natural Complement: Private and Public Market Investments***

| Public Markets | Private Markets |
|---|---|
| ▶ Frequent transactions | ▶ Infrequent transactions |
| ▶ Information widely and quickly shared | ▶ Asymmetric information |
| ▶ Performance generally in line with markets | ▶ Performance premium to liquid markets |

*Note: For illustrative purposes only. There can be no assurance that an allocation to alternatives would provide higher real returns. Please consult your own third-party advisor before making any investment decisions based on this information.*

[4] Michael C. Jensen, "Eclipse of the Public Corporation," Harvard Business Review (September-October 1989).
[5] "More than any other factor, these organizations' resolution of the owner-manager conflict explains how they can motivate the same people, managing the same resources, to perform so much more effectively under private ownership than in the publicly held corporate form."Jensen Ibid.

# The Future Fund as a Case Study – Reduced Real Return Target to 4%

**Future Fund**

***Performance***

| Table 1: Future Fund returns, target benchmarks and volatility | | | |
|---|---|---|---|
| | **Return (% pa)** | **Target return[1] (% pa)** | **Volatility[2] (%)** |
| From inception (May 2006) | 8.3 | 6.6 | 4.4 |
| 10 years | 10.8 | 6.2 | 4.3 |
| Seven years | 9.3 | 6.0 | 4.7 |
| Five years | 9.8 | 6.0 | 4.8 |
| Three years | 11.5 | 6.1 | 5.6 |
| One year | 19.1 | 7.5 | 6.0 |

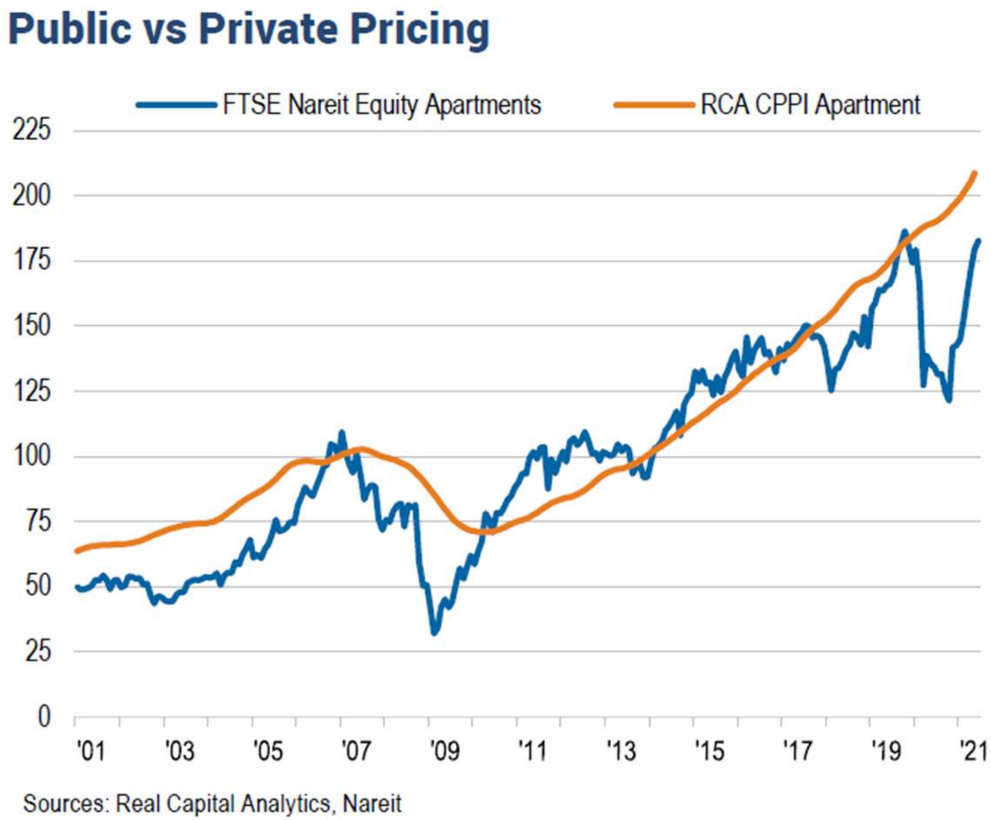
Note: The Future Fund returned 2.2% over the quarter to 31 December 2021 and 3.4% for the financial year to date.

1. From 1 July 2017 the Fund's Investment Mandate target return was reduced from CPI + 4.5% to 5.5% pa to CPI + 4% to 5% pa over the long term, with an acceptable but not excessive level of risk.
2. Industry measure showing the level of realised volatility in the portfolio.

***Asset allocation***

| Table 2: Future Fund asset allocation | | |
|---|---|---|
| **Asset class** | **$m** | **% of Fund** |
| **Australian equities** | 15,449 | 7.6% |
| **Global equities** | | |
| Developed markets | 31,871 | 15.7 |
| Emerging markets | 15,656 | 7.7 |
| **Private equity** | 34,255 | 16.8 |
| **Property** | 13,149 | 6.5 |
| **Infrastructure & Timberland** | 16,309 | 8.0 |
| **Debt securities** | 14,250 | 7.0 |
| **Alternatives** | 28,405 | 14.0 |
| **Cash** | 34,239 | 16.8 |
| **TOTAL** | **203,583** | **100.0** |

# Managing Risk - Volatility of Capital - Why the Industry Funds are Winning!

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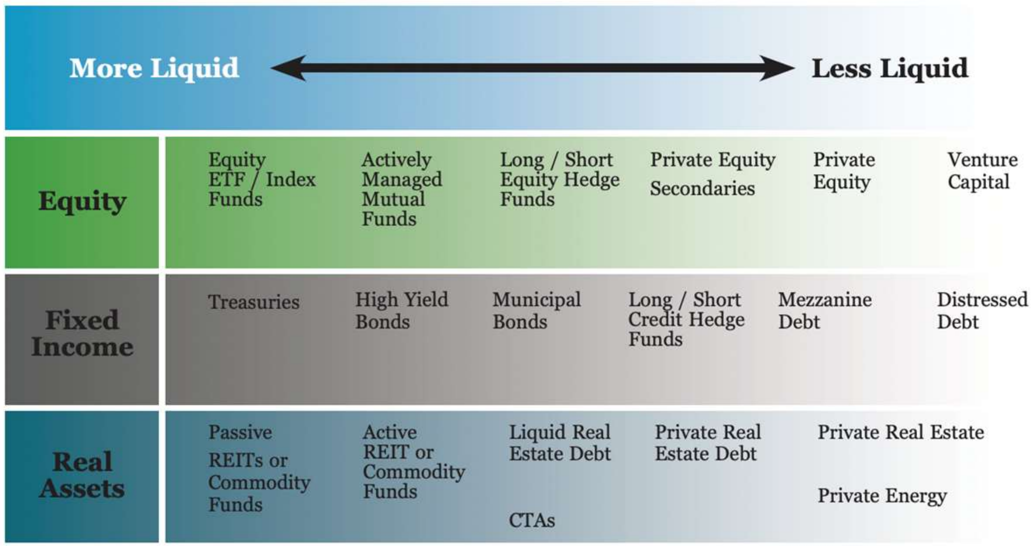
# Product Innovation – to Enable Access to Private Markets (and Trade-offs)

- Liquid alternatives via listed market
- Semi-liquid alternatives via unlisted market
- Traditional private market unlisted and illiquid strategies

***Display 10***

***Simplifying Private Market Investing: Allocating across the Liquidity Spectrum***




*For Illustrative Purposes Only*

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# Handling illiquid assets in managed accounts

1. Why ?
2. How ?
3. What ?

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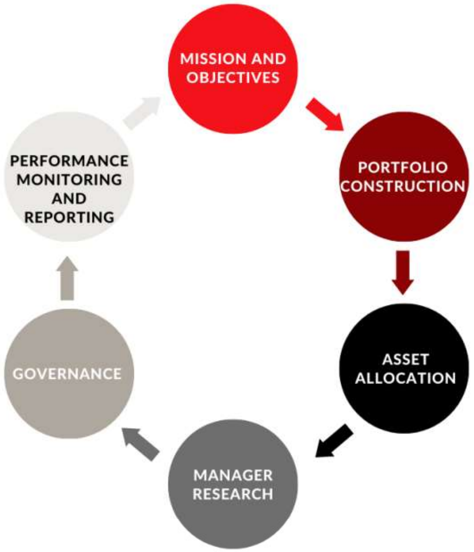
# Handling illiquid assets in managed accounts




1. What is the overall investment mission and objective?
   - Why
2. Advice Based Investment Strategy
   - Why, How
3. Diversified portfolio versus specialist satellite?
   - Why, How
4. Available investment universe and constraints
   - How, What
5. Investment due diligence
   - What

## Handling illiquid assets in managed accounts - Putting it all together

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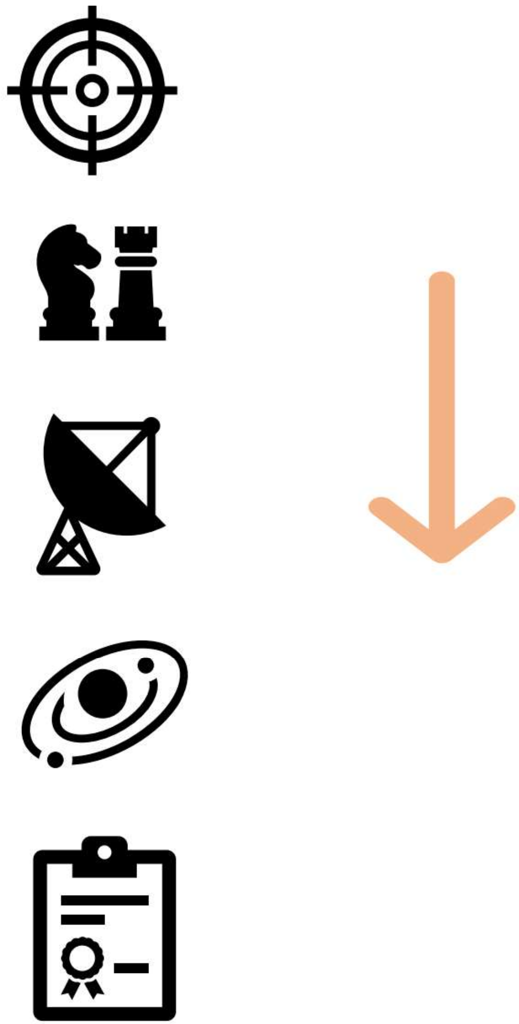
1. What is the overall investment **mission and objective**?
2. Advice Based **Investment Strategy**
3. Diversified portfolio versus **specialist satellite**?
4. Available investment **universe and constraints**
5. Investment **due diligence**

# Putting it all together



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# The impact of a retirement income covenant on Managed Accounts

Aaron Minney, Challenger

# The RIC opportunity for managed accounts

## IMAP Portfolio Management

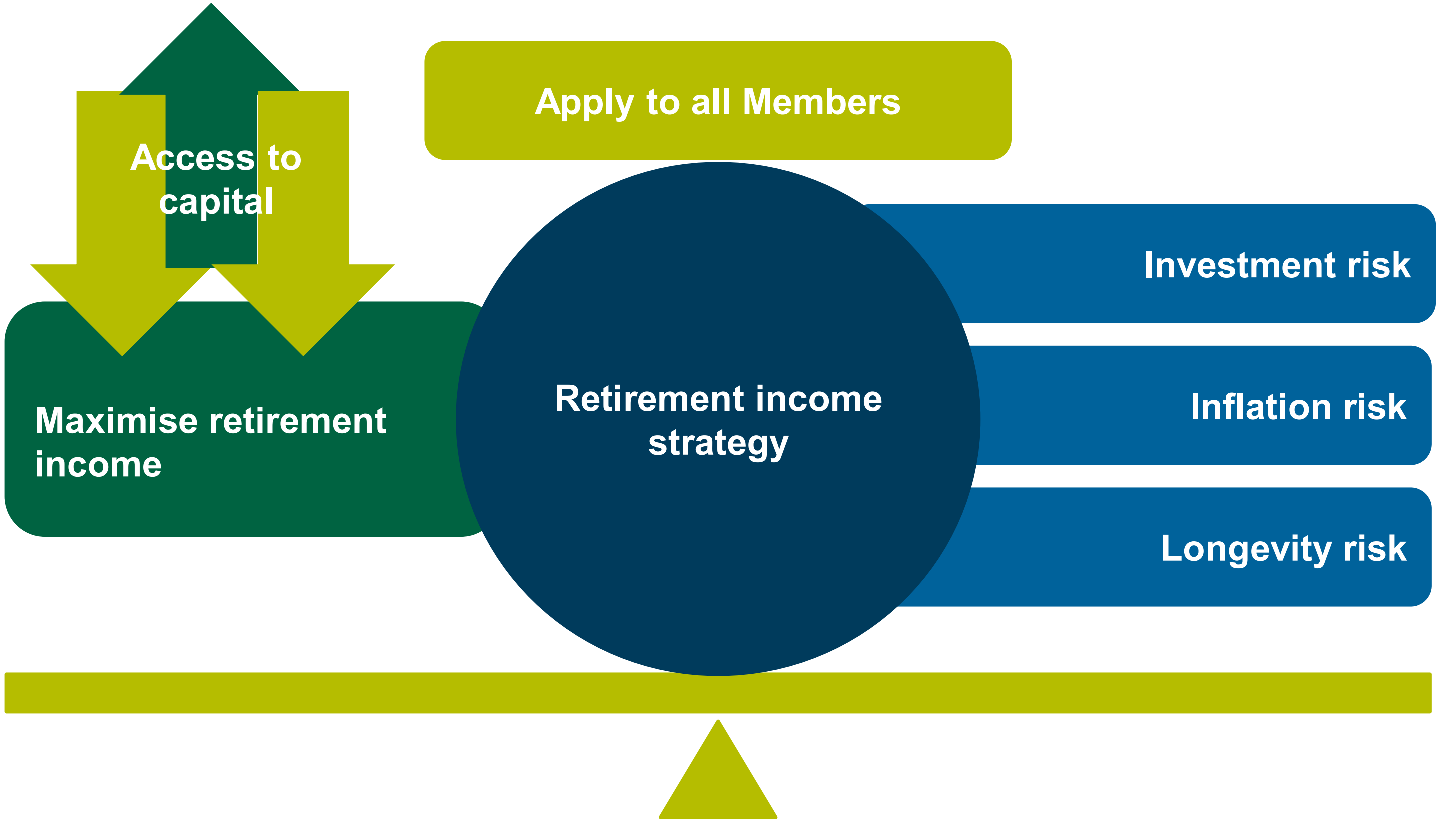
**Aaron Minney**
22 March 2022

# Outline

1. Retirement Income Covenant (RIC)
2. Risks specific to retirement
3. Portfolio solutions to support a managed account

# Addressing the retirement income covenant

## What is expected of Super Funds?




1.Relates to APRA-regulated funds for members in or approaching retirement.

## A retirement income strategy for a managed account portfolio

Advisers have a Best Interest Duty to their clients

- Stronger than fund requirement under RIC
- Can take guidance from considered best practice

**Need to consider assets, liabilities and income outside super**

**Portfolio construction will depend on the balance across the retirement objectives**

**Clients might have a bequest motive**



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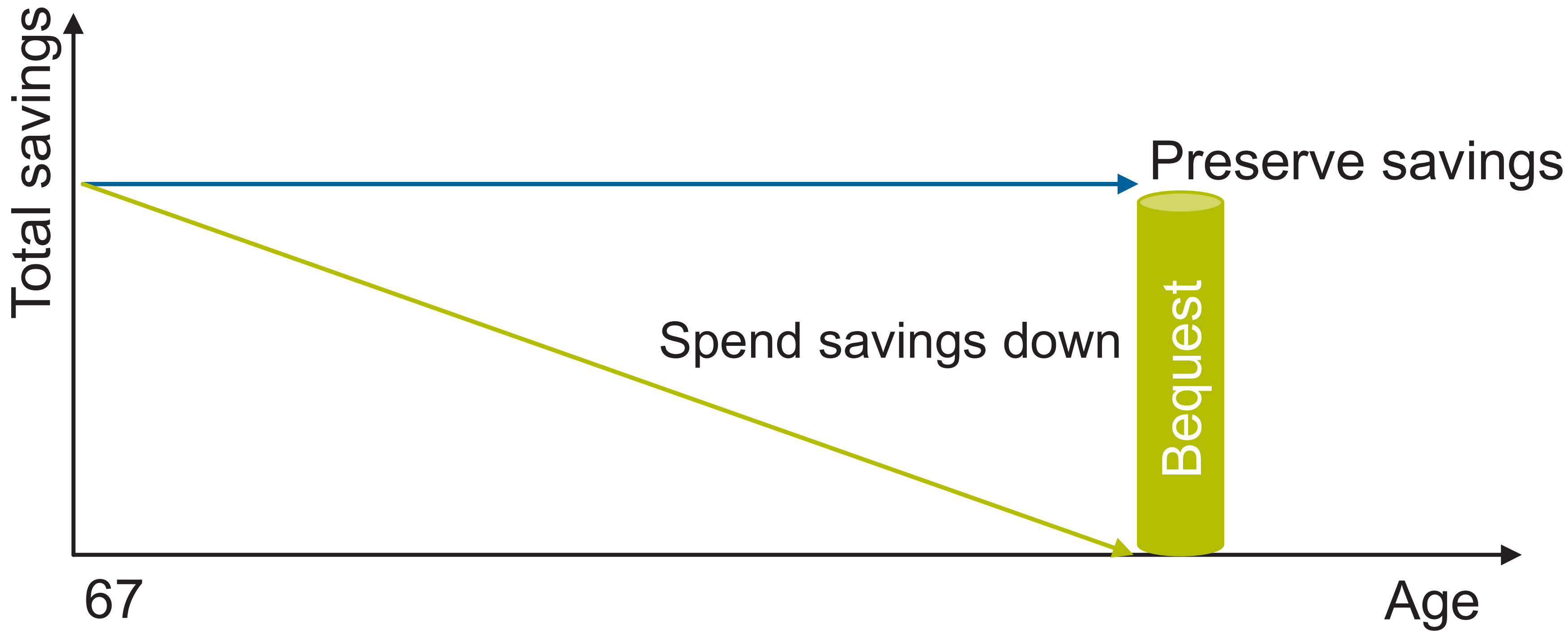
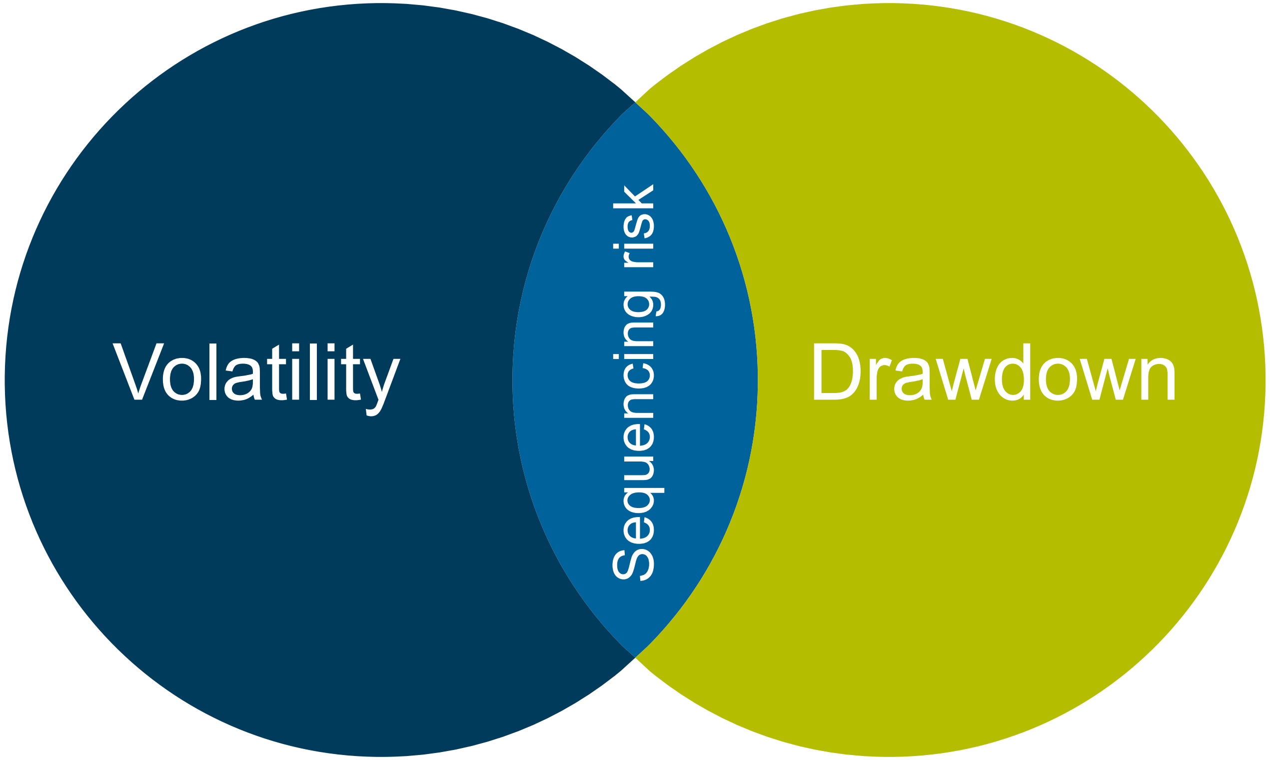
## The direction of spending in retirement



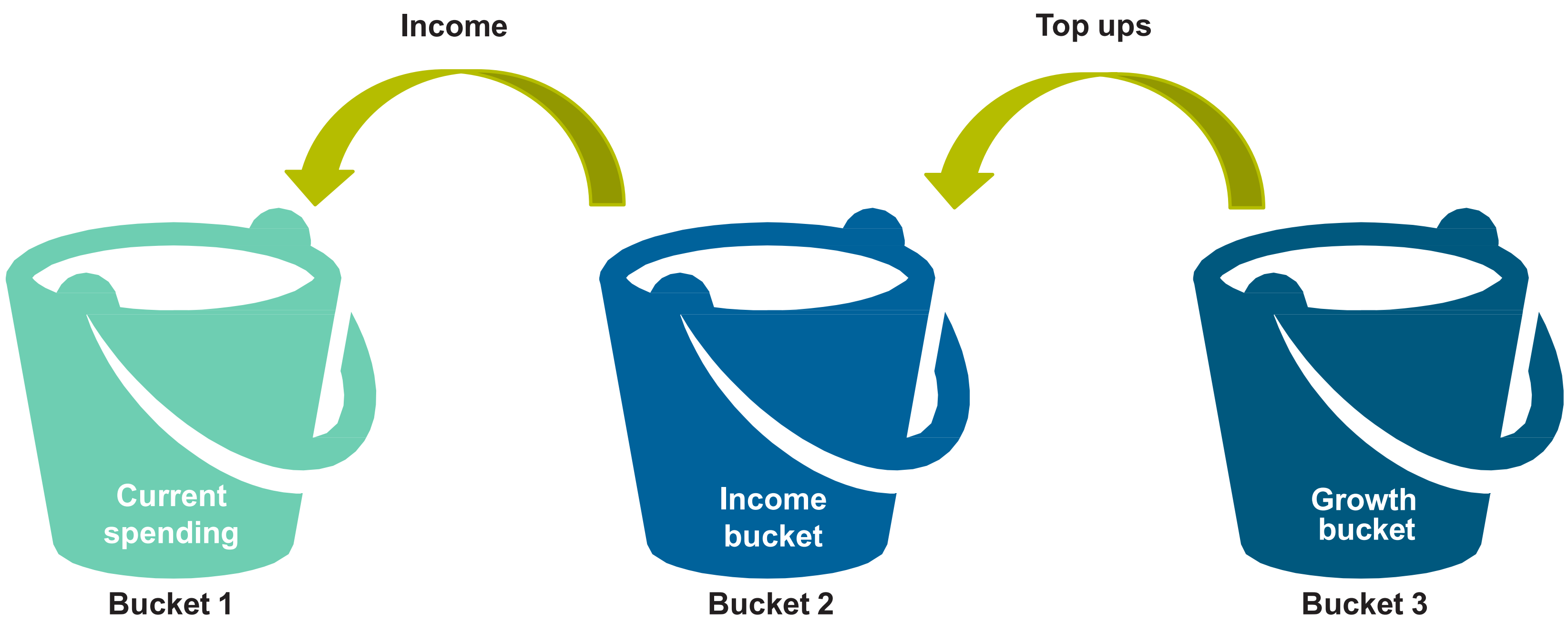
## Additional investment risk in retirement

## Sequencing risk

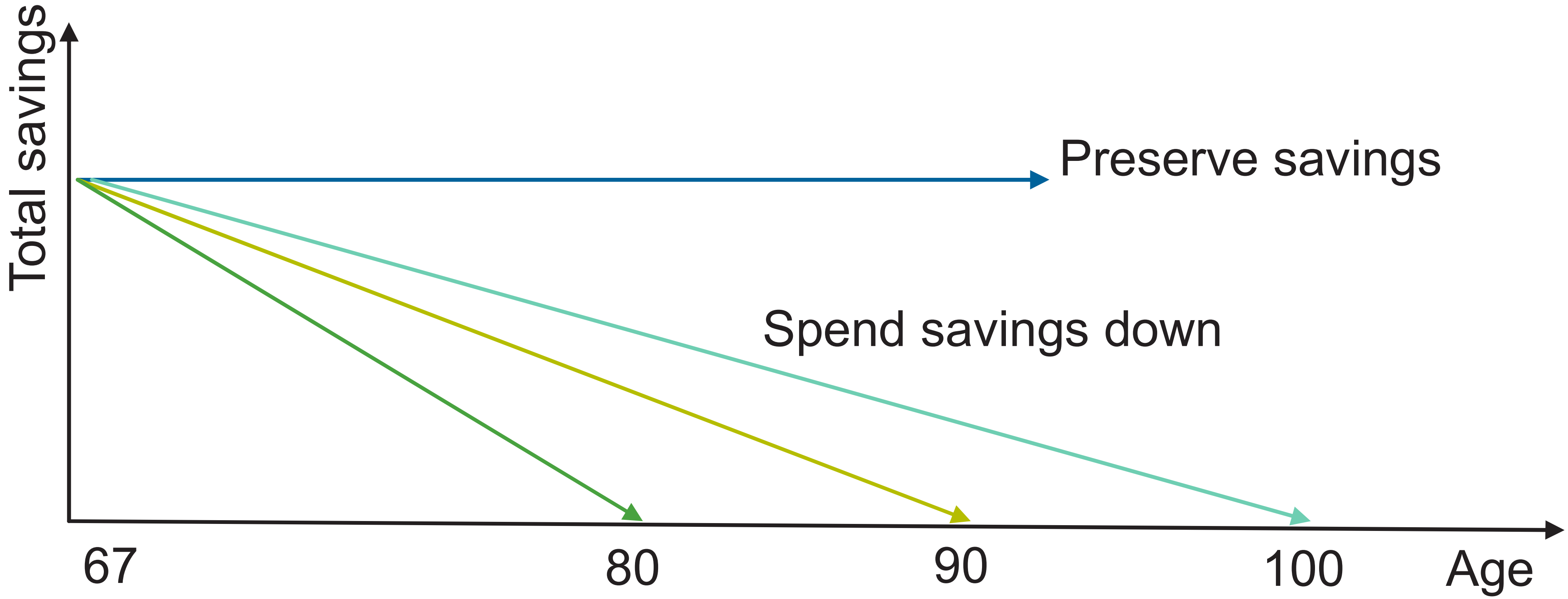


# Income buckets

## Breaking the sequencing risk



## When does longevity risk matter

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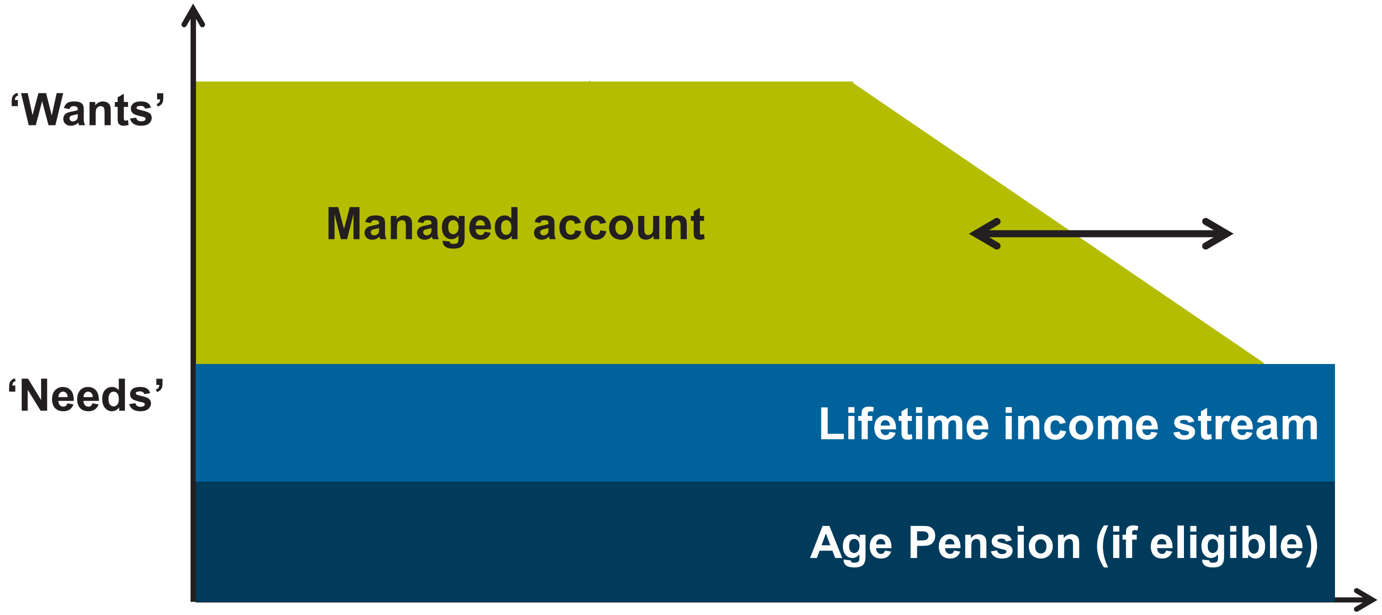
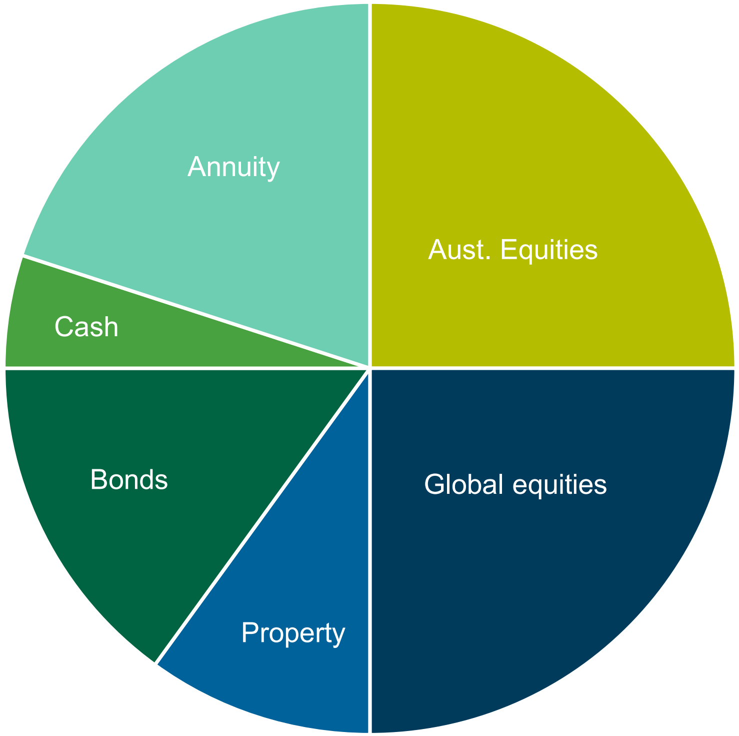
# Solving for longevity risk

## Maintaining the majority in a managed account



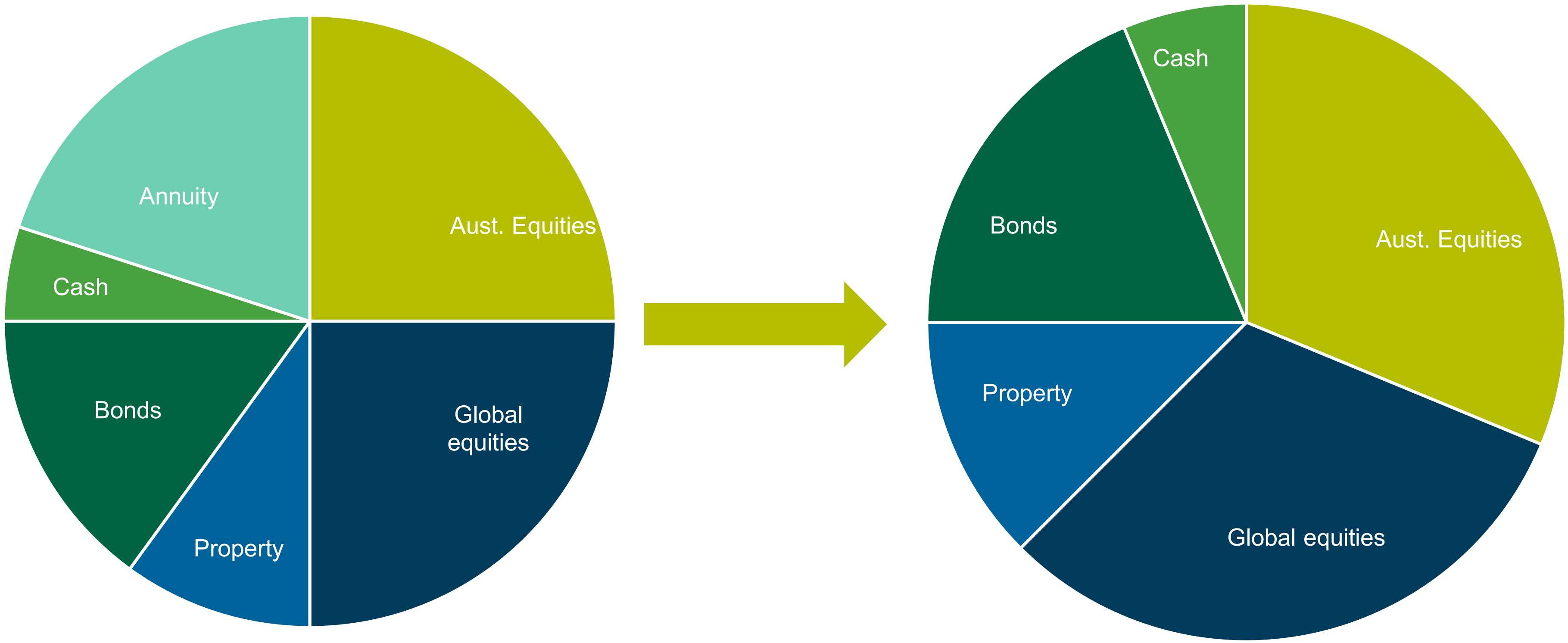
# Representative portfolio allocation

## Overall 60/40 profile



## Preserve the capital

## High growth profile for intergenerational transfer



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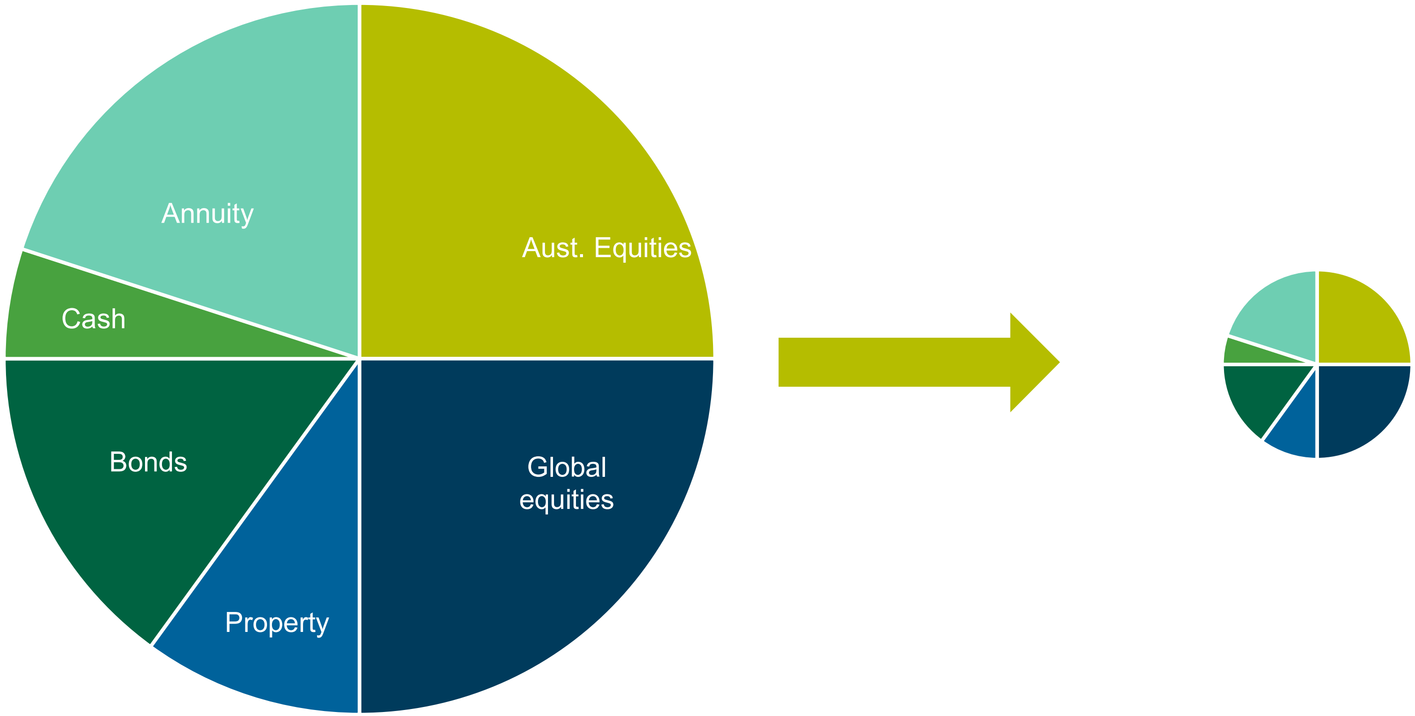
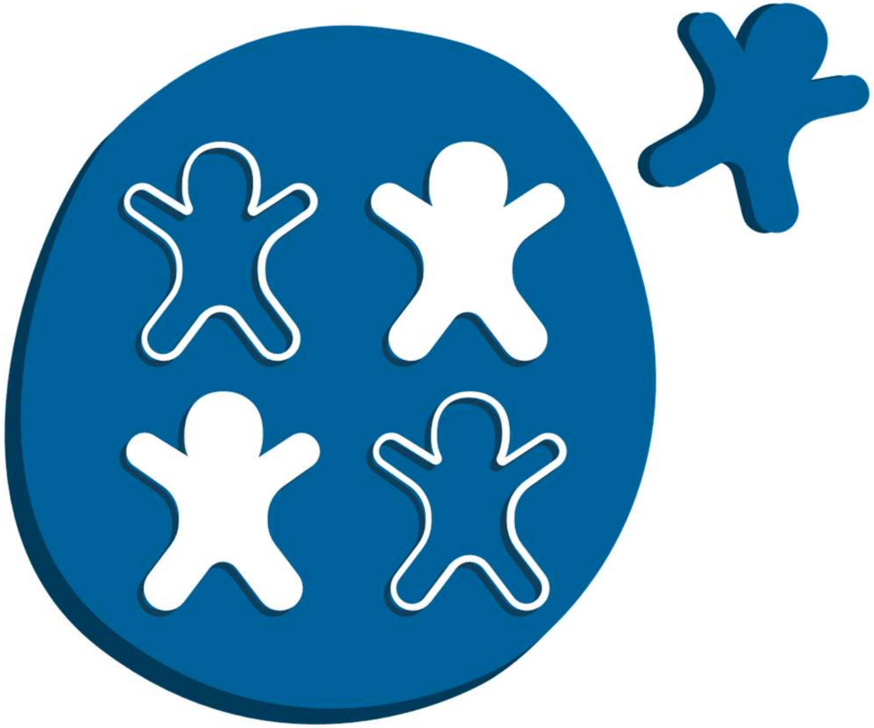
## Spending savings down

## Maintains 60/40 profile



# Cohorts v personalised advice

## Understand people to deliver a better outcome



# Summary

RIC ➡ funds will provide better retirement solutions

Scope for managed portfolio to improve client outcome

Build on retirement risk framework

Retirement is different, impacts strategy implementation

**Important information**

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# Do Real Assets offer protection from inflation?

Dan Cave, Zenith Investment Partners

John Julian, AMP Capital

Jan de Vos, Resolution Capital

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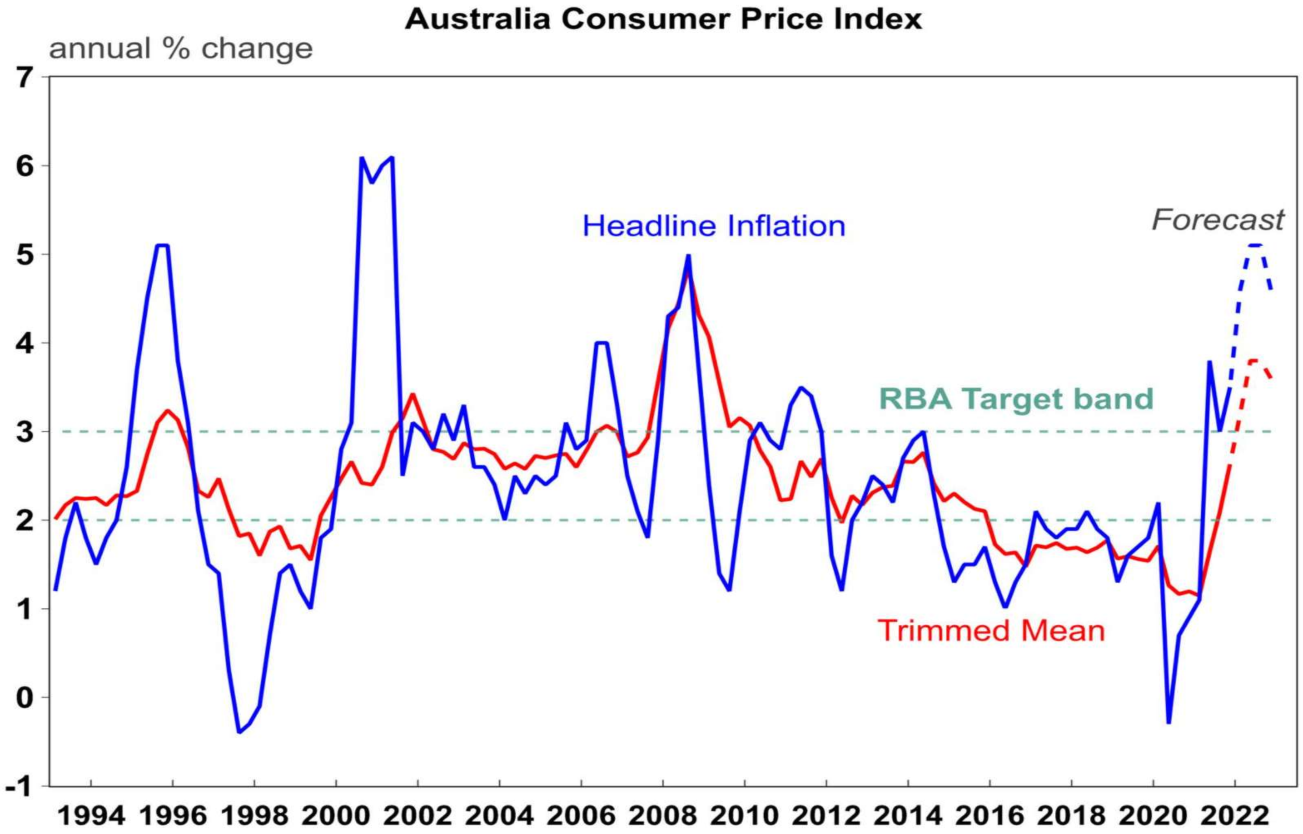
# Infrastructure & inflation

March 2022

AMP CAPITAL

# Outlook

## A confluence of factors have contributed to a headline inflation forecast[1] of 5% by the end of 2022




Source: Macrobond, AMP

### Key Points

- Headline inflation expected to reach **5%** by years end[1]
  - o Includes impact on energy and food prices from the Russian/Ukraine war, floods, and continued supply chain disruptions from COVID
- This is 2% outside the Reserve Bank target, so we expect increases in the cash rate to **0.75%** by the end of the year[1]
  - o This is still low by historic standards
- Real GDP growth is still expected to be strong, rising to **4.5%** on an annual basis by the end of the year, giving a nominal GDP growth rate of **9.5%**[1]



1. Econosights: Inflation risks: implications from Russia/Ukraine war and the floods | AMP Capital

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# Impacts on Infrastructure Cashflows

Varying impacts for different infrastructure asset types

## Impact Overview

- Along with an increase in inflation, we expect economic growth and rising interest rates
- Likely to increase demand/usage of infrastructure assets, however operating costs are also likely to increase
- Net impact on infrastructure cashflows depends on how these positive and negative impacts balance out
- Impacts can vary widely depending on the type of infrastructure asset
- Table summarises our view on the potential impacts for three sub-classes of infrastructure

| Sub-Class | Asset Example | Impacts | | Net Effect |
|---|---|---|---|---|
| | | Positive | Negative | |
| **Growth linked** | • Airports<br>• Ports<br>• Toll roads | • Patronage increases with growth<br>• Service charges can increase by inflation (or another factor) | • Operating costs increase with growth and inflation<br>• Potential increased cost of debt, but mitigated through hedging arrangements | Generally positive |
| **Regulated** | • Electricity transmission & distribution<br>• Water | • Throughput increases with growth<br>• Service charges inflation linked | • Operating costs increase with growth and inflation<br>• Potential increased cost of debt, but mitigated through hedging arrangements | Neutral to moderately positive |
| **Public Private Partnerships (PPP)** | • Availability based revenue<br>• Schools<br>• Hospitals | • Passthroughs on consumables<br>• Partial or full hedge on inflation | • Residual risk on inflation where incomplete hedge<br>• Potential increased cost of debt, though very limited due to long-term hedging arrangements (often for full term of concession) | Neutral to slightly negative |

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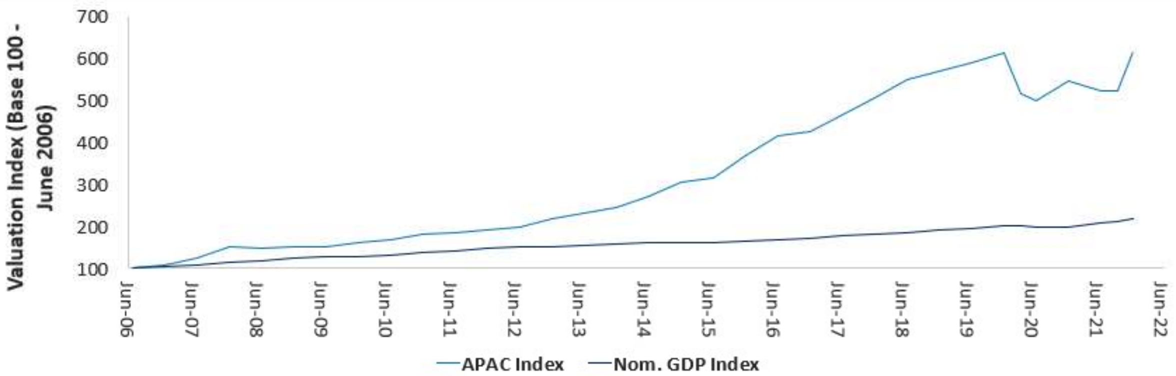
# Case Study 1: Growth Asset – APAC (Melbourne Airport)

**APAC has performed well through numerous inflationary spikes**

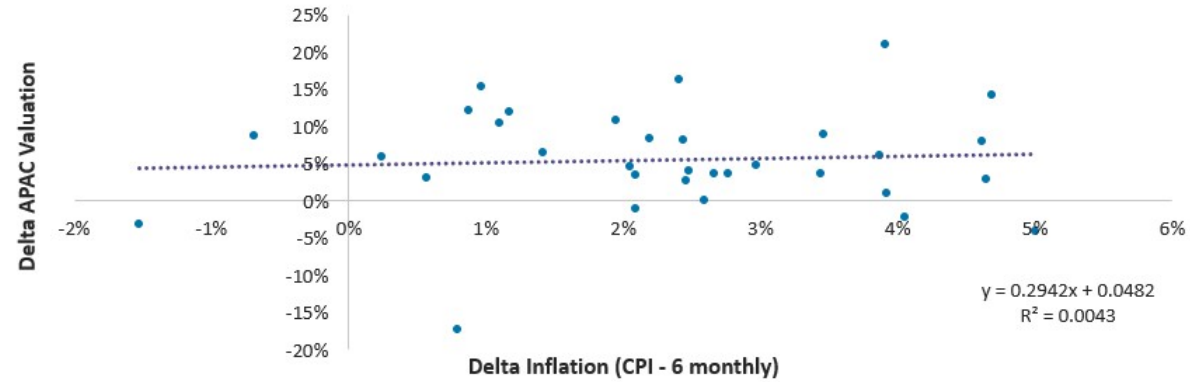
## Asset Insights

- **Inflation hedges/mitigants**:
  - Aeronautical Services Agreements have a built-in annual escalation factor
  - Significant property/retail leasing businesses. Leases have annual escalators
  - Increasing patronage in growth environment
- **Chart 1** shows the nominal growth in valuations of APAC versus Australian nominal GDP growth
  - APAC valuation growth outperformed GDP growth by a factor of at least 2, illustrating APAC is a strong growth asset
- **Chart 2** shows the percentage changes in valuation against inflation over the long-term including through inflationary spikes in 2006, 2008, 2011 & 2021
  - It shows minimal correlation between the metrics, indicating the combination of the mitigants and the airport's ability to drive additional passenger volumes has meant that:
    - Inflation has not had a material impact on valuations; and
    - Looking back at **Chart 1**, inflation hasn't impacted the airport's valuation growth

## Chart 1: APAC Valuation Growth v. Nominal GDP Growth[1]




## Chart 2: Delta Inflation v. Delta APAC Valuation[1]




1. Source: AMP Capital, Australian Bureau of Statistics, Reserve Bank of Australia

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# Case Study 2: Regulated Asset – Powerco

## Weak correlation between inflation and valuation

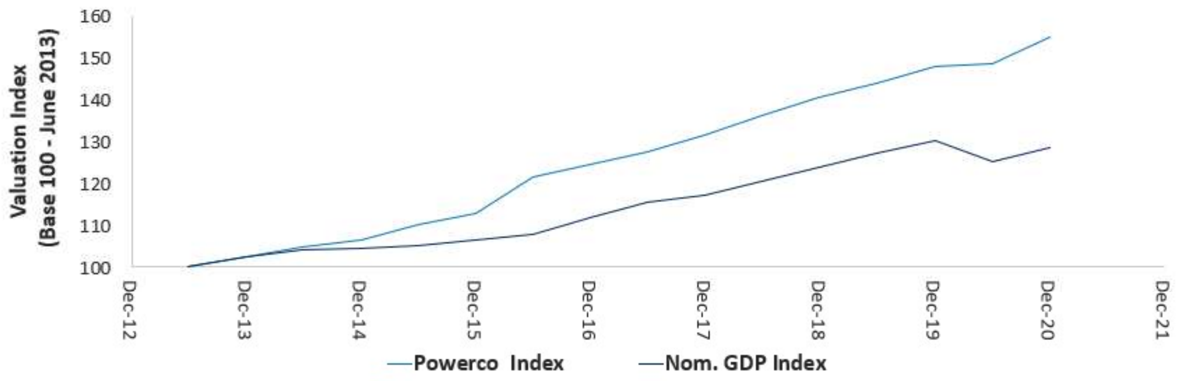
### Asset Insights

- **Inflation hedges/mitigants:**
  - Some benefit from throughput increases in growth environment
  - Inflation protection embedded in the regulatory model which explicitly accounts for changes in CPI, and allowable revenue each year is inflation adjusted

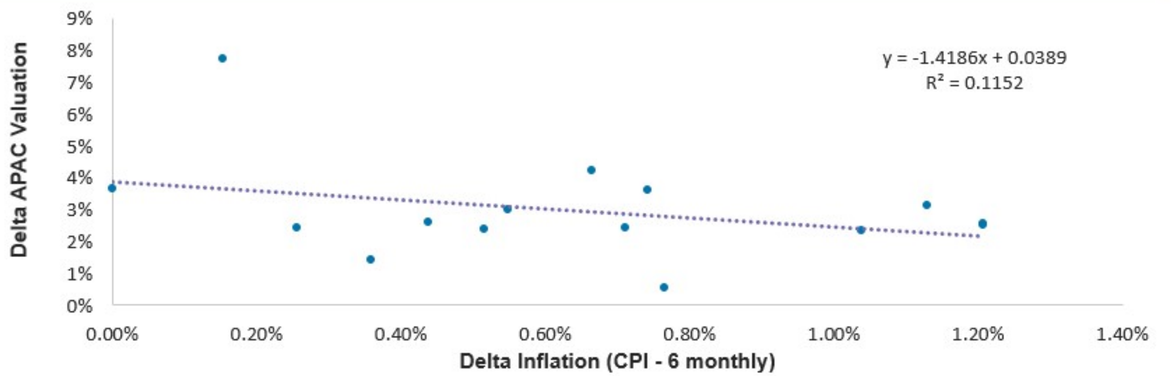
- **Chart 1** shows the nominal growth in valuations of Powerco versus New Zealand's nominal GDP growth
  - Powerco valuation growth tracked higher than nominal GDP
  - The multiple was lower than for APAC, which is consistent with a yield-oriented asset, with some growth characteristics

- **Chart 2** compares the percentage change in valuation against inflation
  - The chart suggests a weak correlation, with a slight negative impact
  - However, that apparent negative impact is almost entirely driven by one data point which is the consequence of factors that are largely unrelated to inflation

### Chart 1: Powerco Valuation Growth v. Nominal GDP Growth[1, 2]




### Chart 2: Delta Inflation v. Delta Powerco Valuation[1]




1. Source: AMP Capital, Reserve Bank of New Zealand
2. Chart shows period from acquisition up until December 2020, as post that date Powerco saw changes in the Regulated Asset Base that voids meaningful comparison with earlier periods

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# Listed Real Assets – Keeping up with inflation

IMAP Melbourne Conference

March 2022

Significant global experience and an established investment management platform

**$17.8bn**
ASSETS UNDER MANAGEMENT

**26**
EMPLOYEES

**>25 years**
TRACK RECORD

## Global REITS

**$16,750m**
AUM

## A-REITS / Real Assets

**$1,000m**
AUM

## Global Listed Infrastructure

**$15m**
AUM

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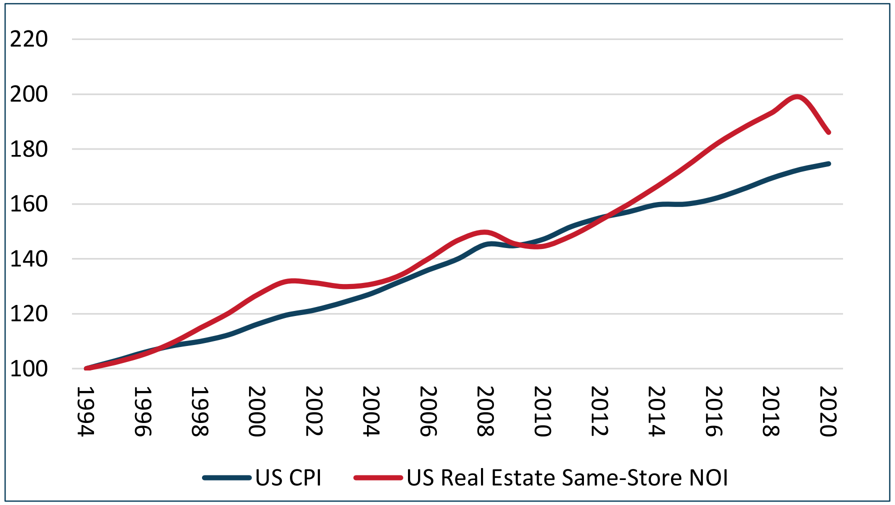
Assets Under Management (AUM) as at 28 February 2022

## Real Assets & inflation: not straightforward

- Empirical data: inconclusive
- 1970-1990: *Real estate a "hedge against inflation"*
- 1990-2020: *Real estate a "bond proxy/yield play"*
- *>2020: ???*

➔ Focus on: Pricing Power & Capital Management

**REIT income (~rent) outpaces inflation over Medium/Long Term**




Source: Green Street, Bloomberg, ResCap

"[*We're seeing*] *a* ***rapid acceleration in replacement costs****. In the US, we expect replacement cost to increase 20% to 25% over the two-year period through 2021, the fastest rate ever*" - CEO ProLogis

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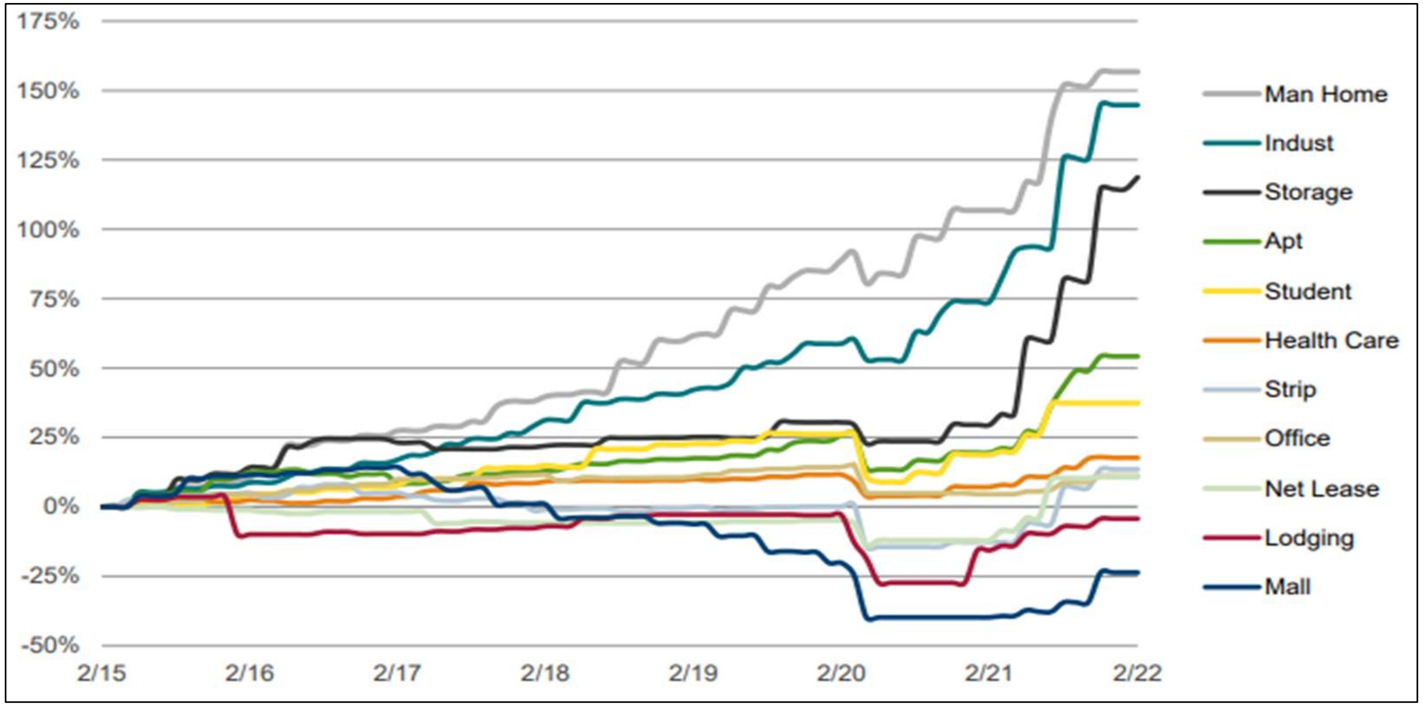
# Not all real estate is created equal

- Significant intra sector dispersion
- Rents key driver

**U.S. direct market property values**

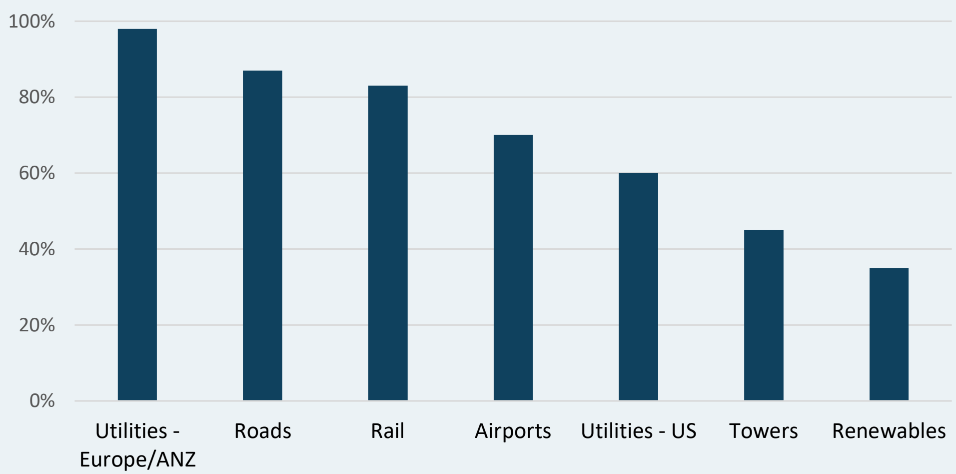



Source: Greenstreet Advisors

# GLI inflation hedge

- Inflation protection varies across sectors & within sectors

## Inflation protection by sector




Source: ResCap

## Revenue construct

| | |
|---|---|
| Utilities – EU | Regulatory |
| Toll roads | Pricing power / contracts |
| Rail | Pricing power |
| Airports | Pricing power / regulatory construct |
| Utilities – US | Regulatory |
| Towers | Pricing power / typically nominal |
| Renewables | Pricing power / typically nominal |

## Alternative property

- Childcare, healthcare
- Lifestyle communities, pubs
- Self storage

## Mobility & decarbonisation

- Airports, Toll roads
- Renewables
- Electricity transmission

## Digitisation

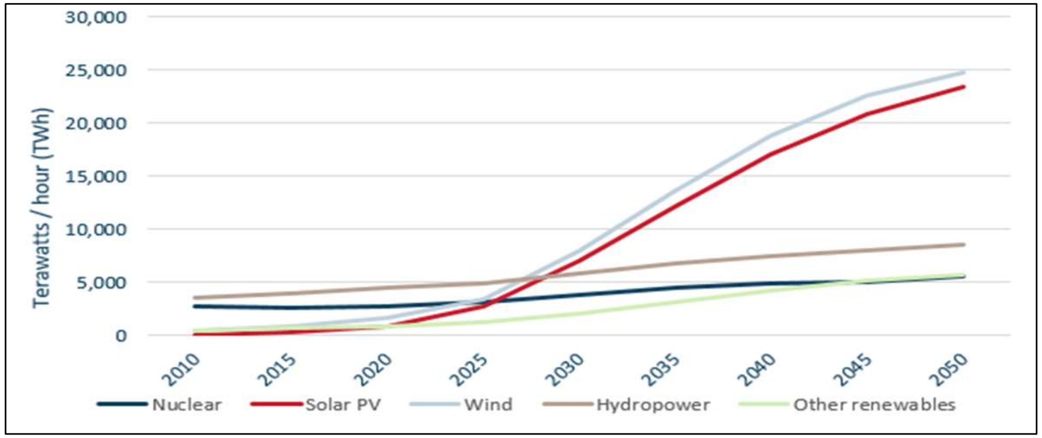
- Logistics
- Data Centres
- Telco towers

| % Portfolio | | |
|---|---|---|
| ~14% | ~12% | ~27% |
| **Stock examples** | | |
| Arena, Ingenia, National Storage | Transurban, Auckland Airport, Terna Driving Energy | Goodman, switch, cellnex |

## Electrification & decarbonisation - Multi-decade growth

- Electrifying 'everything' & decarbonizing grid key to net zero and requires trillions
- Electric utilities will upgrade capex
- Attractive Return on Investment
  - $1 capex ≈ $1.5 market value
- Focus on transmission & distribution plus renewable opportunities!

### IEA Net Zero Scenario: Renewable electricity generation




Source: International Energy Agency (IEA) Net Zero by 2050

### Required capex p.a. in USD billions to achieve 1.5°C

| | | | |
|---|---|---|---|
| Power generation | 254 | 947 | 273% |
| Onshore wind | 80 | 212 | 165% |
| Offshore wind | 18 | 177 | 883% |
| Solar | 115 | 237 | 106% |
| Electricity grids | 275 | 733 | 167% |
| Total investment | 529 | 1,680 | 318% |

Source: International Renewable Energy Agency (IRENA) World Energy Transitions Outlook: 1.5°C Pathway, June 2021

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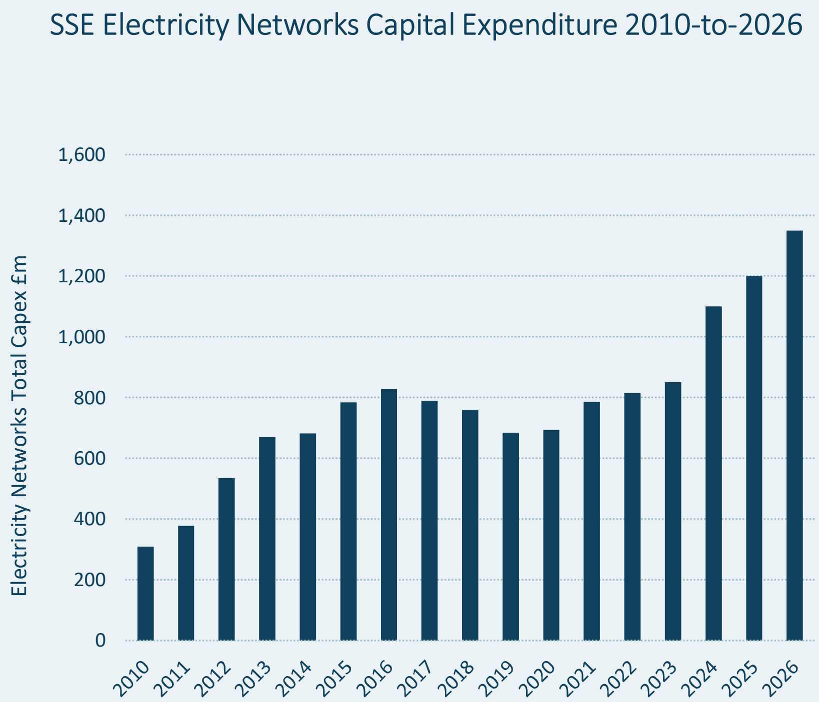
# Stock Story: SSE – beneficiary of net zero



- UK utility - enterprise value £32 billion
- Transmission and distribution electricity networks, renewables
- UK world leader in net zero
  - SSE targeting 2035 net zero
- Upgraded capex by 65% per annum to 2026
- Earnings protected from inflation




Source: Company reports, ResCap

# Discount to unlisted valuation continues



| | Target | Acquirer | Sector | Enterprise Value ($bn) | | | Close price premium |
|---|---|---|---|---|---|---|---|
| 7/11/2021 | First Energy (19.9%) | Brookfield | Electric Utilities | ~US$2bn | 12.9x | 16.8x | |
| 1/11/2021 | Ausnet | Brookfield | Electric Utilities | ~US$13bn | 12.9x | 15.2x | ~34% |
| 27/10/2021 | Kentucky Power | Algonquin Power & Utilities | Electric Utilities | ~US$3bn | 12.9x | 16.7x | |
| 20/10/2021 | Falck Renewables | JP Morgan | Renewables | ~US$3bn | 13.7x | 16.4x | ~19% |
| 1/10/2021 | Optus Towers | Australian Super | Towers | ~US$1bn | 22.1x | 37.0x | |
| 12/09/2021 | Sydney Airport | IFM | Airports | ~US$23bn | 11.2x | 23.7x | ~51% |
| 23/08/2021 | Spark Infrastructure | KKR | Electric Utilities | ~US$7bn | 12.9x | 12.3x | ~23% |
| 30/06/2021 | Telstra Towers | Future Fund | Towers | ~US$2bn | 22.1x | 28.0x | |
| 16/06/2021 | Solarpack | EQT Infrastructure | Renewables | ~US$1bn | 13.7x | 19.0x | ~43% |

After Sydney Airport, funds ponder telco towers, data centres, EV chargers and water infrastructure

**Big super looks for the next slew of assets to take private**

Source: AFR, 9 Nov 2021

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- Complex macro picture
- Inflation: CPI linkage beneficial
- Secular demand tailwinds
- Balance sheets in check
- Earnings & dividend visibility improving
- Elevated M&A

**Infrastructure EV/EBITDA - Unlisted v Listed**


Source: Insight IR, Inframation/GLIO

# Disclaimer





## Further Information:

### Real Assets Portfolio Manager

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**www.rescap.com**

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