Treasury Approaches to Measuring Retirement Income Adequacy

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Views expressed are those of the author

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AIM

- **Demonstrate Treasury approach to measuring retirement income adequacy for SG cases (Tier 2)**
  - **Tier 1 and Tier 3 discussed in my July 2008 presentation for IAA**
- **Demonstrate the effects of different key parameters on the results**

- **Discuss pattern of variation, particularly by income, age , and career length**

Main Concepts of Adequacy

- **Replacement Rates - ratio of potential <u>private spending</u> after retirement to that during working life**
  - **not income because depends on drawdown of savings**
- **Real spending in retirement in dollar terms**

SG Replacement Rates

Methodological Choices

- **Deflator - RIM usually deflates spending by CPI, but others recommend wage deflation – is a comparison to those still working**

- **Period in retirement – all retirement, first five years**

- **Period of working life – last year or last five if continuous career, whole career if interrupted**

- **Hypothetical cases or whole of population cohort**

- **Benefit types – allocated pension, AFTS uses wage indexed whole of life annuity, lump sum with annuity drawdown**

RIMHYPO

- History and projection of wages, tax, working life social security, superannuation (full increment and decrement), private retirement drawdowns, age pension
- For a single male or female, or a couple
- Full indexation of tax, superannuation and social security parameters
- Life expectancy calculated for age and decade of retirement
- Great variety of retirement benefit types
- RIMHYPO development supervised by Donald Duval (AGA), Vince FitzGerald, Prof John Piggott, Dr Ken Henry

Hypothetical Parameter Settings

Are adjusted to historical rates, with a gradual transition to long term settings.

- 2.5% per annum for inflation;
- 4.14% pa for growth of average full time wages for a person of given age and gender (1.6% real productivity growth)
- No career more than 37 years;
- 5.5% pa for the long term bond rate;
- 6.5% pa for the average pre-tax return of superannuation funds (after expenses of managing funds but before tax-administrative expenses are deducted separately on a per capita basis);
- effective tax rates on the earnings of superannuation funds of 7% for SG funds; and
- Allocated pension drawn down half way between minimum and maximum and earns 6.5%
- Life expectancy is for female, retiring in the relevant decade (ie 88 – 91)

Pension Increase - Main Change from Tax Review

Single Pensioner	Budget Age Pension rate increase			
	1/7/2009	20/9/2009	Difference	% change
Fortnightly				
Base pension	$550.30	$615.80	$65.50	11.9%
GST supplement	$19.50			
Utility allowance	$19.95			
Telephone allowance	$5.32			
Pension supplement		$56.10	$5.32	10.5%
Pharm allowance	$6.00			
Fortnightly total	$601.08	$671.90	$70.82	11.8%
Annual total	$15,628.00	$17,469.40	$1,841.40	11.8%

Target Groups for Replacement Rates

Treasury prefers

- **Median wage (approx 75% of AWOTE) or average**

  – **Because the SG is largely designed to improve adequacy for middle and lower income workers**

- **Full accumulation (35 or now 37 years)**

Example – female 30 now, median wages (75% AWOTE)

	Deflator	
Spending	CPI	AWE
Last year at work	$63,032	$35,595
Average over retirement	$50,730	$23,746
Replacement rate	80%	67%

	Deflator	
Average Spending	CPI	AWE
Last 5 years at work	$61,650	$35,932
First 5 years retirement	$55,553	$29,920
Replacement rate	90%	83%

In most analyses, SG Replacement Rates improve as the system matures and decline significantly as incomes increase

Replacement Rate: Average Retirement Spending to Final year at work spending, single female, allocated pension half min & max					
CPI deflated					
	Percentage of AWOTE				
Age as at 2009	50	75	100	150	250
20	104%	81%	69%	56%	46%
30	104%	80%	69%	55%	46%
40	102%	78%	67%	54%	44%
50	96%	74%	62%	50%	39%
60	72%	67%	55%	43%	32%

Replacement rates are lower when deflated by wages growth

Replacement Rate: Average Retirement Spending to Final year at work spending, single female, allocated pension half min & max					
AWE deflated					
	Percentage of AWOTE				
Age as at 2009	50	75	100	150	250
20	86%	67%	57%	47%	39%
30	86%	67%	57%	46%	39%
40	84%	65%	56%	46%	37%
50	80%	62%	52%	42%	33%
60	60%	56%	47%	36%	27%

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Age as at 2009	50	75	100	150	250
20	104%	81%	69%	56%	46%
30	104%	80%	69%	55%	46%
40	102%	78%	67%	54%	44%

When assets run out, replacement rates can be higher in earlier years, despite the assets test

Replacement Rate: Average First 5 years Retirement Spending to Average last 5 years at work spending for a single female, allocated pension half min & max					
AWE deflated					
	Percentage of AWOTE				
Age as at 2009	50	75	100	150	250
20	103%	84%	75%	64%	58%
30	102%	83%	74%	64%	57%
40	99%	80%	71%	61%	52%
50	91%	74%	64%	54%	45%
60	72%	63%	54%	44%	34%

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AWE deflated					
	Percentage of AWOTE				
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Real Spending in Dollar Terms

Westpac/ASFA (SPRC) Budget Standards March 2009 SPRC 2004 recommends indexation by CPI between updates for new baskets

Comfortably affluent but sustainable (CAS) budget standard

- reflects a standard of living among older, healthy and fully active self-funded retired Australians that allows them to engage actively with a broad range of leisure and recreational activities without having to require a rapid or substantial disbursement of assets

- it represents a lifestyle that is common amongst those in the top (income) quintile of the aged population

Modest but adequate (MBA) standard

- represents a standard that affords full opportunity to participate in contemporary Australian society and the basic options it offers. It is seen as lying between the standards of survival and decency and those of luxury as these are commonly understood

- this corresponds in round terms to the median standard of living in the community as a whole

Modest lifestyle	Affluent or Comfortable	Modest lifestyle	Affluent or Comfortable
Single female	Single female	Couple	Couple
$19,533	$37,822	$27,547	$50,771

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All CPI deflated results exceed ASFA Budget Standard of $19,533

Average annual retirement spending: CPI deflated					
Single female, allocated pension half min & max					
	Percentage of AWOTE				
Age as at 2009	50	75	100	150	250
20	$53,701	$ 58,818	$ 63,859	$ 73,595	$ 93,308
30	$46,367	$ 50,730	$ 55,030	$ 63,447	$ 80,294
40	$39,662	$ 43,313	$ 46,961	$ 54,127	$ 67,009
50	$33,113	$ 35,715	$ 38,316	$ 43,520	$ 52,401
60	$26,604	$ 28,367	$ 29,798	$ 32,621	$ 37,322

In fact, all wage deflated results also exceed the ASFA standard of $19,533

Average annual retirement spending: AWE deflated					
Single female, allocated pension half min & max					
	Percentage of AWOTE				
Age as at 2009	50	75	100	150	250
20	$21,308	$ 23,482	$ 25,623	$ 29,752	$ 38,123
30	$21,574	$ 23,746	$ 25,889	$ 30,072	$ 38,451
40	$21,776	$ 23,907	$ 26,037	$ 30,216	$ 37,711
50	$21,410	$ 23,191	$ 24,971	$ 28,532	$ 34,596
60	$20,230	$ 21,649	$ 22,798	$ 25,063	$ 28,835

Interrupted careers

Female with broken career Results wage deflated

| Broken career single female. Results AWE deflated			
Starts work 36 in 2015, part-time 36-44 and 60-66, full time 45-59			
Percentage of AWOTE			
<u>Result</u>	**50**	**75**	**100**
Average Retirement Spending to Final year at work spending	**148%**	**109%**	**91%**
Average First 5 years Retirement Spending to Average last 5 years at work spending	**167%**	**128%**	**110%**
Average retirement spending to average working life spending	**116%**	**88%**	**73%**
Average annual retirement spending: $ AWE deflated	**$ 19,746**	**$ 21,014**	**$ 22,274**

QUESTIONS

Spares for Questions

The system including voluntary saving Whole of Population Replacement Rates using RIMGROUP

- **RIMGROUP 2000 is a group model of the entire Australian population from 2000 to 2060**
- **Divided into gender, single years of age and decile of career income cohorts**
- **Has full population and labour force projections with comprehensive employment status including self-employed and public sector**
- **Incomes and home ownership based on SIHC/HEIS**
- **8 superannuation accounts – use of SEAS**
- **Non-super assets – based on HEIS 2003-04**
- **Multiple retirement accounts – Use of SIHC, PNILF, Census,**
- **Full superannuation, tax and social security policies.**
- **Multiple increment and decrement actuarial cohort model (death , disability, retirement, job change)**
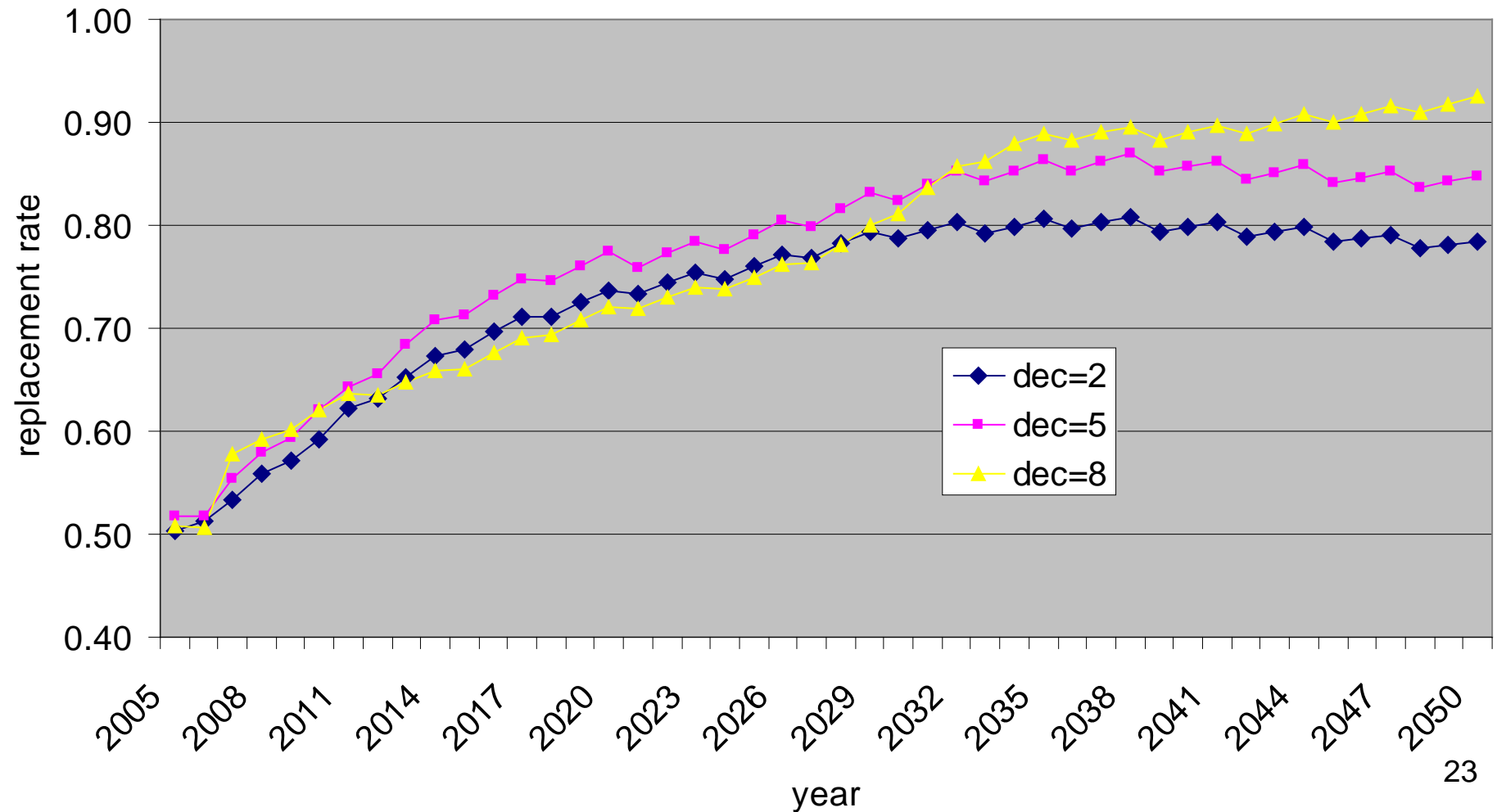
2007 Projected Population Replacement Rates 5 years before and after Age Pension Age

Potential Replacement Ratios All Deciles
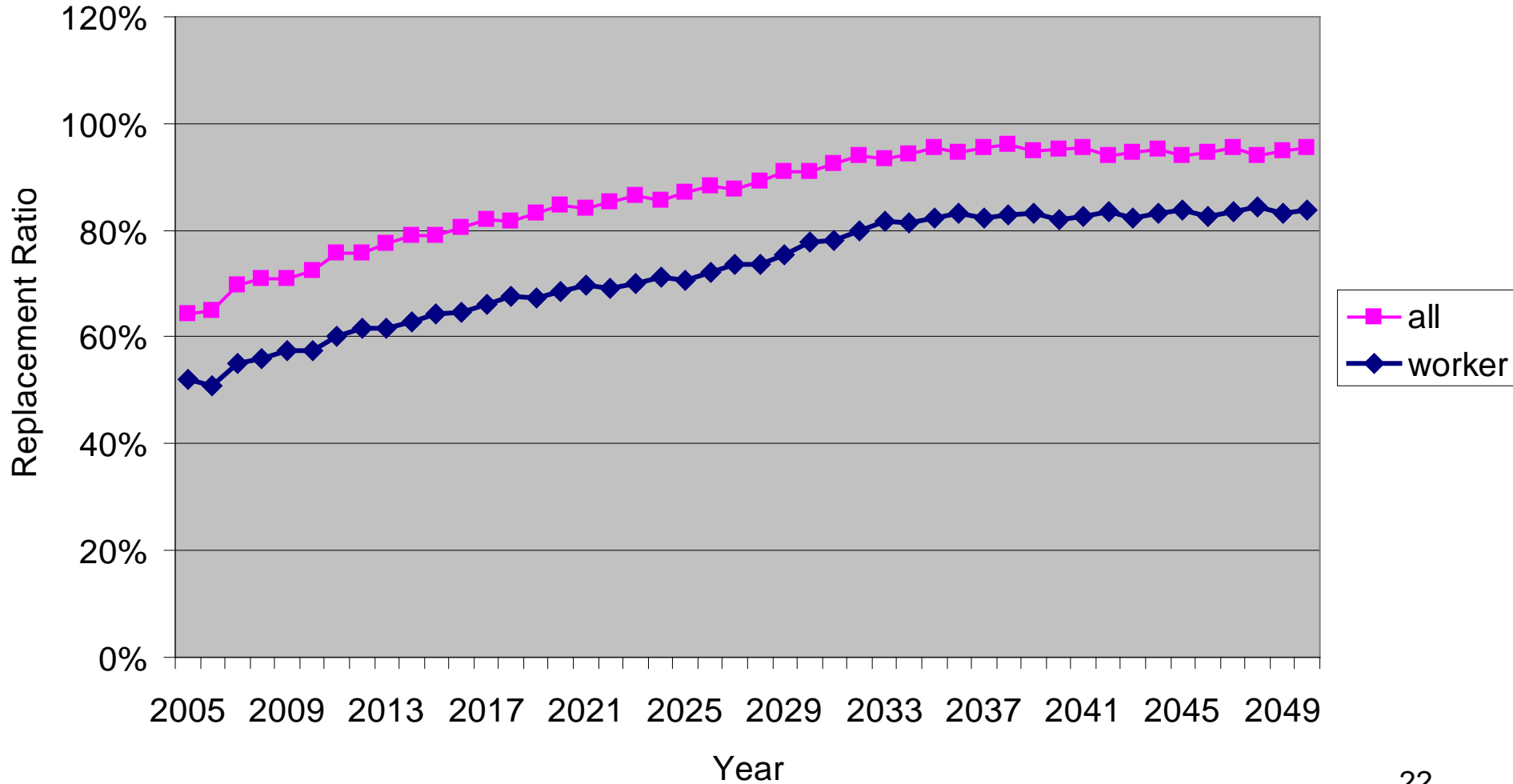
2007 Projected Population Replacement Ratios Selected Career Income Deciles

aggregate adequacy

2008 Replacement Rates for different periods & benefits Single Male, 35 years work, CPI deflation

Salary (multiple of AWOTE)	Private benefit taken as:	Average over retirement / last year work*	First 10 years retired / last 10 years work	First 5 years retired / last 5 years work	First year retired / last year work
0.75	Allocated pension	80%	80%	75%	71%
	Lump Sum	78%	72%	67%	63%
1.00	Allocated pension	70%	69%	64%	60%
	Lump Sum	67%	61%	56%	52%
1.50	Allocated pension	60%	57%	53%	49%
	Lump Sum	56%	49%	44%	40%
2.50	Allocated pension	52%	49%	45%	44%
	Lump Sum	46%	38%	34%	32%