Actuarial expertise in retirement income projection

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1. Background
2. Why actuaries?
3. Example paper: Age Pension projections
4. Methodologies & assumptions needed
5. Use of 'today's dollars

Institute Objectives

- **Short term**: establish appropriately qualified actuaries as experts in the technical specification, development and formal approval of retirement income projections & calculators

- **Long term**: investigate merits of a legislative requirement for actuarial certification of retirement income projections and calculators

Why Actuaries?

- Our expertise
- Our experience with the control cycle
- Our professional body which
  - develops professional standards
  - has a disciplinary process
- Our international connections

"Importance of projections in developing retirement strategies"

- New asset test from 1 January, 2017: lose $78 pa from every $1,000 of assets above threshold
- Better just to spend the $1,000 now ?
- Need to look at yearly cash flows and asset values and not just what happens in first year of retirement

Age Pension Coverage

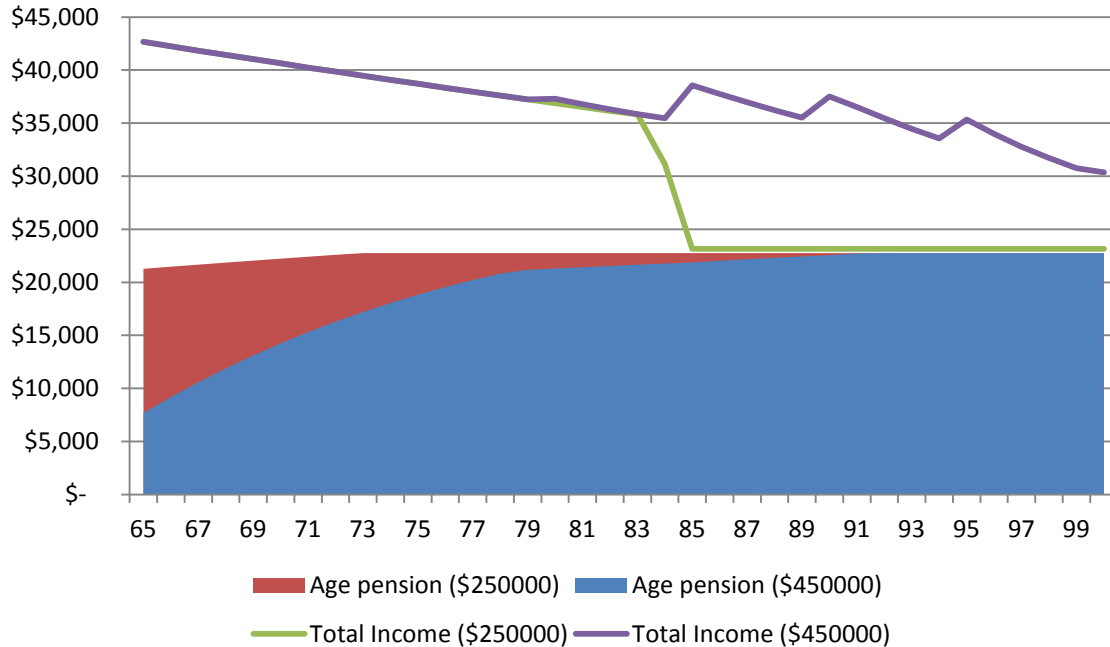Chart 7.1: Projected proportion of eligible persons receiving an Age Pension
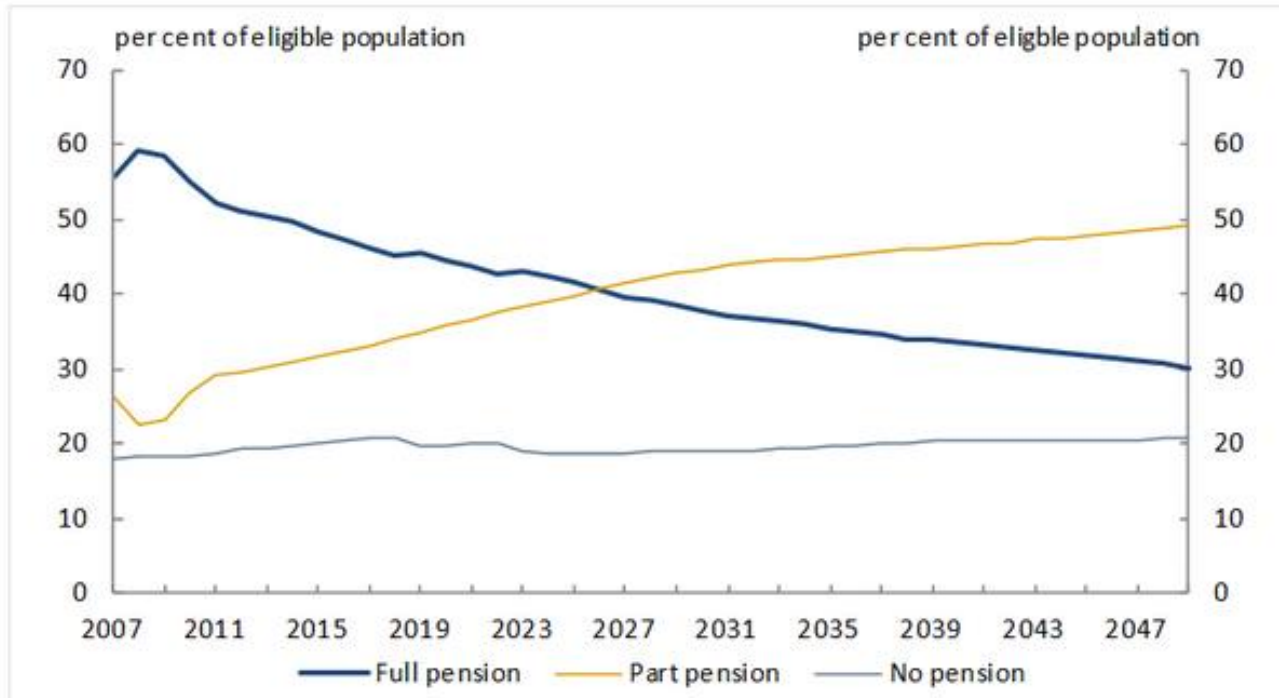
Source: Rothman, 2012.

An Example

- Consider two women who retire at age 65 on 1 January, 2017

- Barbara owns her own home, has no debt and $450,000 in a pension fund

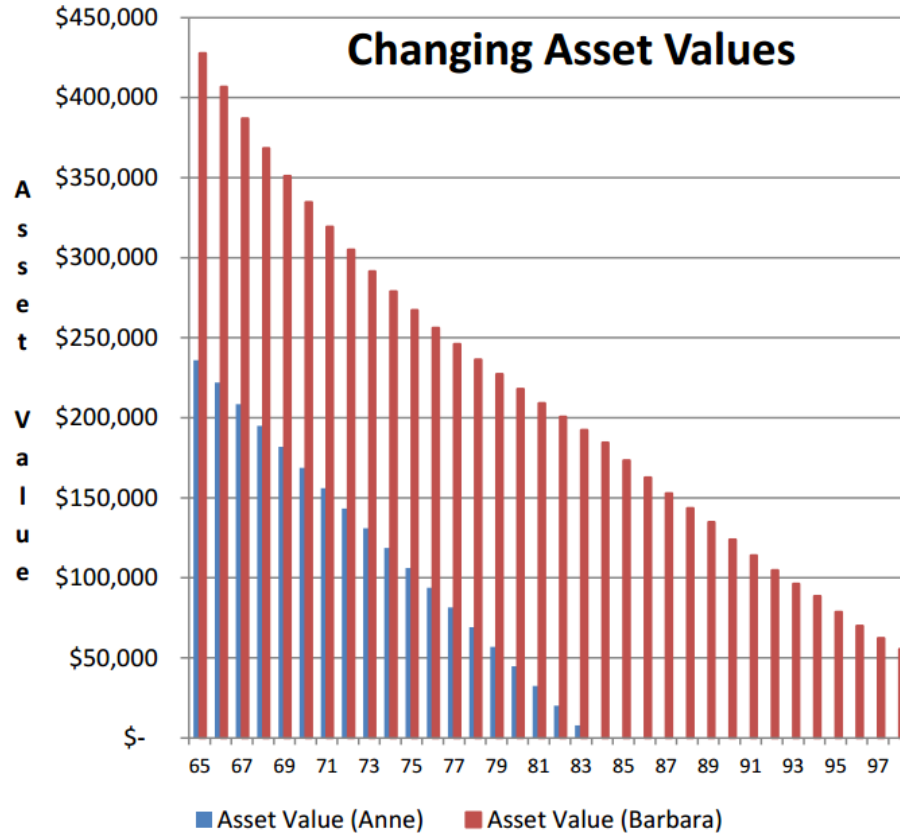- Anne was in the same situation, but decided to spend $200,000 of her pension fund before retiring

Results

Total Income (today's dollars)

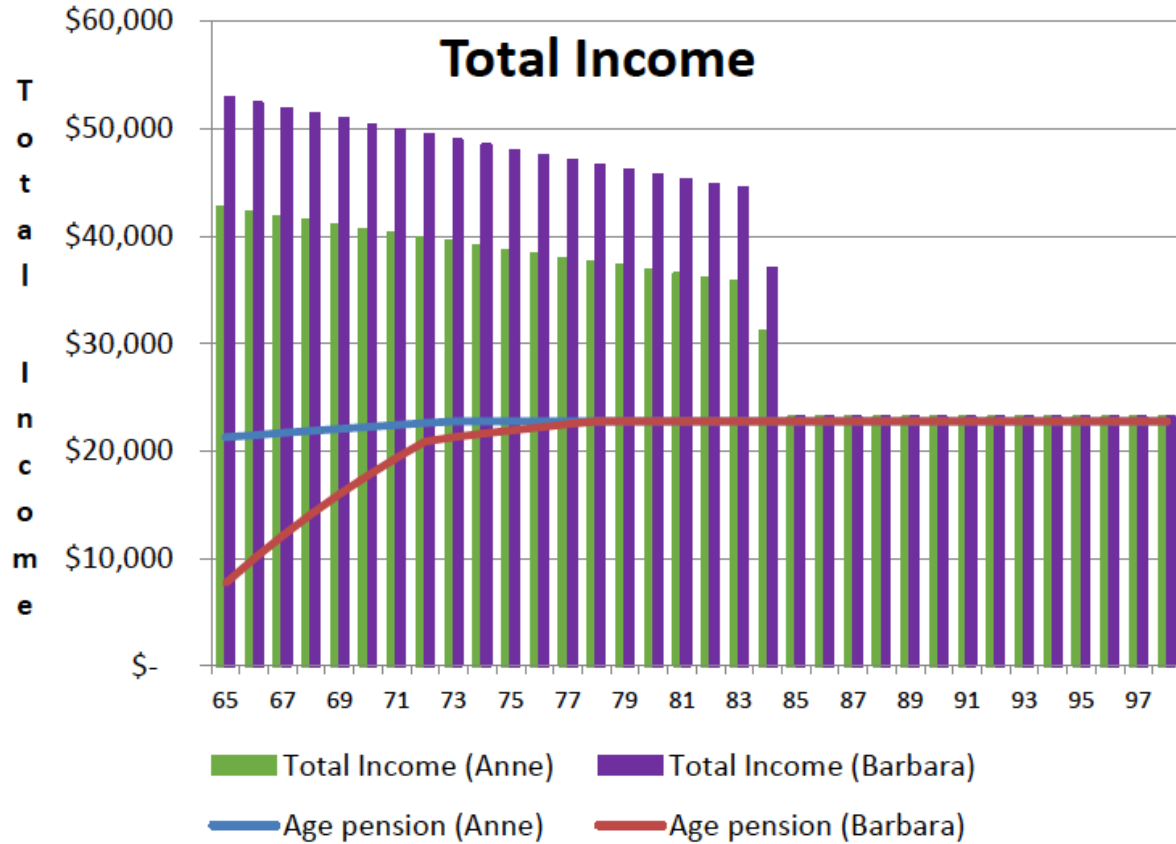| Assumptions	
Net investment return	6.5% pa
Wage inflation	3.5% pa
Price inflation	2.5% pa
Increase in desired income	Price inflation
Increase in age pension rate	Wage inflation
Increase in means test thresholds	Price inflation

Legend:
- Age pension ($250000)
- Age pension ($450000)
- Total Income ($250000)
- Total Income ($450000)

Chart 2 – Asset Values if retiring at age 65

Changing Asset Values

Asset Value

$450,000
$400,000
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$-

65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97

■ Asset Value (Anne)   ■ Asset Value (Barbara)

Note: all projected values have been discounted to Today's Dollars at the rate of Wage Inflation.

Anne exhausts all her assets at age 84 and becomes solely dependent on the age pension.

Chart 5 – Alternative approach, retirement age 65

Total Income

Legend: Total Income (Anne), Total Income (Barbara), Age pension (Anne), Age pension (Barbara)

Methodologies & assumptions

What decisions does this model help Anne & Barbara with?

- Whether to spend or save their capital approaching retirement
- What total lifestyle they can expect in retirement
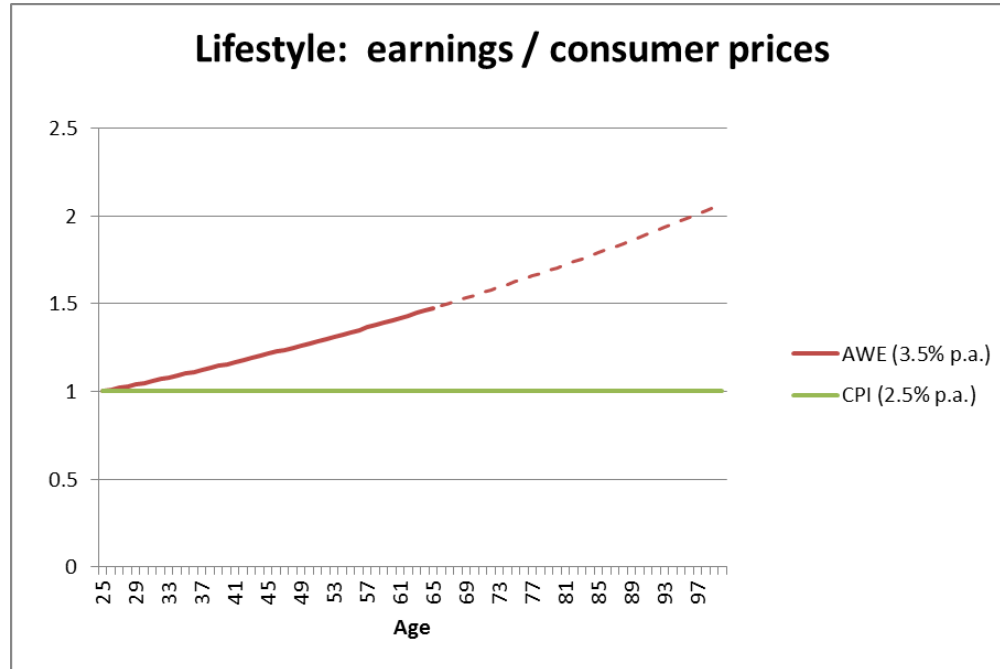- What to expect from the Age Pension

Deflating results

Why do we deflate results into 'real' terms?

How do we currently do this?

Deflating results

Does this thought process change after the person has retired?

Lifestyle: earnings / consumer prices

— AWE (3.5% p.a.)
— CPI (2.5% p.a.)

Deflating results

Complications to discuss:

- Different expectations for different households
- AWE vs CPI
- Today's dollars
- Current dollars

SPD suggested approach for discussion: **link to follow**

Other consumer decisions / questions

What other decisions might Anne & Barbara need help with?

- Allow for risk: real returns, longevity
- Spending shapes: active phase, passive phase, frail phase
- Inclusion of a spouse and non-super financial resources
- *Personal* life expectancy
- Personal asset mix
- Confidence level required
- Level of reserves needed and how to manage them

Modelling requires a trade-off of simplicity vs materiality

End