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# An approach to resolving the retirement trilemma

M A STEVENSON BSC FIAA

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# What is the retirement trilemma?

To achieve and balance the following objectives:

- Maximise retirement income over the period to retirement
- Manage expected risks to the sustainability and stability of retirement income
- Have flexible access to expected funds.



# Some background

- Defined contribution
- The importance of “an”
- Date of retirement
- Social Security ignored
- Pre-retirement – calculators
  - retirement age.



# Individual Target Funding

- Set a funding period
- Set aside an amount for contingencies/lump sum at end
- Calculate monthly real income to reduce remaining balance to zero at end of funding period
- Repeat step 3 each year.



# Main features of ITF

- Drawdowns at the “correct” level
- Provides a level of confidence to retiree.



# Maximise retirement income

- Retirement is for the long term
- Invest in growth assets to the greatest extent possible, commensurate with risk appetite
- Seek simplest, lowest cost product.



# Flexibility

- Account based pension in the Australian context
- Discipline is restored with end of year algorithm.



# Overview of testing

- Rates of return for superannuation (pension) funds from 30 June 1959 to 31 December 2021
- Rates were derived from Grenfell and an industry fund
- Four different growth allocations
- ITF was applied for various scenarios.



## Manage risks to sustainability and stability

- Sustainability is achieved in sense that the method will provide an income to end of funding period
- 18 year funding period, first year drawdowns \$76,831, at 75% growth assets, average annual real excess drawdown \$20,688; at 30% growth excess is \$9,454
- 25 year funding period, first year drawdown \$61,762, at 75% growth, real excess drawdown is \$27,710; at 30% growth excess is \$13,060.



# Stability

- 18 year funding period at 75% growth, 1.5 years out of 17 when drawdown from one year to the next is less than -10%; at 30% growth, 0.5 years.
- 25 year funding period, at 75% growth, 1.8 years out of 24 when drawdown from one year to the next is less than -10%; at 30% growth, 0.5 years.
- Risk return trade-off
- Vary real rate of return assumptions to dial up or down downside volatility.



# Annuities

- **Traditional annuities** provide stability and sustainability with some loss of flexibility
- Cost of annuities compared to ITF was 68% to 34% higher, based on past experience
- **Investment linked annuities** are as volatile as ITF, have less flexibility and provide income for life
- Cost of annuities 5 to 10% higher than ITF, but wrong shape.



# Further work

- Tax
- Social Security
- Stochastic analysis
- Guidance to retirees.



# Conclusion

- Will not suit all retirees
- Maximises income for given risk preference; is flexible and sustainable
- Disciplined drawdown strategy
- Extent of volatility reasonably constrained
- Higher drawdowns compared with traditional annuities; better shape compared to investment linked annuities.