

Mr **HARTSUYKER**— Have you done modelling on what stretching the working life for each 12 months does to our position, particularly in relation to various mixes of skill levels as you step down towards retirement?

Treasury has modelled an increase in the working life of one year by displacing age-specific participation rates by one year. That is, by applying the projected participation rate of (for example) 64 year old men to the cohort of 65 year old men. This analysis is undertaken for men between 44 and 64 and women between 50 and 64. (Participation rates for women are projected to increase up to the age of 50 as women re-enter the labour force presumably when family and other responsibilities diminish.)

In effect, this analysis produces the result that each person exits the labour force one year later than they otherwise would have done.

The modelling shows that under these assumptions the labour force participation of mature age men increases by around 1.2 per cent and mature age women by around 1.8 per cent in 2041-42. The effect on the total participation rate (15-65) is an increase of around 1.2 per cent.

ACTING CHAIR— What is the rate of GDP that is assumed to go to revenue?

The Intergenerational Report assumed that revenue to GDP was a constant 22.4 per cent from 2005-06, the end of the forward estimates period at the time the projections were made.

ACTING CHAIR—I would be interested to know if any modelling has been done on different levels of the superannuation guarantee.

Analysis undertaken by Treasury's Retirement and Income Modelling (RIM) Unit indicates that current policy will deliver substantially higher replacement rates for senior Australians, as a group, over the longer term. The Superannuation Guarantee (SG) system in conjunction with the Age Pension is projected to provide a spending replacement rate for an individual on median earnings of 72 per cent after 30 years of contributions and 77 per cent after 40 years¹. These replacement rates are conservative in that no allowance is made for superannuation contributions above the SG or for additional private savings outside of superannuation. Replacement rates for women with interrupted careers are also calculated.

Replacement rates show the ratio of an individual's income or spending power after retirement to that before retirement and are commonly used to measure the adequacy of overall retirement incomes. Examples of estimated replacement rates for single males and females resulting from the current retirement incomes system are in Attachment A.

Government policy is not to increase the superannuation guarantee rate above the current 9 per cent. However, the Government has implemented a number of policies designed to assist people to save for their retirement. These include:

- increasing of the limit on full deductibility of superannuation contributions by self-employed persons from \$3,000 to \$5,000 while retaining the 75 per cent deductibility of any amount above the \$5,000 threshold;
- the Government superannuation co-contribution of up to \$ 1,000 for qualifying low-income earners; and
- a reduction in the superannuation surcharge rate from 15 per cent to 12.5 per cent over three years.

¹ These replacement rates are based on individuals retiring in 2032. For individuals retiring under a fully mature SG system in 2042, the SG in conjunction with the Age Pension is projected to provide a spending replacement rate of 82 per cent, after 40 years of contributions. A fully mature system means the person has received superannuation contributions at the maximum SG rate of 9 per cent for their entire working life.

ACTING CHAIR—Secondly, have you looked at the impact in other countries that have effectively a national superannuation contribution, including those that have higher rates of contribution than our own?

Different countries finance their public retirement system in different ways. These include:

- Earnings related systems which depend on some measure of earnings throughout the working life and number of years of contributions. For example, a person who earns 1.5 times average earnings will receive a pension 1.5 times the average. Countries which have this type of system are Germany, Italy and France.
- Redistributive systems which are based on earnings but provide higher replacement rates to low income earners (United States and Canada).
- » Systems with a flat basic pension with an earnings related pension to supplement the basic pension (United Kingdom and Japan).
- A flat rate of pension based on residence of the country (New Zealand and the Netherlands).

Research by the Institute for Fiscal Studies, London (Johnson, 1998) has indicated that the average net replacement rate from public income maintenance schemes from these nine countries is 53 per cent². These figures do not include any private saving. Aggregate projections for the entire Australian population show average potential replacement rates for all workers rising to 71 per cent by 2050. These projections are based on the full diversity in labour force participation of the population.

Australia is well placed compared to other OECD countries in relation to satisfying the age pension obligations because the pension is means tested and targets poverty alleviation. The following table compares the estimated spending on age pensions as a percentage of GDP with other OECD countries.

Projected age pension spending as a percentage of GDP

| | 2040 ³ | | 2040 |
|-----------|-------------------|-------------|------|
| Australia | 4.59 | Japan | 14.9 |
| Canada | 9.1 | Netherlands | 12.1 |
| France | 14.3 | New Zealand | 9.4 |
| Germany | 18.4 | UK | 5.0 |
| Italy | 21.4 | USA | 7.1 |

The rate of contributions for each of these countries is at Attachment B.

² Older Getting Wiser, Paul Johnson, Institute for Fiscal Studies, London, 1998;

³ The Figure for Australia is for 2041-42 and is taken from the Intergenerational Report. All other figures are OECD estimates.

Mr **HARTSUYKER**—On the transition from the unemployment benefit into work, has Treasury got a rough rule of thumb with regard to variation in the unemployment rate into work and the impact on the budget bottom line?

The 2003-04 Mid-Year Economic and Fiscal Outlook (Part 3: Fiscal Outlook, Attachment C) provide a 'rule of thumb' that a 5 per cent increase in the number of unemployment benefit recipients would increase expenses by \$280 million in 2004-05.

Case 1: Single males retiring in 2032.

Table 1 presents the results of RIMHYPO runs for six hypothetical males retiring in 2032, with an average life expectancy of 83, taking their superannuation as a lump sum benefit and drawing down on it in an annuity pattern so that it lasts until life expectancy.

Table 1: Scenarios for single males retiring in 2032

Scenario: Single Male

Retirement Year = 2032

Benefit taken as LUMP SUM

CPI = 2.5%, Wage Inflation = 4%, Fund Earning Rate = 7%

Tax Indexation = CPI

Pension Indexation = AWE

Life Expectancy = 83

| | | | | | | | |
|----------------------------------------------------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Retirement Age | 65 | 65 | 65 | 65 | 65 | 65 | |
| Career Length | 25 | 30 | 40 | 25 | 30 | 40 | |
| Multiple of AWOTE: | 0.75 | 0.75 | 0.75 | 1 | 1 | 1 | |
| PARAMETER in \$2001-02 fCPI deflated! | | | | | | | |
| Final salary | 50,711 | 50,711 | 50,711 | 67,615 | 67,615 | 67,615 | |
| Tax on Final salary | 12,404 | 12,404 | 12,404 | 20,127 | 20,127 | 20,127 | |
| Expenditure last year at work | 38,307 | 38,307 | 38,307 | 47,488 | 47,488 | 47,488 | |
| Average salary | 42,832 | 41,420 | 38,808 | 57,109 | 55,227 | 51,745 | |
| Average tax on salary | 9,855 | 9,411 | 8,640 | 15,273 | 14,527 | 13,391 | |
| Expenditure average working life | 32,977 | 32,010 | 30,168 | 41,837 | 40,700 | 38,353 | |
| Government Pension 1st year | 16,010 | 15,343 | 11,638 | 14,807 | 11,674 | 6,625 | |
| Government Pension average | 19,014 | 18,726 | 17,782 | 18,642 | 17,794 | 15,761 | |
| Full Rate Pension 1st year | 16,923 | 16,923 | 16,923 | 16,923 | 16,923 | 16,923 | |
| Full Rate Pension average over retirement | 19,266 | 19,266 | 19,266 | 19,266 | 19,266 | 19,266 | |
| Private Retirement Income including drawdowns (pa) | 9,455 | 12,087 | 15,581 | 12,563 | 15,550 | 20,351 | |
| 1st year retirement expenditure | 23,668 | 24,969 | 25,166 | 24,997 | 25,167 | 25,432 | |
| Average retirement expenditure | \$2001-2002 (CPI deflated) | 27,543 | 29,531 | 31,811 | 29,862 | 31,793 | 34,499 |
| 1st year retirement income tax | 1,797 | 2,428 | 2,053 | 2,374 | 2,058 | 1,544 | |
| Average income tax in retirement | 926 | 1,282 | 1,552 | 1,343 | 1,551 | 1,613 | |
| LUMP SUM | \$2001-2002 (CP(deflated) | 130,596 | 167,256 | 225,596 | 175,671 | 225,079 | 304,495 |
| Average Pension as percentage of maximum pension | | 99% | 97% | 92% | 97% | 92% | 82% |
| REPLACEMENT RATIOS | | | | | | | |
| <u>fRetirement Concept</u> | <u>Working Life Concept</u> | | | | | | |
| Average Retirement Expenditure | Final Working Life Expenditure | 72% | 77% | 83% | 63% | 67% | 73% |
| Average Retirement Expenditure | Average Working Life Expenditure | 84% | 92% | 105% | 71% | 78% | 90% |
| First Retirement Year Expenditure | Final Working Life Expenditure | 62% | 65% | 66% | 53% | 53% | 54% |

For the three cases with career earnings of 75 per cent of AWOTE, expenditure in the last year of working life is \$38,307 in 2001-02 dollars. The average expenditure over retirement ranges from \$27,543 for the 25-year career to \$31,811 for the 40-year career, giving replacement rates ranging from 72 per cent to 83 per cent. The contribution of the Age Pension to retirement expenditure falls as private retirement income (and assets) rises.

For the 30-year accumulation case at 75 per cent of AWOTE, the lump sum benefit of \$167,256 yields an annual drawdown of \$12,087 which is complemented by an Age Pension which averages \$18,726 (or 97 per cent of a fall rate pension). An average of \$1,282 of tax is paid in retirement.¹ The replacement rate of average retirement expenditure to final year of full-time work expenditure is 77 per cent.

For the three cases with career earnings of 100 per cent of AWOTE expenditure in the last year of working life is \$47,488 in 2001-02 dollars. The average expenditure over retirement ranges from \$29,862 for the 25-year career to \$34,499 for the 40-year career, giving replacement rates ranging from 63 per cent to 73 per cent. The contribution of the Age Pension to retirement expenditure falls as private retirement income (and assets) rises.

For the 30-year accumulation case at 100 per cent of AWOTE, the lump sum benefit of \$225,079 yields an annual drawdown of \$15,550 which is complemented by an Age Pension which averages \$17,794 (or 92 per cent of a fall rate pension). An average of \$1,551 of tax is paid in retirement.² The replacement rate of average retirement expenditure to final year of full-time work expenditure is 67 per cent. This is lower than the 75 per cent of AWOTE case mainly because the contribution from the Age Pension is a lower proportion of final working expenditure.

Case 2: Single females with interrupted careers

Table 2 presents two scenarios for females with interrupted careers who are not married when they enter retirement and who rely on their own superannuation for private retirement income.

In Scenario 1, the woman works from 35 to 64 years and takes her benefit in the form of a life expectancy pension. Cases are presented for career earnings at 75 per cent of AWOTE and 100 per cent of AWOTE.

In Scenario 2, the woman works full time from 25 to 29 and 45 to 64, does not work from 30-34 and works 17 hours per week from ages 35 to 44. Cases are presented for career earnings at 75 per cent of AWOTE and 100 per cent of AWOTE.

For Scenario 1, the expenditures in the final years of working life are \$38,307 and \$47,488 for the 75 per cent and 100 per cent of AWOTE cases respectively. The average expenditures in retirement are \$27,470 and \$29,502 giving replacement rates of 72 per cent and 62 per cent respectively.

For Scenario 2, the expenditures in the final years of working life are \$38,307 and \$47,488 for the 75 per cent and 100 per cent of AWOTE cases respectively. The average expenditures in retirement are \$27,993 and \$29,914 giving replacement rates of 73 per cent and 63 per cent respectively.

¹ The tax scales are indexed by the CPI. The Senior Australians Tax Offset is not indexed but the Age Pension rebate is indexed to the pension and the pension free area and people are entitled to the higher of the two.

² The tax scales are indexed by the CPI. The Senior Australians Tax Offset is not indexed but the Age Pension rebate is indexed to the pension and the pension free area and people are entitled to the higher of the two.

Table 2: Scenarios for Single Females Retiring in 2032

Scenario 1: Female works from 35 to 64 - 30 years, life expectancy pension

Scenario 2: Female with interrupted career starting 1992 - full-time work from 25-29 and 45-64,
not working 30-34, 17 hours per week from 35-44, turns all of benefit into ETP

Retirement Year = 2032

CPI = 2.5%, Wage Inflation = 4%, Fund Earning Rate = 7%

Tax Indexation = CPI

Pension Indexation = AWE

Life Expectancy = 87 (female)

| Scenario | 1 | 1 | 2 | 2 | |
|----------------------------------------------------|----------------------------------|--------|----------------------------|---------|---------|
| Multiple of AWOTE: | 0.75 | 1 | 0.75 | 1 | |
| PARAMETER in \$2001-02 (CPI deflated) | | | | | |
| Final salary | 50,711 | 67,615 | 50,711 | 67,615 | |
| Tax on Final salary | 12,404 | 20,127 | 12,404 | 20,127 | |
| Expenditure last year at work | 38,307 | 47,488 | 38,307 | 47,488 | |
| Average salary | 41,420 | 55,227 | 30,179 | 40,238 | |
| Average tax on salary | 9,411 | 14,527 | 6,401 | 11,038 | |
| Expenditure average working life | 32,010 | 40,700 | 24,953 | 30,100 | |
| Average DSS payment in working life | | | 1,175 | 1,175 | |
| Government Pension 1st year | 16,923 | 16,565 | 15,597 | 12,701 | |
| Government Pension average | 19,262 | 18,654 | 19,401 | 18,682 | |
| Full Rate Pension 1st year | 16,923 | 16,923 | 16,923 | 16,923 | |
| Full Rate Pension average over retirement | 19,847 | 19,847 | 19,847 | 19,847 | |
| Private Retirement Income including drawdowns (pa) | 9,666 | 13,008 | 9,782 | 12,771 | |
| 1st year retirement expenditure | 24,951 | 27,123 | 23,157 | 23,311 | |
| Average retirement expenditure | \$2001-2002 (CPI deflated) | 27,470 | 29,502 | 27,993 | 29,914 |
| 1st year retirement income tax | 1,639 | 2,450 | 2,222 | 2,160 | |
| Average income tax in retirement | 1,458 | 2,160 | 1,190 | 1,540 | |
| LUMP SUM | | | \$2001-2002 (CPI deflated) | 154,124 | 208,859 |
| Average Pension as percentage of maximum pension | 97% | 94% | 98% | 94% | |
| REPLACEMENT RATIOS | | | | | |
| Retirement Concept | Working Life Concept | | | | |
| Average Retirement Expenditure | Final Working Life Expenditure | 72% | 62% | 73% | 63% |
| Average Retirement Expenditure | Average Working Life Expenditure | 86% | 72% | 112% | 99% |
| First Retirement Year Expenditure | Final Working Life Expenditure | 65% | 57% | 60% | 49% |

Contribution rates for age pensions in other countries¹

These figures are for public funded pensions only and reflect social security taxes. They do not include any additional contributions which may be paid to personal savings plans or employer pension plans.

| | Employee rate | Employer rate |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Canada | 4.95% (between \$3,500 - \$40,500) | 4.95% (between \$3,500 - \$40,500) |
| France | 6.55% of insurable earnings | 8.2% of insurable earnings plus 1.2% of payroll |
| Germany | 9.55%, 0% for earnings less than €25 a month | 9.55% of payroll |
| Italy | 8.89 % earnings | 23.8% of payroll |
| Japan | 8.675% of monthly wage up to ¥620,000 (some occupations have higher rates) | 8.675% of monthly wage up to ¥620,000 |
| Netherlands | 17.9% of earnings | 5.85% payroll |
| New Zealand | N/A. Pension paid out of general revenue. The NZ government has passed legislation to pre-empt future liabilities for this pension. | N/A |
| United Kingdom | 10% on earnings between £87 and £575, or 8.4% if contracted out of second tier pension | 11.9% on earnings above £87, 3% rebate for contracted out employees |
| United States | 6.2% up to \$87,900 | 6.2% up to \$87,900 |

¹ Figures are sourced from Social Security Programs Throughout the World - 2002, US Social Security Administration