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Fiscal and household impact of taxation options for superannuation (2)

Financial Services Council
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pwc

Policies assessed

PwC assessed six superannuation reform options based two aspects of the current superannuation system

1. Employer contribution rate

- The current Superannuation Guarantee (SG) is legislated to remain at 9.5% until 1 July 2021, rising by 0.5% points on 1 July each year until reaching 12% from 1 July 2025

2. Concessional contributions tax rate

- Currently concessional contributions into superannuation, up to the concessional contributions cap, are taxed at 15% (for individual with total earnings greater than $300,000 the Division 293 tax imposes an additional 15% tax on concessional contributions above a $300,000 threshold)

Policy options assessed (six scenarios)

- We modelled the impact of taxing concessional contributions at marginal rates, with a rebate then transferred back to the fund, using three rebate levels: 10%, 15% and 20%
- We assessed the impact these three changes to concessional contributions when retaining the current SG rate of 9.5% (i.e. there would be no future increase in the SG rate) versus the current legislated schedule of increases
- We have assumed that the Division 293 tax on contributions would be abolished under these scenarios
- No other changes to the current superannuation rules have been allowed for

These options represent an extension of analysis of four policy options analysed by PwC for the FSC in May 2015. Together with the four scenarios modelled in May 2015, these options by no means represent the only options available, but are the only options assessed for the purposes of this analysis and the analysis in May 2015. We would be happy to discuss with you other options or considerations.

Key findings – superannuation tax impacts (1/2)

The 10% and 15% rebate options are expected to increase tax receipts, with 20% rebate option budget-neutral under current legislated SG rate, but would reduce tax receipts if the SG rate remained at 9.5%

Impact on tax receipts for options assessed

	10% rebate on marginal tax rates	15% rebate on marginal tax rates	20% rebate on marginal tax rates
SG contribution rate fixed at 9.5%	Increase of $8bn to $11bn	Increase of $2bn to $5bn	Decrease <$1bn to $4bn
SG increase to 12% following current legislation	Increase of $8bn to $14bn	Increase of $4bn to $6bn	Decrease less than $0.4bn

Impacts on tax receipts are presented as minimum and maximum over a 10 year profile (i.e. not year 1 and year 10).

Under both SG options, the rate would remain fixed at 9.5% through to 1 July 2021, however the minimum impact is in year 10 for the 9.5% SG contribution rate option and year 1 if SG rates continue as legislated.

Key findings – superannuation tax impacts (2/2)

10% and 15% rebate options are expected to increase tax receipts with 20% rebate mostly budget-neutral under legislated SG rate, but would reduce tax receipts if rate at 9.5%

Superannuation Guarantee contribution rate remains fixed at 9.5%

- Lower contributions into superannuation from 1 July 2021 when the SG rate would otherwise increase
- Increase in tax rate for those earning:
  - Over $37,000 (86% of projected concessional contributions for FY16) for 10% rebate option
  - Between $37,000 and $300,000 (80% of projected concessional contributions in FY16) for 15% rebate option
  - Between $80,000 and $300,000 (39% of projected concessional contribution in FY16) for 20% rebate option
- Increase in tax on contributions only marginally offset by a reduction in contributions and lower investment income taxes, leading to net increase in tax receipts for 10% and 15% rebate options over a 10 year profile
- 20% rebate option mostly budget-neutral up to 1 July 2021, then tax receipts lower compared to expected levels under current rules due to lower contributions with SG remaining at 9.5%

Superannuation Guarantee contribution rates increase as currently legislated

- Higher tax rates for those earning over $37,000 under the 10% rebate option and for those earning between $37,000 and $300,000 under the 15% rebate option leads to higher tax receipts
- For 20% rebate option, the impact is mostly budget-neutral compared to current rules through:
  - Effective removal of contributions tax for people with assessable income up to $37,000 (14% of projected concessional contributions in FY16)
  - Reduction of 2.5% in contributions tax rate for those earning $37,000 to $80,000 (41% of concessional contributions in FY16)
  - Increase in effective tax rate by 2% for $80,000 to $180,000 (34% of concessional contributions in FY16) and 10% for those earning between $180,000 and $300,000 (5% of concessional contributions in FY16)
  - Reduction of 5% in contributions tax for people with total earnings over $300,000 with removal of Division 293 tax (6% of concessional contributions in FY16)

PwC's modelling approach (1 of 2)

Bespoke and robust models have been used to estimate policy impacts

Overview

We used a purpose built model to assess the impact of each proposed policy arrangement on superannuation taxation receipts (contributions tax and investment income tax). These were then incorporated into PwC's Intergenerational Fiscal and Economic Model (IFEM) to estimate the overall fiscal implications.

Policy impact on superannuation taxation

Year-by-year projections of superable salary and superannuation assets (split by pre and post retirement) allows specific aspects of superannuation taxation to be modelled at a high but reasonable reliable level. These include tax on contributions, low income superannuation contributions, tax on high income earners ("Division 293" tax) and investment income tax.

Some assumptions may have a material impact on results so should be understood when considering the estimated impacts of the proposed policies on superannuation taxation.

Sources of independent analysis were used to calibrate the model and confirm the accuracy of results. Specifically modelling commissioned by the Financial System Inquiry[1] and ASFA[2].

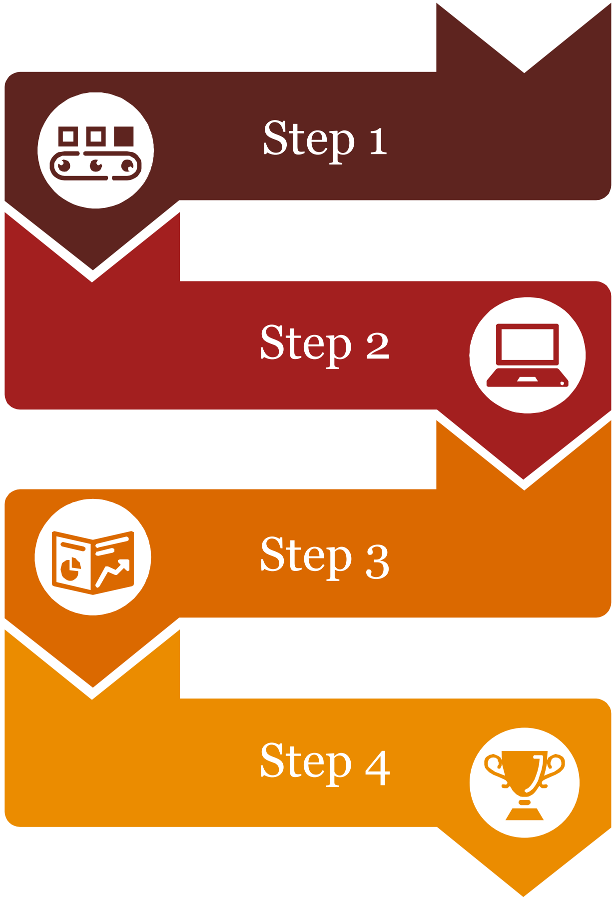
Fiscal impacts

The IFEM provides projections of Commonwealth fiscal outputs such as revenue, expenditure, operating balance and net debt. The IFEM is built on revenue and expenditure data in past Budgets, with projections for expenditure and revenue components individually estimated considering changes in economic growth, demographic change and policy settings.

1. *Ageing and Capital Flows, Financial System Inquiry*. Rice Warner , May 2014. http://www.actuaries.asn.au/Library/Reports/2014/AgeingandCapitalFlows.pdf
2. *Mythbusting superannuation tax concessions*, ASFA Research and Resource Centre, March 2015.

PwC’s modelling approach (2 of 2)

Further details on the end-to-end approach to estimate policy impacts



Data inputs and assumptions
To project total superable salary by taxable income bands, data is drawn from 2012-13 Taxation Statistics (ATO) and Budget 2015-16. Longer term projections are developed using economic and demographic assumptions[1]. FSI modelling[2] is used for projecting superannuation assets.

Superannuation taxation modelling
Concessional contributions and contributions tax are determined based on superable salary by taxable income bands for each projected year under each policy. Changes to cash flows are overlaid on FSI modelling to project the impact on superannuation assets, earnings and investment income tax.

Modelling results/IFEM inputs
Total superannuation tax receipt changes by year under each policy are used as inputs into PwC’s IFEM. Changes to superannuation tax receipts are incorporated as year-on-year additional revenue from FY2016 to FY2040. Impact for 2042-2050 is assumed to follow the trend from 2015-2042.

Total fiscal impacts
The year by year impact on taxation receipts are incorporated into the IFEM to estimate the total fiscal impact, incorporating effects on debt and interest payments.

1. Catalogue 3222.0 – Population Projections, Australia, 2012 (base) to 2101 (Series B). Australian Bureau of Statistics.
2. Table 23 and 24, *Ageing and Capital Flows, Financial System Inquiry*. Rice Warner , May 2014.

Modelling assumptions and data (1 of 3)

Key assumptions

Aside from the parameters specific to each of the six scenarios, the following assumptions have been used in modelling the impacts.

Economic assumptions

Assumption	Assumed rate
Pre-retirement earnings rate	7.0% per annum
Post-retirement earnings rate	7.0% per annum
AWOTE	4.0% (CPI + 1.5%) per annum
CPI	2.5% per annum

Other assumptions

- Nominal investment income tax rate of 15% reduces to an effective rate of 11.5%
- Marginal tax income brackets, concessional contribution cap limits and Division 293 income threshold indexed annually at AWOTE, rounded to nearest $1,000 (where applicable)
- Contributions tax deduction for insurance premiums and administration expenses are assumed to be 1% and 0.5% of salary respectively under the current rules, however these do not apply for the options tested
- Low Income Superannuation Contribution is assumed to cease and for the purpose of this model, as does the Government co-contribution (due to data limitations)
- Division 293 tax abolished for the options tested

Modelling assumptions and data (2 of 3)

Additional key assumptions

Other assumptions (as applicable)

- The distribution of population and income by income band is assumed to remain as per the distribution in the ATO's Taxation Statistics 2012-13. Income bands are increased annually with projected income tax growth to keep the proportions relevant to the total income in each band. The ratio of tax collection to total income is assumed to be constant over the projection period
- Whilst it's proposed that in practice contributions will be taxed at marginal tax rates when paid into the superannuation fund, with the ATO will subsequently issue a rebate to members, we have modelled this with an effective concessional contribution tax rate for when contributions are paid into superannuation (being marginal tax rate less rebate, subject to effective tax rate not being less than zero)
- As contributions are to be taxed at marginal tax rates into the fund, assuming concessional contributions will be treated as taxable income, we have ignored the fact that some people may move up a marginal tax bracket due to lack of individual data
- We have assumed Medicare Levy and Temporary Budget Repair Levy (due to cease 30 June 2017) are not applicable to contributions when taxed at marginal tax rates less a rebate
- Total salary sacrifice contributions assumed to distributed in proportion to the amount of SG contributions for each income band
- Member contributions assumed to be paid in a constant proportion in all future years to that for FY2013 (based on ATO's Taxation Statistics 2012-13)
- Annual contributions, benefits, tax, pre-retirement to retirement transfers, insurance premiums and fees assumed to be based on beginning of year salary or assets. Earnings based on estimated assets mid-year

Modelling assumptions and data (3 of 3)

Key data sources

Sources of data

- ATO Taxation Statistics 2012-13, Table 9: Individuals. Australian Tax Office
- Catalogue 3222.0 – Population Projections, Australia, 2012 (base) to 2101 (Series B). Australian Bureau of Statistics
- Table 23 and 24, Ageing and Capital Flows, Financial System Inquiry. Rice Warner , May 2014
- 2015-16 Budget. Commonwealth Treasury
- Income support customers: a statistical overview 2013, Paper No.12. Department of Social Services
- PwC Intergenerational Fiscal and Economic Model. PwC

Estimated impact through superannuation taxation

Estimated impact on tax revenue through superannuation changes

Tax revenue impact (nominal, $ millions)

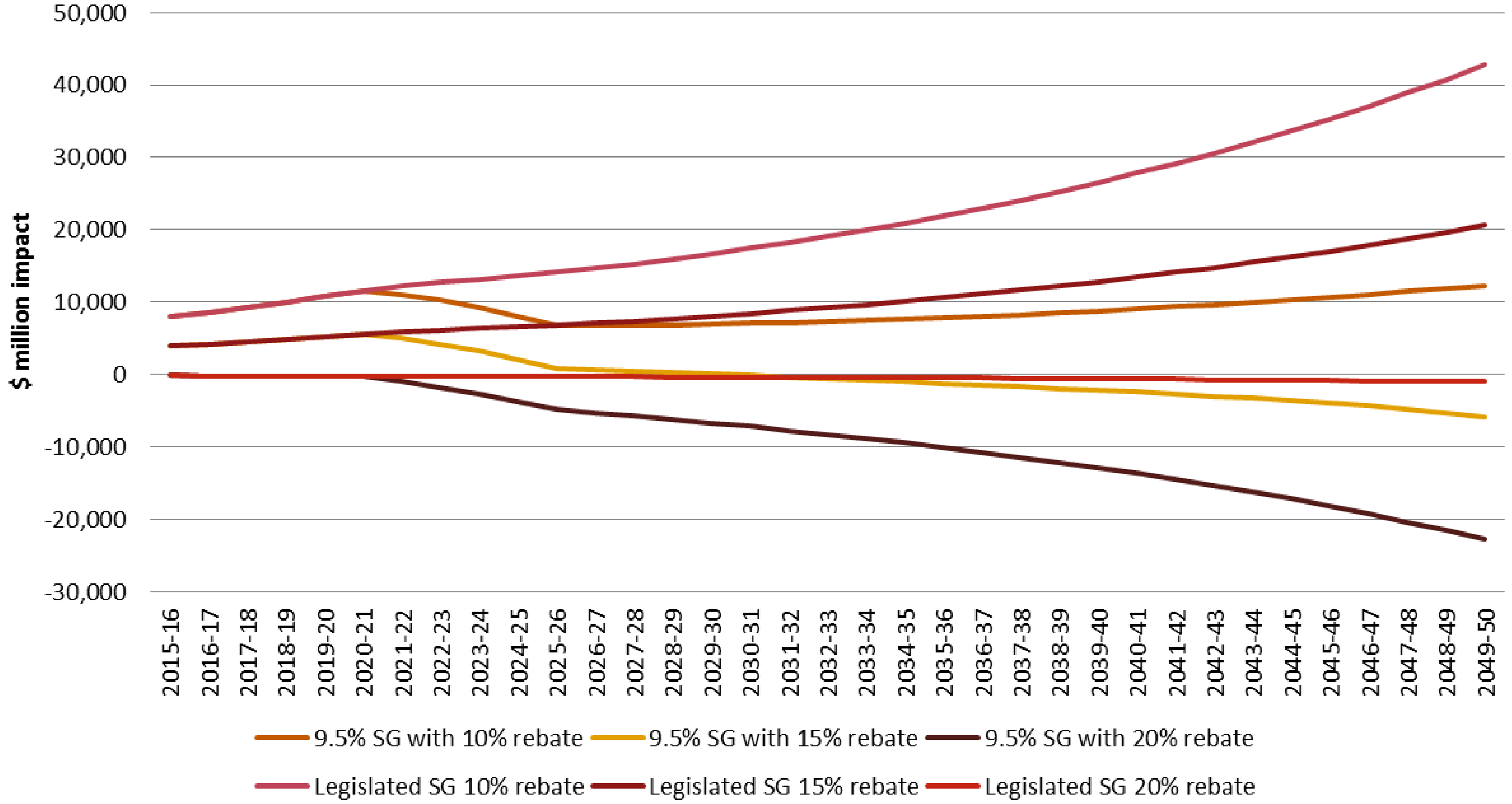
Estimated tax revenue impacts	2020	2030	2040	2050	Cumulative
9.5% SG with 10% rebate	10,808	6,944	8,733	12,236	313,877
9.5% SG with 15% rebate	5,212	47	-2,208	-5,806	-6,260
9.5% SG with 20% rebate	-257	-6,693	-12,900	-22,854	-317,509
Legislated SG 10% rebate	10,808	16,660	26,489	42,771	750,691
Legislated SG 15% rebate	5,212	8,049	12,790	20,613	362,302
Legislated SG 20% rebate	-257	-366	-597	-1,042	-17,249

Tax revenue impact (nominal, % GDP)

Estimated tax revenue impacts (% GDP)	2020	2030	2040	2050
9.5% SG with 10% rebate	0.5%	0.2%	0.2%	0.1%
9.5% SG with 15% rebate	0.3%	0.0%	0.0%	-0.1%
9.5% SG with 20% rebate	0.0%	-0.2%	-0.2%	-0.2%
Legislated SG 10% rebate	0.5%	0.5%	0.5%	0.5%
Legislated SG 15% rebate	0.3%	0.2%	0.2%	0.2%
Legislated SG 20% rebate	0.0%	0.0%	0.0%	0.0%

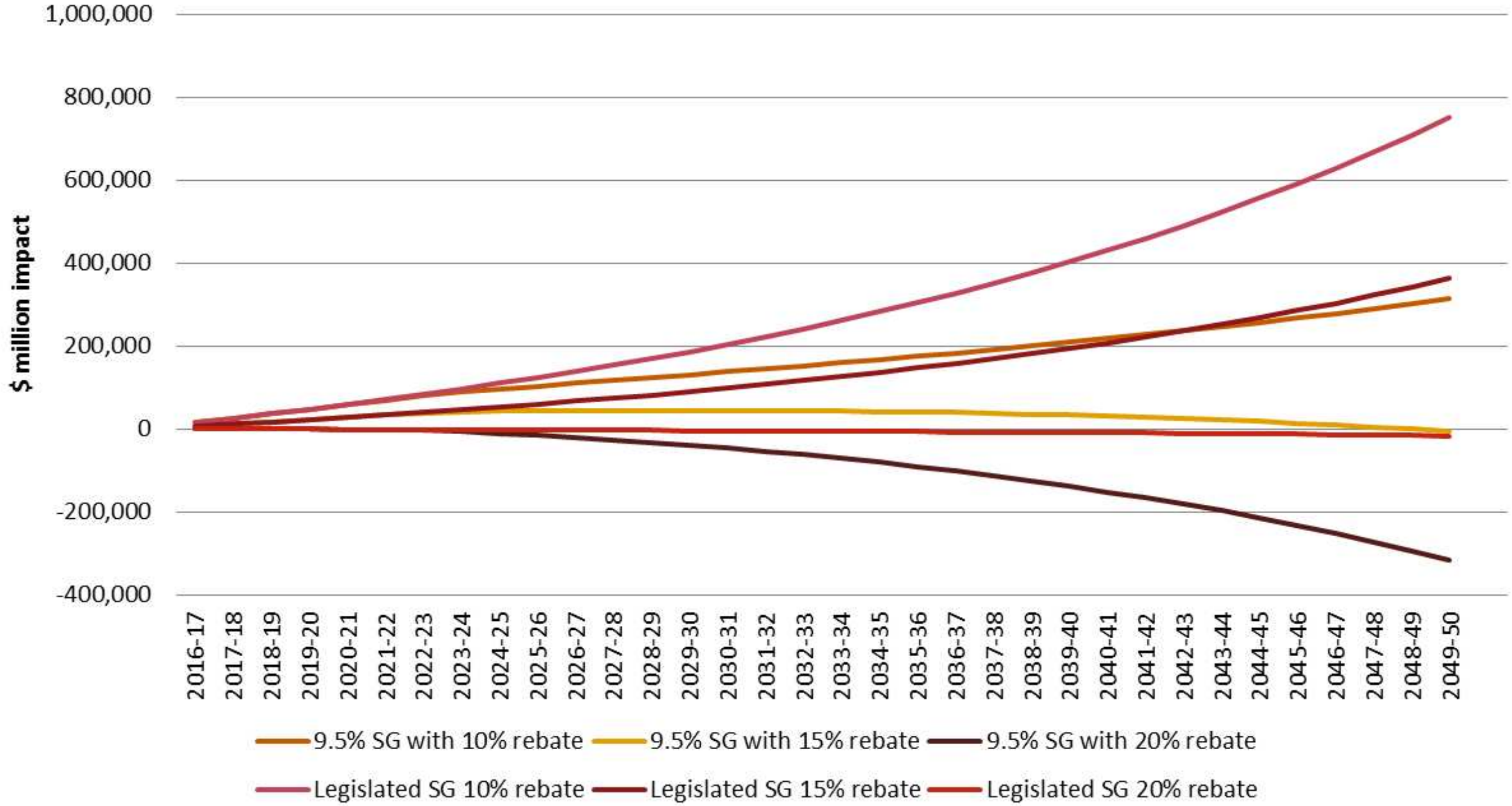
Estimated impact through superannuation taxation

Annual - tax revenue impact (nominal, $ millions)



Estimated impact through superannuation taxation

Cumulative- tax revenue impact (nominal, $ millions)



Estimated Commonwealth fiscal impact

Fiscal impact differs from the superannuation taxation impact

Fiscal impact (nominal, $ millions)

Estimated Commonwealth fiscal impacts	2020	2030	2040	2050	Cumulative
9.5% SG with 10% rebate	10,808	10,167	15,634	17,433	458,698
9.5% SG with 15% rebate	5,212	1,100	-1,100	-5,488	20,089
9.5% SG with 20% rebate	-257	-7,760	-17,453	-34,117	-427,985
Legislated SG 10% rebate	10,808	21,417	39,846	47,968	956,244
Legislated SG 15% rebate	5,212	10,344	19,239	25,810	491,996
Legislated SG 20% rebate	-257	-476	-899	-1,679	-24,571

Fiscal impact (nominal, % GDP)

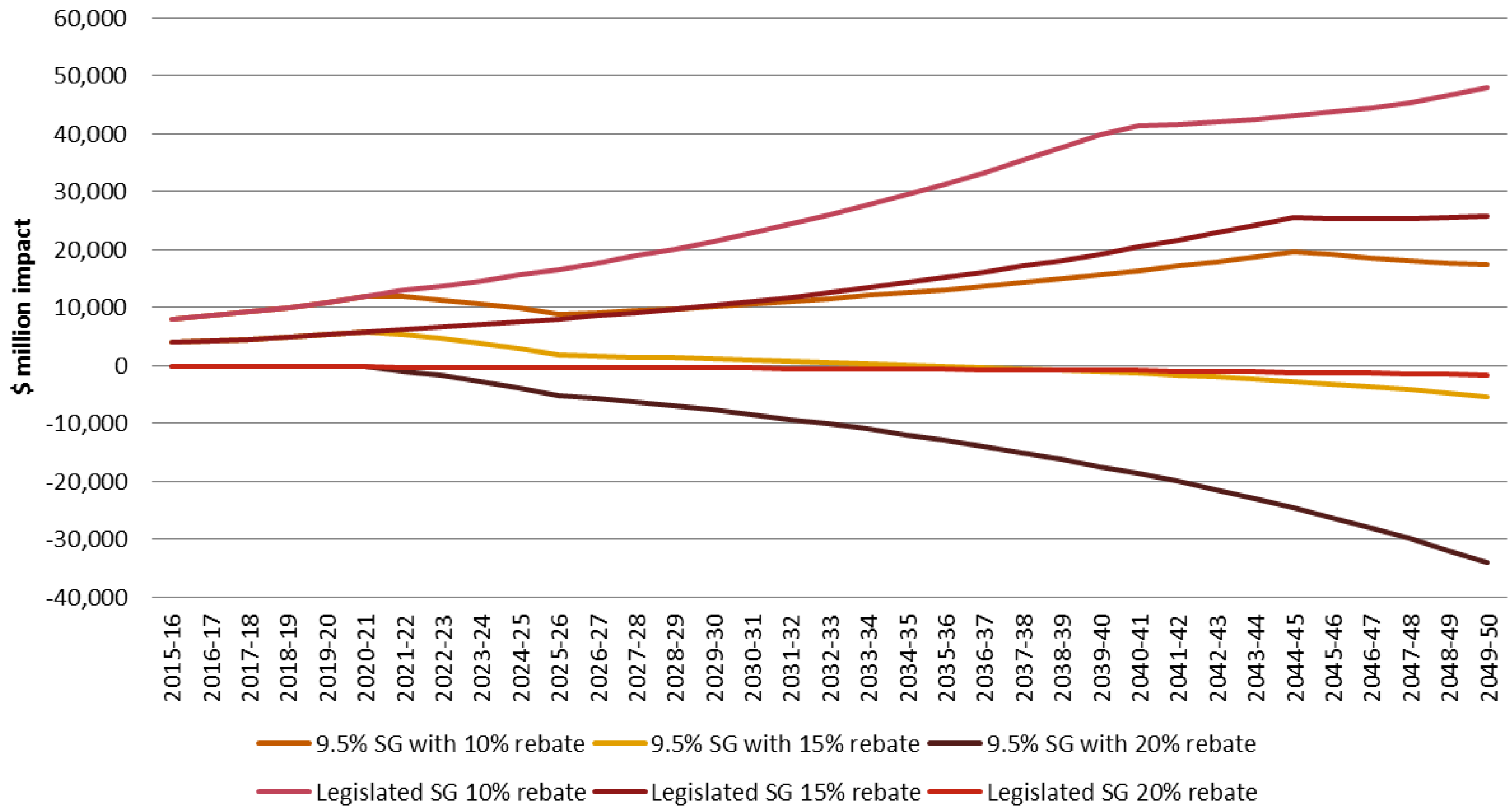
Estimated Commonwealth fiscal impacts (% GDP)	2020	2030	2040	2050
9.5% SG with 10% rebate	0.5%	0.3%	0.3%	0.2%
9.5% SG with 15% rebate	0.3%	0.0%	0.0%	-0.1%
9.5% SG with 20% rebate	0.0%	-0.2%	-0.3%	-0.4%
Legislated SG 10% rebate	0.5%	0.6%	0.7%	0.5%
Legislated SG 15% rebate	0.3%	0.3%	0.3%	0.3%
Legislated SG 20% rebate	0.0%	0.0%	0.0%	0.0%

Fiscal impacts incorporate effects on Commonwealth debt and interest payments through changing the fiscal position. This assumes any additional revenue in net terms is not spent elsewhere and reduces the Commonwealth stock of debt.

Fiscal impacts do not including any changes to age pension outlays that may result if the options were implemented, due to the lack of information available on individuals' circumstances to determine pension eligibility (e.g. assets and income outside superannuation). This impact is illustrated in terms of replacement rates for cameos on pages 16 to 18.

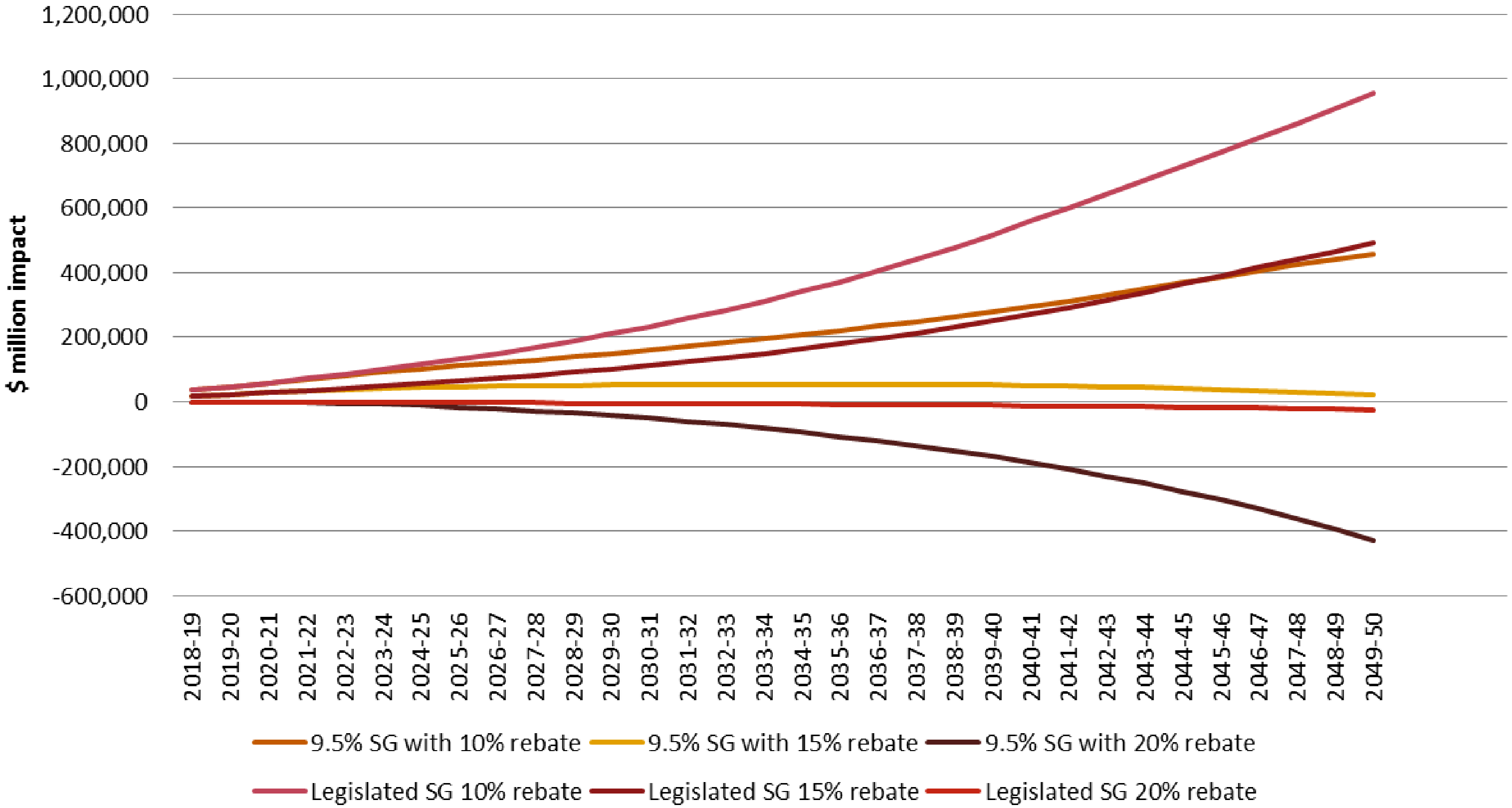
Estimated Commonwealth fiscal impact

Annual - impact on operating balance (nominal, $ millions)



Estimated Commonwealth fiscal impact

Cumulative- impact on operative balance (nominal, $ millions)



Replacement rates – overview

Replacement rates look at five illustrative individuals to assess the impact on aged pension reliance from the proposed changes to superannuation taxation

Replacement rate: the level of pre-retirement income that is paid out by an income stream in retirement. The income stream may be from superannuation savings, the government age pension or a combination of both.

For the purposes of this modelling, this comparison is done based on the income stream for the first year of retirement compared to the salary for the last year in active service, before any allowance for income tax[1].

Assumptions

A number of "cameos" (a representative individual) have been analysed to determine the impact on replacement rates if these cameos were to enter the superannuation industry today, and the respective policy was to remain in effect until the cameos' eventual retirement.

For the purpose of comparing the impact of the policies across individuals differentiated by salary level, the following assumptions have been made for all cameos:

- Cameos are assumed to be male, aged 32, have 35 years continuous work and retire at age 67
- For age pension purposes, the cameos are single and own their primary residence at retirement
- An income is taken at retirement as an annuity from their superannuation balance. Annuity is determined assuming annual indexation at AWOTE (4% per annum), 4% per annum gross earnings in retirement, mortality based on ALT 2010-12 with 25 year improvements
- No other assets are held for the purpose of the age pension asset test. That is, the only asset to come under the test is the superannuation balance at retirement. This is a simplifying assumption given the cameos analysed earn up to 2 times AWOTE (approx. $154,000)
- AWOTE is $76,804[2]

1. An illustrative example of how this works is provided in appendix B.
2. ABS 6302.0 Average Weekly Earnings, Australia, Table 3, A2734023X November 2014 (Earnings; Persons; Full Time; Adult; Ordinary time earnings)

Replacement rates – impact of options (1 of 2)

Replacement rates are adversely affected under all 9.5% SG contribution options, and for 10% and 15% rebate options under current SG rate legislation

As shown on slide 3, a progressive taxation system is expected to increase tax receipts, except where a 20% rebate is applied and the SG contribution rate continues to increase as currently legislated (approximately budget-neutral).

The implication of this for individuals is that projected retirement balances are mostly expected to be reduced, due to the increased tax on contributions going into super and/or reduced SG contributions. This translates to lower replacement of pre-retirement income whilst in retirement (compared to under current rules), regardless of income level.

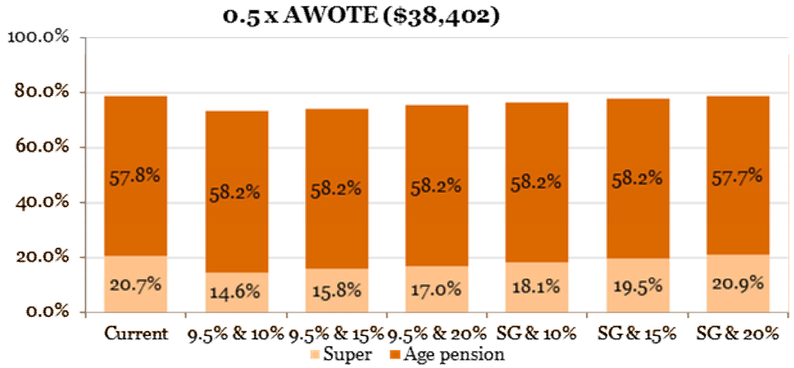
In all situations, the reduction in retirement income from lower superannuation balances at retirement is compensated for by an increase in reliance on the age pension (though replacement is not $1 for $1 so overall income is reduced).

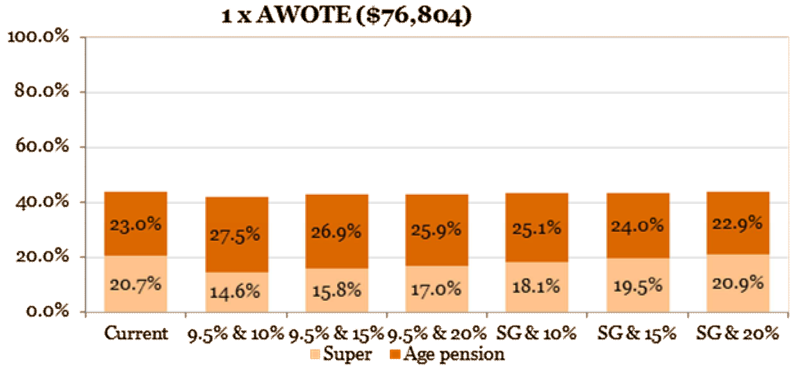
Total replacement rates (change to current rules shown underneath headline rates)

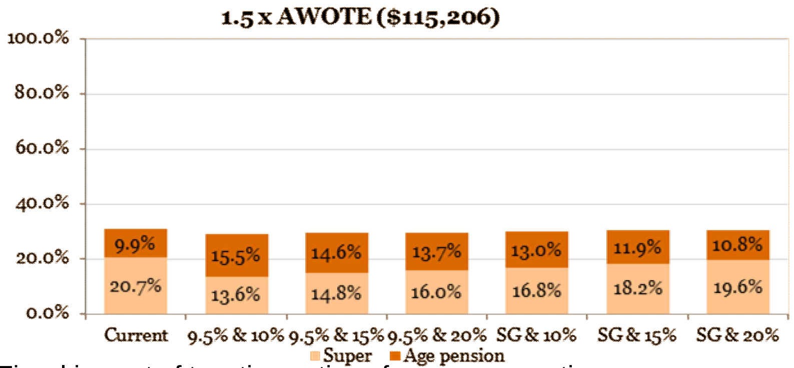
	Current	9.5% & 10%	9.5% & 15%	9.5% & 20%	Current & 10%	Current & 15%	Current & 20%
0.5 x AWOTE ($38,402)	78.5%	72.9% (5.6%)	74.1% (4.4%)	75.3% (3.2%)	76.3% (2.2%)	77.6% (0.8%)	78.6% +0.1%
AWOTE ($76,804)	43.7%	42.1% (1.6%)	42.7% (1.0%)	43.0% (0.8%)	43.2% (0.6%)	43.5% (0.3%)	43.8% +0.1%
1.5 x AWOTE ($115,206)	30.6%	29.1% (1.5%)	29.4% (1.3%)	29.6% (1.0%)	29.8% (0.8%)	30.1% (0.5%)	30.4% (0.2%)
2 x AWOTE ($153,608)	24.0%	22.5% (1.5%)	22.8% (1.3%)	23.0% (1.0%)	23.2% (0.8%)	23.5% (0.5%)	23.8% (0.2%)
Lowest tax threshold ($18,200)	143.9%	142.9% (1.0%)	142.9% (1.0%)	142.9% (1.0%)	147.3% +3.0%	147.3% +3.0%	147.3% +3.0%

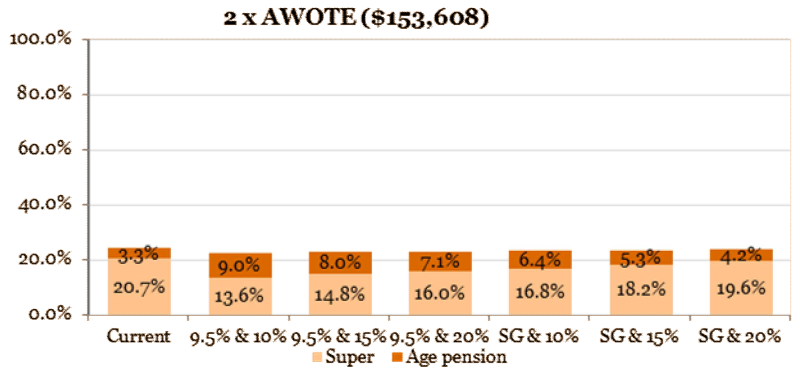
Replacement rates are slightly lower for females due to higher annuity factor used to convert superannuation balance into an income stream as per assumptions on page 15

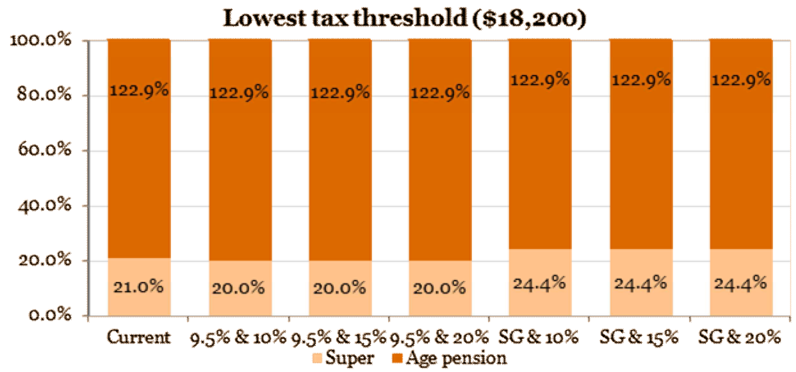
Replacement rates – impact of options (2 of 2)











Replacement rates are slightly lower for females due to higher annuity factor used to convert superannuation balance into an income stream as per assumptions on page 15

Appendix A – projection of income distribution

Following the assumptions on page 9, population and income distribution by income band are assumed to remain constant as reported in the ATO's Taxation Statistics 2012-13. That is, we have not allowed for bracket creep. The table below illustrates the projected population proportions for each taxable income band at 30 June 2015 and 30 June 2030.

The income bands to 30 June 2030 have been increased annually with projected income tax growth to keep the proportions relevant to the total income and population in each band.

30 June 2015		
Income band	**Number**	**Proportion**
$0 to $18,200	2,286,377	19.8%
$18,201 to $37,000	2,800,376	24.3%
$37,001 to $80,000	4,310,738	37.4%
$80,001 to $180,000	1,829,332	15.9%
$180,001 +	306,927	2.7%
Total	**11,533,751**	**100.0%**

30 June 2030		
Income band	**Number**	**Proportion**
$0 to $33,775	2,918,223	19.8%
$33,776 to $68,663	3,574,268	24.3%
$68,664 to $148,462	5,502,023	37.4%
$148,463 to $334,039	2,334,874	15.9%
$334,040 +	391,748	2.7%
Total	**14,721,136**	**100.0%**

Appendix B – replacement rates

An illustrative example of how replacement rates are calculated is as follows:

0.5 x AWOTE, Male, current taxation environment		
Salary at age 32 (start of employment)	(a)	$38,402
*with increases at AWOTE and deflator also at AWOTE, salary at retirement in today's dollars is also $38,402		
Projected balance at retirement under current tax rules		$636,067
Balance at retirement in today's dollars		$161,189
Estimated income from superannuation savings (today's dollars)		$7,959
Estimated age pension income (today's dollars)		$21,186
Estimated total income (today's dollars)	(b)	$30,145
Replacement rate	(b) / (a)	78.5%

In comparison to a 62.5% replacement rate target, this individual (as per the assumptions on slide 17) would be 16% above that target, $6,144 in today's dollars.

Appendix C – update to previous results (1 of 2)

Since provision of the report dated May 2015, we have updated the IFEM to incorporate newer information (such as Budget 15-16), meaning results for the scenarios presented in the May 2015 analysis now marginally differ

Estimated tax revenue impacts – cumulative to 2050

	May 2015 ($m)	November 2015 ($m)	Change ($m)
Henry option	218,909	245,046	26,137
Henry with withdrawal	2,369	28,506	26,137
Tinkering option	873,888	900,025	26,137
Tinkering with withdrawal	465,029	491,166	26,137
Greens' option	301,745	301,745	-
Level earnings tax option (7.5%)	(154,023)	(154,023)	-
Level 7.5% with withdrawal	(370,422)	(370,422)	-
Level earnings tax option (15%)	820,284	820,284	-
Level 15% with withdrawal	410,142	410,142	-

- Findings differ under the Henry and Tinkering Options due to an update of the underlying population projections. This update impacts the revenue benefit from removal of SAPTO

Appendix C – update to previous results (2 of 2)

Since provision of the report dated May 2015, we have updated the IFEM to incorporate newer information (such as Budget 15-16), meaning results for the scenarios presented in the May 2015 analysis now marginally differ

Estimated Commonwealth fiscal impacts – cumulative to 2050

	May 2015 ($m)	November 2015 ($m)	Change ($m)
Henry option	384,608	328,699	(55,909)
Henry with withdrawal	43,366	38,225	(5,141)
Tinkering option	1,438,369	1,103,680	(334,689)
Tinkering with withdrawal	788,314	635,305	(153,009)
Greens' option	504,178	414,517	(89,661)
Level earnings tax option (7.5%)	(282,509)	(233,714)	48,795
Level 7.5% with withdrawal	(625,299)	(531,633)	93,666
Level earnings tax option (15%)	1,303,760	1,011,525	(292,235)
Level 15% with withdrawal	651,880	535,248	(116,632)

- Commonwealth fiscal impacts differ due to updated information from Budget 2015-16 on the Commonwealth's fiscal position. This impacts on operating balance through the interaction between the revenue changes and its effect on debt and interest payments

Disclaimer

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